



AGENDA

CITY COUNCIL REGULAR MEETING

Donald P. Wagner
Mayor

Lynn Schott
Mayor Pro Tempore

Melissa Fox
Councilmember

Jeffrey Lalloway
Councilmember

Christina Shea
Councilmember

June 27, 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

Scan this QR code for an electronic copy of
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, Assistant to the City Manager; Jimmee Medina, Manager of Human Resources; Brian King, Human Resources Administrator; 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

2. PRESENTATIONS

- 2.1 Councilmember Fox's Request for Presentation on Co-Existing with Coyotes**

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.

3. 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.

3.1 MINUTES

ACTION:

- 1) Approve the minutes of a special meeting of the Irvine City Council held on June 6, 2017.
- 2) Approve the minutes of a regular meeting of the Irvine City Council and special joint meeting with the Orange County Great Park Board held on June 13, 2017.

3.2 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

3.3 BUDGET ADJUSTMENT FOR SALES AND USE TAX AUDITING SERVICES

ACTION:

Approve a budget adjustment increasing the contract budget for sales and use tax auditing services in the amount of \$180,341.37.

3.4 EXCLUSIVE NEGOTIATING AGREEMENT WITH WILD RIVERS, LLC. FOR A WATER PARK AT THE ORANGE COUNTY GREAT PARK

ACTION:

Approve the Exclusive Negotiating Agreement with Wild Rivers, LLC.

(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.)

3.5 AMENDMENT TO FARMING LEASE BETWEEN CITY OF IRVINE AND EL TORO FARMS, LLC

ACTION:

- 1) Approve a Twelfth Amendment to Farming Lease, authorizing a two-year lease extension with El Toro Farms, LLC.
- 2) Authorize the City Manager or his designee to execute the Twelfth Amendment to Farming Lease.

(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.)

3.6 AUTHORIZATION TO APPLY FOR COUNTY OF ORANGE RECYCLING GRANTS

ACTION:

Adopt - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AUTHORIZING SUBMITTAL OF APPLICATIONS FOR ALL COUNTY OF ORANGE RECYCLING GRANTS FOR WHICH THE CITY OF IRVINE IS ELIGIBLE

3.7 APPROVAL OF PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS FOR THE SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS

ACTION:

- 1) Approve the construction plans, specifications and contract documents for the San Carlo Park and Valencia Park Playground Rehabilitations, Capital Improvement Projects 371506 and 371507.
- 2) Approve the Engineers Estimate, Construction Contingency and Project Funding Summary.
- 3) Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

3.8 MODIFICATIONS TO GREAT PARK CONCEPTUAL DESIGN AND SPACE PLANNING

ACTION:

Approve a modification to the Boundary of the Great Park Improvement Area and direct staff to return to the Great Park Board and City Council with a budget and Letter Agreement making any modifications necessary to implement the City Council's direction.

(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.)

3.9 COMMUNITY PARTNERSHIP FUND GRANT NOMINATIONS**ACTION:**

- 1) Approve Mayor Pro Tempore Schott's request for Community Partnership Fund Grant nominations to Irvine Adult Day Health Services in the amount of \$1,000 and Mariners Church - BEYOND Initiative in the amount of \$1,000 both in support of program costs.
- 2) Approve Mayor Wagner's requests for Community Partnership Fund Grant nominations to the following organizations in support of program costs:
 - a) Alzheimer's Association Orange County (\$500)
 - b) Boys & Girls Club of Irvine (\$500)
 - c) Children's Hospital of Orange County Foundation (\$500)
 - d) Crime Survivors (\$250)
 - e) Irvine 2/11 Marine Adoption Committee (\$1,000)
 - f) Irvine Barclay Theatre (\$250)
 - g) Irvine Pony Baseball (\$250)
 - h) Northwood High School Athletic Boosters (\$250)
 - i) Orangewood Children's Foundation (\$500)
 - j) Ryan Lemmon Foundation (\$500)
 - k) Second Harvest Food Bank (\$500)
 - l) Special Olympics Orange County (\$500)
- 3) Approve Councilmember Lalloway's request for Community Partnership Fund Grant nomination to Operation Warm Wishes in the amount of \$500 in support of program costs.
- 4) Authorize the City Manager to prepare and sign the funding agreements listed in Actions 1 - 3.

4. 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.

4.1 IRVINE BUSINESS COMPLEX TRANSPORTATION MITIGATION FEE PROGRAM UPDATE**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 — A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING THE UPDATED IRVINE BUSINESS COMPLEX (PA 36) TRANSPORTATION MITIGATION PROGRAM, INCLUDING THE UPDATE TO THE DEVELOPMENT IMPACT FEE PROGRAM FOR THE IRVINE BUSINESS COMPLEX, PURSUANT TO SECTION 9-36-14 OF THE ZONING ORDINANCE

5. COUNCIL BUSINESS

5.1 PUBLIC DISCUSSION REGARDING THE SAFARI SUBSTATION

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 June 22, 2017 by 8:00 pm as well as on the City's web page.


Molly McLaughlin, CMC
City Clerk

CLOSED SESSION

1.1

PRESENTATIONS

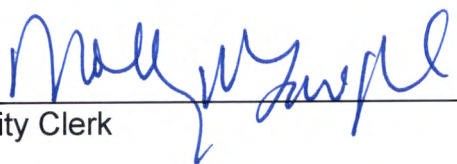
2.1



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: PRESENTATIONS



City Clerk

RECOMMENDED ACTION:

Councilmember Fox's Request for Presentation on Co-Existing with Coyotes.

RECEIVED
CITY OF IRVINE
CITY CLERK'S OFFICE

2017 JUN 15 PM 4: 04

Memo

RECEIVED

JUN 15 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

To: Sean Joyce, City Manager
From: Melissa Fox, Councilmember *mf*
Date: June 15, 2017
Re: **Presentation on Co-Existing with Coyotes**

Please place on the June 27 City Council agenda a presentation on co-existing with coyotes in our community. Coyotes, formerly restricted to our foothills and brushy open lands of the American West, have taken advantage of human presence to expand their ranges into urban and suburban communities. The very open space that makes Irvine so livable also provides coyote's habitat and shelter, while our neighborhoods provide opportunities for water and food. As a result, human-coyote encounters are occurring with increasing frequency. There are ways to manage these encounters so that coyotes and humans can peacefully co-exist.

Coyotes play an important role in our ecosystem. Predation is an essential component of biodiversity and coyotes serve a valuable function in keeping prey populations, such as rodents, in check and keeping local ecosystems healthy.

Killing is not a solution. Killing or having a coyote trapped and removed is a very short-term solution. Coyotes are transient and territorial so removing one means that new coyotes are likely to replace the previous animal by moving into the area. Instead, with education and management methods, we can shape coyote behavior and greatly lessen the risks of conflict.

The Irvine Police Department (IPD) Animal Services Unit has a robust program of education and management for controlling our coyote population. It is important that Irvine residents understand 1) the importance of human behavior effecting coyotes and how to decrease dangers to our residents and pets, 2) the difference between normal, non-threatening coyote behavior and abnormal behavior, and 3) the measures our Animal Services Unit are taking to shape coyote behavior.

I am requesting that the Animal Services Unit provide this information at our Council meeting and offer details on what residents can do to avoid unwanted interaction with coyotes, as well as how residents should react if they do encounter a coyote. I look forward to learning more about how we can safely co-exist with coyotes.

cc: Irvine City Council
Molly McLaughlin, City Clerk

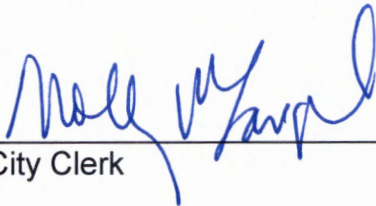
3.1



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: MINUTES



City Clerk

RECOMMENDED ACTION:

- 1) Approve the minutes of a special meeting of the Irvine City Council held on June 6, 2017.
- 2) Approve the minutes of a regular meeting of the Irvine City Council and special joint meeting with the Orange County Great Park Board held on June 13, 2017.



MINUTES

CITY COUNCIL SPECIAL MEETING

June 6, 2017
City Council Chamber
One Civic Center Plaza
Irvine, CA 92606

CALL TO ORDER

The special meeting of the Irvine City Council was called to order at 4:05 p.m. on June 6, 2017 in the City Council Chamber, Irvine Civic Center, One Civic Center Plaza, Irvine, California; Mayor Wagner presiding.

ROLL CALL

Present:	5	Councilmember:	Melissa Fox
		Councilmember:	Jeffrey Lalloway
		Councilmember:	Christina Shea
		Mayor Pro Tempore:	Lynn Schott*
		Mayor:	Donald P. Wagner

* Mayor Pro Tempore Schott arrived at 4:23 p.m.

PLEDGE OF ALLEGIANCE

Mayor Wagner lead the Pledge of Allegiance.

1. COUNCIL BUSINESS

1.1 CONSIDERATION OF A REQUEST FROM MAYOR WAGNER AND COUNCILMEMBER FOX TO CHANGE THE DESIGNATED SITE FOR THE VETERANS CEMETERY

Mayor Wagner provided brief opening remarks, noting the need for the special meeting and summarized the action taken by the City Council on April 4, 2017.

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

Adopt RESOLUTION NO. 17-39 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, RE-DESIGNATING ITS PREFERRED SITE FOR THE CREATION OF THE SOUTHERN CALIFORNIA VETERANS CEMETERY, EXPRESSING ITS INTENT TO PURSUE A LAND EXCHANGE WITH HERITAGE FIELDS EL TORO LLC THROUGH WHICH THE CITY WILL ACQUIRE THE PREFERRED SITE FOR THE SOUTHERN CALIFORNIA VETERANS CEMETERY, AND EXPRESSING THE INTENT TO CONVEY THE PREFERRED SITE TO THE STATE FOR PURPOSES OF CREATING THE SOUTHERN CALIFORNIA VETERANS CEMETERY

City Council discussion included: noting the complexity of the land exchange; questioned the timing of the meeting and limited ability to review the proposal; noted potential traffic impacts if the land exchange were approved and questioned whether a traffic study would be conducted on the proposed alternate site (Strawberry Fields); discussed FivePoint Communities' (FivePoint) financial contribution; clarified that a land exchange still required the proper approval processes; noted a potential cost savings to taxpayers if the land exchange was approved; expressed concern about land remediation and associated costs of the Amended and Restated Development Agreement (ARDA) site; suggested that Strawberry Fields could be ready by 2019; noted that additional information from the developer was needed prior to a final decision; expressed concern that staff has not been provided ample time to review the current proposal; questioned the appraisal value of Strawberry Fields and why appraisals of both sites had not been conducted; and noted potential consequences of a land exchange.

The following individuals spoke in support of the alternate site (Strawberry Fields) proposed by FivePoint:

Carrie O'Malley, on behalf of Assembly Member Steven Choi
Jose Guevara, on behalf of Congress Member Lou Correa
Kailin Locker, on behalf of Senator Josh Newman
Brian Chuchua, representing Orange County Veterans Memorial Park Foundation (OCVMPF)
Bill Cook, representing OCVMPF
Ron Bengochea
Craig Norris, Irvine resident
Peter Katz, Santa Ana resident
Ken Montgomery
Allan Bartlett, Irvine resident
Patrick Strader, Starpointe Ventures on behalf of FivePoint
Steve Greenberg, Irvine resident
Jeff Gottfredson, Newport Beach resident
Mark Newgent
Gang Chen, Irvine resident
Robert Brower, Irvine resident
Martha Huff, representing American Legion
Zeke Hernandez, representing OCVMPF
Alex Chen, Irvine resident
Thomas Peng
Michael Klubniken
Dwight Hanson, Irvine resident
Greg Smith
Mike Padian
Paul Sylvestry
Al Serrano
Darlene Matthews
Bill Lewis, Irvine resident
Bill Sandlin, representing Veterans of Foreign Wars (VFW)

The following individuals spoke in support of the existing ARDA site:

Rick Baran, Irvine resident
Alan Meyerson, Irvine resident
Jean Miller, Irvine resident
Riley Newman, Irvine resident
Carl Mariz
Jack Fancher, Irvine resident
Pankaj Bedekar
Larry Agran, Irvine resident
Carol Yocum
Thomas Snyder
Angelo Vassos

Harvey Liss, Irvine resident
Bob Holtzclaw, Lake Forest resident
Auram Grossman, Irvine resident
David Marshall, Santa Ana resident
Carolyn Inmon, Irvine resident
Carol LeMar, Irvine resident
Karen Jaffe, Irvine resident
Dennis Phelps, representing Vietnam Veterans of America, Chapter 1024
Ed Pope, Irvine resident

The following individuals spoke in support of a Veterans Cemetery at or near the Orange County Great Park:

Ralph Farrington
Teresa Mercado-Cota
James Torres
Reverend Frank Cook, representing American Legion

The following individuals submitted a Request to Speak slip but did not speak:

Larry Larsen
Tyler Holcomb
Austin Cook
Wendy Ke
Thomas Snyder

Additional discussion included: the need for an environmental impact report for Strawberry Fields and potential development delays as a result; expressed concern about losing state funding if the land exchange was approved; noted recent site visits by Governor Brown and his perspective that a decision pertaining to the siting of a veterans cemetery was a local matter; questioned who would assume maintenance of the cemetery; reiterated that neither site was located on Great Park property; questioned the scope of the first phase; noted the importance of protecting the City's interests; and questioned whether FivePoint was seeking additional entitlement as part of its proposal.

Sean Joyce, City Manager, provided a brief summary of the tasks that have been completed to date related to the two sites, and provided a list of next steps to be undertaken if the land exchange was approved.

ACTION: A substitute motion was made by Councilmember Lalloway, seconded by Mayor Pro Tempore Schott, to:

Table the item to the June 27, 2017 City Council meeting.

The motion failed as follows:

AYES: 2 COUNCILMEMBERS: Lalloway and Schott

NOES: 3 COUNCILMEMBERS: Fox, Shea and Wagner

ABSENT: 0 COUNCILMEMBERS: None

ACTION: A substitute motion was made by Councilmember Lalloway, seconded by Mayor Pro Tempore Schott, to:

Reaffirm the previously approved Amended and Restated Development Agreement (ARDA) site for a Veterans Cemetery.

The motion failed as follows:

AYES: 2 COUNCILMEMBERS: Lalloway and Schott

NOES: 3 COUNCILMEMBERS: Fox, Shea and Wagner

ABSENT: 0 COUNCILMEMBERS: None

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

Adopt RESOLUTION NO. 17-39 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, RE-DESIGNATING ITS PREFERRED SITE FOR THE CREATION OF THE SOUTHERN CALIFORNIA VETERANS CEMETERY, EXPRESSING ITS INTENT TO PURSUE A LAND EXCHANGE WITH HERITAGE FIELDS EL TORO LLC THROUGH WHICH THE CITY WILL ACQUIRE THE PREFERRED SITE FOR THE SOUTHERN CALIFORNIA VETERANS CEMETERY, AND EXPRESSING THE INTENT TO CONVEY THE PREFERRED SITE TO THE STATE FOR PURPOSES OF CREATING THE SOUTHERN CALIFORNIA VETERANS CEMETERY

The motion carried as follows:

AYES: 3 COUNCILMEMBERS: Fox, Shea, and Wagner

NOES: 2 COUNCILMEMBERS: Lalloway and Schott

ABSENT: 0 COUNCILMEMBERS: None

RECESS

Mayor Wagner called a recess at 7:50 p.m.

RECONVENE

Mayor Wagner reconvened the special City Council meeting at 7:59 p.m. Councilmember Lalloway was not present.

PUBLIC COMMENT

Michael Klubniken expressed his appreciation to the City Council for putting veterans ahead of politics.

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

ADJOURNMENT

Moved by Councilmember Shea, seconded by Councilmember Fox, and unanimously carried by those members present (Councilmember Lalloway absent) to adjourn the meeting at 8:06 p.m.

MAYOR OF THE CITY OF IRVINE

CITY CLERK OF THE CITY OF IRVINE

June 27, 2017



MINUTES

CITY COUNCIL REGULAR MEETING AND SPECIAL JOINT MEETING WITH THE ORANGE COUNTY GREAT PARK BOARD

June 13, 2017
City Council Chamber
One Civic Center Plaza
Irvine, CA 92606

CALL TO ORDER

The regular meeting of the Irvine City Council was called to order at 4:05 p.m. on June 13, 2017 in the City Council Chamber, Irvine Civic Center, One Civic Center Plaza, Irvine, California; Mayor Wagner presiding.

ROLL CALL

Present:	5	Councilmember:	Melissa Fox
		Councilmember:	Jeffrey Lalloway*
		Councilmember:	Christina Shea
		Mayor Pro Tempore:	Lynn Schott
		Mayor:	Donald P. Wagner

* Councilmember Lalloway arrived at 5:33 p.m.

1. CLOSED SESSION

City Attorney Melching announced the following Closed Session item:

- 1.1 CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION Pursuant to Government Code Section 54956.9, subdivision (d)(1): one case – Irvine Community News and Views v. City of Irvine, United States District Court Case No. 16-cv-00208 AG**

RECESS

Mayor Wagner convened the regular City Council meeting to Closed Session at 4:06 p.m.

RECONVENE TO THE CITY COUNCIL MEETING

Mayor Wagner reconvened the regular City Council meeting at 4:46 p.m. City Attorney Melching, on behalf of the City Council, announced that no reportable action was taken in Closed Session.

PLEDGE OF ALLEGIANCE

Mayor Wagner led the Pledge of Allegiance.

INVOCATION

Mayor Wagner provided the invocation.

2. PRESENTATIONS

- 2.1 Proclaim June 19-25, 2017 as “Amateur Radio Week.”**

Mayor Wagner introduced members of the Irvine Disaster Emergency Communications (IDEC) team and presented a proclamation in recognition of “Amateur Radio Week.”

CITY MANAGER'S REPORT

There was no report.

ANNOUNCEMENTS/COMMITTEE REPORTS/COUNCIL REPORTS

Councilmember Fox referenced recent payments made for additional structures at Adventure Playground, which were reflected in the Register of Demands and Warrants; and provided a brief summary of her recent trip to Denver, Colorado, where she had the opportunity to visit botanical gardens in exploration of similar ideas for the Orange County Great Park.

Mayor Wagner made the following announcements:

- The public is invited to the Grand Opening of the first phase of the Sports Park at the Orange County Great Park from 2-9 p.m. on Saturday, August 5, with a ribbon-cutting ceremony at 2 p.m., and a special free concert at 7 p.m. For information, visit cityofirvine.org.
- The Greater Irvine Chamber of Commerce's annual luncheon with the Mayor will take place on Thursday, June 22 at 11 a.m. at the Irvine Marriot Hotel. Local businesses will be recognized that have demonstrated the principles of community service, volunteerism, and the best traditions of good corporate citizenship. The City's achievements to date and an update on efforts to address transportation issues will also be shared. For information, visit irvinechamber.org.
- The City of Irvine's largest group swim lesson will take place on Friday, June 23 at William Woollett Jr. Aquatics Center. The Super Swim Lesson is an effort to educate parents and children about water safety and spread the message that "Swimming Lessons Save Lives." Children three years of age and older of all swimming abilities can participate in the free lesson. Check-in begins at 5:30 p.m. with the lesson starting at 6 p.m. Registration is required. For information, visit cityofirvine.org/superswim.
- The popular "Movies on the Lawn" series is underway at the Orange County Great Park. Enjoy classic films on Fridays and blockbuster hits on Saturdays as part of this free summer pastime. This weekend's films include "The Princess Bride" on Friday night and "Sing" on Saturday night. Movies begin at dusk. For information and the full schedule of films, visit ocgp.org.

ADDITIONS AND DELETIONS

City Manager Joyce noted that at the request of Councilmember Shea, Item 5.1 (Consideration of Councilmember Shea's Request for an Update on USA Water Polo Negotiations) would be removed from the agenda and continued to a date to be determined; and also noted an errata memo with respect to Item No. 3.8 (Parks Master Plan).

3. CONSENT CALENDAR

ACTION: Moved by Councilmember Shea, seconded by Councilmember Fox, and unanimously carried by those members present (Councilmember Lalloway absent), to approve Consent Calendar Item Nos. 3.1 through 3.10, with the exception of Item Nos. 3.3, 3.7 and 3.8, which were removed for separate discussion.

3.1 MINUTES

ACTION:

Approved the minutes of a regular meeting of the City Council held on May 23, 2017.

3.2 WARRANT AND WIRE TRANSFER RESOLUTION

ACTION:

Adopted RESOLUTION NO. 17-40 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ALLOWING CERTAIN CLAIMS AND DEMANDS AND SPECIFYING THE FUNDS OUT OF WHICH THE SAME ARE TO BE PAID

3.3 TREASURER'S REPORT FOR THE QUARTER ENDED MARCH 31, 2017

This item was removed by Councilmember Shea, who inquired about the City's investment policy and methodology for investment diversification.

Don Collins, City Treasurer, presented a brief report and responded to questions.

City Council discussion included: comparing Irvine Community Land Trust investment options with the City's investment portfolio; questioned state and City restrictions on investment options; and suggested regular quarterly updates from the City Treasurer.

ACTION:

Received and filed the Treasurer's Report for the quarter ended March 31, 2017.

3.4 APPROVAL OF THE 2017 ANNUAL UPDATE TO THE CONSULTANT TEAM

ACTION:

Approved the City's 2017 annual update to the Consultant Team for professional consultant services for a two-year period from July 1, 2017 through June 30, 2019, as set forth in the Consultant Team Recommendations List; and authorized department directors to execute master contracts with the recommended Consultant Team firms.

3.5 ORANGE COUNTY CITIES ENERGY LEADER PARTNERSHIP

ACTION:

Adopted RESOLUTION NO. 17-41 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, DECLARING SUPPORT FOR AN ENERGY PARTNERSHIP, THE ORANGE COUNTY CITIES ENERGY LEADER PARTNERSHIP, BETWEEN SOUTHERN CALIFORNIA EDISON COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY TO BE KNOWN AS “ENERGY PARTNERSHIP”

3.6 SBA STEEL II, LLC COMMUNICATIONS SITE LEASE AMENDMENT

ACTION:

- 1) Approved an Amendment to Communications Site Lease Agreement with SBA Steel II, LLC substantially in the form as attached to the staff report and authorized the City Manager or his designee to execute the Amendment to Communications Site Lease Agreement and all implementing documents. **(Contract No. 3722B)**
- 2) Approved an Antenna Site Agreement, a sublease agreement, between SBA Steel II, LLC and Verizon Wireless substantially in the form as attached to the staff report and authorized the City Manager or his designee to execute the Antenna Site Agreement and all implementing documents.

3.7 ORANGE COUNTY HOMELESS SHELTER PROPOSAL ON 100 ACRE PARCEL

This item was removed for separate discussion at the request of Mayor Pro Tempore Schott, who requested additional information about the proposed temporary homeless shelter with respect to its location and potential impacts to the City of Irvine.

Joel Belding, Principal Planner, presented the staff report and responded to questions.

City Council discussion included: reiterating that the site proposed by Orange County Supervisor Nelson was not within his district; noted recent phone calls received from concerned residents; and stated that collaborative efforts with the City of Tustin were ongoing to address the issue of homelessness.

Sean Joyce, City Manager, noted his continued conversations with the Chief Executive Officer of the County of Orange reflecting the City Council's position with respect to the development of the 100-acre parcel; and further noted that staff would seek City Council direction once additional information was received.

ACTION:

Received and filed an update on the County of Orange homeless shelter proposal located adjacent to the Orange County Great Park.

3.8 PARKS MASTER PLAN

This item was removed for separate discussion at the request of Councilmember Shea, who noted the addition of swings as a priority for City parks; and suggested language be clarified in the Parks Master Plan with respect to prioritization of parks within the Irvine Business Complex.

There was no City Council discussion.

ACTION: Moved by Councilmember Shea, seconded by Councilmember Fox, and unanimously carried by those members present (Councilmember Lalloway absent), to:

Adopt RESOLUTION NO. 17-42 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, APPROVING A CITY-INITIATED PARKS MASTER PLAN **as amended** per the errata memo dated June 13, 2017 concerning a dog park at Gateway Park; and providing further clarification on the prioritization of parks within the Irvine Business Complex.

3.9 NOTICE OF FINAL APPROVAL FOR A TRACT MAP IN GREAT PARK NEIGHBORHOODS (HERITAGE FIELDS EL TORO, LLC)

ACTION:

Received and filed.

3.10 COMMUNITY PARTNERSHIP FUND GRANT NOMINATIONS

ACTION:

- 1) Approved Councilmember Lalloway's requests for Community Partnership Fund Grant nominations to the following organizations in support of program costs:
 - a) Friends of Harbors, Beaches and Parks - Crime Victim's Monument (\$2,500) **(Contract No. 9810)**
 - b) Illumination Foundation (\$1,000) **(Contract No. 9811)**

- c) Myford Elementary Parent Teacher Organization (\$1,000)
(Contract No. 9812)
 - d) Orchard Hills School Parent Teacher Organization (\$1,000)
(Contract No. 9813)
 - e) Temple Beth Sholom (\$1,000) **(Contract No. 9814)**
- 2) Approved Councilmember Shea's request for Community Partnership Fund Grant nomination to Orange County Veterans Memorial Park Foundation in the amount of \$650 in support of the endowment for operations and maintenance funding and to provide support to veterans and families. **(Contract No. 9815)**
 - 3) Authorized the City Manager to prepare and sign the funding agreements listed in Actions 1-2.

CONVENE TO THE SPECIAL JOINT MEETING

Mayor/Chairman Wagner convened to the Special Joint Meeting with the Orange County Great Park Board at 5:20 p.m. All Councilmembers and Great Park Board Directors present**.

** Councilmember/Director Lalloway arrived at 5:33 p.m.

4. CITY COUNCIL / BOARD BUSINESS

4.1 CITY OF IRVINE FISCAL YEAR 2017-18 BUDGET

Sean Joyce, City Manager; Kristin Griffith, Director of Financial Services; Manuel Gomez, Director of Public Works; and Pete Carmichael, Director, Orange County Great Park, presented the staff report and responded to questions.

City Manager Joyce noted the inclusion of an errata memo dated June 14, 2017 regarding Capital Improvement Financial Policies.

Russell Stein, Finance Commission Chairman, spoke about concerns raised by the Finance Commission and reiterated its recommendations to the City Council.

Ilya and Robert Tseglin spoke in support of funding an advocacy assistance program.

City Council/Board discussion included: acknowledging review of the proposed budget by the Finance Commission and its recommendations; expressed concern about using one-time funds to fill budget gaps; noted recent trends in consumer behavior based on flat sales tax revenue and suggested future budgets be reflective of these trends; expressed concern about underestimating the opening dates of new hotels; noted the

increase in cost for services and need for additional infrastructure based on population growth; suggested increasing the threshold recommended by the Finance Commission for return-on-investment (ROI) analysis for large projects; expressed concern that the Asset Management Plan (AMP) and Systems Development Fund were not being funded; inquired about Orange County Great Park expenditures exceeding revenues in Fiscal Year 2022-23; suggested the City Manager work with staff to prioritize expenditures; discussed the application of generally accepted accounting principles (GAAP) to the City's budget process; questioned the appropriate level of contingency reserves; recommended study sessions to discuss the budget and existing policies in further detail; inquired about anticipated revenue from new hotels and sales tax; questioned allocation of sales tax from internet sales; suggested exploring new revenue streams to avoid higher taxes or reductions in services; noted the incorporation of school support, contingency reserves and pension liability funding in the proposed budget; reiterated upcoming transportation improvements; questioned the existing balance of Great Park Fund 180; requested a review of the City's Investment Policy; and noted that the budget could be modified at any time throughout the year by the City Council.

Sean Joyce, City Manager, responded to each of the Finance Commission recommendations; noted the advantages of consultant services to determine the City's proper allocation of sales tax; and addressed questions related to debt service at the Orange County Great Park.

Pete Carmichael, Director, Orange County Great Park, and Kristin Griffith, Director of Financial Services, provided additional clarification related to debt service at the Orange County Great Park.

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

- 1) Adopt the Fiscal Year 2017-18 Budget and Strategic Business Plan.
- 2) Adopt RESOLUTION NO. 17-43 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING AND APPROVING THE APPROPRIATIONS BUDGET AND FINANCIAL POLICIES FOR THE CITY OF IRVINE FOR FISCAL YEAR 2017-18
- 3) Adopt RESOLUTION NO. 17-44 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING THE ANNUAL APPROPRIATIONS LIMIT FOR FISCAL YEAR 2017-18

- 4) Adopt RESOLUTION NO. 17-45 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AUTHORIZING FULL-TIME POSITIONS IN ACCORDANCE WITH THE PROVISIONS OF COMPENSATION RESOLUTIONS AND THE OPERATING BUDGET FOR THE 2017-18 FISCAL YEAR, AND SUPERSEDING RESOLUTION NO. 16-52, WHICH IS INCONSISTENT THEREWITH
- 5) Adopt RESOLUTION NO. 17-46 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ESTABLISHING THE SALARY GRADE ORDER STRUCTURE AND SALARY RANGES FOR EMPLOYEES OF THE CITY OF IRVINE, AND SUPERSEDING RESOLUTION NO. 16-53, WHICH IS INCONSISTENT THEREWITH
- 6) Direct staff to take advantage of available savings by utilizing the Public Employees Retirement System's advance payment option for Fiscal Year 2017-18.
- 7) Receive and file the 2017-2022 Strategic Technology Plan.
- 8) Acting as the Orange County Great Park Board, recommend the City Council approve the Fiscal Year 2017-18 capital and operating budgets and anticipated contracts for the Orange County Great Park, as required by the Fiscal Transparency and Reforms Act.
- 9) Acting as the Irvine City Council, approve the Fiscal Year 2017-18 capital and operating budgets and anticipated contracts for the Orange County Great Park, as required by the Fiscal Transparency and Reforms Act.
- 10) Authorize the execution of a sole source contract with Aerophile California LLC for the annual maintenance, operation, and repair of the Great Park balloon.

As amended per the errata memo dated June 13, 2017 clarifying language in the City's Capital Improvement Finance Policies.

ACTION: A substitute motion was made by Councilmember/Vice Chairwoman Fox, seconded by Councilmember/Director Shea, to:

Defer the item to the June 27, 2017 meeting to include the recommendations from the Finance Commission, excluding Recommendation Nos. 5 (Technology Fund 579 Funding) and 8 (Return on Investment (ROI)/Cost Benefit Policy).

The motion failed as follows:

AYES: 2 COUNCILMEMBERS: Fox and Shea

NOES: 3 COUNCILMEMBERS: Lalloway, Schott and Wagner

ABSENT: 0 COUNCILMEMBERS: None

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

- 1) Adopt the Fiscal Year 2017-18 Budget and Strategic Business Plan.
- 2) Adopt RESOLUTION NO. 17-43 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING AND APPROVING THE APPROPRIATIONS BUDGET AND FINANCIAL POLICIES FOR THE CITY OF IRVINE FOR FISCAL YEAR 2017-18
- 3) Adopt RESOLUTION NO. 17-44 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING THE ANNUAL APPROPRIATIONS LIMIT FOR FISCAL YEAR 2017-18
- 4) Adopt RESOLUTION NO. 17-45 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AUTHORIZING FULL-TIME POSITIONS IN ACCORDANCE WITH THE PROVISIONS OF COMPENSATION RESOLUTIONS AND THE OPERATING BUDGET FOR THE 2017-18 FISCAL YEAR, AND SUPERSEDING RESOLUTION NO. 16-52, WHICH IS INCONSISTENT THEREWITH
- 5) Adopt RESOLUTION NO. 17-46 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ESTABLISHING THE SALARY GRADE ORDER STRUCTURE AND SALARY RANGES FOR EMPLOYEES OF THE CITY OF IRVINE, AND SUPERSEDING RESOLUTION NO. 16-53, WHICH IS INCONSISTENT THEREWITH
- 6) Direct staff to take advantage of available savings by utilizing the Public Employees Retirement System's advance payment option for Fiscal Year 2017-18.
- 7) Receive and file the 2017-2022 Strategic Technology Plan.
- 8) Acting as the Orange County Great Park Board, recommend the City Council approve the Fiscal Year 2017-18 capital and operating budgets and anticipated contracts for the Orange County Great Park, as required by the Fiscal Transparency and Reforms Act.

- 9) Acting as the Irvine City Council, approve the Fiscal Year 2017-18 capital and operating budgets and anticipated contracts for the Orange County Great Park, as required by the Fiscal Transparency and Reforms Act.
- 10) Authorize the execution of a sole source contract with Aerophile California LLC for the annual maintenance, operation, and repair of the Great Park balloon. **(Contract No. 9816)**

As amended per the errata memo dated June 13, 2017 clarifying language in the City's Capital Improvement Finance Policies.

ADJOURNMENT - SPECIAL JOINT MEETING

Moved by Councilmember/Director Lalloway, seconded by Councilmember/Director Shea, and unanimously carried to adjourn the special joint meeting with the Orange County Great Park Board of Directors at 7:27 p.m.

RECONVENE TO THE REGULAR CITY COUNCIL MEETING

Mayor Wagner reconvened the regular City Council meeting at 7:28 p.m.

5. COUNCIL BUSINESS

5.1 CONSIDERATION OF COUNCILMEMBER SHEA'S REQUEST FOR AN UPDATE ON USA WATER POLO NEGOTIATIONS

This item was removed from the agenda at the request of Councilmember Shea to a date to be determined. See Additions and Deletions.

PUBLIC COMMENT - CITY COUNCIL

Michael Klubniken spoke in support of his friend, Ilya Tseglin, reiterating a domestic issue related to his autistic son.

The following individuals expressed their appreciation to the City Council for its support in working with Southern California Edison to relocate the proposed Safari Substation on Wald Street:

Jane Klassen
Paul Wang
Daniel Kim
Michael Aguirre

The following individuals spoke in support of a town hall meeting with Congresswoman Mimi Walters:

Joe McLaughlin
Rebecca Whitehead
Debbie Salah
Debra Kam

Ilya and Robert Tseglin submitted a Request to Speak slip but did not speak.

ADJOURNMENT

Moved by Councilmember Shea, seconded by Councilmember Lalloway, and unanimously carried to adjourn the meeting at 7:55 p.m.

MAYOR

CITY CLERK

June 27, 2017

3.2




REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: WARRANT AND WIRE TRANSFER RESOLUTION



Director of Financial Services



City Manager

RECOMMENDED ACTION

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

EXECUTIVE SUMMARY

A detailed register of claims, the Register of Warrants and Wire Transfers, are submitted to the City Council for review and authorization on a weekly basis. Approval of the attached resolution ratifies the disbursement of funds for the period of June 7, 2017 through June 20, 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 27th day of June 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 27th day of June 2017.

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

CITY CLERK OF THE CITY OF IRVINE

6/7/2017 through 6/13/2017

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
001	GENERAL FUND	642,195.96
004	PAYROLL CLEARING FUND	53,370.07
005	DEVELOPMENT SERVICES FUND	42,086.27
009	REVENUE CLEARING FUND	15,637.57
027	DEVELOPMENT ENGINEERING FUND	9,945.00
111	GAS TAX FUND	21,578.35
113	FEES & EXACTIONS FUND	20,869.01
114	HOME GRANT	24,394.00
119	LIGHTING, LANDSCAPE & PARK MNT	234,072.50
128	OFFICE ON AGING PROGRAMS FUND	2,166.38
136	PS SPECIAL SERVICES FUND	26.00
143	PUBLIC SAFETY GRANTS	192.00
153	ASSET FORFEITURE STATE FUND	9,800.00
155	COMMUNITY SERVICES PROGRAMS	2,527.60
180	ORANGE COUNTY GREAT PARK	25,802.19
250	CAPITAL IMPROV PROJ FUND - CIR	928,014.86
260	CAPITAL IMPROV PROJ-NON CIRC	43,885.84
270	NORTH IRVINE TRANSP MITIGATION	8,954.56
286	GREAT PARK DEVELOPMENT FUND	10,108.83
570	INSURANCE FUND	98,364.88
574	FLEET SERVICES FUND	191,141.56
578	MAIL INTERNAL SERVICES	7,405.52
579	STRATEGIC TECHNOLOGY PLAN FUND	17,110.38
580	CIVIC CTR MAINT & OPERATIONS	210.00
717	RAD 04-20 PORTOLA SPR VAR RT A	6,897.56
718	RAD 05-21 ORCHARD HLS VAR RT	6,380.82
719	REASSESSMENT 85-7A VARIABLE RT	6,777.45
724	AD 07-22 STONEGATE VAR RT A	1,593.99
744	CFD 2013-3 GREAT PARK	367.50
776	AD93-14 SPECT 6N/SPECT 7	10,997.05
GRAND TOTAL		2,442,873.70

6/14/2017 through 6/20/2017

REGISTER OF DEMANDS AND WARRANTS

Fund	Fund Description	Amount
001	GENERAL FUND	466,028.34
002	ASSET MANAGEMENT PLAN FUND	5,000,000.00
004	PAYROLL CLEARING FUND	968,302.11
005	DEVELOPMENT SERVICES FUND	97,023.00
024	BUILDING & SAFETY FUND	119,826.12
027	DEVELOPMENT ENGINEERING FUND	7,647.50
114	HOME GRANT	1,506.11
119	LIGHTING, LANDSCAPE & PARK MNT	480,095.01
126	SENIOR SERVICES FUND	843.30
128	OFFICE ON AGING PROGRAMS FUND	1,480.00
132	SLURRY SEAL SUR CHG FUND	18,816.00
143	PUBLIC SAFETY GRANTS	7,995.81
146	I SHUTTLE	38.65
180	ORANGE COUNTY GREAT PARK	833,118.72
204	CFD 2013-3 GREAT PARK	14,630.00
218	AD 03-19 NORTHERN SPHERE	2,090.00
260	CAPITAL IMPROV PROJ-NON CIRC	2,632.90
570	INSURANCE FUND	40,732.21
574	FLEET SERVICES FUND	36,757.85
578	MAIL INTERNAL SERVICES	132,220.43
579	STRATEGIC TECHNOLOGY PLAN FUND	875,426.62
580	CIVIC CTR MAINT & OPERATIONS	18,240.69
723	AD03-19 WOODBURY SER B VAR RT	1,500.00
735	AD03-19 WOODBURY SER A VAR RT	1,500.00
777	RAD 05-21 G1 FIXED RATE	35,439.98
GRAND TOTAL		9,163,891.35

3.3



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: June 27, 2017

TITLE: BUDGET ADJUSTMENT FOR SALES AND USE TAX AUDITING SERVICES

Director of Financial Services

City Manager

RECOMMENDED ACTION

Approve a budget adjustment increasing the contract budget for sales and use tax auditing services in the amount of \$180,341.37.

EXECUTIVE SUMMARY

The California State Board of Equalization (SBOE) is responsible for the collection and distribution of sales and use tax statewide. The City contracts with consulting firms to audit the SBOE's sales and use tax records for corrections that benefit the City. The consultants are compensated based on a percentage of revenue they recover on behalf of the City.

In 2007, the consultant submitted an audit finding to the SBOE to review a significant amount of sales tax revenue that was incorrectly being allocated to the City of Buena Park. After nearly a decade, the SBOE issued a correction in mid-2016. The City of Irvine's share of the correction is approximately \$854,000. In addition, there was a smaller correction, filed in 1999, that resulted in \$48,000 in additional revenue to the City in September 2016. The consultant has invoiced the City of Irvine for \$180,341.37, 20 percent of the recovered amounts as agreed upon in its contract. The net positive impact is approximately \$721,600 in additional sales tax revenue for the City.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

The Finance Commission was scheduled to review the budget adjustment at its regular meeting of June 19, 2017; however, the meeting was cancelled due to lack of a quorum.

ANALYSIS

The City of Irvine collects approximately \$64 million annually in sales and use tax revenue. Sales tax revenue is allocated to the city or jurisdiction where the sales occurs, or under specific conditions, to the County Tax Pool. The administration of local sales tax revenue through the SBOE can be complicated with misallocations among jurisdictions occurring

regularly. These errors can result in cities receiving less sales tax revenue than they are entitled. City staff does not have the expertise to research, identify, and collect misallocated revenues. As such, for the past twenty-five years the City has contracted with outside consultants to provide sales and use tax auditing services on a contingency fee basis. In addition to the auditing services, the consultants provide sales tax revenue forecasting and guidance on various sales and use tax issues.

The City contracts with Hinderliter De Llamas and Associates (HDL) for these services. Prior to June 30, 2010 the City contracted with MuniServices, LLC. In 2007, MuniServices submitted an audit finding to the SBOE related to sales tax allocations from two related firms, CDW, LLC and CDW Government, Inc. (collectively CDW). The finding requested the SBOE review sales tax revenue that was incorrectly allocated to the City of Buena Park. The SBOE made a determination in the second quarter of 2016 to reallocate \$8.7 million of the sales and use taxes collected from CDW from the City of Buena Park to the County Tax Pool. The City of Irvine's share of the CDW reallocation resulted in a one-time payment of \$854,000 from the County Tax Pool. In 1996, the point of sale location associated with automobile leases changed from the address of the purchaser to the dealership location. In 1999, MuniServices filed corrections for over 50 jurisdictions, including Irvine, requesting the sales tax revenue generated from GMAC automobile leases be corrected and allocated to the locations of the dealerships generating the leases. The SBOE reached a decision on the matter and as a result, the City of Irvine received \$48,000 in September 2016.

The sales and use tax contracts are contingency fee based whereby the consultant charges the City a contingency fee based on a percentage of sales tax revenue recovered over several quarters. MuniServices' contingency fee was 20 percent of the amount recovered for six quarters following the quarter in which the taxpayer begins paying the taxes correctly and all previous quarters. The corrections resulted in a one-time increase of sales tax of \$854,000 for the CDW correction and \$48,000 for the GMAC correction. On March 31, 2017, MuniServices invoiced the City of Irvine for \$180,341.37, 20 percent of the recovered amounts as agreed upon in their contract.

Sales and use tax audit fees are budgeted annually at \$200,000. The sales tax reallocations occurred after the fiscal year 2016-17 budget was adopted and due to the uncertainty surrounding the correction, an amount for MuniServices' fees was not included in the current year budget.

ALTERNATIVES CONSIDERED

The City has a contractual obligation with MuniServices, LLC and therefore no alternative was considered.

FINANCIAL IMPACT

The City received \$902,000 in one-time revenue due to the reallocations of sales tax from the City of Buena Park to the County Tax Pool and the correction on the GMAC lease

revenue to the dealership located in the City. This additional revenue offsets the 20 percent contingency fee. The net positive impact to the City is \$721, 600 in additional sales tax revenue.

REPORT PREPARED BY Amy Roblyer, Senior Management Analyst

ATTACHMENTS

1. Budget Adjustment Form
2. MuniServices, LLC Invoice



CITY OF IRVINE BUDGET ADJUSTMENT REQUEST FORM

Department: Administrative Services

Finance Comm. Date: _____

Requestor: Kristin Griffith

City Council Date: _____

Approval Exception (A - O):

O

(see Financial Policies - Budget Adjustment)

Finance Use Only - Batch Record Number

GL _____

JL _____

Posting Date _____

Posted by _____ /date

Reason Code: 0012 Mid Year Adjustment

Explanation for Request:

Request to appropriate \$180,341.37 for sales tax auditing services in non departmental contract expenditures.

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	
Subtotal					0

EXPENDITURES AND TRANSFERS-OUT

Fund #	Account Number				Amount
	GL		JL		Increase or (Decrease)
	Org Key	Object Code	Job Key	Object Code	
001	0190100199	4310	7170011001	4310	180,341
Subtotal					180,341

CHANGE TO FUND BALANCE

Fund #	Account Number				Amount
	GL		JL		Increase or (Decrease)
	Org Key	Object Code	Job Key	Object Code	
001					(180,341)
Subtotal					(180,341)

Fund Balance Entry Required

Invoice

Page: 1



GRS - MuniServices, LLC
7625 N. Palm Avenue
Suite #108
Fresno, CA 93711 USA

City of Irvine
Ms. Grace Leung
Manager of Fiscal Services
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623-9575

Invoice Number: 0000045195
Invoice Date: 3/31/2017
Invoice Due Date: 4/30/2017
Customer Number: IRVINE-CA001
Internal Number: CA-IRVINE-CI
Customer P.O.:

Terms: Net 30 Days

RECEIVED
APR 10 2017
ADMIN. SVCS.

Item Code	Description	Amount
SUTA - SERVICE - CA	Sales and Use Tax SUTA Services for the tax quarter ending September 30, 2016	180,341.37

Net Invoice 180,341.37

Invoice Total: 180,341.37

Remit Payment to:
MuniServices
PO BOX 12872
Norfolk, VA 23541

Please contact the Billing Department at (757) 519-9300 ext. 12947, or e-mail billing@portfoliorecovery.com should you have any questions or comments.

ATTACHMENT 2

3.4



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: EXCLUSIVE NEGOTIATING AGREEMENT WITH WILD RIVERS, LLC. FOR A WATER PARK AT THE ORANGE COUNTY GREAT PARK


Director, Orange County Great Park


City Manager

RECOMMENDED ACTION

Approve the attached Exclusive Negotiating Agreement with Wild Rivers, LLC.

EXECUTIVE SUMMARY

At the April 25, 2017 meeting of the Orange County Great Park Board, staff was directed to work with Wild Rivers to create a water park at the Orange County Great Park. The recommended first step in the process is an Exclusive Negotiating Agreement (ENA) between the two parties. An ENA is a common agreement for a City to enter into with a potential partner at the outset of a significant project like the proposed water park. It provides a period of exclusivity during which the requisite steps of site planning, lease negotiation, environmental review can be undertaken. The ENA also sets forth a time period for key milestones and a framework for reimbursement of City costs.

The ENA creates two periods with specific duties and deliverables. Period One would start upon approval of the ENA document and include preliminary site planning and development of a draft form of lease. Period One is expected to be complete in fall of this year. If the Period One deliverables are approved by the City Council, Period Two would commence and would include final draft Lease negotiation and entitlement and environmental review per the California Environmental Quality Act (CEQA). Period Two is expected to be complete by summer of 2018, but could last longer depending on the required depth and scope of the CEQA analysis. At the conclusion of ENA Period 2, if all deliverables meet with City Council approval, the site could then be made available to Wild Rivers via a lease and construction activities could commence. This sequence of events is consistent with the approach taken by the City for the Anaheim Ducks Community Ice Facility at the Great Park over the last two years.

The ENA also creates a system of deposits for reimbursement of City costs incurred for site planning, lease negotiation, and environmental review activities. The First Deposit is \$75,000 and would be due as a condition of effectiveness of the ENA and would cover Period 1 costs such as due diligence support and drafting the form of Lease document. The Second Deposit is for \$500,000 and would be due at the commencement of ENA period 2. It would cover the City's consultant costs for CEQA review and other activities scheduled to take place during the second period of the ENA. The Second Deposit would be returned to Developer in the event that the City and Wild Rivers do not enter into a Lease, unless such failure to reach agreement is the result of Developer default or City determination that the project is not environmentally or financially feasible.

The roadmap outlined in the ENA for creation of a water park at the Great Park was developed in consultation with representatives from Wild Rivers. The roadmap provides a means by which a water park could be constructed and opened in 2019. It is important to note that this is only an estimate based on information available today and the timeline could extend based on challenges encountered through site planning, lease negotiation and environmental review.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ANALYSIS

At its April 25 meeting, the Orange County Great Park Board directed staff to work directly with Wild Rivers to create a water park at the Orange County Great Park (the vote was 3-1-1, Councilmember Schott opposed, Councilmember Lalloway absent). An excerpt from the April 25 minutes is included as Attachment 1 to this report. Subsequent to Board direction, staff has met several times with representatives of Wild Rivers and its partner Bergman KPRS. Wild Rivers has begun developing a site plan in collaboration with the Cultural Terrace Joint Studies design team. Discussions have also focused on the roadmap for the development of a lease with the City and the requisite entitlement and environmental review per the California Environmental Quality Act (CEQA). This roadmap is summarized below based on information available today. Timeframes are an estimate, pending additional information regarding the site and required steps for environmental review.

June 2017	Exclusive Negotiating Agreement (ENA) proposal presented to City Council.
Fall 2017	Preliminary Draft Form of Lease presented to City Council.
Fall 2017	Waterpark conceptual site plan presented to City Council along with Cultural Terrace conceptual master plan developed through the Joint Studies with Heritage Fields.

Fall 2017	Entitlement and environmental review process initiated consisting of a modification to the Great Park Master Plan and CEQA review.
Summer 2018	Entitlement and CEQA review completed and presented to City Council for consideration (Review typically takes 9-12 months).
Summer 2018	Draft Lease presented to City Council.
Summer 2018	Waterpark site available for demolition and construction.
Summer 2019	Anticipated completion of construction. (Based on estimated 12-month construction timeline provided by Wild Rivers representatives)

The recommended first step in the process is an Exclusive Negotiating Agreement (ENA) between the City and Wild Rivers, LLC. An ENA is a common agreement for a City to enter into with a potential partner at the outset of a significant project like the proposed water park. The ENA provides negotiating certainty and exclusivity for both parties, and grants the developer the right to enter the site for inspections and due diligence. The ENA also provides a roadmap and approximate timeline for the due diligence, design work, environmental review, and transaction milestones for the proposed project. It defines the key duties and deliverables for the process as well as the timing and accountability for each party. The terms of the ENA are a product of negotiation between the City and Wild Rivers. The document was developed in consultation with and has been signed by Wild Rivers.

The ENA divides the development process into two periods. Period 1 would start upon approval of the ENA document and include preliminary lease negotiation and site planning. Period 2 would start at the conclusion of Period 1 and include CEQA review, final lease negotiation and site planning. A summary of the key activities to be undertaken during each period is outlined below.

ENA Period 1

- City provides property documents to developer
- Developer performs site inspections and due diligence
- Developer submits preliminary approval from debt and equity partners as well as description of process for final financing approval
- Reimbursement Agreement is prepared to cover cost of environmental review and other Period 2 activities
- Form of Lease is prepared
- Developer submits proposed development concept and site plan

At the completion of Period 1, anticipated to be in fall of this year, the form of Lease, the proposed site plan, the Reimbursement Agreement, and other deliverables will be brought forth for City Council consideration. If all of the Developer's obligations during Period 1 have been met, the City Council could direct that Period 2 begin with the commencement of its associated activities, as outlined below. It would be staff's intent to present the Wild

Rivers proposed site plan to the City Council at the same time as the Joint Studies conceptual master plan for the Cultural Terrace this fall. Although the Wild Rivers plan would likely be more advanced and have more detail than the plans for the rest of the Cultural Terrace at that point in time, a broader presentation of the proposed plan for the area would allow the City Council to make a more informed evaluation as to how the proposed water park would interface with the rest of the Cultural Terrace and other adjacent uses.

ENA Period 2

- CEQA review is conducted
- Developer submits application for land use entitlements
- Developer to provide commitment from qualified debt and equity providers
- City obtains appraisal of fair market value
- Proposed Lease document and CEQA environmental review are presented for City Council consideration

At the completion of Period 2, estimated to be in the summer of 2018, the draft Lease document and CEQA documentation would be brought for City Council consideration. If approved, the developer could then commence site preparation and construction of the water park.

The Great Park Master Plan does not include a Water Park as one of the contemplated uses. A modification to the Master Plan will be required to accommodate the new use and associated development square footage. Per CEQA, an environmental review of the project will also be required. The requisite scope of the CEQA review (i.e. an Addendum to the existing Environmental Impact Report (EIR), or development of a new Supplemental EIR) will be determined through the completion of an Initial Study Checklist, per CEQA standards, and will, in large part, determine the ultimate timeline for creation of the water park. The estimated timeline is 9 to 12 months to accommodate Master Plan modification and CEQA review.

Reimbursement of City Costs

As a condition of the effectiveness of the ENA, the developer must deliver a \$75,000 deposit (First Deposit) to the City. This deposit may be used by the City during Period 1 for consultants, attorneys, engineers, and other third party services undertaken to accommodate the City's responsibilities under the agreement. Prior to the end of Period 1, a Reimbursement Agreement will be presented for City Council consideration, requiring a \$500,000 deposit (Second Deposit) to cover City costs during Period 2. If City and Developer fail to reach an agreement and enter into a lease, the Second Deposit would be returned to developer, unless the failure to reach agreement was the result of Developer default, failure to negotiate in good faith, or determination by the City that the project is not environmentally or financially feasible.

ALTERNATIVES CONSIDERED

The City Council could choose not to approve the ENA or direct staff to negotiate modifications to any of the terms of the ENA as deemed appropriate. The ENA provides a basis for due diligence, lease negotiation, and cost reimbursement but the City Council may wish to pursue a relationship with Wild Rivers without the ENA if it felt that the document creates unnecessary or unreasonable commitments for the City or the Developer.

FINANCIAL IMPACT

The ENA includes a set of duties, incumbent on both City and Developer, associated with due diligence, site planning, lease negotiation, and environmental review. The Agreement provides for reimbursement of City costs, including consultant fees, for these activities through two deposits:

- Deposit One: \$75,000 to cover City costs during ENA Period 1 and
- Deposit Two: \$500,000 to cover City costs during ENA Period 2.

It is anticipated that these deposits will cover all City costs prior to the potential execution of a Lease. Deposit Two is refundable to the Developer, under certain conditions, if the parties do not enter into a lease. In this situation, the City's Period Two costs, estimated to be in the range of \$300,000 to \$500,000 would be paid by the City without reimbursement.

If the Water Park is approved and the City enters into a lease with Wild Rivers, there are likely to be positive financial impacts to the City by way of rent payments and collateral economic benefit through local sales and hotel tax. The water park also has potential financial benefit for the larger Great Park as a complementary use that drives visitation and user fees across the Park. These financial impacts will be better understood once lease terms have been negotiated and will be presented in more detail to the City Council as they become available.

REPORT PREPARED BY Pete Carmichael, Director, Orange County Great Park

ATTACHMENTS

1. Excerpt from April 25, 2017 Orange County Great Park Board Minutes
2. Exclusive Negotiating Agreement between the City of Irvine and Wild Rivers, LLC

2.2 SCOREBOARDS AND SPONSORSHIP AT THE GREAT PARK SPORTS COMPLEX

Pete Carmichael, Director of the Orange County Great Park, and Chris Koster, Manager of Great Park Planning & Development, presented the staff report and responded to questions.

Board discussion included: clarifying whether the recommended action would approve final designs of the scoreboards or if final approval would go through the Planning Commission.

ACTION: Moved by Vice Chairwoman Fox, seconded by Director Schott, unanimously carried by those members present (Director Lalloway absent) to:

ACTION:

- 1) Recommend that the City Council authorize the City Manager to execute Second Amendment to August 4, 2016 Letter Agreement Between the City of Irvine and Heritage Fields El Toro, LLC Regarding Expenditure of Quimby Funds for Additional Sports Park Improvements.
- 2) Recommend that the City Council approve a budget appropriation of \$517,175 from the unallocated Great Park Fund balance to the Capital Improvement Project Fund, Project No. 361616, Sports Park Subarea Improvements, for the recommended scoreboard design enhancements.

2.3 WATERPARK REQUEST FOR PROPOSALS RESPONSE AND NEXT STEPS

Pete Carmichael, Director, Orange County Great Park, and Steve Torelli, Senior Management Analyst, presented the staff report and responded to questions.

The following individuals spoke in favor of Wild Rivers Waterpark:

Brandon Lee
Burke Mucho
Connie Stone
Adam Bramwell
Tracy Collins
Adam Eldefrawy
Francisco Lazo
Dave Bergman

The following individuals spoke in support of a surfing facility at the Orange County Great Park:

Randy Lochefeld, Surfloch, LLC
Sean Brody, Surf Education Academy
Chris Heffner, Billabong
Michael Lebrun, E and M Company

Charles Webb, Founder of Stoke for Life Foundation, spoke in favor of a water feature at the Great Park.

Mike Riedel, Wild Rivers Waterpark, expressed concern about the Request for Proposals (RFP) process and information provided at the mandatory bid meeting, and spoke in opposition to reissuing an RFP.

Brandon Ripley, Western Whitewater, and Scott Shipley, S2O Design, spoke in support of Western Whitewater's proposal. Mr. Ripley also presented a video.

Board discussion included: noting the history of Wild Rivers Waterpark (Wild Rivers) as an icon in the City that provided a well-managed, safe and secure entertainment environment; expressed concern moving forward with combined uses without further studies; questioned a potential change in scope that may have differed from the RFP; expressed concern with approving a sole-source contract with Wild Rivers; clarified prior discussion included a desire to bringing forward new innovative waterpark features; and expressed concern with the potential for an unfair advantage through a repeated issuance of an RFP.

ACTION: Moved by Vice Chairwoman Fox, seconded by Director Shea, to:

Direct staff to cancel the Request for Proposals and work directly with Wild Rivers to create a waterpark at the Orange County Great Park.

The motion carried as follows:

AYES:	3	DIRECTORS:	Fox, Shea and Wagner
NOES:	1	DIRECTORS:	Schott
ABSENT:	1	DIRECTORS:	Lalloway

EXCLUSIVE NEGOTIATING AGREEMENT

THIS EXCLUSIVE NEGOTIATING AGREEMENT (the "Agreement") is entered into as of _____, 2017 (the "Effective Date"), by and between the **CITY OF IRVINE**, a chartered city and municipal corporation ("City"), and **WILD RIVERS IRVINE, LLC**, a California limited liability company ("Developer"). City and Developer may be individually referred to herein as a "Party" and collectively referred to herein as the "Parties".

RECITALS

The following recitals are a substantive part of this Agreement.

A. City is the owner of fee title or has a sub-leasehold interest in certain real property that has been designated for development of a metropolitan park known as the "Orange County Great Park," located in the City of Irvine, County of Orange, State of California (the "Great Park").

B. Developer is a California limited liability company whose principals have experience in owning and operating water parks.

C. Developer wishes to explore the possibility of developing and operating a waterpark (the "Proposed Development") within the area of the Great Park commonly referred to as the "Cultural Terrace," which comprises approximately two hundred fifty (250) acres. The Cultural Terrace portion of the Orange County Great Park is depicted in the Map attached hereto as Exhibit "A" and incorporated herein by this reference.

D. The purpose of this Agreement is to establish a period during which the Developer may perform studies and investigations and other due diligence activities within an approximately thirty (30) acre portion of the Cultural Terrace (the "Proposed Site") to determine the feasibility of the development of a Proposed Development, and City and Developer shall exclusively negotiate with each other to attempt to agree on terms on which City would lease the Proposed Site to Developer for Developer's development and operation of a Proposed Development (a "Ground Lease").

NOW THEREFORE, the Parties mutually agree as follows:

1. **Agreement to Negotiate, in Good Faith** City and Developer agree that for the term of the "Negotiating Period" (as defined in Section 2 hereof) each party shall diligently and in good faith attempt to negotiate the terms of a Ground Lease for Developer's development of a Proposed Development on the Proposed Site for consideration by the Irvine City Council (the "City Council"). City agrees to negotiate exclusively with Developer, and not to negotiate with any other person or entity, with regard to the lease or development of the Proposed Site during the Negotiating Period.

2. **Negotiating Period.** The initial term of the Negotiating Period shall be for the period from the Effective Date until December 31, 2017 ("Negotiating Period No. 1"). In the

event that prior to the end of Negotiating Period No. 1 Developer has performed all of its duties as required by Exhibit "B" attached hereto and incorporated herein by this reference, and the City Council has authorized an extension of the Negotiating Period and approved a "**Reimbursement Agreement**") (as defined in Section 4(b) below), the Term of the Negotiating Period shall be extended until December 31, 2018 ("**Negotiating Period No. 2**") to complete the negotiation and drafting of a Ground Lease and the environmental review required under the California Environmental Quality Act ("**CEQA**") for a Proposed Development and Ground Lease.

If by the end of Negotiating Period No. 1 Developer (i) has not performed all of its duties as required by Exhibit "B", (ii) the City Council has not authorized the extension of the Negotiating Period, or (iii) the City Council has not approved a Reimbursement Agreement then this Agreement shall automatically terminate without further written notice. If by the end of Negotiating Period No. 2 Developer has not performed all of its duties as required by Exhibit "C", then this Agreement shall automatically terminate without further written notice (except as the Negotiating Period may be extended pursuant to the terms of this Agreement). Upon such automatic termination and expiration of the Negotiating Period, both Parties knowingly agree that neither Party shall have any further rights or remedies as to the other, except as specifically set forth herein.

3. Duties During Negotiating Period. The Parties' respective duties during Negotiating Period No. 1 are set forth in Exhibit "B" which is attached hereto and incorporated herein. The Parties' respective duties during Negotiating Period No. 2 are set forth in Exhibit "C" which is attached hereto and incorporated herein. The duties of the Parties shall be carried out in accordance with the schedule attached hereto as Exhibit "D" and incorporated herein (the "**ENA Schedule**").

4. Deposit.

(a) As a condition to the effectiveness of this Agreement, Developer shall have delivered to City cash or a cashier's or certified check in the amount of Seventy-Five Thousand Dollars (\$75,000) (the "**Initial Deposit**") During Negotiating Period No. 1, the Initial Deposit may be drawn down and used by City for costs incurred by City for consultants, attorneys, engineers, appraisers, Navy consultants and other third party services undertaken at the direction of City in furtherance of City's responsibilities under this Agreement, including the costs incurred by City to negotiate and prepare this Agreement ("**Reimbursable Costs**"). Should the remaining balance of the Initial Deposit drop below Ten Thousand Dollars (\$10,000) at any time prior to the end of Negotiating Period No. 1, Developer shall promptly deliver to City cash or a cashier's or certified check in the amount necessary to bring the remaining balance to Ten Thousand Dollars (\$10,000). Should this Agreement terminate at the end of Negotiating Period No. 1, the remaining amount of the Initial Deposit will be returned to Developer. If this Agreement is not terminated at the end of Negotiating Period No. 1, at the commencement of Negotiating Period No. 2, any remaining amount of the Initial Deposit will be used to fund a portion of the initial balance required under the Reimbursement Agreement, and will be deemed to be part of the Second Deposit (as defined in subparagraph (b) below).

(b) Prior to the expiration of Negotiating Period No. 1, the Parties shall enter into an agreement which provides for Developer to deliver to City cash or a cashier's or certified

check in the amount of Five Hundred Thousand Dollars (\$500,000) (the "**Second Deposit**") for purposes of paying for Reimbursable Costs, including, without limitation, the costs incurred by City for an environmental consultant to prepare the documentation necessary to conduct the environmental review required under CEQA (the "**Reimbursement Agreement**"). In addition to other terms, the Reimbursement Agreement shall provide for (i) City to hold and retain the Second Deposit in a separate City account, (ii) Developer to deliver to City additional funds to be added to and become part of the Second Deposit if the sum of City's Reimbursable Costs exceeds ninety percent (90%) of the amount of the Second Deposit held by City, and (iii) City to return the Second Deposit to Developer if City and Developer fail to reach agreement on the terms of, and enter into, a Ground Lease by the expiration of Negotiating Period No. 2, as it may be extended pursuant to the terms of this Agreement, unless (a) such failure is as a result of Developer's default of its obligations under this Agreement, including Developer's failure to negotiate in good faith hereunder, or (b) City determines, based on the environmental review required under CEQA, that a Proposed Development is not environmentally or financially feasible. The Reimbursement Agreement shall further provide that at such time as (1) City and Developer enter into a Ground Lease, or (2) this Agreement is terminated, or Negotiating Period No. 2 expires, and Developer is not entitled to a return of the Second Deposit pursuant to the immediately preceding sentence, (x) all portions of the Second Deposit that are necessary to cover Reimbursable Costs shall be released to City, and (y) all portions of the Second Deposit that are not necessary to cover Reimbursable Costs shall be returned to Developer.

5. Due Diligence. Developer and its employees, contractors, agents, representatives, architects, engineers and consultants (collectively, the "**Developer Entities**"), at Developer's sole cost and expense, shall have the right to inspect the Proposed Site, make surveys and conduct such soils, engineering, hazardous or toxic material, pollution, seismic or other tests, studies and investigation as Developer may require (collectively, the "**Inspections**").

(c) Developer shall cause the Inspections to be conducted at times reasonably acceptable to City, upon not less than seventy-two (72) hours prior written notice to City in each instance, and in a manner that does not materially adversely affect the Proposed Site. City may have a representative present at any Inspections of the Proposed Site. In conducting its Inspections at the Proposed Site, Developer and the Developer Entities shall: (i) not damage any part of the Proposed Site or any personal property owned or held by any third party; (ii) promptly repair any damage to the Proposed Site resulting directly or indirectly from the entry by Developer or the Developer Entities or from any such Inspections; (iii) not injure or otherwise cause bodily harm to City, or its tenants, agents, guests, invitees, contractors and employees; (iv) comply with all applicable laws; (v) promptly pay when due the costs of all Inspections; and (vi) not permit any liens to attach to the Proposed Site by reason of the exercise of Developer's rights hereunder.

(d) Promptly upon completion of each Inspection, Developer shall cause the portion of the Proposed Site subject to such Inspection to be restored to the condition existing immediately prior to such Inspection. Developer shall provide City, at no additional charge, with copies of the results of each Inspection made by or for Developer concurrently with Developer's receipt of such results.

(e) Developer hereby indemnifies, defends, and holds harmless City and the Orange County Great Park Corporation and their respective officers, officials, members,

employees, directors, agents, representatives, contractors, and volunteers (collectively, the "City and City Personnel"), and the Proposed Site, free and harmless from and against any and all claims, damages, liabilities, demands, actions, liens, stop notices, losses, costs and expenses (including without limitation reasonable attorneys' fees and court costs) arising from or as a result of the conducting of Inspections, except to the extent caused by an indemnified party's gross negligence, recklessness or intentional misconduct.

(f) Developer's obligations under this Section 5 shall survive the expiration or termination of this Agreement.

6. Pre-Existing Environmental Conditions. Developer acknowledges that commencing in the 1940's, the Great Park was operated for over fifty (50) years as a military base, including as a "Master Jet Station." Throughout its operational years, the mission of the Great Park involved the operation and maintenance of military aircraft and ground-support equipment. A by-product of these activities was the generation of "Toxic Materials" (as defined below) at various locations. Since the late 1980's, the Department of the Navy ("DON"), which oversees both the United States Navy and Marine Corps, has undertaken environmental investigations, analysis, testing, and remediation activities in the Great Park to address past releases of Toxic Materials.

Developer acknowledges and agrees that numerous environmental documents pertain to the Great Park and the Proposed Site, including with respect to the presence of Toxic Materials. Many of such documents are a matter of record, however certain of the documents are available only upon request to the appropriate regulatory agencies, including the Department of Toxic Substances Control, the California Regional Water Quality Control Board, and the DON. Developer acknowledges and agrees that with respect to the Inspections Developer shall be bound by the terms, reservations, easements, covenants, conditions, restrictions and agreements set forth in such documents as they relate to the Proposed Site, and this Agreement and Developer's right to enter the Proposed Site and conduct Inspections shall be subject to and subordinate to such documents and restrictions, and any amendments thereto as may be made from time to time, and/or other remedial or related requirements as may be imposed on the Premises (collectively, the "**Environmental Restrictions**"). As used in this Agreement, the term "**Toxic Materials**" shall mean any substance, material, or waste which is or becomes regulated by any local governmental authority, the State of California, or the United States Government, including, without limitation, any material or substance which is (i) defined as a "hazardous waste", "extremely hazardous waste" or "restricted hazardous waste" under Sections 25115, 25117 or 25122.7, or listed pursuant to Section 25140 of the California Health and Safety Code, Division 20, Chapter 6.5 (Hazardous Waste Control Law), (ii) defined as a "hazardous substance" under Section 25316 of the California Health and Safety Code, Division 20, Chapter 6.8 (Carpenter-Presley-Tanner Hazardous Substances Account Act), (iii) defined as a "hazardous material" under Section 25501 of the California Health and Safety Code, Division 20, Chapter 6.95 (Hazardous Materials Release Response Plans and Inventory), (iv) defined as a "hazardous substance" under Section 25281 of the California Health and Safety Code, Division 20, Chapter 6.7 (Underground Storage of Hazardous Substances), (v) petroleum, (vi) asbestos, (vii) polychlorinated biphenyls, (viii) formaldehyde, (ix) listed under Article 9 or defined as "hazardous" or "extremely hazardous" pursuant to Article 11 of Title 22 of the California Administrative Code, Division 4, Chapter 20, (x) designated as a "hazardous substance" pursuant to Section 311 of the Clean Water Act, 33

U.S.C. Section 1251 et seq. (33 U.S.C. Section 1321) or listed pursuant to Section 307 of the Clean Water Act (33 U.S.C. Section 1317), (xi) defined as a "hazardous waste" pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. (42 U.S.C. Section 6903) ("RCRA"), or (xii) defined as "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq. (42 U.S.C. Section 9601).

Developer further acknowledges and agrees that (i) a substantial majority of the Proposed Site remains under the ownership of the DON, and has been leased to Heritage Fields LLC, a Delaware limited liability company ("**Heritage Fields**"), by a Lease in Furtherance of Conveyance executed on July 12, 2005 (the "**LIFOC**"), (ii) concurrently with the execution of the LIFOC, Heritage Fields assigned and transferred all of its right, title and interest in and to the LIFOC with respect to the portions of the Proposed Site subject to the LIFOC (and certain other properties subject to the LIFOC) to City by an Assignment of Leases, which was recorded in the Official Records of Orange County on July 12, 2005 (the "**Assignment**"), (iii) each of the LIFOC and Assignment impose various restrictions and limitations on City's use of the Proposed Site, including restrictions on any intrusive or invasive testing or investigation (e.g., testing that breaks the surface of the ground), (iv) prior to conducting any Inspections on the Proposed Site, Developer shall coordinate with City so that City may obtain approval under the LIFOC and Assignment, if required, for the Inspections, and in conducting any Inspections, Developer agrees to and shall comply with all applicable terms of the LIFOC, Assignment, and all other applicable restrictions, (v) the Great Park project is an installation identified as a National Priorities List Site under CERCLA, (vi) the Government, EPA and the State, and their officers, agents, employees, contractors and subcontractors, have the right to enter upon the Proposed Site for the purposes consistent with any provisions of the environmental cleanup program (including, without limitation, the BRAC Cleanup Plan, FFA, and the Installation Restoration Program, and (vii) Developer shall not interfere with or damage any of the remediation equipment that may be located on or near the Proposed Site from time to time.

7. **Insurance.** Without limiting Developer's indemnification obligations under this Agreement, Developer shall procure and maintain, at its sole cost and for the duration of this Agreement, 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 Developer and/or the Developer Entities, including without limitation Developer's conducting of the Inspections. In the event that Developer subcontracts any portion of the work, the contract between Developer and such subcontractor shall require the subcontractor to maintain the same policies of insurance that Developer is required to maintain pursuant to this Section.

A. **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 Developer's performance of this Agreement, including without limitation Developer's conducting of the Inspections. Such insurance shall be endorsed to:

- (1) Name the City and City Personnel as additional insured for claims arising out of Developer's performance of this Agreement, including without limitation Developer's conducting of the Inspections.
- (2) Provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City.

B. Automobile Liability Insurance with a limit of liability of not less than \$1,000,000 each occurrence and \$1,000,000 annual aggregate. Such insurance shall include coverage for all "owned," "hired" and "non-owned" vehicles, or coverage for "any auto." Such insurance shall be endorsed to:

- (1) Name the City and City Personnel as additional insureds for claims arising out of Developer's performance of this Agreement, including without limitation Developer's conducting of the Inspections.
- (2) Provide that the insurance is primary and non-contributing with any other valid and collectible insurance or self-insurance available to City.

C. Workers' Compensation Insurance in accordance with the Labor Code of California and covering all employees of the Developer providing any service in the performance of this Agreement. Such insurance shall be endorsed to:

- (1) Waive the insurer's right of subrogation against City and City Personnel.

D. 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.

E. Evidence of Insurance: Developer shall provide to City 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 service and at least fifteen (15) business days prior to the expiration of any policy. *Statements on an insurance certificate will not be accepted in lieu of the actual endorsements required.* 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 City by U.S. mail, or by personal delivery, except for nonpayment of premiums, in which case ten (10) days prior notice shall be provided.

F. Acceptability of Insurers. 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 City.

G. Insurance of Subcontractors. Developer shall be responsible for causing subcontractors to maintain the same types and limits of coverage in compliance with this Agreement, including naming the City and City Personnel as additional insureds to the Subcontractor's policies.

8. No Predetermination of City Discretion. The Parties acknowledge and agree that nothing in this Agreement in any respect does or shall be construed to affect or prejudice the exercise of City's discretion concerning the designation of the Proposed Site and/or consideration of a Proposed Development or a Ground Lease, or any submittal by Developer with respect to either of the foregoing. The Parties do not intend this Agreement to be a Ground Lease, development agreement, purchase agreement or other agreement for the lease or other conveyance of land or the construction or development of improvements thereon. The Parties acknowledge and agree that they have not agreed upon the essential terms of the subject matter of a transaction, and that such essential terms will be the subject matter of further negotiations. Notwithstanding any submittals to be made by Developer hereunder, and/or any authorization by the City Council to extend the term of this Agreement to the Second Negotiating Period, the Parties acknowledge and agree that any final agreement, if an agreement is reached, would be in the form of a Ground Lease, and any such Ground Lease would not be effective until it has been considered and formally approved by the City Council and thereafter has been executed by authorized representatives of each of the Parties. Notwithstanding anything in this Agreement to the contrary, City does not intend by this Agreement to commit to a definite course of action with respect to the Proposed Site, a Proposed Development or a Ground Lease. City retains full discretion with respect to the Proposed Site, a Proposed Development and a Ground Lease, any CEQA determination with respect to a Proposed Development and Ground Lease, and any mitigation measures or alternatives to the Proposed Development pursuant to CEQA, including a decision not to proceed with the Proposed Site, a Proposed Development, or Ground Lease.

9. Costs and Expenses. Except as provided in Section 4 above, each Party shall be responsible for its own costs and expenses in connection with any activities and negotiations undertaken in connection with the performance of its obligations under this Agreement.

10. Lead Negotiators. The City Manager, or his or her designee, shall be the lead negotiator for the City with respect to the subject matter of this Agreement. The President of the Developer shall be the lead negotiator for the Developer with respect to the subject matter of this Agreement.

11. Change in Developer. The qualifications of Developer are of particular interest to City. Consequently, no person or entity, whether a voluntary or involuntary successor of Developer, shall acquire any rights or powers under this Agreement, nor shall Developer assign all or any part of this Agreement, without the prior written approval of City, which approval City may grant, withhold or deny at its sole and absolute discretion. Any other purported transfer, voluntarily or by operation of law, shall be absolutely null and void and shall confer no rights whatsoever upon any purported assignee or transferee.

12. City Cooperation. City agrees to cooperate with Developer in supplying financial institutions with appropriate information, if available and not otherwise privileged, to facilitate the obtaining of financing or commitments for financing for a Proposed Development. City shall also

cooperate with Developer's professional consultants and associates in providing them with any information and assistance reasonably within the capacity of City to provide in connection with the preparation of Developer's submissions to City pursuant to this Agreement or as required by state or local laws and regulations. This requirement does not obligate City to incur any monetary costs therefor.

13. Address for Notices. Any notices pursuant to this Agreement shall be in writing and sent (i) by Federal Express (or other established express delivery service which maintains delivery records), (ii) by hand delivery, or (iii) by certified or registered mail, postage prepaid, return receipt requested, to the following addresses:

To City:	City of Irvine 1 Civic Center Plaza Irvine, CA 92606 Attn.: City Manager
With a copy to:	City of Irvine 1 Civic Center Plaza Irvine, CA 92606 Attn.: Orange County Great Park Director
And to:	City of Irvine 1 Civic Center Plaza Irvine, CA 92606 Attn.: City Attorney
To Developer:	Mike Riedel Wild Rivers Irvine, LLC 150 Via Monte Doro Redondo Beach, CA 90277

Any Party may designate a different address for itself by notice similarly given. Any notice, demand or document so given, delivered or made by United States mail, shall be deemed to have been given seventy-two (72) hours after the same is deposited in the United States mail as registered or certified mail, addressed as above provided, with postage thereon fully prepaid. Any notice, demand or document delivered by overnight delivery service shall be deemed complete upon actual delivery or attempted delivery, provided such attempted delivery is made on a business day. Any such notice, demand or document not given by registered or certified mail or by overnight delivery service as aforesaid shall be deemed to be given, delivered or made upon receipt of the same by the Party to whom the same is to be given or delivered.

14. Default. Failure by either Party to negotiate in good faith or to perform any other of its duties as provided in this Agreement shall constitute an event of default under this Agreement. The non-defaulting Party shall give written notice of a default to the defaulting Party, specifying the nature of the default and the action required to cure the default. If the default remains uncured fifteen (15) days after the date of such notice, the non-defaulting Party may exercise the remedies set forth in Section 15 of this Agreement.

15. Remedies for Breach of Agreement. In the event of an uncured default under this Agreement, the sole remedies of the non-defaulting Party shall be (a) to terminate this Agreement, and (b) to institute an action for specific performance of this Agreement. Following the termination of this Agreement, neither Party shall have any further rights, remedies or obligations under this Agreement, except as specifically set forth herein. Neither Party shall have any liability to the other for monetary damages for the breach of this Agreement, or failure to reach agreement on a Ground Lease, and each Party hereby waives and releases any such rights or claims it may otherwise have at law or at equity. Furthermore, Developer knowingly agrees that it shall have no right to specific performance for conveyance of any right, title or interest in the Proposed Site or any portion thereof, and shall not file a lis pendens with respect to the Proposed Site or any portion thereof. The Parties' rights and obligations under this Section 15 shall survive the expiration or termination of this Agreement.

16. Attorney's Fees. In the event any action is taken by either Party to this Agreement to enforce this Agreement, the prevailing Party shall be entitled to recover from the other Party its actual attorneys' fees and costs. The Parties' rights and obligations under this Section 16 shall survive the expiration or termination of this Agreement.

17. Entire Agreement. This Agreement constitutes the entire understanding and agreement of the Parties, integrates all of the terms and conditions mentioned herein or incidental hereto, and supersedes all negotiations or previous agreements between the Parties or their predecessors in interest with respect to all or any part of the subject matter hereof.

18. Time of Essence. Time is of the essence of every portion of this Agreement in which time is a material part. In no event shall an incomplete submittal by Developer trigger any obligation of City to review and/or perform hereunder; provided, however that City shall notify Developer of an incomplete submittal as soon as is practicable and in no event later than the applicable time set forth for City's action on the particular item in question. Further, the time periods set forth herein are outside dates of performance. In the event a Party completes a performance item earlier than the time required hereunder, the time for the next performance obligation of a Party shall commence. Thus, the Parties agree that the requirements hereunder may occur and be completed in a shorter time frame than set forth herein.

19. Agreement Does Not Constitute Development Approval. City reserves final discretion and approval as to any Proposed Development and any Ground Lease and all proceedings and decisions in connection therewith. This Agreement shall not be construed as a grant of development rights or land use entitlements to construct a Proposed Development or any other project on the Proposed Site. All design, architectural, and building plans for any Proposed Development shall be subject to the review and approval of City. By its execution of this Agreement, City is not committing itself to or agreeing to undertake the disposition of the Proposed Site to Developer, or any other acts or activities requiring the subsequent independent exercise of discretion by City or any agency or department thereof.

20. Governing Law. This Agreement shall be construed in accordance with the laws of the State of California.

21. Amendments. This Agreement may not be altered, amended, changed, waived, terminated or modified in any respect or particular unless the same shall be in writing and signed by the Parties.

22. Implementation of Agreement. City shall maintain authority to implement this Agreement through the City Manager (or his or her duly authorized representative). City Manager shall have the authority to make approvals, waive provisions and/or enter into certain amendments of this Agreement on behalf of City so long as such actions do not materially or substantially change the substantive business terms of this Agreement, or add to the costs incurred or to be incurred by City as specified herein. Such amendments may include extensions of time to perform. All other material and/or substantive approvals, waivers, or amendments shall require the consideration, action and written consent of the City Council.

21. No Brokers. Each Party shall indemnify, defend, protect and hold harmless the other Party from and against any and all obligations or liabilities to pay any real estate broker's commission, finder's fee, or other compensation to any person or entity arising from or in connection with this Agreement which results from any act or agreement of such Party.

22. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but which when taken together shall constitute one and the same instrument.

NOW THEREFORE, City and Developer have executed this Exclusive Negotiating Agreement as of the date first set forth above.

CITY:

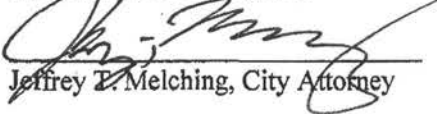
CITY OF IRVINE,
a chartered city and municipal corporation

By: _____
Donald P. Wagner, Mayor

ATTEST:

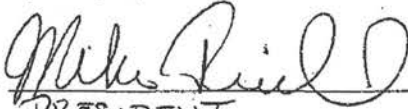
Molly McLaughlin, City Clerk

APPROVED AS TO FORM:
RUTAN & TUCKER, LLP


Jeffrey T. Melching, City Attorney

DEVELOPER:

WILD RIVERS IRVINE, LLC, a California limited
liability company

By: 
Its: PRESIDENT

By: _____
Its: _____

EXHIBIT "A"

MAP OF CULTURAL TERRACE

[To Be Attached]

MAP OF CULTURAL TERRACE

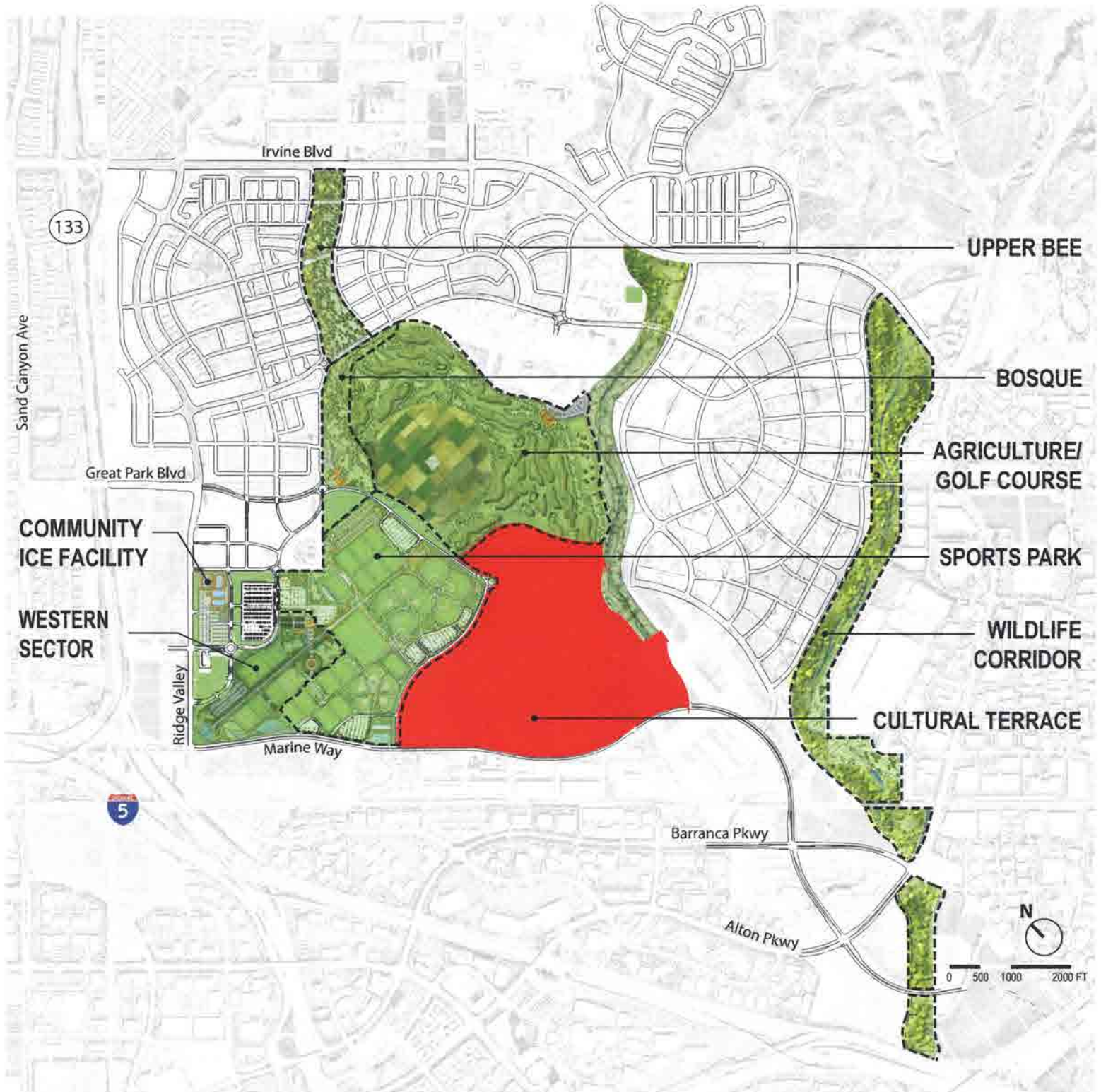


EXHIBIT "B"

NEGOTIATING PERIOD NO. 1 DUTIES

a. **Property Documents.** Within thirty (30) days after the Effective Date, City shall provide or cause to be provided to Developer all documents relating to the physical or environmental condition of the Proposed Site (including, but not limited to, environmental, property physical condition, geological studies, engineering and structural analyses, and geotechnical reports and soil tests and analyses) to the extent reasonably known to be in City's possession (except for such materials which have previously been provided to Developer). City shall provide any other documents relating to the Proposed Site which are in the possession of the City, at the request of the Developer.

b. **Identification of Proposed Site.** Within the first ten (10) days of Negotiating Period No. 1, City and Developer shall negotiate in good faith to identify the portion of the Cultural Terrace that will be designated as the Proposed Site.

c. **Developer Due Diligence.** Developer and the Developer Entities, at Developer's sole cost and expense, shall perform Inspections with respect to the Proposed Site, all in accordance with Section 5 of the Agreement.

d. **Title Report.** Within the first forty-five (45) days of Negotiating Period No. 1, City shall cause First American Title Company, or another title company reasonably acceptable to the Parties, to provide Developer with a current preliminary title report covering the Proposed Site, together with legible copies of all documents and instruments referred to in said title report, to the extent available from the title company. During Negotiating Period No. 1, Developer shall review the preliminary title report and documents.

e. **Developer Submission of Proposed Development Concept.** Prior to August 31, 2017, Developer shall submit to City the following (collectively, the "Development Concept"):

- (i) a proposed project description and concept drawings.
- (ii) a proposed site plan.
- (iii) a proposed initial construction schedule.
- (iv) an estimate of development costs for a Proposed Development.
- (v) a preliminary pro forma statement of project return for a Proposed Development.
- (vi) written approval of all due diligence items, including without limitation, the environmental condition of the Proposed Site, and physical condition of the Proposed Site.
- (vii) written approval of the preliminary title to the Proposed Site.

(viii) a detailed schedule for the parties' actions during Negotiating Period No. 2.

f. Negotiate and Attempt to Prepare Preliminary Draft Form of Ground Lease. City and Developer shall negotiate and attempt to prepare a preliminary draft form of Ground Lease.

g. Reimbursement Agreement. City and Developer shall negotiate and attempt to prepare a Reimbursement Agreement.

h. Debt and Equity Partner Approval. Developer shall obtain the written approval of the Proposed Development from Developer's debt and equity partners, and provide a description of the process for Developer to obtain final approval for debt and equity financing of the costs of the Proposed Development, including all contingencies and capital contribution requirements for Developer.

i. Extension of Negotiating Term. If the City Council determines that all of Developer's obligations under this Exhibit B have been performed prior to the end of Negotiating Period No. 1, and the City Council authorizes an extension, pursuant to its sole and absolute discretion, the Negotiating Period shall be extended as set forth in Section 2 of the Agreement. If the City Council does not determine that all of the Developer's obligations under this Exhibit B have been performed prior to the end of Negotiating Period No. 1, and/or the City Council does not authorize such an extension, the Agreement shall automatically terminate at the expiration of Negotiating Period No. 1.

EXHIBIT "C"

NEGOTIATING PERIOD NO. 2 DUTIES

a. **Negotiation and Attempt to Prepare Draft Ground Lease.** The Parties shall diligently negotiate and attempt to prepare a draft Ground Lease, based upon the terms and conditions contained in the Development Concept and in the preliminary draft form of Ground Lease.

b. **CEQA Requirements.** City shall prepare all documentation required pursuant to the California Environmental Quality Act of 1970, Public Resources Code Section 21000, *et seq.* Developer shall be responsible for the cost of all CEQA documentation.

c. **Application for Land Use Entitlements.** Developer shall make applications for all land use entitlements and approvals required for a Proposed Development.

d. **Financing Commitment.** Developer shall provide to City for City review and approval a preliminary commitment from qualified lenders and/or equity sources for construction and permanent financing for a Proposed Development.

f. **Appraisal.** City shall obtain an appraisal of the fair market value of the Proposed Site, and the fair rental value of the Proposed Site, with the conditions and requirements contemplated to be included in a proposed Ground Lease, from a reputable state-certified appraiser. The Developer shall be responsible for the cost of any such appraisal.

EXHIBIT "D"

ENA SCHEDULE

Activity	Responsible Party	Date
Deliver 1 fully executed copy of Agreement to Developer	City	Within 10 days after City Council approval of this Agreement
<u>Negotiating Period No. 1</u>		
Identification of Portion of Cultural Terrace to be evaluated as the Proposed Site	City	Within first 10 days of Negotiating Period No. 1
Deliver Property Documents to Developer	City	Within first 30 days of Negotiating Period No. 1
Deliver Title Report to Developer	City, Title Company	Within first 45 days of Negotiating Period No. 1
Deliver Development Concept Submission to City	Developer	On or before August 31, 2017
City acknowledgement of submission of complete Development Concept	City	Prior to end of Negotiating Period No. 1
Developer and City negotiate and attempt to prepare Reimbursement Agreement	Developer and City	Prior to end of Negotiating Period No. 1
Developer and City negotiate and attempt to prepare preliminary draft form of Ground Lease.	Developer and City	Prior to end of Negotiating Period No. 1

<u>Negotiating Period No. 2</u>		
Continue negotiation and preparation of draft Ground Lease	City and Developer	Immediately upon commencement of Negotiating Period No. 2
Developer submits application for land use entitlements	Developer	Within 90 days prior to end of Negotiating Period No. 2
Developer submits evidence of financing commitments for a Proposed Development	Developer	Within 60 days prior to end of Negotiating Period No. 2
City obtains appraisal of fair market value and fair rental value of Proposed Site	City	Within 45 days prior to the end of Negotiating Period No. 2
City Council consideration of Ground Lease and environmental review under CEQA	City	Prior to end of Negotiating Period No. 2

3.5



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: AMENDMENT TO FARMING LEASE BETWEEN CITY OF IRVINE
AND EL TORO FARMS, LLC



Director of Community Development



City Manager

RECOMMENDED ACTION

1. Approve a Twelfth Amendment to Farming Lease, authorizing a two-year lease extension with El Toro Farms, LLC.
2. Authorize the City Manager or his designee to execute the Twelfth Amendment to Farming Lease.

EXECUTIVE SUMMARY

El Toro Farms, LLC leases City-owned property near the intersection of Barranca Parkway and Alton Parkway (Attachment 1). The subject property was formerly part of the El Toro Marine Base and is located in a portion of the future Wildlife Corridor. El Toro Farms, LLC has leased the property from the City since 2005 for the purpose of growing strawberry or vegetable crops (Attachment 2). The Farming Lease expires on June 30 (Attachment 3).

The subject property is also encumbered by the Second Agreement as Adjacent Landowner (ALA II) between the City and the adjacent landowner Heritage Fields that requires the City to vacate and convey this property to Heritage Fields upon commencement of construction of the Wildlife Corridor. Because this is anticipated to occur within the next two years, staff is recommending an extension to the Farming Lease with El Toro Farms, LLC with an option for early termination when development of the Wildlife Corridor begins (Attachment 4).

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

The Orange County Great Park Board will be hearing this item and making a recommendation at its June 27, 2017 meeting; therefore, the recommendation was not available at the time this staff report was published. Staff will provide a verbal update.

ANALYSIS

History

El Toro Farms, LLC has leased the subject property since the land was owned by the Navy and was part of the El Toro Marine Base prior to its closure. After the decommission of the base and the conveyance of the property to the City, El Toro Farms, LLC approached the City expressing interest in continuing to farm the land. In July 2005, the City and El Toro Farms, LLC entered into a Farming Lease. This Farming Lease has been amended eleven times over the past twelve years, extending the term and reducing the leased area from its original 65.8-acres to the current 26.33-acres, which are entirely located in a portion of what will become the Wildlife Corridor. The Farming Lease expires on June 30.

Conveyance of Land for Development of Wildlife Corridor

In accordance with the ALA II, the City is required to vacate and convey this property to Heritage Fields for construction of the Wildlife Corridor. This is anticipated to occur within the next two years. Upon receiving notice from Heritage Fields of commencement of development of the Wildlife Corridor, the City will give El Toro Farms, LLC a minimum of 30 days to vacate the property, then terminate the Farming Lease and transfer the property to Heritage Fields.

Proposed Lease Extension

The proposed lease amendment extends the Farming Lease for two years with an early termination option when development of the Wildlife Corridor begins. Upon termination of the Farming Lease, El Toro Farms, LLC is required to return the property in a cleared and graded condition free of debris. The lease rate is \$2,660 per month, increasing annually by the Consumer Price Index, which matches the current lease rate and is equivalent to other farming rates found in the area.

El Toro Farms, LLC has several farming leases for nearby properties owned by Heritage Fields and the City of Irvine. Due to the proximity of these various properties, there are economies of scale for El Toro Farms, LLC to continue farming this area while it remains undeveloped. Benefits to the City for extending this lease include continuing the receipt of monthly rent revenue and the avoidance of property maintenance and liability costs. Continued farming of the property will not impact future development of the Wildlife Corridor, as El Toro Farms, LLC is required to vacate the property and remove any improvements, at its cost, upon termination of the Farming Lease.

ALTERNATIVES CONSIDERED

The City Council could approve a one-year lease extension with El Toro Farms, LLC. Staff recommends a two-year extension because construction of the Wildlife Corridor is

anticipated to begin within this timeframe. Should the City Council wish to extend the Farming Lease for only one year, El Toro Farms, LLC has indicated that they would agree to a one-year extension.

FINANCIAL IMPACT

Revenue of \$2,660 per month would be generated from extending the Farming Lease, yielding \$31,920 in annual revenue to the Great Park Fund. This amount is included in the Great Park Fund Fiscal Year 2017-2018 Budget.

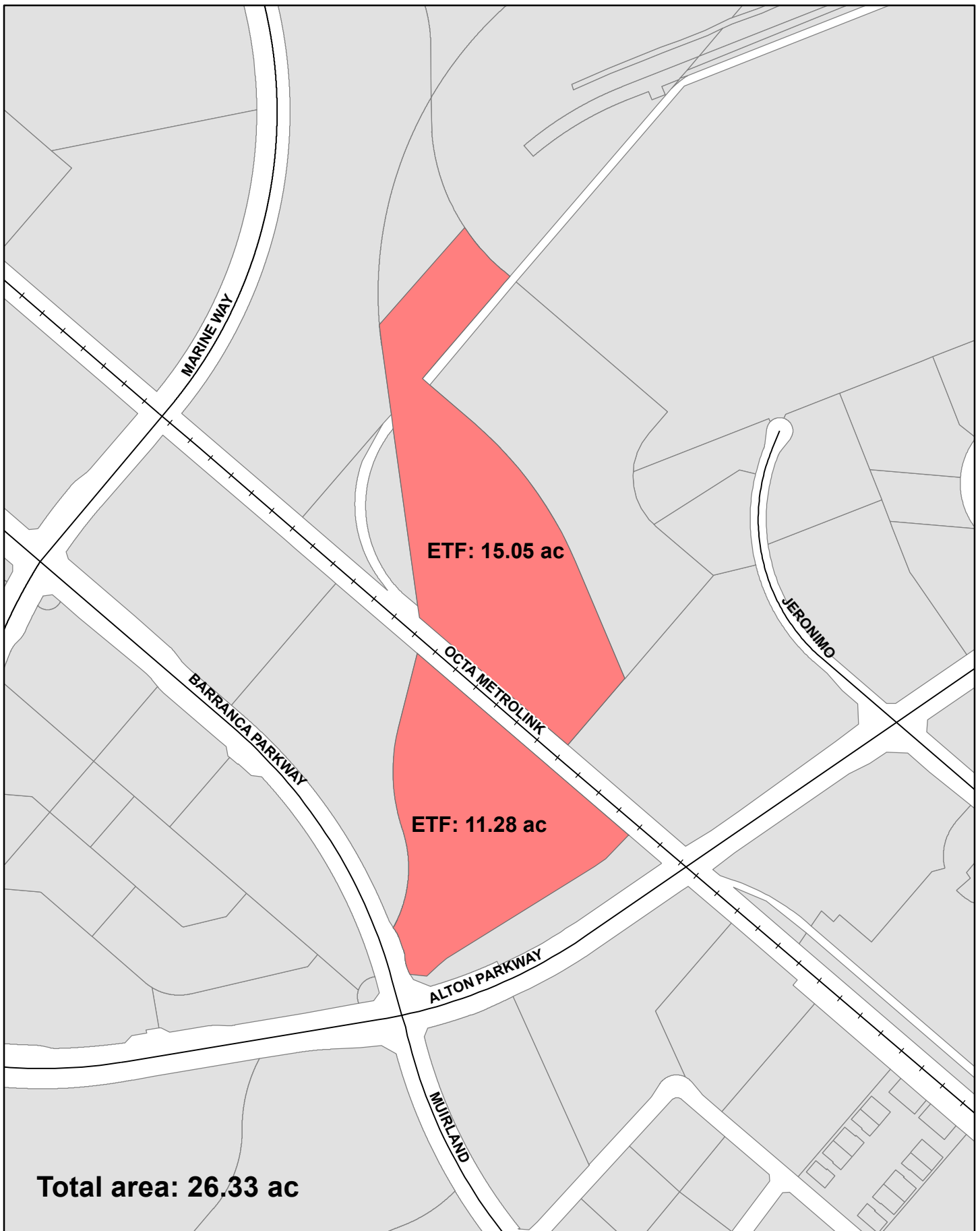
REPORT PREPARED BY Steve Holtz, Housing and Real Estate Administrator

ATTACHMENTS

- Attachment 1: Site Map
- Attachment 2: Farming Lease Between the City of Irvine and El Toro Farms, LLC
- Attachment 3: Eleventh Amendment to Farming Lease
- Attachment 4: Proposed Twelfth Amendment to Farming Lease

ec: Debra Platt, Great Park Property Administrator

SITE MAP



ORIGINAL

FARMING LEASE

THIS FARMING LEASE is made by and between the CITY OF IRVINE, a California charter city ("Lessor"), and EL TORO FARMS, LLC, a California limited liability company ("Lessee"), upon the following terms and conditions:

BASIC TERMS

1. Lessor: CITY OF IRVINE, a California charter city
2. Lessee: EL TORO FARMS, LLC, a California limited liability company
3. Premises: Those certain premises containing approximately 65.8 acres as shown on the site plan attached hereto as Exhibit "A" (i.e., the areas located within the dashed lines but excluding those portions identified as vegetables), subject to the provisions of Sections 1(d) and 1(e) below.
4. Permitted Use: Cultivating, irrigation, raising and harvesting of strawberry and vegetable fields/crops, and for no other use or purpose whatsoever.
5. Tradename: El Toro Farms
6. Commencement Date: July 13, 2005, the date upon which Lessor acquired fee title to the Premises (or, with respect to those portions of the Project that contain environmental conditions, a Lease (or sublease) in Furtherance of Conveyance from the Navy (or Heritage Fields, LLC, a Delaware limited liability company) leasing (or subleasing) such portions to Lessor).
7. Lease Term: From the above-written Commencement Date through June 30, 2006.
8. Basic Rent: \$ 17,546.67 per month
9. Security Deposit: \$ 17,546.67
10. Broker(s): None
11. Addresses for Payments and Notices:

City of Irvine

ATTACHMENT 2

5064

City Hall
One Civic Center Plaza
Irvine, CA 92606-9575
Attn: Acting City Manager
Phone: (949) 724-6246
Facsimile: (949) 724-6045
email address: sjoyce@ci.irvine.ca.us

The Basic Terms are an integral part of this Lease and each reference in this Lease to any of the Basic Terms shall be construed to incorporate all of the terms provided under such Basic Terms. In the event of any conflict between any Basic Terms and the balance of this Lease, the latter shall control. References to specific Lease Paragraphs are for convenience only and designate only some of the Paragraphs where references to the particular Basic Terms appear. The listing in the Basic Terms of monetary charges payable by Lessee is not an exhaustive list of all amounts payable by Lessee pursuant to this Lease.

STANDARD TERMS

El Toro Farms

R E C I T A L S :

A. The former United States Marine Corp Air Station El Toro (the "Base Property") was recently annexed to the City's boundaries, and is designated as Planning Areas 30 and 51. On May 27, 2003, the Irvine City Council approved the "Great Park" project for the Base Property, including general plan amendment 47782-GA and zone change 47785-ZC, for the non-aviation reuse of the Base Property.

B. The Great Park project plan (the "**Project**") provides that the Base Property may be developed at enhanced developmental intensities if the developers of the area enter into a development agreement with the City, and perform that development agreement by participating in a community facilities district and paying fees and dedicating lands in excess of the City's normal fee and dedication requirements, in order to facilitate the development of public park, public sports park, and public exposition areas within the Base Property.

C. On May 24, 2005, the Irvine City Council adopted Ordinance No. 05-10 [City adopted DA in 2003, amended in 2004, and again amended in 2005] approving a form of development agreement to allow enhanced developmental intensities within the Base Property (the "Great Park Development Agreement"). The Great Park Development Agreement requires, among other things, that the developer(s) signing it dedicate the following portions of the Base Property to the City for the development of the "Orange County Great Park": the "Corridor Sites," comprising approximately 408 acres and depicted as planning analysis zones ("PAZ") 20, 21, 22a and 22b on the overlay plan map attached hereto and incorporated herein as **Exhibit "A"** (the "Conceptual Overlay Plan"); the "Exposition Center South Site," comprising 156 acres and depicted as PAZ 13 on the Conceptual Overlay Plan; the "Park Site," comprising approximately 367 acres and depicted as PAZs 14, 15 and 16 on the Conceptual Overlay Plan; and the "Sports Park Site," consisting of approximately 165 acres and depicted as PAZ 12 on the Conceptual Overlay Plan. The "Corridor Sites," the "Exposition Center South Site," the "Park Site," and the "Sports Park Site" are hereinafter collectively referred to as the "Property," and the Property is more particularly described in the legal description attached hereto as **Exhibit "B"**.

D. The United States Department of the Navy ("DON"), as the owner of the Base Property, intends to sell the Base Property in four parcels to Heritage Fields, LLC, a Delaware limited liability company (the "Developer").

E. The Developer intends to sign the Great Park Development Agreement and convey to the City in fee those portions of the Property that the Developer intends to acquire in fee, which include the Premises (as defined below).

F. Tenant acknowledges and agrees that the City may be assigning its interest in this Lease to the Orange County Great Park Corporation, a California nonprofit public benefit corporation ("**OCGPC**"), in the near future.

G. Tenant currently has possession of that certain property described and set forth in Exhibit "C" (the "Premises") pursuant to a written lease agreement with the Navy (the "Existing Lease"). The Navy has sent Tenant a written notice terminating the Existing Lease effective as of June 30, 2005. Tenant desires to remain in possession of the Premises. City is willing to lease the Premises to Tenant, upon the terms and conditions contained herein.

L E A S E :

1. LEASE OF LEASED PREMISES.

(a) Lease to Lessee. Lessor hereby leases to Lessee the Premises as described in the Basic Terms and shown on the drawing attached as Exhibit "C" which is situated in the County of Orange, State of California, for the term and purposes, at the rental, and upon and subject to the covenants, conditions and reservations set forth in this Lease. The Premises are leased subject to all liens, encumbrances, covenants, conditions, restrictions, easements, reservations, rights, rights-of-way and other matters of record or apparent.

(b) Appurtenant Facilities. The Premises include all existing buildings, structures, and other improvements situated on the land described in Exhibit "C" and belonging to Lessor. Such buildings, structures and other improvements shall not be used for residential purposes unless otherwise agreed between Lessor and Lessee in writing.

(c) License to Use Roads. During the Term of this Lease, Lessor grants to Lessee and its employees, contractors and agents, a nonexclusive license and right to access, ingress and egress to and from the Premises over the roads owned by Lessor located on or directly adjacent to the Premises (the "Access Roads"). While exercising such right, Lessee shall be subject to and shall comply with the covenants, duties, and obligations of Lessee as set forth in this Lease including, without limitation, the indemnity obligations set forth in this Lease. Lessee accepts such license at its own risk and acknowledges and agrees that (i) Lessor does not warrant the condition, quality, safety, fitness or adequacy of the Access Roads (including intersections with public roads) or that the same are now or will be in good repair or otherwise fit for use, (ii) Lessor has no obligation to maintain, operate or inspect the condition, quality, safety, fitness or adequacy of any of the Access Roads which are covered by this Lease (and Lessee shall be responsible to maintain such roadways as may be necessary in connection with Lessee's use thereof), and (iii) Lessor shall have no liability to Lessee for any defects in, or defective condition of, such Access Roads whether or not such roads are maintained by Lessor (and Lessee hereby waives all claims relating thereto). The term of such license shall commence on the Commencement Date under the Lease and shall continue until the earlier to occur of the expiration or earlier termination of this Lease, or Lessee's abandonment of the Premises thereunder. Lessor reserves the right to adopt, modify and enforce reasonable rules governing the use of the Access Roads from time to time including any key-card, sticker or other identification or entrance system and hours of operation. Lessor may refuse to permit any person who violates such rules to use the Access Roads. Parking stickers, key cards or any other devices or forms of identification

or entry supplied by the operator shall remain the property of the operator. Such device must be displayed as requested and may not be mutilated in any manner. The serial number of any access identification device may not be obliterated. Lessor reserves the right to modify, alter or relocate the location of the Access Roads from time to time.

(d) Withdrawal of Land From Premises. Lessor may at any time and from time to time delete any field or parcel from the Premises as described in Section 11(g) below.

(e) LIFOC Areas. Lessee acknowledges and understands that portions of the Project will be retained by the Navy temporarily, identified in the Property Description in the GSA and Navy's bid documents as "IRP Sites" and "Compliance Sites," (such portion of the Project to be referred to herein as the "LIFOC Parcels") until all necessary environmental remediation action has been taken and the Navy has executed a Finding of Suitability to Transfer ("FOST"). Lessee acknowledges that a copy of the FOST has been provided to Lessee prior to the date of this Lease. Lessee further acknowledges that it has reviewed and is aware of the notifications and restrictions contained in the FOST and shall conduct its activities on and about the Project in accordance therewith. The LIFOC Parcels that affect the Premises are identified more particularly on Exhibit "C" attached hereto (if applicable). Until the issuance of a FOST, Lessor will not own fee title to the LIFOC Parcels, but only a Lease In Furtherance of Conveyance ("LIFOC"). Subject to the LIFOC, Lessor has the right to sublease the LIFOC Parcels and/or to grant others the right to otherwise use the LIFOC Parcels without the Navy's prior written consent; provided, however, that the Navy's prior written consent shall be required in connection with any sublease or other use of the LIFOC Parcels that involves the use of hazardous or toxic materials, including those of an explosive, flammable, or pyrotechnic nature. Lessee acknowledges that it has received and reviewed a copy of the LIFOC(s) affecting the Property, a copy of which is attached hereto as Exhibit "D", and that Lessee's use of the LIFOC Parcels that affect the Premises shall be subject to, and Lessee shall at all times comply with, the LIFOC. If, following the Commencement Date, additional LIFOC Parcels are identified that affect the Premises, Lessee shall, immediately upon notice from Lessor or the Navy, cease and desist from its use of such LIFOC Parcels until and unless the Navy consents, in writing, to Lessee's use thereof. If at anytime Lessor is notified by the Navy that Lessee's use of the LIFOC Parcels has not been authorized by the Navy or requires authorization from the Navy, or if Lessor determines (in its sole and absolute discretion) that Lessee's use of the LIFOC Parcels could result in any default by Lessor under any agreement with the Navy (or any federal, state or local governmental entity) or could create any adverse consequence for Lessor or its intended development of the Premises, then Lessee shall, immediately upon notice from Lessor, cease and desist from its use of the LIFOC Parcels and shall surrender possession of the LIFOC Parcels to Lessor in accordance with the terms of this Lease.

2. TERM.

(a) Term. The term of this Lease (the "Term") shall begin on the Commencement Date set forth in the Basic Terms and end on the date set forth in the Basic Terms unless sooner terminated as hereinafter provided.

3. RENTAL.

(a) Basic Rent. Lessor shall be entitled to and shall receive as basic rental for the use and occupancy of the Premises by Lessee, and Lessee agrees to pay to Lessor as and when due, without offset or deduction of any kind and without prior demand, the "Basic Rent" set forth in the Basic Terms.

(b) Additional Rent. Lessee shall pay to Lessor as and when due, without offset or deduction of any kind, all other amounts required to be paid to Lessor under this Lease, all of which shall be deemed additional rent.

(c) Late Payment. Any installment of rent accruing under the provisions of this Lease or any other payment due to Lessor under this Lease shall be paid on or before the due date. In the event that Lessee fails to pay to Lessor within ten (10) days of the date when due any amount owing to Lessor pursuant to the terms of this Lease, said late payment shall accrue interest as at the rate provided in Section 24(e) from the date due until the same shall have been fully paid. Lessee shall also pay to Lessor a \$250 processing fee for each late payment.

(d) CARE AND USE OF THE PREMISES. At all times during the Term of this Lease, Lessee shall at its sole cost and expense perform all of the following obligations:

(e) Obligation to Farm. Lessee shall prepare and plant the Premises with crops and cultivate, irrigate, raise and harvest each crop and otherwise use the Premises for growing crops, and for no other use or purpose whatsoever. Lessee shall not remove or withdraw any acreage then a part of the Premises from production of crops and Lessee shall not vary the types or proportions of crops of the respective fields or acreages without the prior written consent of Lessor. Lessee acknowledges that Lessor may have a variety of reasons for desiring a certain crop in certain areas, including but not limited to local political or community concerns, and that Lessor shall have the right to withhold its consent to any such change in its sole and absolute discretion;

(f) Only Authorized Crops. Lessee shall not use the fields or the parcels of the Premises for the growing of any crops other than the crops approved by Lessor;

(g) Good Management Practices. Lessee shall procure and supply all labor, tools, machinery, utilities and supplies necessary for the said work, and cultivate, irrigate, fertilize, grow, harvest, control pests, and do and perform all other acts and things which may be required to fully carry out the operations herein described, all of which shall be done and performed by Lessee at its sole cost and expense and without cost to or liability of Lessor, except as hereinafter provided, at the proper season and in a good husbandlike manner in accordance with best farming practices consistent with the area and the best management practices outlined by the Soil Conservation Service and as enforced by the Environmental Management Agency of the County of Orange;

(h) Maintain Drainage Facilities and Structures. Subject to the following provisions of this paragraph and ARTICLE 6 below, (i) Lessee shall keep all drains,

drainage outlets and other drainage structures, if any, upon the Premises in good condition and repair, and (ii) Lessee shall keep in good repair and open for the unrestricted flow of water and reasonably free of weeds and other growth all ditches and other drainage facilities in, upon and adjacent to the Premises. Notwithstanding the foregoing, Lessee acknowledges that certain drainage courses in, upon or adjacent to the Premises may not, for environmental reasons, be disturbed. Therefore, Lessee agrees that it shall not disturb (and shall protect from impact by Lessee's operations) those drainage courses, if any, that have been previously identified by the Navy or Government and such drainage courses as may from time to time be identified by Lessor;

(i) Minimize Soil Erosion. Lessee shall manage its irrigation water used for the Premises and otherwise control surface water in order to minimize soil erosion and silt run-off from the Premises. Lessor shall, at its sole discretion, determine whether Lessee is exercising reasonable care in the control of soil erosion and silt run-off. Lessee shall promptly implement, at Lessee's cost and expense, Lessor's requirements for such control which requirements shall include, without limitation the soil erosion practices set forth in Exhibit "E" attached to this Lease;

(j) Keep Free of Weeds. Subject to the provisions of Section 4(d) above and ARTICLE 6 below, Lessee shall keep the Premises reasonably free and clean of noxious weeds and other volunteer growth;

(k) No Improvements Without Lessor's Consent. Lessee shall not make or suffer to be made any changes, alterations, additions or improvements in, upon or about the Premises without the written consent of Lessor first obtained and Lessor shall not be called upon to make any additions, alterations, improvements or repairs in, on or about the Premises. "Alterations" shall mean any alterations, additions or improvements made in, on, about, under or contiguous to the Premises after the commencement of this Lease, including, but not limited to, installation of aboveground and below ground tanks or other underground containers used for other than water only. As a condition to any consent, Lessor may request that Lessee prepare a risk assessment that addresses any and all concerns of Lessor. The adequacy of the risk assessment shall be determined in Lessor's sole discretion;

(l) Protect Water Transmission and Other Utilities. Lessee shall protect in place and maintain in good condition, all in connection with Lessee's use of the Premises, any water transmission or other utility facilities located upon the Premises;

(m) Maintain Roadways. Lessee shall maintain any nonpublic access roads to the Premises used in connection with Lessee's use of the Premises (including the Access Road) in good condition in accordance with standards approved by Lessor;

(n) Repair. Lessee shall maintain and repair all improvements on the Premises, including all fences, and shall keep all such improvements in a good and safe condition, reasonable wear and tear excepted;

(o) Signs. Lessee shall not place or maintain any signs on the Premises without Lessor's prior written approval, which approval may be conditioned (as to number, location, size, color and design) or withheld in Lessor's sole and absolute discretion; and

(p) Intentionally Omitted.

(q) Special Conditions. Lessee shall comply with any special conditions that are set forth in Exhibit "E" attached hereto and by this reference incorporated herein.

4. INTENTIONALLY OMITTED.

5. LESSEE'S OPERATIONS.

(a) No Unauthorized Use. During the Term of this Lease, the Premises and all improvements constructed and maintained thereon shall be used by Lessee for the farming use specified in the Basic Terms and for no other use or purpose. No commercial wholesale or retail sales, including without limitation a roadside stand, shall be made upon the Premises without the prior written approval of Lessor which may be withheld by Lessor in its sole and absolute discretion. No overnight human occupancy or residential use is permitted on the Premises.

(b) Compliance With Laws.

(i) Compliance with General Laws. Lessee shall comply with all laws, statutes, orders, zoning restrictions, permits, ordinances, rules, regulations or requirements of any duly constituted public authority having jurisdiction over the Premises now in force or which may hereafter be in force (collectively, "Public Laws"), and all conditions, easements or restrictions now or hereafter encumbering the Premises. Lessee shall not commit any public or private nuisance or any other act or thing which might or would disturb the quiet enjoyment of any other lessee or Lessor or any occupant of nearby property or which might or would injure the reputation of the Premises.

(ii) Comply With Air Quality Requirements. Lessee shall at its sole cost and expense comply with all requirements of the South Coast Air Quality Management District ("SCAQMD") Rule 403 (governing fugitive dust emissions), including, if applicable, the requirements of any approved fugitive dust emission notification, control plan, acknowledgment, response, permit, agreement or other control measure filed, issued, obtained, prepared or agreed to by Lessor or Lessee for or otherwise applicable to the Premises ("Dust Control Measures"). If any further Dust Control Measure is required by SCAQMD or other applicable governmental agency for the Premises, Lessee shall at its sole cost prepare and implement such Dust Control Measure in accordance with Rule 403 and other applicable Public Laws, and in such event Lessee shall provide Lessor with a copy of such Dust Control Measure within ten (10) days of submission to, or issuance by, SCAQMD or other governmental agency.

(iii) Comply With Storm Water Regulations. Lessee shall at its sole cost and expense comply with and give all notices required by all Public Laws applicable to the control of soil erosion, water and/or waste discharge and silt run-off on or from the Premises, including the federal Clean Water Act, 33 U.S.C. §§1251 et seq., regulations and orders of the State Water Resources Control Board, regulations and orders of the Regional Water Quality Control Board, any Notice of Intent ("NOI") or Storm Water Pollution Prevention Plan ("SWPPP") applicable to the Premises, the Drainage Area Management Plan prepared by the County of Orange applicable to the Premises, any Total Maximum Daily Loads or related restrictions issued by federal, state or local authorities for the watershed in which the Premises are located, and any Water Quality Management Plan ("WQMP") applicable to the Premises, whether imposed on the owners or operators of land. The foregoing requirements shall include, if necessary, preparing and filing any NOI, SWPPP or WQMP required for Lessee's use of the Premises, and shall include, if applicable, compliance with all waste discharge requirements for construction dewatering as currently specified by the Regional Water Quality Control Board, Santa Ana Region.

(iv) Occupational Safety and Health Act. Lessee shall at its sole cost and expense comply with the requirements of the Occupational Safety and Health Act of 1970, 29 U.S.C., Section 651 et seq. and any analogous legislation in California, as well as Proposition 65, Cal. Health & Safety Code §§25249.6 et seq. (collectively, the "Act"), to the extent that the Act applies to the Premises and any activities thereon and without limiting the generality of the foregoing, Lessee covenants to maintain all working areas, all machinery, structures, electrical facilities and the like upon the Premises in a condition that fully complies with the requirements of the Act including such requirements as would be applicable with respect to agents, employees or contractors of Lessor who may from time to time be present upon the Premises.

(c) Use of Agricultural Chemicals. Lessee shall, at its sole cost and expense, comply with all Public Laws relating to Lessee's storage, application, use, removal, transportation and disposal of pesticide or weed control chemicals, agricultural fertilizers and other agricultural chemicals (collectively, "Agricultural Chemicals"), including but not limited to the regulations of the Department of Food and Agriculture of the State of California and the Agricultural Commission of the County of Orange, shall use and/or handle any Agricultural Chemicals in a safe, reasonable and lawful manner. Notwithstanding the foregoing, Lessee shall not permit or suffer placement, storage, disposal, discharge or use any "Prohibited Chemicals" (as defined below), and any chemicals included within the definition of "Prohibited Chemicals" shall not be considered "Agricultural Chemicals." In addition, and not by way of limitation of the foregoing, if Lessee's use of Agricultural Chemicals restricts or inhibits the use of the Premises or surrounding property for agricultural purposes after the expiration or termination of this Lease, whether because of restrictions under applicable law or because crops cannot reasonably and profitably be grown as a result thereof, then Lessee shall indemnify and hold Lessor harmless from all losses, damages, costs and expenses, including loss of revenues, suffered because of such restriction or inhibition. Lessee

acknowledges that the Premises may be situated proximate to urban and/or suburban areas and Lessee agrees to use extra precautions with regard to its use of Agricultural Chemicals to prevent such chemicals from affecting such areas. Lessee shall keep and maintain, during the Term of this Lease, accurate and complete records of the amount of, the time when, the location of, use of, the conditions under which use of and the type of Agricultural Chemicals are used by Lessee on, under, in or about the Premises, which records shall evidence Lessee's compliance with all such Public Laws. Lessor shall have the right to inspect such records and the Premises at any time and from time to time during the Term of this Lease and to audit Lessee's procedures to satisfy itself that Lessee is in compliance with its obligations with respect to such matters. Lessee shall provide Lessor, within two (2) business days after Lessee's receipt of same, with a copy of any notice received from any governmental agency that Lessee is not in compliance with any such law and with the description of the corrective action which Lessee has taken or proposes be taken to bring the noticed matter into compliance. For purposes of this Lease, the following chemicals shall be considered "Prohibited Chemicals:" (i) Diazanone; (ii) Chlorpyrifos; and (iii) so long as there exists at the time of Lessor's notice a reasonable alternative Agricultural Chemical for accomplishing the same objective, any other chemical from time to time identified by Lessor as posing a threat to persons or the environment.

(d) No Toxic Materials. Lessee shall not permit or suffer placement, storage, disposal or discharge of any Toxic Materials (as hereinafter defined) on, under or at the Premises and Lessee shall not erect, emplace or maintain any tank, vessel or container designed or suitable for holding Toxic Materials on or about the Premises without the prior written consent of Lessor which consent may be withheld or denied or made subject to conditions in the sole discretion of Lessor. Lessor shall not be liable to any third party as a result of giving or withholding its consent. Lessee shall, at its sole cost and expense and whether or not Lessor's consent has been obtained, also comply with all Public Laws relating to Lessee's storage, discharge, application, use and disposal of Toxic Materials on, under, in or about the Premises. As used in this Lease, the Term "Toxic Materials" means any "Prohibited Chemicals" (described above) and any substance, material, or waste which is or becomes regulated by any local governmental authority, the State of California, or the United States Government (other than the Agricultural Chemicals referenced above), including, but not limited to, any material or substance which is (i) defined as a "hazardous waste", "extremely hazardous waste" or "restricted hazardous waste" under Sections 25115, 25117 or 25122.7, or listed pursuant to Section 25140 of the California Health and Safety Code, Division 20, Chapter 6.5 (Hazardous Waste Control Law), (ii) defined as a "hazardous substance" under Section 25316 of the California Health and Safety Code, Division 20, Chapter 6.8 (Carpenter-Presley-Tanner Hazardous Substances Account Act), (iii) defined as a "hazardous material" under Section 25501 of the California Health and Safety Code, Division 20, Chapter 6.95 (Hazardous Materials Release Response Plans and Inventory), (iv) defined as a "hazardous substance" under Section 25281 of the California Health and Safety Code, Division 20, Chapter 6.7 (Underground Storage of Hazardous Substances), (v) petroleum, (vi) asbestos, (vii) polychlorinated biphenyls, (viii) formaldehyde, (ix) listed under Article 9 or defined as "hazardous" or "extremely hazardous" pursuant to Article 11 of Title 22 of the California Administrative Code, Division 4, Chapter 20, (x) designated as

a "hazardous substance" pursuant to Section 311 of the Clean Water Act, 33 U.S.C. Section 1251 et seq. (33 U.S.C. Section 1321) or listed pursuant to Section 307 of the Clean Water Act (33 U.S.C. Section 1317), (xi) defined as a "hazardous waste" pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. (42 U.S.C. Section 6903) ("CERCLA") or (xii) defined as "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq. (42 U.S.C. Section 9601). Upon the discovery by Lessee of the presence of any Toxic Materials on, under, in or about the Premises, the Lessee shall promptly notify Lessor of such discovery in accordance with Section 25359.7 of the California Health and Safety Code and, within 30 days after such discovery, submit to Lessor a written plan setting forth a description of the action which Lessee proposes to take with respect thereto, including, without limitation, any proposed corrective work, the estimated time of completion, the person or persons to perform the work if other than Lessee and such other information as is relevant to the action to be taken. If Lessee does or proposes to discharge, apply, use, remove or dispose of any Toxic Materials on, under, in or about the Premises, Lessee shall notify Lessor in writing at least ten (10) days prior to such activity on, under, in or about the Premises, which notice shall set forth the action which Lessee proposes to take to comply with the storage, discharge, application, use, removal or disposal of the Toxic Materials in accordance with applicable Public Laws. Lessee's failure to do so shall constitute a default under this Lease. Lessor may, at any time or from time to time, require that Lessee conduct, at Lessee's sole cost and expense, reasonable monitoring activities with respect to Toxic Materials by Lessee on the Premises satisfactory to Lessor in its sole discretion. Lessee shall not clean up, remove, dispose of or discharge any Toxic Materials from the Premises including, without limitation, disposal through public or private sewers or drainage systems, without (i) obtaining Lessor's prior written consent to such proposed clean up, removal, disposal or discharge, (ii) obtaining all required governmental approvals for such clean up, removal, disposal or discharge, (iii) obtaining all governmental and private approvals for neutralizing and/or storage of such Toxic Materials after clean up, removal, disposal or discharge.

(e) Lessee to Give Lessor Notice of Environmental Issues. Lessee shall notify Lessor of and provide to Lessor a copy of the following environmental entitlements or inquiries related to the Premises: third party claims, notices of violation, notices to comply, citations, inquiries, reports filed pursuant to self-reporting requirements, reports filed pursuant to any governmental law or regulation relating to underground tanks or Toxic Materials. In the event of release of any Toxic Materials to the environment, Lessee will furnish to Lessor a copy of any and all reports, and correspondence with governmental agencies relating to the Premises. Upon request of Lessor, Lessee will furnish to Lessor a copy of any and all environmental entitlements or inquiries relating to the Premises, including, but not limited to all permit applications, permits and reports, including those which may be characterized as confidential. Lessee shall not take any remedial action related to Toxic Materials or underground tanks located in or about the Premises, and shall not enter into any settlement, consent decree or compromise in response to any claim related to toxic materials or underground tanks which shall be in any way connected with the Premises, without first notifying Lessor of Lessee's proposed action and affording Lessor a reasonable opportunity to appear, intervene, or otherwise

participate in any discussion or proceeding for the purpose of protecting Lessor's interests in the Premises.

(f) Lessee's Indemnity for Toxic Materials. Lessee hereby waives all claims and demands relating to, and agrees to defend, indemnify and hold Lessor and the Orange County Great Park Corporation, and their respective council members, officials, officers, employees, directors, shareholders, agents, representatives, attorneys and professional consultants, and its and their respective successors and assigns (collectively, the "Indemnified Parties") harmless from and against any and all losses, liabilities, general, special, consequential and/or incidental damages, injuries, costs, expenses and claims of any and every kind whatsoever (including without limitation, court costs, attorneys' fees, damages to any person (including the Indemnified Parties), the Premises, or other property or loss of rents due under this Lease) which at any time or from time to time, may be paid, incurred or suffered by, or asserted against them for, with respect to, or as a direct or indirect result of (i) breach by Lessee of the covenants set forth in this ARTICLE 6, or (ii) to the extent caused or allowed by Lessee or by any agent, representative, employee, contractor, invitee or licensee of Lessee, (A) any accident, overspray, or occurrence causing injury to any person or property including that of Lessor, either directly or indirectly, due to the use of Agricultural Chemicals on the Leased Premises, or (B) the presence on or under, or the escape, seepage, leakage, spillage, discharge, emission, or release from, onto or into the Premises, the land, the atmosphere, or any water course, body of water, sewer, or ground water of any Toxic Material or Agricultural Chemicals (including any Toxic Material, Agricultural Chemicals or other environmental conditions identified, described or disclosed within Sections 6(h) and (i) below); provided, however, that no Indemnified Party shall be entitled to indemnification hereunder to the extent any such claim is ultimately established by a court of competent jurisdiction to have been caused solely by the gross negligence or willful misconduct of such Indemnified Party. Lessor retains the right to (x) refuse Lessee's proffered defense of any action or proceeding brought against Lessor or the Indemnified Parties regarding which Lessee is obligated to indemnify as provided above, and (y) to select and direct independent legal counsel, and Lessee shall nevertheless pay all of Lessor's attorneys' fees and costs of litigation incurred in connection therewith. The provisions and undertakings and indemnifications in this ARTICLE 6 shall survive termination of this Lease. Payment shall not be a condition precedent to recovery under any indemnification in this Lease, and a finding of liability or an obligation to indemnify shall not be a condition precedent to the duty to defend.

(g) Lessor's Right to Require Environmental Audit. At any time during or after the Term of this Lease, Lessor may require Lessee to conduct an audit of its records and of the soil of the Leased premises at lessee's cost and expense to determine any conditions to the soil caused by application of agricultural chemicals or other Toxic Materials to the Premises by Lessee. Lessor may require Lessee to remove, neutralize or clean up any residual agricultural chemicals or Toxic Materials discovered or identified by such audit.

(h) Pre-Existing Environmental Conditions; Certain Duties of Lessee. Lessee has previously received and reviewed that certain Executive Summary of an

Environmental Baseline Survey for Lease ("EBS") and an excerpt from a Finding of Suitability to Lease ("FOSL") that were attached as Exhibits to the Existing Lease. The EBS sets forth certain, existing environmental conditions of the Premises as represented by the baseline survey, which has been previously conducted by the United States of America, acting by and through the Navy (collectively, the "Government"). Lessee acknowledges that it has reviewed and is aware of the notifications and restrictions contained in the FOSL and shall conduct its activities on and about the Premises in accordance therewith. Lessee acknowledges that the Project is an installation identified as a National Priorities List ("NPL") Site under CERCLA. Lessee acknowledges that the Government has previously provided Lessee with a copy of the Federal Facility Agreement ("FFA") entered into by the United States Environmental Protection Agency ("EPA") Region, the State of California, and the Government. Lessee agrees that should any conflict arise between the terms of such agreement as it presently exists or may be amended ("FFA" or "Interagency Agreement (IAG)") and the provisions of this Lease, the terms of the FFA or IAG will take precedence. Lessee further agrees that Lessor assumes no liability to Lessee or its sublessees or licensees should implementation of the FFA interfere with Lessee's or any sublessee's and/or licensee's use of the Premises. Lessee shall have no claim on account of any such interference against Lessor or any of Lessor's officers, agents, employees, contractors or subcontractors.

(i) Lessee acknowledges that the Government, EPA and the State, and their officers, agents, employees, contractors and subcontractors, have the right to enter upon the Premises for the purposes enumerated in this Section and for such other purposes consistent with any provisions of the environmental cleanup program (including but not limited to the BRAC Cleanup Plan, FFA, or IAG) and the Installation Restoration Program ("IRP"). In addition, Lessee acknowledges that access by Government may be required:

- (1) to conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, test-pitting, testing soil borings and other activities related to the cleanup program;
- (2) to inspect field activities of Government and its contractors and subcontractors in implementing the cleanup program;
- (3) to conduct any test or survey required by EPA or applicable state equivalent relating to the implementation of the cleanup program;
- (4) to construct, operate, maintain or undertake any other response or remedial action as required or necessary under the cleanup program, including but not limited to monitoring wells, pumping wells and treatment facilities.

(ii) Lessee agrees to comply with the provisions of any health or safety plan in effect under the IRP or the FFA during the course of any of the above described response or remedial actions. Lessee and sublessee shall have no claim on account of such entries against the Lessor or any of Lessor's officers, agents,

employees, contractors or subcontractors. In addition, Lessee shall comply with all applicable Federal, state and local occupational safety and health regulations.

(iii) Lessee shall strictly comply with the hazardous waste permit requirements under the Resource Conservation and Recovery Act or its applicable state equivalent. Lessee must provide at its own expense such hazardous waste management facilities complying with all laws and regulations. Any violation of the requirements of this condition shall be deemed a material breach of this Lease.

(iv) Lessee shall not conduct or permit its sublessees to conduct any subsurface excavation, digging, drilling or other disturbance of the surface in or on the LIFOC Parcels.

(v) Lessee acknowledges that the existence on and within the Premises of known asbestos, asbestos-containing material (ACM), lead based paint (LBP), or polychlorinated biphenyls (PCBs) has been disclosed to Lessee and Lessee is fully aware of such existence.

(vi) Lessor shall not be responsible for any removal or containment of ACM, LBP or PCBs. Lessee shall not make any improvements or repairs that require the disturbance of or removal of asbestos.

(vii) Asbestos or ACM which during the period of this Lease becomes damaged or deteriorated through the passage of time, as the result of a natural disaster or as a consequence of Lessee's activities under this Lease, including but not limited to any emergency, will be abated by Lessee at its sole cost and expense. Lessee shall be responsible for monitoring the condition of existing asbestos and ACM on the Premises for deterioration or damage and accomplishing repairs or abatement.

(i) Potable Water; Groundwater. Lessee acknowledges that Lessor is not certain of the quality of the domestic water serving the Premises, including whether such water may be contaminated with certain Toxic Materials or Agricultural Chemicals and/or whether the use and consumption of such water by any party will be hazardous to such parties' health. As a result of the foregoing, Lessee agrees, at its sole cost and expense, to hire an outside consultant to perform testing of the domestic water serving the Premises on a quarterly basis for the purpose of determining the quality of such water and the extent of contamination, if any, of such domestic water. The character and amount of testing and all outside consultants performing such testing shall be subject to Lessor's prior written approval. Lessee shall promptly deliver the results of all such quarterly testing to Lessor for Lessor's review. If, at any time, the parties become aware of or discover that the domestic water serving the Premises is contaminated or may be harmful to any person using or consuming such water, Lessee shall take such actions and preventative measures that Lessor deems appropriate to prevent any person from accessing, drinking or otherwise using any contaminated water serving any portion of the Premises, including without limitation, the following: (i) Lessee shall disable any and all water lines, faucets, taps and similar items that may cause any party to come into contact

with such water unless Lessee first installs a water purification or other water control system approved by Lessor in its reasonable discretion, (ii) Lessee shall not use or access the groundwater, nor shall Lessee move, destroy or otherwise disturb or cause to be disturbed any existing groundwater monitoring well, soil vapor extraction ("SVE") well, or lysimeter and associated equipment; and (iii) Lessee shall take all additional actions and preventative measures that Lessor reasonably deems appropriate with respect to such contaminated water. Tenant hereby expressly waives, releases and relinquishes any and all claims, causes of action, rights and remedies Tenant may now or hereafter have against the Indemnified Parties, whether known or unknown, with respect to any past, present or future claimed or actual personal injuries, property damages or losses of any kind arising out of or in any way relating to the consumption or use of domestic water within the Premises (collectively, "**Water Claims**"), and Tenant shall defend, indemnify and hold harmless the Indemnified Parties with respect to any Water Claim raised by Tenant or any third party.

(j) Release of Indemnified Parties. In addition to anything contained in Section 6(f) above, Lessee hereby expressly waives, releases and relinquishes any and all claims, causes of action, rights and remedies Lessee may now or hereafter have against the Indemnified Parties, whether known or unknown, with respect to any past, present or future presence or existence of Toxic Materials or Agricultural Chemicals on, under or about the Premises (including, without limitation, in the groundwater underlying, and the domestic water serving, the Premises) or with respect to any past, present or future violations of any and all federal, state and local statutes, ordinances, rules, regulations, laws, guidance documents, judgments, governmental authorizations, or any other requirement of governmental authorities, as may presently exist or as may be amended or supplemented, or hereafter enacted or promulgated, relating to the presence, release, generation, use, handling, treatment, storage, release, transportation or disposal of Toxic Materials, or the protection of the environment or human, plant or animal health, including, without limitation, (i) any and all rights Lessee may now or hereafter have against any Indemnified Party or respecting the Premises under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C.A. §9613), as the same may be further amended or replaced by any similar law, rule or regulation; (ii) any and all rights Lessee may now or hereafter have against any Indemnified Party under any other Public Laws; and (iii) any and all claims, whether known or unknown, based on nuisance, trespass or any other common law or statutory provisions.

6. CONDITION OF THE PREMISES. Lessee hereby acknowledges that (a) Lessee has been in possession of the Premises for a lengthy period of time prior to the Commencement Date pursuant to the Existing Lease, (b) the Premises have been used for agricultural purposes and that pre- and/or post emergence weed control and/or pesticide chemicals and/or other agricultural chemicals have been applied to the Premises and/or land proximate to the Premises, (c) any buildings, trailers, mobile offices or homes or other structures located on the Premises may contain asbestos, polychlorinated biphenyls, formaldehyde or other Toxic Materials or may otherwise be structurally unsound or uninhabitable, (d) in connection with prior agricultural use of the Premises, pesticide chemicals (including DDT), agricultural fertilizers, fuels and other

economic poisons (as defined in California Food and Agricultural Code Section 12753) have been used in, on or about the Premises and use of such substances may not be permissible under Public Laws in effect as of the date of this Lease, (e) trichloroethylene ("TCE's") or other substances may be present in the subsurface soil or ground water on, under, in or about the vicinity of the Land as a result of discharge from military installations in the vicinity of the Premises, (f) Access Roads and other roadways and intersections between such Access Roads and public roads may not be maintained by Lessor and may not have been constructed to current public road standards, and Lessee shall be solely responsible for insuring that all persons using same in connection with Lessee's use of the Premises shall do so in a safe manner, (g) windrows on or adjacent to the Premises or roadways used for access to or from the Premises are not maintained by Lessor, and limbs may break and fall from such trees without notice, (h) use of adjacent property may cause or result in dust, Agricultural Chemicals, and/or water (both agricultural and storm runoff) to be deposited on the Premises, and (h) use by others of access roadways across the Premises may result in dust being deposited on the Premises. This Lease is made "AS IS" and is subject to and without liability to Lessor or the Indemnified Parties because of or resulting from any of the foregoing conditions, any other soil or ground water condition, or any structural or other defects or uninhabitability of any buildings, trailers, mobile offices or homes or structures located on the Premises, or any other condition of the Premises or adjacent property. It is understood and agreed that Lessee has made, or prior to the commencement of the Term of this Lease will make, its own tests and inspections to determine the suitability of the Premises and all appurtenant facilities for the agricultural purposes set forth in this Lease, including but not limited to tests and inspections to determine whether Agricultural Chemicals have been used on the Premises, and that Lessee has satisfied itself that such use, if any, has not and will not render the soil of the Premises unsuitable for the agricultural purposes set forth in this Lease or cause damage or injury to any agent, employee, contractor, invitee or licensee of Lessee or anyone else claiming under Lessee. Lessee is relying exclusively upon its own investigation and the reports, advice, opinions and recommendations of its agents and consultants and neither Lessor nor any agent of Lessor has made any representation or warranty with respect to the Premises or the Project or their condition, or with respect to the suitability thereof for the conduct of Lessee's business.

7. TAXES. As a further consideration for this Lease, Lessee agrees to pay all taxes, assessments (including, without limitation, change in ownership taxes or assessments), liens, bond obligations, license fees or taxes and any similar impositions in-lieu of other impositions and other charges of every description which during the Term of this Lease may be levied upon or assessed against all equipment, crops and personal property upon the Premises, owned by Lessee. In the event such charges levied upon or imposed upon such items are not assessed to Lessee, Lessee agrees to make payment to Lessor in the amount thereof within ten (10) days following delivery by Lessor to Lessee of a statement therefor. If any taxes or assessments are imposed in connection with the rentals or other charges payable to Lessor under this Lease, then such taxes or assessments shall be paid by Lessee; provided, however, that Lessee shall not in any event be required to pay any income or franchise tax of Lessor.

8. UTILITIES AND SERVICES. Lessee shall arrange for delivery of all necessary utilities as required by Lessee to be brought to the Premises at Lessee's sole cost and expense. Lessee shall be solely responsible for and shall promptly pay all charges for water, gas, electricity or any other utility used, consumed or provided in, furnished to or attributable to the

Premises at the rates charged by the supplying utility companies and/or Lessor. In furtherance of the foregoing, with respect to the delivery of water and sewer services to the Premises, upon the execution of this Lease, Tenant shall execute the Request For Interim Water and Sewer Service attached hereto as Exhibit "F" and deliver the same to Irvine Ranch Water District (the "IRWD"). Should Lessor elect to supply any or all of such utilities, Lessee agrees to purchase and pay for the same as additional rent as apportioned by Lessor. The rate to be charged to Lessor to Lessee shall not exceed the rate charged to Lessor by any supplying utility. Lessee shall reimburse Lessor within ten (10) days of billing for fixture charges and/or water tariffs, if applicable, which are charged to Lessor by local utility companies. Lessor will notify Lessee of this charge as soon as it becomes known. This charge will increase or decrease with current charges being levied against Lessor, the Premises or the Project by the local utility company, and will be due as additional rent. Lessee acknowledges that Lessor has made no representation or warranty with respect to the delivery, capacity and/or availability of any utilities to the Premises and, even though Lessor may own or operate certain utility lines and appurtenances located outside the Premises after it acquires the Project, any interruption, failure or termination of any utility services due to the application of applicable laws, the failure of any equipment, the performance of repairs, improvements or alterations in or around the Project, or any other cause whatsoever (a "Service Failure") shall not render Lessor liable to Lessee, constitute a constructive eviction of Lessee, give rise to an abatement of Basic Rent or additional rent, nor relieve Lessee from the obligation to fulfill any covenant or agreement contained in this Lease. Lessee shall bear all risk of loss or damage relating to a Service Failure. In no event shall Lessor be liable for any loss or damage, direct or indirect, special or consequential, including loss of business or theft of Lessee's property, arising out of or in connection with any Service Failure.

9. LIENS. Lessee agrees that it will pay or cause to be paid all costs of work done by it or caused to be done by it on the Premises which will or may result in a lien on the Premises, and Lessee shall keep the Premises free and clear of all mechanics' liens and other liens on account of work done for Lessee or persons claiming under Lessee. If such liens shall at any time be filed against any part of the Premises, then Lessee shall either cause any such lien to be discharged within thirty (30) days after the recording thereof, or if Lessee, in Lessee's discretion and in good faith determines that such lien should be contested, shall furnish a bond or other security as may be necessary or required to prevent any foreclosure proceedings against the Premises during the pendency of such contest. If Lessee shall fail to furnish such bond or security, then, in addition to any other right or remedy of Lessor resulting from Lessee's default, Lessor may, but shall not be obligated to, discharge the same either by paying the amount claimed to be due or by procuring the discharge of such lien by giving security or a bond or in such other manner as is, or may be, prescribed by law. Lessee shall reimburse and repay to Lessor, as additional rent, on demand, all sums disbursed or deposited by Lessor pursuant to the provisions of this ARTICLE 10, including all costs and expenses and attorneys' fees incurred by Lessor in connection therewith. Nothing contained herein shall imply any consent or agreement on the part of Lessor to subject Lessor's estate to liability under any mechanics' lien or other lien law.

Should any claims of lien be filed against any portion of the Premises or any action affecting title to any portion of the Premises be commenced, the party receiving notice of such lien or action shall forthwith give to the other party written notice thereof. Lessor or its representatives shall have the right to post and keep posted upon the Premises or any portion

thereof notices of nonresponsibility or such other notices that Lessor may deem proper for the protection of Lessor's interest in the Premises. Lessee shall, before commencement of any work that might result in such lien, give Lessor written notice of its intention to do so specifying the time of commencement of such work in sufficient time prior to such work to enable the posting of such notices.

10. RESERVATIONS; LESSEE'S TERMINATION RIGHT.

(a) Redevelopment Activities. Lessee acknowledges that the Project is being redeveloped in connection with its conversion from a former marine base to civilian use. Such redevelopment will involve extensive reconstruction and rehabilitation of buildings, roadways, public facilities and improvements, all of which will produce noise, dust and inconvenience to Lessee (e.g., road barricades). Lessor reserves the right to grant easements and rights of way in the future over, under and across the Premises and remainder of the Project in connection with the foregoing activities and the performance by Lessor or others of their current or future obligations relating to the investigation, remediation and removal of Toxic Materials. Lessee acknowledges that these activities will not constitute a nuisance and shall not be a basis for rental abatement or be deemed a violation of Lessee's right to quiet enjoyment of the Premises hereunder, subject to Lessee's right to terminate as provided in Section 11(i) below. Lessee shall not be entitled to any compensation or damages for loss of, or interference with, Lessee's business or use or access to the Premises resulting from the activities described in this paragraph. Lessee consents to the reasonable alteration by Lessor of the boundaries to the Premises in order that they comply, in Lessor's judgment, with the development of the Project.

(b) Right to Inspect Premises. Lessor reserves the right, by its agents and employees, to enter upon the Premises, any permanent or temporary office or structure on the Premises or any part thereof, at any time or times during the Term of this Lease, for the purpose of inspecting the same and all work and operations conducted thereon by Lessee, and of otherwise protecting Lessor's interest in and to the Premises, and Lessor shall have the right to maintain such notices on the Premises as maybe necessary to protect Lessor against loss or liability from mechanics' liens or otherwise.

(c) Right to Inspect and Use Irrigation Facilities. Lessor reserves the right at any time during the Term of this Lease to enter upon the Premises for the purpose of inspection, construction, installation, repair, restoration, replacement and operation of pipelines, ditches, water transmission or drainage facilities and other improvements thereon for the irrigation or drainage of the Premises and other land; provided, however, that the construction or installation of any new facilities serving other land shall be subject to compensation for damage to crops, if any.

(d) Mineral Rights. Lessor reserves all oil, gas and other minerals and substances in and under the Premises and the right, without joinder of or consent by Lessee, to enter into oil or gas leases affecting the Premises, or any part thereof, and the rights of Lessee herein at all times shall be subordinate to the rights of any lessee under any such oil or gas lease; and Lessor reserves the right to dedicate or convey any portion

of the Premises for street, highway, drainage, sewer, transmission lines or similar purposes, and any portion of the Premises so dedicated or so conveyed shall from the date thereof no longer be affected by this Lease or be part of the Premises.

(e) Water Rights. Lessor reserves any and all water rights or interests attributable to the Premises, no matter how acquired by Lessor, together with the right and power to explore, drill, redrill, remove from the Premises and store and/or to divert or otherwise utilize such water rights or interests on any other property owned or leased by Lessor, whether such water rights shall be riparian, overlying, appropriate, littoral, percolating, prescriptive, adjudicated, statutory or contractual. Lessor reserves the right to enter upon the Premises in the exercise of any such rights, subject to crop damage compensation.

(f) Right to Conduct Tests and Surveys. Lessor reserves the right to enter upon the Premises, or any part thereof, at any time during the Term of this Lease for the purpose of conducting soil tests and surveys, subject to crop damage compensation.

(g) Right to Cure Lessee's Default. In the event Lessee shall fail to properly care for the Premises or any buildings or crops on the Premises as hereinabove provided, then Lessor may, at its option, by its agents and employees, enter upon the Premises, or any part thereof, and without hindrance from or liability to Lessee, perform such work thereon as Lessor may deem necessary for the proper care thereof, and in such event Lessee agrees to pay to Lessor, upon demand, all costs and expenses incurred in such work, and any default in such payment shall constitute a breach of the covenants and conditions of this Lease. Notwithstanding anything contained herein to the contrary, Lessee shall permit Lessor or Lessor's agents to enter the Premises at any time, without prior notice, and, at Lessee's sole cost and expense, to inspect, monitor, take emergency or long-term remedial action, and/or discharge Lessee's obligations hereunder when Lessee has failed to do so, or take any other action to restore the Premises to its original condition.

(h) Withdrawal of Land. Lessor reserves the right at any time and from time to time, as provided in Section 1(d) above, to withdraw from the Premises any field or parcel within the Premises by delivery of not less than ten (10) days written notice to Lessee. As to the field or parcel identified in Lessor's notice, this Lease shall terminate as of the date specified in Lessor's notice. If the date specified is prior to the date crops on such field or parcel may be harvested, Lessor shall pay to Lessee Lessee's cultural costs for such crops (less any salvage value realized by Lessee for such crops); if the date specified is after the date such crops may be harvested, then no consideration whatsoever shall be payable to Lessee as a result of such termination.

(i) Lessee's Right to Terminate. In the event of an occurrence of a Material Change in Lease Conditions (as defined below), Lessee shall notify Lessor in writing of such occurrence and Lessor shall have the right, but not the obligation, to cure or otherwise remedy the Material Change in Lease Conditions. If Lessor elects not to cure or does not cure the Material Change in Lease Conditions within fifteen (15) days after receipt of written notice from Lessee, then Lessee shall have the right to terminate this

Lease by providing at least fifteen (15) days advance written notice to Lessor of Lessee's termination election. If Lessee delivers a written termination notice as provided herein, Lessee shall surrender the Premises to Lessor upon the termination date specified in Lessee's notice. If Lessee fails to surrender the Premises as required herein, this Lease shall remain in effect (including Lessee's obligation to pay Rent and perform all other obligations hereunder) until such time that Lessee so surrenders the Premises in compliance with this Lease. For purposes of this Lease, a "Material Change in Lease Conditions" means the occurrence of any one of the following: (a) the occurrence of a Service Failure that prevents Lessee from operating its business from the Premises (or a material portion thereof) for a continuous period of more than five (5) consecutive days (other than a Service Failure caused by Lessee).

(j) NONLIABILITY AND INDEMNIFICATION. Neither Lessor nor the other Indemnified Parties shall be liable for any loss, damage, injury, liability, claim, demand or cause of action of any kind or character to any person (including death) or property arising from, related to or caused by (a) any use of the Premises (including appurtenant facilities), Access Roads (including intersections with public roads), roads to the Premises, or any part thereof, (b) any condition of or defect in the soil or other feature of the Premises or any access roads used in connection therewith, or any building, structure or other improvement thereon or in any equipment or other facility located therein or thereon (including but not limited to the windrows on or adjacent to the Premises or any Access Roads or any other condition described in Section 7 (Condition of Premises) above), (c) any act or omission of Lessee, or of any of its agents, representatives, employees, contractors, customers, licensees or invitees, (d) any accident on the Premises or on any Access Roads to the Premises or any land owned by Lessor or any flood or any fire or other casualty thereon, (e) the failure of Lessee to maintain the Premises in safe condition, (f) the activities of any person (including Lessor and Lessor's agents) on any adjacent property whether or not the property is owned by Lessor or any other person, (g) any accident or damage on any adjacent property caused by acts or occurrences on the Premises, (h) any activity of Lessee for which Lessor has given its consent or withheld its consent, (i) water or other utilities supplied (or not supplied) by Lessor, or (j) any other cause whatsoever in connection with Lessee's use of the Premises or Lessee's operations under this Lease (collectively, the "Claims"), and Lessee, as a material part of the consideration of this Lease, hereby releases and waives on its behalf and on behalf of its successors and assigns all claims and demands against Lessor and the other Indemnified Parties for any such Claims. Lessee hereby agrees to indemnify, defend and hold Lessor and the other Indemnified Parties entirely free and harmless from all Claims of parties other than Lessee (including the Indemnified Parties) arising from or related to Lessee's use of the Premises, Lessee's operations under this Lease, or Lessee's breach of its obligations under this Lease, and from all costs, expenses and charges arising therefrom, including, without limitation, attorneys' fees and court costs incurred by Lessor or the other Indemnified Parties in connection therewith; provided, however, that Lessor retains the right to refuse Lessee's proffered defense of any action or proceeding brought against Lessor and to select and direct independent legal counsel, and Lessee shall nevertheless pay all of Lessor's attorneys' fees and costs of litigation incurred in connection therewith. Notwithstanding the foregoing, except with regard to the condition of the Premises and roadways (including intersections with public roads and

including windrows on and adjacent to the Premises and Access Roads) and the amount and condition of water or other utilities supplied by Lessor, as to which Lessor and the other Indemnified Parties shall have absolutely no liability, no Indemnified Party shall be entitled to indemnification hereunder to the extent any Claim is ultimately established by a court of competent jurisdiction to have been caused solely by the gross negligence or willful misconduct of such Indemnified Party. The waiver and indemnification in this ARTICLE 12 shall be in addition to, and shall not in any way limit, the waiver and indemnification contained in ARTICLE 6. The obligations of Lessee under this ARTICLE 12 and ARTICLE 6 shall survive the termination or expiration of this Lease. Payment shall not be a condition precedent to recovery under any indemnification in this Lease, and a forgoing of liability or an obligation to indemnify shall not be a condition precedent to the duty to defend.

11. INSURANCE.

(a) Liability Insurance. Lessee shall at its own expense, at all times during the Term of this Lease maintain in force for the joint benefit of Lessor and Lessee, with deductibles or self-insured retentions reasonably acceptable to Lessor, (i) commercial general liability insurance written on an "occurrence" policy form covering bodily injury, property damage, personal injury and advertising injury arising out of (directly or indirectly) all operations of Lessee or Lessee's use or occupancy of the Premises, with a combined single limit for bodily injury and property damage per occurrence of Five Million Dollars (\$5,000,000.00) or an amount equal to the limit from time to time carried by Lessee, whichever is greater, and (ii) owned, leased and non-owned automobile liability insurance covering use of all automobiles, trucks and other motor vehicles utilized by Lessee with a combined single limit for bodily injury and property damage per occurrence of Five Million Dollars (\$5,000,000.00) or an amount equal to the limit from time to time carried by Lessee, whichever is greater. The general liability policy shall include the following endorsements: (A) an ISO form CG 2010 (11/85) additional insured endorsement or its equivalent naming Lessor and its members, subsidiaries, partners and affiliated companies, and all of their respective officers, employees, directors, shareholders, agents, representatives and professional consultants, and all of their respective successors and assigns" as additional insureds with respect to liability or claims arising out of or resulting from the acts or omissions of Lessee or others performing acts on behalf of Lessee, and (B) a primary/non-contributing endorsement stating that insurance maintained by Lessee is primary and any insurance or self-insurance maintained by the additional insureds is excess and non-contributing with Lessee's insurance with respect to liability or claims arising out of or resulting from the acts or omissions of Lessee or others performing acts on behalf of Lessee. The general liability policy must also include the coverage typically provided by the Broad Form Comprehensive General Liability Endorsement, the broadest available form of coverage for contractual liability (including coverage for liability assumed under this Lease as an "insured contract" for the performance of Lessee's indemnity and hold harmless obligations under this Lease), and coverage for Products/Completed Operations, Fire Damage, Personal and Advertising Injury, and Medical Expense, and must contain Severability of Interest and Cross Liability clauses.

(b) Worker's Compensation Insurance. Lessee shall at its own expense, at all times during the Term of this Lease, maintain in force for the joint benefit of Lessor and Lessee, Worker's Compensation Insurance, including Employers Liability (at a minimum limit of One Million Dollars (\$1,000,000)) for all persons whom it employs. Such insurance shall be in strict compliance with the requirements of the most current and applicable worker's compensation insurance laws in effect from time to time. Such insurance must include a waiver of subrogation endorsement with respect to and for the benefit of Lessor and its divisions, subsidiaries, partners and affiliated companies, and all of their respective officers, employees, directors, shareholders, agents, representatives and professional consultants, and all of their respective successors and assigns."

(c) Casualty Insurance. Lessee shall at its own expense, at all times during the Term of this Lease, maintain in force insurance against fire, vandalism, malicious mischief and such other additional perils as maybe included in a standard "all risk" form, insuring all leased buildings, improvements and fixtures on the Premises, Lessee's leasehold improvements, trade fixtures, furnishings, equipment and other items of personal property of Lessee located at the Premises, in an amount equal to not less than their full replacement cost (with a guaranteed full replacement cost endorsement) and with deductibles or self-insured retentions reasonably acceptable to Lessor. Lessor shall be named as a loss payee as to improvements owned by Lessor.

(d) Insurance Policies/Evidence of Insurance. Except as specifically approved in writing by Lessor, each policy of insurance required to be maintained by Lessee under this Lease must be issued by carriers licensed and approved to do business in California, having a general policyholders rating of not less than "A" and a financial rating of not less than "X" in the most current Best's Key Rating Guide. Prior to conducting any operations under this Lease, and at all times during the Term of this Lease, Lessee shall provide to Lessor an original certificate(s) of insurance and original endorsements evidencing all insurance required hereunder. In addition, Lessor has the right to review certified policies as considered reasonably necessary by Lessor. Each certificate or policy of insurance shall indicate that coverage shall not be cancelled, modified or non-renewed except upon not less than thirty (30) days written notice to Lessor. Each policy, certificate and endorsement required hereunder shall be subject to the reasonable approval of Lessor.

(e) Waiver of Subrogation. Lessee hereby waives any rights it may have against Lessor and the other Indemnified Parties on account of any loss or damage occasioned to Lessee and arising from any liability, loss, damage or injury caused by fire and other perils and risks to the extent covered by Lessee's insurance carried or required to be carried pursuant to this Lease. Lessee's waiver under this paragraph is cumulative with other waivers by Lessee under this Lease.

12. DESTRUCTION. If, during the Term, any improvements on or constituting a part of the Premises are totally or partially destroyed, Lessee shall promptly restore such improvements to the same condition as they were in immediately before destruction, whether or not the insurance proceeds are sufficient to cover the actual cost of restoration. Such destruction shall not terminate this Lease and Lessee shall not be entitled to any rent abatement in relation

thereto. If then existing Public Laws do not permit the restoration, Lessee shall pay to Lessor the insurance proceeds payable (or which would have been payable had Lessee maintained the insurance required under this Lease) in relation to such improvements.

13. ASSIGNMENT AND SUBLETTING.

(a) General Provisions. Neither this Lease, nor any right or interest hereunder shall be encumbered, assigned, sublet, or otherwise transferred by Lessee without the prior written consent of Lessor which consent shall not be unreasonably withheld. If Lessee is a corporation, partnership or other entity and if the equity ownership interests of Lessee are not publicly traded on an established securities market, then any transfer, assignment or encumbrance of more than 25% of such equity interests shall constitute a transfer of this Lease which shall be proscribed by this Lease unless Lessee shall obtain the written consent of Lessor. It shall be reasonable for Lessor to withhold consent if the proposed assignee or sublessee does not prove to the satisfaction of Lessor that it has the experience and ability to operate the Premises as contemplated by this Lease, it has sufficient financial ability to carry out the obligations of Lessee under this Lease including, without limitation the ability to discharge the duties and obligations related to Toxic Materials and to pay the entire rent due under this Lease, it has a reputation for good faith performance of contracts, obligations and agreements, and it is willing to assume all of the duties and obligations of Lessee made under this Lease. No assignment, subletting or transfer of this Lease, or any right or interest herein, whether voluntary or involuntary, by bankruptcy, legal process, operation of law, or otherwise shall be effective or valid without such written consent, and any attempt by Lessee to assign, sublet, or otherwise transfer the Premises, or any part thereof, shall be void and shall confer no rights whatsoever. No assignment, subletting or transfer of this Lease shall serve to release Lessee. If Lessor should consent in writing to any assignment, subletting, or other transfer of this Lease, the same shall thereafter be and remain nontransferable except by and with such written consent, and none of the restrictions of this paragraph shall be thereby waived and the same shall apply to each successive transfer hereunder. Should Lessee attempt to assign this Lease or any interest therein, except as hereinabove provided, or to sublet the Premises or any part thereof, or should the interest of Lessee under this Lease be attached or levied upon or seized under legal process, or should Lessee be adjudged insolvent or bankrupt, then any of the foregoing events shall be deemed a breach of the conditions of this Lease, and in any such event Lessor may, at its option, terminate this Lease immediately by written notice, and upon such termination this Lease shall cease and end and shall thenceforth be of no further force or effect, except as otherwise hereinafter provided.

(b) Review Fee. If the Lessor consents to an assignment or transfer by Lessee on all or a portion of Lessee's interest under this Lease, Lessee shall pay, or cause to be paid, a transfer fee of \$1,500.00; provided, however, that such transfer fee shall not be payable upon Lessor's consent to a transfer or assignment of Lessee's interest hereunder as security for a loan.

(c) DEFAULT. The occurrence of any one or more of the following events shall be a default and a breach of this Lease by Lessee:

(d) Failure to Pay Rent. Lessee fails to pay any rent payment, or other sums due under this Lease within ten (10) days after the same shall be due and payable;

(e) Failure to Perform Other Obligations. Lessee fails to perform or observe any term, condition, covenant or obligation required to be performed or observed by it under this Lease (other than those otherwise specified as defaults in this ARTICLE 15) for a period of thirty (30) days (or such shorter time as provided in this Lease) after notice thereof from Lessor (unless such provision is required to be performed within a specified period of time without notice); provided, however, that if the term, condition, covenant or obligation to be performed by Lessee is of such nature that the same cannot reasonably be cured within thirty (30) days and if Lessee commences such performance within said thirty (30) day period and thereafter diligently undertakes to complete the same, then such failure shall not be a default of this Lease if it is cured within sixty (60) days following Lessor's notice;

(f) Abandonment. Lessee vacates or abandons, or fails to occupy the Premises or any substantial portion thereof for a period of thirty (30) days;

(g) Appointment of a Receiver. A trustee, disbursing agent, or receiver is appointed to take possession of substantially all of Lessee's assets in, on or about the Premises or of Lessee's interest under this Lease (and Lessee does not regain possession within sixty (60) days after such appointment); or Lessee makes an assignment for the benefit of creditors, or substantially all of Lessee's assets in, on or about the Premises or Lessee's interests in this Lease are attached or levied upon under execution (and Lessee does not discharge the same within sixty (60) days thereafter);

(h) Bankruptcy. A petition in bankruptcy, insolvency, or for protection from creditors, reorganization or rearrangement is filed by or against Lessee or any guarantor of Lessee's obligations under this Lease pursuant to any federal or state statute, and with respect to such petition filed against it, Lessee or such guarantor fails to secure a stay or discharge thereof within sixty (60) days after filing of the same;

(i) Assignment or Subletting. Any assignment, or subletting or other transfer for which the prior written consent of Lessor has not been obtained, which default shall occur immediately upon such event and shall not be curable by Lessee without written waiver by Lessor; and

(j) False Information. Discovery by Lessor of any false or misleading statement concerning financial information submitted by Lessee to Lessor in connection with obtaining this Lease or any other consent or agreement by Lessor, which default shall occur immediately upon such event and shall not be curable by Lessee without written waiver by Lessor.

14. REMEDIES.

(a) Lessor's Remedies. Upon occurrence of any event of default, Lessor shall have the following rights and remedies in addition to those allowed by law or in equity, any one or more of which may be exercised or not exercised without precluding Lessor

from exercising any other remedy provided in this Lease or otherwise allowed by law or in equity:

(i) Termination of Lease. Lessor may terminate this Lease and Lessee's right to possession of the Premises in the event any default is not fully cured within the cure period, if any, designated for such default. If Lessee has abandoned and vacated the Premises, the mere entry upon the Premises by Lessor in order to perform acts of maintenance, cure defaults, preserve the Premises or to attempt to relet the Premises or the appointment of a receiver in order to protect Lessor's interests under this Lease shall not be deemed a termination of Lessee's right to possession or a termination of this Lease unless Lessor has notified Lessee in writing that the Lease is terminated. Notification of any default under this Lease shall be in lieu of and not in addition to, any notice required under Section 1161 et seq., of the California Code of Civil Procedure. If Lessor terminates this Lease and Lessee's right to possession of the premises pursuant to this Section 17(a)(i), then, in addition to any other amounts recoverable under law or in equity, Lessor may recover from Lessee the sums provided under Section 1951.2 of the Civil Code of California; and

(ii) Continue Lease in Effect. Notwithstanding Lessor's right to termination of this Lease pursuant to Section 17(a)(i) Lessor may, at its option, even though Lessee has breached this Lease and abandoned the Premises, continue this Lease in full force and effect and not terminate Lessee's right to possession and enforce all of Lessor's rights and remedies under this Lease, including the right to recover rent as it becomes due under this Lease and exercise Lessor's other remedies in the manner provided by Section 1951.4 of the Civil Code of California.

(b) Remedies Cumulative. Any termination of this Lease as herein provided shall not relieve Lessee, or its successors and assigns, if any, from the payment of any sum or sums that shall then be or that shall thereafter become due and payable to Lessor hereunder, and any such termination shall not prevent Lessor from enforcing the payment of any such sum or sums by any remedy provided by law. All rights, options, and remedies of Lessor contained in this Lease shall be construed and held to be cumulative and not exclusive, and Lessor shall have the right to pursue any one or all of such remedies, or any other remedy or relief which may be provided by law, whether or not stated in this Lease.

15. EMINENT DOMAIN.

(a) Definition of Terms. The term "total taking" as used in this Article means the taking of the entire Premises under the power of eminent domain or a taking of so much of the Premises as to prevent or substantially impair the conduct of Lessee's business thereon. The term "partial taking" means the taking of a portion only of the Premises, which does not constitute a total taking as above defined.

(b) Total Taking. If during the Term hereof there shall be a total taking by public authority under the power of eminent domain, then the Leasehold estate of Lessee in and to the Premises shall cease and terminate as of the earlier of (i) the date the actual physical possession thereof shall be taken by the condemning authority, or (ii) the date the condemning authority takes title.

(c) Partial Taking. If during said Term there shall be a partial taking of the Premises, this Lease shall terminate as to the portion taken upon the earlier of (i) the date on which actual possession of said portion is taken pursuant to said eminent domain proceedings by the condemning authority, or (ii) the date the condemning authority takes title, but the Lease shall continue in force and effect as to the remainder of the Premises. The basic rental payable by Lessee for the balance of said Term shall be abated in the ratio that the square footage ground area of the portion taken bears to the total ground area of the Premises at the time of such taking.

(d) Allocation of Award. All compensation and damages awarded for the taking of the Premises or any portion thereof or settlement in lieu thereof shall, except as otherwise herein provided, belong to and be the sole property of Lessor, and Lessee shall not have any claim or be entitled to any award for diminution in value of its Leasehold hereunder or for the value of any unexpired Term of this Lease; provided, however, that Lessee shall be entitled to any award that may be made for the taking of crops or as a result of any alterations, modifications or repairs which may be reasonably required by Lessee in order to place the remaining portion of the Premises not so condemned in a suitable condition for the continuance of Lessee's tenancy. Lessee hereby assigns to Lessor any portion of the condemnation award or other payment made on account of a taking as is required to effect the provisions of this ARTICLE 18, and except as specifically provided in this Section 18(d), Lessee waives any claim to any condemnation award.

(e) Effect of Termination. If this Lease is terminated, in whole or in part, pursuant to any of the provisions of this ARTICLE, all rent payable by Lessee to Lessor hereunder and attributable to the Premises taken, shall be paid up to the termination date and the Lease shall thereupon terminate as to the Premises taken.

(f) Voluntary Conveyance. A voluntary conveyance by Lessor to a public utility, agency or authority under threat of a taking under the power of eminent domain in lieu of formal proceedings, whether or not such utility, agency or authority has adopted a resolution of necessity and whether or not Lessor may have initiated negotiations for the transfer, shall be deemed a taking within the meaning of this Article.

16. REMOVAL OF IMPROVEMENTS UPON TERMINATION. Upon the expiration or earlier termination of this Lease:

(a) Surrender. Lessee shall without further notice vacate and surrender to Lessor possession of the Premises together with all improvements thereon in as good a condition as when Lessee entered into possession of same pursuant to the Existing Lease and shall perform all post harvest actions required by good husbandry; provided, however

that if Lessee has complied with the provisions of this Lease including without limitation the provisions concerning good husbandry and prevention of erosion, then surrender of the Premises shall be subject to damage caused by natural elements;

(b) Title to Improvements. Except for improvements required by Lessor to be removed pursuant to Sections 19(d) and (e) below, all improvements on the Premises, including without limitation those installed or constructed by Lessee and all crops which are not then harvested, shall become the sole property of Lessor without the payment of any consideration therefor;

(c) Lessee's Rights to Remove of Personal Property. Lessee may remove from the Premises all personal property thereon belonging to Lessee; provided, however, that any of said personal property that is not removed by Lessee within thirty (30) days following said date of expiration or termination shall become the sole property of Lessor without the payment of consideration therefor;

(d) Lessee's Obligation to Remove Improvements and Personal Property. Notwithstanding the foregoing, Lessor may, at its option, prior to or within sixty (60) days after said date of expiration or termination, require Lessee to remove all or a portion of the improvements or personal property installed, constructed or existing on the Premises by or because of Lessee (including, without limitation, any and all irrigation lines and/or equipment, and above and below ground storage tanks), which removal shall be completed not later than thirty (30) days following said date of Lessor's notice to remove (but in no event shall such period expire prior to thirty (30) days after said date of expiration or termination), and in the event Lessee fails to so remove at Lessor's request, Lessor may effect such removal and the cost thereof, including interest at the rate provided in Section 24(e) from the date such cost is incurred, shall be paid by Lessee to Lessor;

(e) Clean Up. Lessee shall be responsible for clean up and removal of gravel placed upon the Premises by Lessee. Lessee is not responsible for removal of any pavement existing at the commencement of this Lease but is responsible for removal of all pavement and cement work done on the Premises during the Term of this Lease or any extension thereof;

(f) Lessee to Comply With Lease Provisions During Removal Period. Lessee shall during such removal period perform all of its obligations which this Lease except payment of rent (unless agreed to the contrary); and

17. HOLDING OVER. If Lessee holds over after the expiration or earlier termination of the Lease Term, Lessee shall become a tenant at sufferance only, upon the terms and conditions set forth in this Lease so far as applicable (including Lessee's obligation to pay all additional rent under this Lease), but at a Basic Rent rate equal to two hundred percent (200%) of the Basic Rent applicable to the Premises immediately prior to the date of such expiration or earlier termination. Acceptance by Lessor of rent after such expiration or earlier termination shall not constitute a consent to a hold over hereunder or result in an extension of this Lease. Lessee shall pay an entire month's Basic Rent calculated in accordance with this Section 20 for

any portion of a month it holds over and remains in possession of the Premises pursuant to this Section 20.

18. SUBORDINATION, ATTORNMENT AND ESTOPPEL CERTIFICATES.

(a) Subordination. This Lease is and shall be prior to any encumbrance recorded after the date of this Lease. If, however, a lender requires that this Lease be subordinate to any such encumbrance, this Lease shall be subordinate to that encumbrance if Lessor obtains from the lender a written agreement that provides substantially the following:

"As long as Lessee performs its obligations under this Lease, no foreclosure of, deed given in lieu of foreclosure of, or sale under the encumbrance, and no steps or procedures taken under the encumbrance, shall affect Lessee's rights under this Lease."

(b) Attornment. Lessee shall attorn to any purchaser at any foreclosure sale, or to any grantee or transferee designated in any deed given in lieu of foreclosure.

(c) Lessor's Right to Estoppel Certificates. If requested by a lender, Lessee shall within ten (10) days after notice execute and deliver to such lender, in recordable form, a certificate stating that this Lease is unmodified and in full force and effect (or in full force and effect as modified, and stating the modifications), the amount of rent, the dates to which rent has been paid and such other information as the lender shall reasonably require.

(d) Further Documents. Lessee shall promptly execute (in recordable form if so requested) a written agreement and any other documents or instruments required by the lender to accomplish the purposes of this ARTICLE. If Lessee fails to deliver any document or instrument required under this ARTICLE 21 within ten (10) days, Lessee irrevocably constitutes and appoints Lessor as its special attorney-in-fact to execute and deliver the certificate to such lender.

19. NOTICES. Any written notice given under this Lease, if not personally delivered to an officer or representative of either party hereto, shall be sent by certified mail with postage prepaid, directed to Lessor or to Lessee at the addresses set forth below. The service of any such notice shall be deemed complete at the time of such personal delivery or within five (5) days after the deposit thereof, so addressed and certified, in the United States mail. Either party may change the address for delivery of notices by delivery of a notice to the other as provided herein. Should Lessee constitute more than one person, personal delivery or the mailing of such notice to any one of such persons shall constitute complete service thereof upon all such persons.

20. RECORDING. Neither this Lease nor any memorandum of this Lease shall be recorded by Lessee without the prior written consent and approval of Lessor.

21. MISCELLANEOUS PROVISIONS.

(a) Successors and Assigns. Subject to the provisions restricting assignment and subletting, this Lease and the respective rights and obligations of the parties hereto shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto as well as the parties themselves; provided, however, that Lessor, its successors and assigns shall be obligated to perform Lessor's covenants to be subject to the expressed or implied obligations under this Lease only during and in respect of their successive periods of ownership during the Term of this Lease.

(b) Force Majeure. This Lease and the obligation of Lessee to pay rent hereunder and perform all of Lessee's covenants and agreements hereunder shall not be impaired nor shall Lessor be in default hereunder because Lessor is unable to fulfill any of its obligations under this Lease, provided Lessor is prevented or delayed from so doing by any accident, breakage, repair, alteration, improvement, strike or labor troubles, moratorium, war, civil unrest, act of God, or any governmental preemption in connection with a national emergency, or by reason of law or any rule, order or regulation of any department or subdivision thereof of any governmental agency, or by reason of the conditions of supply and demand which have been or are affected by war, hostilities, drought or other emergency (collectively, "Force Majeure"). Except regarding Lessee's obligation to pay rent or other monetary amounts, which shall not be affected by Force Majeure, Lessee shall not be considered in default under this Lease to the extent Lessee's performance of its obligations under this Lease is prevented by Force Majeure.

(c) No Option. Submission of this instrument for examination or signature by Lessee does not constitute an offer or option to Lease, and it shall not be effective as a Lease or otherwise until execution and delivery by both Lessor and Lessee.

(d) Time is of the Essence. Time is of the Essence of this Lease in all circumstances where time is an element.

(e) Interest. Any sum due from Lessee to Lessor not paid when due shall bear interest from the date due until the date paid at the rate equal to the greater of ten percent (10%) per annum or five percent (5%) in excess of the discount rate of the Federal Reserve Bank of San Francisco in effect on the twenty-fifth (25th) day of the calendar month immediately prior to the event giving rise to the imposition of interest charges; provided, however, that such rate shall not exceed the maximum permitted by law. The payment of such amount shall not excuse or cure any default of Lessee under this Lease except as to the nonpayment of such amount.

(f) Authorized Signatory. If Lessee signs as a corporation, each person executing this Lease on behalf of Lessee does hereby covenant and warrant that Lessee is a duly authorized and existing corporation, that Lessee has and is qualified to do business in California, that the corporation has full right and authority to enter into this Lease, that each person executing this Lease on behalf of the corporation is authorized to do so, and that such execution is fully binding on the corporation. If Lessee signs as a partnership, joint venture, or sole proprietorship (each being herein called "entity") each person

executing on behalf of Lessee does hereby covenant and warrant that Lessee is a duly authorized and existing entity, that Lessee has full right and authority to enter into this Lease, that each person executing this Lease on behalf of the entity is authorized to do so, and that such execution is fully binding on the entity and its partners, joint venturers, or principal, as the case may be.

(g) Covenants and Conditions. Each provision of this Lease required to be performed by Lessee shall be deemed both a covenant and a condition.

(h) Attorneys' Fees. In the event of any proceeding arising out of or related to this Lease or the Premises, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses incurred in connection with such proceeding, including court costs and reasonable attorneys' and experts' fees, whether or not such proceeding is prosecuted to judgment.

(i) Entire Agreement. This Lease, together with its exhibits and attachments referenced herein, which are incorporated herein by such reference and shall constitute a part of this Lease, constitutes the entire agreement between the parties hereto pertaining to the subject matter hereof, and the final, complete and exclusive expression of the terms and conditions of this Lease, all prior agreements, promises, representations, negotiations, and understandings of the parties hereto, oral or written, express or implied, are hereby superseded and merged herein, except for representations of financial condition of Lessee delivered to Lessor in connection with leasing of the Premises or consent to any matter upon which Lessor has relied.

(j) Severability. If any provision of this Lease as applied to any party or to any circumstance shall be adjudged by a court of competent jurisdiction to be void or unenforceable for any reason, the same shall not affect (to the maximum extent permissible by law) any other provision of this Lease, the application of such provision under circumstances different from those adjudged by the court, or the validity or enforceability of this Lease as whole.

(k) Waiver. No delay or omission in the exercise of any right or remedy of Lessor with regard to a default by Lessee shall impair such right or remedy or be construed as a waiver. No waiver by Lessor of any default by Lessee under any of the covenants or conditions of this Lease shall be construed or held to be a waiver of any succeeding or preceding default under the same or any other covenant or condition contained herein. Any waiver by Lessor of any default must be in writing.

(l) Captions, Number, Gender, and Joint and Several Liability. The paragraph, title or section headings of the various provisions of this Lease are intended solely for convenience of reference and shall not in any manner amplify, limit or modify or otherwise be used in the interpretation of any of such provisions. As used in this Lease, the masculine, feminine or neuter gender and the singular or plural number, shall be deemed to include the other whether the context so indicates or requires. If Lessee consists of more than one person or entity or if Lessee is a partnership, each such person

or entity and/or each general partner shall be bound jointly and severally by the terms, covenants and conditions of this Lease.

(m) Brokers. Lessee represents and warrants that it has not dealt with or employed a broker, agent or finder as its representative in the negotiation or obtaining of this Lease and Lessee hereby agrees to defend, indemnify and hold Lessor harmless from and against all costs, expenses or liability for compensation claim by any broker, agent or finder. Such indemnification shall include, without limitation, payment of all attorneys' fees expended by Lessor in connection with any claim by any broker, agent or finder claiming through Lessee.

(n) Interpretation. This Lease shall be construed fairly as to all parties and not in favor of or against any party regardless of which party prepared this Lease. This Lease and the rights of the parties hereunder shall be interpreted in accordance with the laws of the State of California. In the event of any dispute hereunder, it is agreed that the sole and exclusive venue shall be in a court of competent jurisdiction in Orange County, California, and the parties hereto agree to and do hereby submit to the jurisdiction of such court.

(o) Amendment. No amendment or addition, modification of or alteration of any provision contained in this Lease shall be effective unless fully set forth in writing and executed by Lessor and Lessee.

(p) Survival of Indemnities. The obligations (and waivers) of the indemnifying party under each and every indemnification, defense, hold harmless and waiver provision contained in this Lease shall survive the expiration or earlier termination of this Lease to and until the last to occur of (i) the last date permitted by law for the bringing of any claim or action with respect to which indemnification (or waiver) may be claimed by the benefited party under such provision, or (b) the date on which any claim or action for which indemnification (or waiver) may be claimed under such provision is fully and finally resolved and, if applicable, reimbursement or payment due thereunder has been paid in full.

(q) Waiver of Jury Trial. LESSOR AND LESSEE EACH ACKNOWLEDGES THAT IT IS AWARE OF AND HAS HAD THE ADVICE OF COUNSEL OF ITS CHOICE WITH RESPECT TO ITS RIGHTS TO TRIAL BY JURY, AND EACH PARTY DOES HEREBY EXPRESSLY AND KNOWINGLY WAIVE AND RELEASE ALL SUCH RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER PARTY HERETO AGAINST THE OTHER (AND/OR AGAINST ITS MEMBERS, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, OR SUBSIDIARY OR AFFILIATED ENTITIES) ON OR WITH REGARD TO ANY MATTERS WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS LEASE, LESSEES USE OR OCCUPANCY OF THE LEASED PREMISES, AND/OR ANY CLAIM OF INJURY OR DAMAGE.

(r) Lessee's Representatives. Lessee shall cause its employees, agents, representatives, contractors, invitees, licensees, subtenants, customers and all other persons entering the Premises under or pursuant to this Lease or in connection with Lessee's operations to comply with all of the obligations to be performed by Lessee hereunder.

22. Contingency. Lessor and Lessee acknowledge and agree that the terms and provisions of this Lease are expressly contingent upon Lessor obtaining fee title to the Premises (or, if applicable to portions of the Premises that contain, or may contain, environmental conditions, a LIFO from the Navy leasing such portions to Lessor or a sublease of the LIFO from Developer) on or before September 30, 2005 (the "Contingency Date"). If, on or before the Contingency Date, Lessor has not acquired fee title to the Project (or, with respect to those portions of the Project that contain environmental conditions, a LIFO from the Navy leasing such portions to Lessor or a sublease of the LIFO from Developer), then Lessor may terminate this Lease by providing written notice thereof to Lessee whereupon this Lease shall be null and void and of no force or effect.

23. Non-Interference With Government Operations. Lessee acknowledges that certain governmental agencies may conduct certain environmental cleanup, restoration and testing operations and activities on or about the Premises. Lessee shall not conduct operations or make any alterations that would interfere with or otherwise restrict such operations, environmental cleanup or restoration actions by Government, Environmental Protection Agency (EPA), state environmental regulators, or their contractors. Environmental cleanup, restoration or testing activities by these parties shall take priority over Lessee's use of the Premises in the event of any conflict. Lessee shall have no claim against Lessor on account of any entry by Government or any officer, agent, employee, contractor or subcontractor of Government.

IN WITNESS WHEREOF, each of the parties hereto has executed this Lease as of the day and year stated above.

"LESSOR"

CITY OF IRVINE,"
a California charter city

By: 

City Manager

"LESSEE"

EL TORO FARMS, LLC,
a California limited liability company

By: 

Name: Carl Lindgren

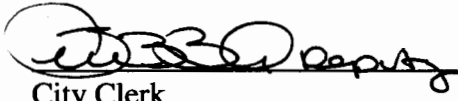
Title: Member

By: 

Name: MATT KAWAMURA

Title: MEMBER

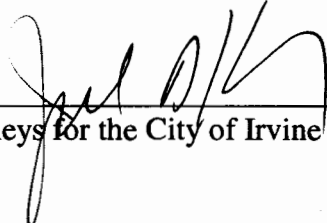
ATTEST:



City Clerk

APPROVED AS TO FORM:

RUTAN & TUCKER, LLP



Attorneys for the City of Irvine

Address:

City of Irvine
City Hall
One Civic Center Plaza
Irvine, CA 92623-9575
Attn: City Manager
Phone: (949) 724-6246
Facsimile: (949) 259-9350
email address: sjoyce@ci.irvine.ca.us

Address:

c/o El Toro Farms, LLC
11405 Jeffrey Road, Suite A
Irvine, CA 92620
Attn: Doug Circle, Matt Kawamura or Peter
Orr

EXHIBIT "A"
CONCEPTUAL OVERLAY PLAN

[To be attached]



Heritage Fields Conveyances & Dedications



City of Chicago, Planning Department, 1974

EXHIBIT "B"

PROPERTY DEPICTION

That certain real property situated in the County of Orange, State of California, including the following parcels:

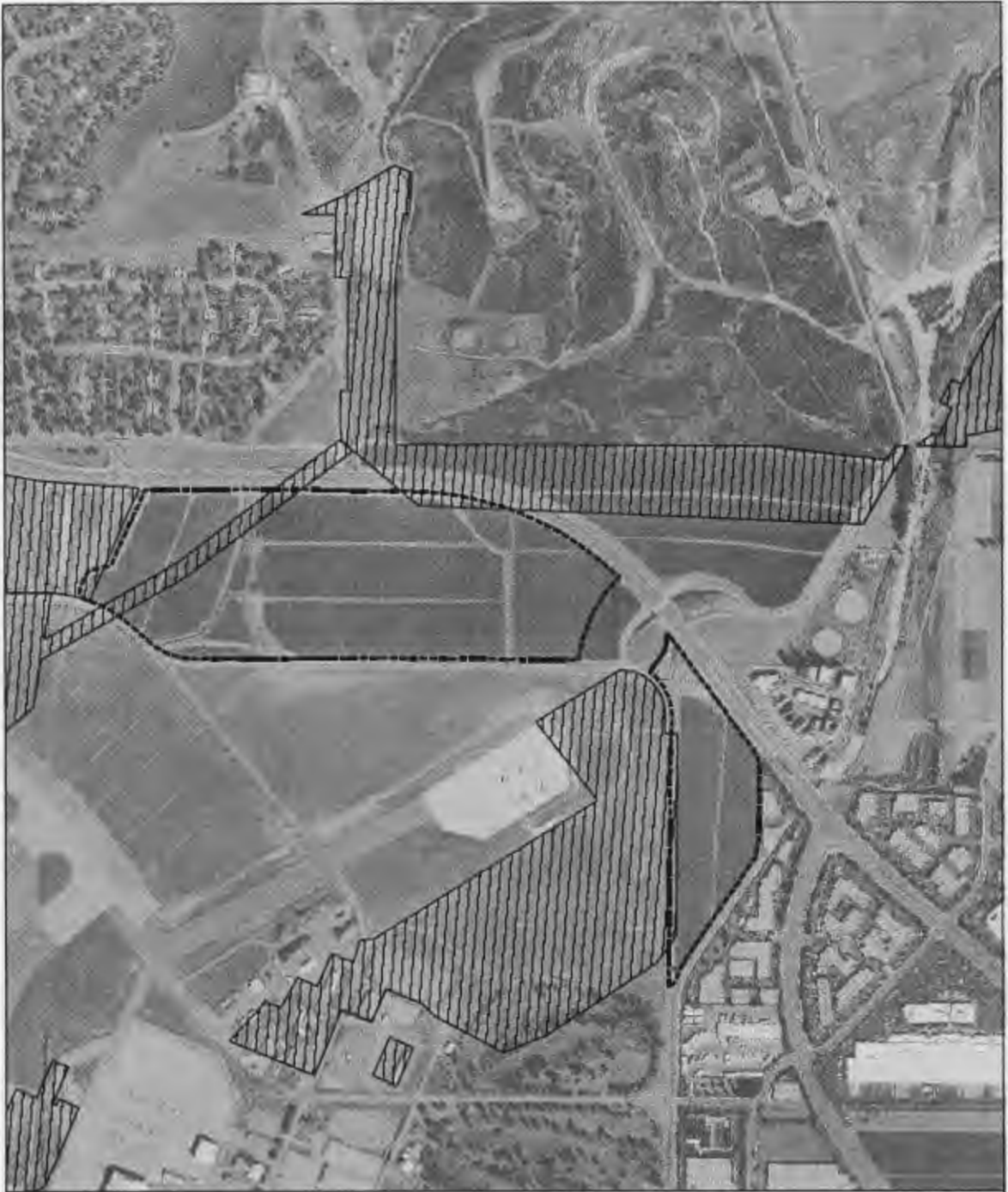
Parcel II-B, Parcel II-C, Parcel II-D, Parcel II-E, Parcel II-F, Parcel II-G, Parcel II-H, Parcel II-I, Parcel II-J, Parcel II-K, Parcel II-L, Parcel II-M, Parcel II-N, Parcel II-N, Parcel II-O, Parcel II-P, Parcel II-Q, Parcel II-R, Parcel II-S, Parcel II-T, Parcel II-U, Parcel II-V

EXHIBIT "C"

LIFOC PARCELS AND EL TORO FARMS, LLC SOUTH

[To be attached.]

codensea2projects_MVZL2H000000GISMapLIFOC_Exhibits.mxd (8. pdf)



HERITAGE FIELDS, LLC

EL TORO FARMS, LLC NORTH
WITH LIFO LIMITS



 LIFO LIMITS

7/06/05



EXHIBIT "C"



City of Irvine /
Orange County Great
Park Corporation

EL TORO FARMS, LLC SOUTH

7/06/05



EXHIBIT "D" LIFO

[To be attached.]

LEASE IN FURTHERANCE OF CONVEYANCE
BETWEEN
THE UNITED STATES OF AMERICA
AND
HERITAGE FIELDS LLC
FOR
MCAS EL TORO PARCEL 2

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LEASE IN FURTHERANCE OF CONVEYANCE
BETWEEN
THE UNITED STATES OF AMERICA
AND
HERITAGE FIELDS LLC
FOR
MCAS EL TORO PARCEL 2

THIS LEASE is made this _____ day of _____, 2005, by and between the **UNITED STATES OF AMERICA**, acting by and through the Department of the Navy (**Government**), and **HERITAGE FIELDS LLC**, (**Lessee**), purchaser of certain real property at the former Marine Corps Air Station, El Toro, Irvine California (hereinafter referred to as MCAS El Toro or the Installation).

RECITALS

A. The Government has closed the former Marine Corps Air Station El Toro (MCAS El Toro) pursuant to the Defense Base Closure and Realignment Act of 1990, Pub.L. 101-510), as amended (10 U.S.C. § 2687 note) (hereinafter referred to as DBCRA) and is selling portions of that property through a public sale, said portions identified in Exhibit A hereto and hereinafter referred to as the "Sale Property".

B. Lessee has purchased a portion of the Sale Property, known as Parcel 2, pursuant to Invitation for Bids No. 9PR-2004-188 (IFB). Government is in the process of remediating environmental sites within Parcel 2. Pursuant to said IFB, title to each such site will not be conveyed until site closure is attained and the Government issues a Finding of Suitability to Transfer (FOST) addressing each such site.

C. As consideration for the purchase of Parcel 2, Government will allow Lessee limited access and use of the environmental sites, hereinafter referred to as the Leased Premises, and identified in Exhibit A, in accordance with the terms and conditions of this Lease until Government issues a FOST addressing the Leased Premises and title has transferred.

D. Pending final disposition, 10 U.S.C. § 2667(f) authorizes the Government to lease real property located at a military installation closed under DBCRA.

E. In accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, the Government prepared a Final Environmental Impact Statement

Gov't_____.

Lessee_____.

(EIS) for the disposal and reuse of the former MCAS El Toro. A NEPA Record of Decision regarding the disposal of MCAS El Toro was issued on 23 April 2002.

F. An Environmental Baseline Survey (EBS) has been prepared for MCAS El Toro as well as a Finding of Suitability to Lease (FOSL) in accordance with 10 U.S.C. § 2667(f)(3), and Department of Defense policy guidelines. The "Finding of Suitability to Lease for Carve-Out Areas Within Parcels I, II, and III, Former Marine Corps Air Station El Toro, dated August 3, 2004, concludes that activities allowed under this Lease, if conducted in accordance with the restrictions contained therein, are consistent with protection of human health and the environment. Cognizant state and federal regulatory agencies have concurred on the FOSL.

G. The Government has agreed to grant this Lease in furtherance of and pending conveyance by deed for Leased Premises to the Lessee and the Lessee has agreed to enter into this Lease.

MUTUAL UNDERSTANDINGS

NOW THEREFORE, in consideration of the terms, covenants, and conditions hereinafter set forth, Government and Lessee hereby agree as follows:

1. LEASED PREMISES:

Government does hereby lease, and demise to Lessee in furtherance of and pending conveyance, and Lessee does hereby hire from Government, the Leased Premises, identified in Exhibit A, together with all improvements and all personal property thereon together with right of ingress and egress to said Leased Premises.

2. TERM:

2.1. The term of this Lease shall be for or until, as applicable, the earlier of: (A) a period of fifty (50) years beginning on the date of execution of this Lease and ending on the 11th day of July, 2055; or (B) the effective date of conveyance by Quitclaim Deed of a portion of the Leased Premises, unless sooner terminated in accordance with the provisions of Article 14. The Lessee shall accept title to any portion of the Leased Premises within ten (10) calendar days following delivery by the Government of a Quitclaim Deed for such portion of the Leased Premises. The Government shall not deliver any such Quitclaim Deed for a portion of the Leased Premises prior to execution of a FOST for such portion of the Leased Premises.

2.2. This Lease shall automatically terminate upon conveyance by Quitclaim Deed with respect to any conveyed portion as if such date were the stated expiration date contained herein and neither party hereto shall have any further obligation under

this Lease with respect to such conveyed portion (other than any obligations which otherwise would survive termination of this Lease). All references to the Leased Premises shall be deemed to exclude such conveyed portions and this Lease shall continue in full force and effect with respect to the remainder of the Leased Premises.

3. CONSIDERATION:

In addition to partial consideration for this Lease in the form of the purchase of Parcel 2, Lessee agrees to provide protection and maintenance to the extent described in Article 12.

4. USE OF LEASED PREMISES:

4.1 The sole purpose for which Leased Premises may be used, in the absence of prior written approval by Government for any other use, is in accordance with projected state and local zoning and land plans for the Leased Premises, and in accordance with the restrictions described in Section 5 of the Finding of Suitability to Lease (FOSL), attached as Exhibit C to this Lease. Government hereby reserves to itself the exclusive use of, and right to access, those portions of the Leased Premises identified in Exhibit F, until such time as Government determines, in its sole discretion, that it no longer requires such exclusive access and use.

4.2 No known historic or archeological sites or materials exist on the Leased Premises. Should such sites or materials be encountered, Lessee shall stop work immediately and notify Government.

5. SUBLETTING:

5.1 Lessee may sublease the Leased Premises without the prior approval of Government. Any sublease that involves the use of hazardous or toxic materials, including those of an explosive, flammable, or pyrotechnic nature, as provided in 10 U.S.C. 2692, shall require prior Government approval. Such consent shall not be unreasonably withheld or delayed. Under no circumstance shall Lessee assign this Lease without the prior written approval of the Government.

5.2 For the purposes of Article 5 and this Lease, "sublease" shall include licenses, use and occupancy agreements, concession agreements and other similar agreements.

5.3 Any sublease granted by Lessee shall contain a copy of this Lease as an attachment and be subject to all terms and conditions of this Lease and shall terminate immediately upon the expiration or any earlier termination of this Lease, without any

liability on the part of Government to Lessee or any sub lessee. Under any sublease made, with or without consent, the sub lessee shall be deemed to have assumed all of the obligations of Lessee under this Lease. No sublease shall relieve Lessee of any of its obligations hereunder.

5.4 Upon execution of any sublease, a copy of such sublease shall immediately be furnished to Government. Should conflict arise between the provisions of this Lease and a provision of the sublease, the provisions of this Lease shall take precedence. Any sublease shall not be taken or construed to diminish or enlarge any of the rights or obligations of either of the parties under this Lease.

6. CONDITION OF PROPERTY:

Leased Premises shall be delivered to Lessee "AS IS", "WHERE IS". Government makes no warranty as to Leased Premises' usability generally or as to its fitness for any particular purpose. Any safety and/or health hazards identified shall be corrected, at Lessee's expense, prior to use and occupancy.

7. ENVIRONMENTAL BASELINE SURVEY AND FINDING OF SUITABILITY TO LEASE:

The Executive Summary of the Environmental Baseline Survey (EBS) and a Finding of Suitability to Lease (FOSL) are attached as Exhibits B and C, respectively, and made part of this Lease. Copies of the EBS and FOSL have been provided to Lessee and all documents referenced therein have been made available to Lessee. The EBS describes the environmental conditions on the Installation. The FOSL sets forth the basis for the Government's determination that Leased Premises are suitable for leasing. Lessee is hereby made aware of the notifications contained in the FOSL attached hereto as an exhibit and shall comply with Lease restrictions set forth therein.

8. ALTERATIONS:

8.1 Lessee shall not construct or make or permit its sublessees to construct or make any substantial alterations, additions, excavations, improvements to, installations upon or otherwise modify or alter Leased Premises in any way (collectively "Work"), including those which may adversely affect the cleanup, human health or the environment, without the prior written consent of Government. No consent shall be required for Work described in Exhibit D.

8.2 Lessee shall provide Government with prior written notification and a full description of all proposed Work on Leased Premises (other than work described in Exhibit D), a projected schedule and cost thereof, and an analysis as to how and why such Work will or will not adversely affect the environmental clean up of Leased

Premises, human health, or the environment. Lessee shall deliver such written notification to Government's representative as designated in Article 19 of this Lease.

8.3 In the event of termination of this lease pursuant to either subparagraph 14.1.2 or 14.1.3 of Article 14 of this Lease, Lessee shall abandon any Work in place, at which time title to such Work shall vest in the Government.

8.4 In the event of termination, revocation or surrender of this Lease, all personal property and trade fixtures of Lessee or any third person may be removed and Lessee shall repair any damages to Leased Premises resulting from such removal.

9. ACCESS BY GOVERNMENT:

In addition to access required under Article 13, at all reasonable times throughout the term of this Lease, Government shall be allowed access to Leased Premises for any purposes upon notice to Lessee. Government normally will give Lessee or any sublessee twenty-four (48) hour prior notice of its intention to enter Leased Premises, unless it determines the entry is required for safety, environmental, operations or security purposes. Lessee shall have no claim on account of any entries against Government or any officer, agent, employee, contractor or subcontractor of Government. All keys to the buildings and facilities occupied by Lessee or any sublessee shall be made available to Government upon request. Any access by Government will take into consideration its obligations under Article 33.

10. UTILITIES AND SERVICES:

10.1 Procurement of utilities, i.e., electricity, water, gas, steam, sewer, telephone and trash removal will be the responsibility of Lessee.

10.2 Lessee shall furnish the Government with any utilities maintained by Lessee that Government may require. In the event it does so, Government shall reimburse Lessee for the cost incurred in providing such utilities, which amount shall be agreed upon between the parties in advance.

11. NON-INTERFERENCE WITH GOVERNMENT OPERATIONS:

Lessee shall not conduct operations or make any alterations that would interfere with or otherwise restrict operations, environmental clean-up or restoration actions by Navy, Environmental Protection Agency (EPA), state environmental regulators, or their contractors. Environmental clean-up, restoration or testing activities by these parties shall take priority over Lessee's use of Leased Premises in the event of any conflict. However, Government and Lessee agree to coordinate to minimize potential conflicts

between necessary remediation of environmental contamination, including investigation and remedial actions, and Lessee's and sublessee's use of Leased Premises.

12. PROTECTION AND MAINTENANCE SERVICES:

12.1 Government shall not be required to furnish any services or facilities to Lessee or to make any repair or alteration in or to Leased Premises.

12.2 During the term of this Lease, debris, trash and other useless materials not generated by Government shall be promptly removed from Leased Premises.

12.3 Lessee shall provide or cause to be provided all security services necessary to assure security and safety within Leased Premises. Any crimes or other offenses, including traffic offenses and crimes and offenses involving damage to or theft of Government property, shall be reported to the appropriate authorities for their investigation and disposition and to Government as property owner.

12.4 Lessee shall take or cause to be taken, all reasonable fire protection precautions at Leased Premises consistent with the level of use on the property.

12.5 Lessee, at its own expense, is solely responsible for protection, maintenance, preservation and repair of Leased premises, with the exception of those areas reserved for Government use, as identified in Exhibit F. Government shall be solely responsible for protection, maintenance, preservation and repair of those portions of the Leased Premises identified in Exhibit F for the duration of any period of such exclusive use, as set forth in Article 4.

12.6 Lessee expressly agrees, at its own expense, to keep the Leased Premises in a safe, neat, clean, and orderly condition. Lessee shall provide a complete and proper arrangement for the adequate sanitary handling and disposal, acceptable to the Government of all trash, garbage, and other refuse caused as a result of Lessee's operations on the Leased Premises. Lessee shall provide and use suitable, covered receptacles for all garbage, trash and other refuse on or in connection with the Premises. Piling of boxes, cartons, barrels, or other similar items in an unsightly or unsafe manner, on or about the Premises, is prohibited. Government shall have the right to enter upon and inspect the Premises at anytime for cleanliness and safety activities.

13. ENVIRONMENTAL PROTECTION PROVISIONS:

13.1 Lessee, sublessees and contractors shall comply with all applicable Federal, state and local laws, regulations and standards that are or may become applicable to Lessee's activities on Leased Premises.

13.2 The Lessee or any sublessee shall be solely responsible for obtaining at its cost and expense any environmental permits required for its operations under the Lease, independent of any existing permits held by the Government. Any and all environmental permits required for any of Lessee's or sublessee's operations or activities would be subject to prior concurrence of Government. Lessee acknowledges that the Government will not consent to being named a secondary discharger or co-permittee for any operations or activities of the Lessee or any sublessee under the Lease. In the event the Government is named as a secondary discharger or co-permittee for any activity or operation of the Lessee or any sublessee, Government shall have the right to take reasonable actions necessary to prevent, suspend, or terminate such activity or operation, including terminating this Lease, without liability or penalty.

13.3 Government's rights under this Lease specifically include the right for Government officials to inspect upon reasonable notice Leased Premises for compliance with environmental, safety and occupational health laws and regulations, whether or not Government is responsible for enforcing them. Such inspections are without prejudice to the right of duly constituted enforcement officials to make such inspections. Government normally will give Lessee or sublessee twenty-four (24) hours prior notice of its intention to enter Leased Premises unless it determines the entry is required for safety, environmental, operations or security purposes. Lessee shall have no claim on account of any entries against the United States or any officer, agent, employee, contractor or subcontractor thereof.

13.4 Government has entered into a Federal Facility Agreement (FFA) for MCAS El Toro with the United States Environmental Protection Agency (USEPA) and the State of California (through the Department of Toxic Substances Control (DTSC) and Santa Ana Regional Water Quality Control Board) pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 as amended. The Installation has been identified as a National Priorities List (NPL) Site under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980, as amended. Lessee acknowledges that Government has provided it with a copy of the installation Federal Facility Agreement (FFA) entered into by the United States Environmental Protection Agency (EPA) Region, the state equivalent and the Military Department, and Lessee agrees that should any conflict arise between the terms of such agreement as it presently exists or may be amended and the provisions of this Lease, the terms of the FFA will take precedence. Lessee further agrees that notwithstanding any other provision of this Lease, Government assumes no liability to Lessee or its sublessees or licensees should implementation of the FFA interfere with Lessee's or any sublessee's and licensee's use of Leased Premises. Lessee shall have no claim on account of any such interference against the United States or officer, agent, employee, contractor or subcontractor thereof, other than for abatement of rent, where applicable.

13.5 Government, EPA, DTSC, and the State and their officers, agents, employees, contractors and subcontractors, have the right, upon reasonable notice to Lessee and/or any sublessee, to enter upon Leased Premises for the purposes enumerated in this subparagraph and for such other purposes consistent with any provisions of the cleanup program (including but not limited to the BRAC Cleanup Plan, IRP, or FFA):

13.5.1 to conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, testpitting, testing soil borings and other activities related to the cleanup program;

13.5.2 to inspect field activities of Government and its contractors and subcontractors in implementing the cleanup program;

13.5.3 to conduct any test or survey required by EPA or applicable state equivalent relating to the implementation of the cleanup program;

13.5.4 to construct, operate, maintain or undertake any other response or remedial action as required or necessary under the cleanup program, including but not limited to monitoring wells, pumping wells and treatment facilities.

13.6 Lessee shall comply with the provisions of any health or safety plan in effect under the IRP or the FFA during the course of any of the above described response or remedial actions. Any inspection, survey, investigation or other response or remedial action will, to the extent practicable, be coordinated with representatives designated by Lessee and any sublessee. Lessee and sublessee shall have no claim on account of such entries against the United States or any officer, agent, employee, contractor or subcontractor thereof. In addition, Lessee shall comply with all applicable Federal, state and local occupational safety and health regulations.

13.7 Lessee further agrees that in the event of any sublease of Leased Premises, Lessee shall provide to U.S. EPA and California EPA, DTSC by certified mail a copy of the agreement or sublease of Leased Premises (as the case may be) within fourteen (14) calendar days after the effective date of such transaction. Lessee may delete the financial terms and any other proprietary information from the copy of any agreement of sublease furnished pursuant to this condition.

13.8 Lessee shall strictly comply with the hazardous waste permit requirements under the Resource Conservation and Recovery Act or its applicable state equivalent and any other applicable laws, rules or regulations. Except as specifically authorized by Government in writing, Lessee must provide at its own expense such hazardous waste management facilities complying with all laws and regulations, as Lessee may need for such storage. Government hazardous waste management facilities will not be available

to Lessee. Any violation of the requirements of this condition shall be deemed a material breach of this Lease.

13.9 DoD component accumulation points for hazardous and other waste will not be used by Lessee or any sublessee. Neither Lessee nor any sublessee will permit its hazardous wastes to be commingled with hazardous waste of DoD Component.

13.10 Lessee shall have a Government-approved plan for responding to hazardous waste, fuel and other chemical spills prior to commencement of operations on Leased Premises. The contingency plan shall be consistent with the provisions of California Code of Regulations, Title 22, Chapter 15, Article 4 beginning with Section 66265.50. Such plan shall be independent of Installation plan and, except for initial fire response and/or spill containment, shall not rely on use of Installation personnel or equipment. Should Government provide any personnel or equipment whether for initial fire response and/or spill containment, or otherwise on request of Lessee, or because Lessee was not, in the opinion of Government, conducting timely cleanup actions, Lessee agrees to reimburse Government for its costs in association with such response or cleanup.

13.11 The presence of known asbestos-containing material (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCBs), Potential Release Locations (PRLs), and radiological materials investigation locations is identified in the FOSL, attached as Exhibit C.

13.11.1 Access and occupancy of buildings/structures/facilities and sites identified in Exhibit C, sections 5.1 and 5.10, and in Exhibit E are prohibited without the prior written approval of the Government, except for short-term tours and emergency maintenance.

13.11.2 Buildings identified in Exhibit E may be occupied only after the lessee conducts all necessary surveys and abatement in accordance with all local, state, and federal requirements and has obtained the prior written approval of the Government.

13.11.3. The Lessee shall be responsible for the management of ACM, including but not limited to surveys, removal and/or demolition of structures containing ACM, in accordance with applicable federal, state and local laws and regulatory requirements.

13.11.4 If Lessee intends to demolish any facilities containing ACM, or to make any improvements or repairs that require the removal of asbestos, an appropriate asbestos disposal plan must be incorporated into the plans and specifications required under Article 8 and submitted to Government. The asbestos disposal plan will identify the proposed disposal site for the asbestos, or in the event the

site has not been identified, will provide for disposal at a licensed facility authorized to receive it.

13.11.5 ACM which during the period of this lease becomes damaged or deteriorated through the passage of time, as the result of a natural disaster or as a consequence of Lessee's activities under this Lease, including but not limited to any emergency, will be abated by Lessee at its sole cost and expense. In an emergency, Lessee will notify Government as soon as practicable of its emergency ACM responses. Lessee shall be responsible for monitoring the condition of existing ACM on Leased Premises for deterioration or damage and accomplishing repairs or abatement pursuant to the applicable conditions of this Lease.

13.12 LBP which during the period of this lease becomes damaged or deteriorated through the passage of time, as the result of a natural disaster or as a consequence of Lessee's activities under this Lease, including but not limited to any emergency, will be abated by Lessee at its sole cost and expense. In an emergency, Lessee will notify Government as soon as practicable of its emergency LBP responses. Lessee shall be responsible for monitoring the condition of existing LBP on Leased Premises for deterioration or damage and accomplishing repairs or abatement pursuant to the applicable conditions of this Lease.

13.12.1. Use of buildings/structures built prior to 1 January 1978 for residential purposes or any use involving children is prohibited without the prior written approval of the government.

13.12.2. Demolition of any facilities containing LBP, or any improvements or repairs that require the removal of LBP must have the prior written approval of the government. Lessee shall be responsible for the management of LBP, including surveys, removal, and/or demolition in accordance with applicable federal, state and local laws and regulatory requirements.

13.12.3. Lessee shall be responsible for conducting post-demolition sampling for and any necessary abatement of soil-lead hazards at target housing or residential real property.

13.13 Lessee shall relieve, indemnify, protect, defend and hold harmless Government from any costs, expenses, liabilities, fines or penalties resulting from discharges, emissions, spills, storage or disposal arising from Lessee's occupancy, use or operations, or any other action by Lessee or any sublessee giving rise to Government liability, civil or criminal, or any other action by Lessee or any sublessee giving rise or responsibility under Federal, state or local environmental laws. Lessee's obligations hereunder shall apply whenever Government incurs costs or liabilities for Lessee's activities or activities of any sublessee as provided hereunder. This provision shall survive the expiration or termination of this Lease.

13.14 Storage, treatment or disposal of toxic or hazardous materials on the Leased Premises is prohibited excepted as authorized by Government in accordance with 10 U.S.C. § 2692.

13.15 Lessee shall not conduct any subsurface excavation, digging, drilling or other disturbance of the ground surface without prior Government approval.

13.16 Lessee shall not install new groundwater wells of any type and shall not use contaminated groundwater without prior written Government approval.

13.17 Lessee shall not install any well that has the potential to affect plume migration.

13.18 Lessee shall not alter, disturb or remove groundwater monitoring wells, remedial action equipment (e.g. pumps), or associated utilities without prior written Government approval

13.19 Removal of or damage to security features (e.g. locks on monitoring wells, survey monuments, signs or monitoring equipment and associated pipelines and appurtenances is prohibited without prior written Government approval.

13.20 The following additional condition is specific to Carve Outs II-F and II-V (Sites 2 and 17 buffer zones), in accordance with The Navy's Final Interim Record of Decision, Operable Unit 2B Landfill Sites 2 and 17, Marine Corps Air Station El Toro, California, July 2000. A copy of the Record of Decision (ROD) can be obtained by contacting the El Toro Public Administrative Record Manager at (949) 726-5398:

13.20.1 The relevant restriction is that construction of structures within 1000 feet of the edge of the land fill is prohibited without prior DON approval. Therefore, construction of structures within Carve Outs IIF and IIV is prohibited without prior DON approval.

13.21 The following additional conditions are specific to Carve Out II-D (IRP Site 3) and II-H (IRP Site 5) and Anomaly Area 3:

13.21.1 Residential use of the sites and construction of day care centers on the sites is prohibited.

13.21.2 Construction of any structure, including placement of trailers is prohibited without the prior written approval of the DON and FFA signatories.

13.21.3 Removal of or damage to security features (e.g., locks on monitoring wells), survey monuments, signs, or monitoring equipment and associated pipelines and appurtenances is prohibited.

13.22 The following additional conditions are specific to Carve Out II-N (Site 24), in accordance with The Navy's Final Record of Decision, Operable Unit 1, Site 18 Regional Volatile Organic Compound Groundwater Plume Operable Unit 21 Site 24 – VOC Source Area, former Marine Corps Air Station El Toro, California, June 2002 (Site 24 ROD). A copy of the Record of Decision can be obtained by contacting the El Toro Public Administrative Record Manager at (949) 726-5398.

13.22.1 No new wells of any type shall be installed within the Site 24 Shallow Groundwater Plume or buffer zone without prior review and written approval from the DON, DTSC, U.S. EPA, and RWQCB. The Lessee shall also obtain permits for such wells as required by OCHA and IRWD

13.22.2 Extraction, injection, and monitoring wells and associated piping and equipment that are included in the remedial action shall not be altered, disturbed, or removed without the prior review and written approval from the DON, DTSC, U.S. EPA, RWQCB.

13.22.3 The DON, U.S. EPA, DTSC, RWQCB, and their authorized agents, employees, contractors and subcontractors shall have the right to enter upon the Site 24 portion of the Leased Premises to conduct investigations, tests, or surveys; inspect field activities; or construct, operate, and maintain the remedial action described in the ROD or undertake any other remedial response or remedial action as required or necessary under the cleanup program, including but not limited to monitoring well, pumping wells, and treatment facilities.

13.22.4 The Lessee and any future lessees must comply with all terms and conditions relating to land use restrictions set forth in the Site 24 ROD.

13.22.5 The Lessee and any future lessees must notify subsequent lessees of all land use restrictions and access provisions set forth in this Section 13.21.

14. TERMINATION:

14.1 Government shall have the right to terminate this Lease, in whole or in part, without liability, upon thirty (30) calendar days notice:

14.1.1 In the event of a national emergency as declared by the President or the Congress of the United States; or

14.1.2 In the event of breach by Lessee of any terms and conditions hereof. In the event of a breach involving the performance of any obligation, Lessee shall be afforded thirty (30) calendar days from the receipt of Government's notice of intent to terminate within which to complete the performance of the obligation or otherwise cure the breach and avoid termination of this Lease, unless Government determines that a shorter period is required for safety, environmental, operational or security purposes. In the event that Government shall elect to terminate this Lease on account of the breach by Lessee of any of the terms and conditions, Government shall be entitled to recover and Lessee shall pay to Government:

14.1.2(a) the costs incurred in reacquiring possession of the Leased Premises.

14.1.2(b) the costs incurred in performing any obligation on the part of Lessee to be performed hereunder.

14.1.2(c) An amount equal to the aggregate of any maintenance obligations and charges assumed hereunder and not paid or satisfied, which amounts shall be due and payable at the time when such obligations and charges would have accrued or become due and payable under this Lease.

14.1.3 In the event of failure by Lessee to take title to any portion of the Leased Premises within ten (10) calendar days following tender by the Government of a Quitclaim Deed for such portion of the Leased Premises

14.2 Lessee shall have the right to terminate this Lease upon thirty (30)-calendar days written notice to Government in the event of breach by Government of any of the terms and conditions hereof. In the event of a breach involving the performance of any obligation, Government shall be afforded sixty (60) calendar days from the receipt of Lessee's notice of intent to terminate within which to complete performance of the obligation or otherwise cure the breach and avoid termination of this Lease. Lessee shall also have the right to terminate this Lease in the event of damage to or destruction of all of the improvements on Leased Premises or such a substantial portion thereof as to render Leased Premises incapable of use for the purposes for which it is leased hereunder, provided:

14.2.1 Government either has not authorized or directed the repair, rebuilding or replacement of the improvements or has made no provision for payment for such repair, rebuilding or replacement by application of insurance proceeds or otherwise; and

14.2.2 That such damage or destruction was not occasioned by the fault or negligence of Lessee or any of its officers, agents, servants, employees, sublessees or

invitees, or by any failure or refusal on the part of Lessee to fully perform its obligations under this Lease.

14.2.3 If Government requires Lessee to vacate all or a substantial portion of Leased Premises pursuant to Article 15 of this Lease for a period in excess of thirty (30) calendar days, Lessee may terminate this Lease by written notice to Government given at any time while Lessee shall continue to be denied use of all or a substantial portion of Leased Premises. Lessee shall thereafter surrender possession of Leased Premises within fifteen (15) calendar days of such notice.

14.3 In the event this lease is terminated due to a breach, for any reason, by either party, in no way will Lessee be entitled to a refund of a portion of the purchase price of the associated sale parcel or other compensation.

15. ENVIRONMENTAL CONTAMINATION:

In the event environmental contamination is discovered on Leased Premises which creates, in Government's determination, an imminent and substantial endangerment to human health or the environment which necessitates evacuation of Leased Premises, and notwithstanding any other termination rights and procedures contained in this Lease, Lessee shall vacate or require any sublessee to vacate Leased Premises immediately upon notice from Government of the existence of such a condition. Exercise of this right by Government shall be without liability, except that Lessee shall not be responsible for the payment of consideration, during the period Leased Premises is vacated. The amount of deduction to be determined on a daily pro-rata basis. Government's exercise of this right herein to order the Leased Premises immediately vacated does not alone constitute a termination of the Lease, but such right may be exercised in conjunction with any other termination rights provided in this Lease or by law.

16. NON-ENVIRONMENTAL INDEMNIFICATION BY LESSEE:

Lessee shall at all times relieve, indemnify, protect, defend and hold harmless the United States of America, and all of its officers, agents and employees from any and all claims and demands, actions, proceedings, losses, liens, costs and judgments of any kind and nature whatsoever, including expenses incurred in defending against legal actions, for death or injury to persons or damage to property and for civil fines and penalties arising or growing out of, or in any manner connected with, the occupation or use of the Leased Premises by Lessee and the employees, agents, servants, guests, invitees, contractors and sublessees of Lessee. These include, but are not limited to, any fines, claims, demands and causes of action of every nature whatsoever which may be made upon, sustained or incurred by Government by reason of any breach, violation,

omission or non-performance of any term, covenant or condition hereof on the part of Lessee or the employees, agents, servants, guests, invitees and sublessees of Lessee. However, this indemnity shall not extend to damages due to the sole fault or negligence of Government or its contractors. This covenant shall survive the termination of this Lease for any injury or damage occurring after the commencement of term of the Lease.

17. INSURANCE:

17.1 Except to the extent of any obligation on the part of the Government to indemnify pursuant to Public law 102-484, Section 330, as amended, Lessee shall bear all risk of loss or damage to the Leased Premises, and for claims arising from any incident with respect to bodily injuries or death resulting there from, property damage, or both, suffered or alleged to have been suffered by any person or persons resulting from the operations of Lessee, sublessees, contractors and invitees under the terms of this Lease.

17.2 At the commencement of this Lease, Lessee shall obtain, from a reputable insurance company or companies, comprehensive general liability insurance. The insurance shall provide an amount not less than the minimum combined single limit of \$5,000,000.00 for any number of persons or claims arising from any one incident with respect to bodily injuries or death resulting there from, property damage or both, suffered or alleged to have been suffered by any person or persons resulting from the operations of Lessee, sublessees, contractors and invitees under the terms of this Lease. Lessee shall require its insurance company to furnish Government a copy of the policy or policies, or if acceptable to Government, certificates of insurance evidencing the purchase of such insurance. The minimum amount of liability insurance coverage is subject to revision by Government every three years or upon renewal or modification of this Lease.

17.3 As to those structures and improvements on Leased Premises constructed by or owned by Government, Lessee shall procure and maintain at Lessee's expense a standard fire and extended coverage insurance policy or policies on Leased Premises in the minimum amount of \$1,000,000.00, but not less than the amount required to demolish damaged or destroyed structures and improvements, remove debris and clear the Leased Premises. Lessee shall procure such insurance from a reputable company or companies. The insurance policy shall provide that in the event of loss there under, the proceeds of the policy or policies, at the election of Government, shall be payable to Lessee to be used solely for the demolition of damaged or destroyed structures and improvements, removal of debris and clearing of the Leased Premises or for repair, restoration, or replacement of the property damaged or destroyed. Any balance of the proceeds not required for such purposes shall be paid to Government. If Government does not elect, by notice in writing to the insurer within thirty (30) calendar days after the damage or destruction occurs, to have the proceeds paid to Lessee for the purposes herein above set forth, then such proceeds shall be paid to Government, provided

however that the insurer, after payment of any proceeds to Lessee in accordance with the provision of the policy or policies, shall have no obligation or liability with respect to the use or disposition of the proceeds by Lessee. Nothing herein contained shall be construed as an obligation upon Government to repair, restore or replace Leased Premises or any part thereof.

17.4 If and to the extent required by law, Lessee shall provide worker compensation or similar insurance in form and amounts required by law.

17.5 During the entire period this Lease shall be in effect, Lessee shall require its contractors or sublessees or any contractor performing work at Lessee's or sublessee's request on Leased Premises to carry and maintain the insurance required below:

17.5.1 Comprehensive general liability insurance, in an amount not less than \$1,000,000.00.

17.5.2 Worker compensation or similar insurance in form and amounts required by law.

17.6 All insurance which this Lease requires Lessee or sublessee to carry and maintain or cause to be carried or maintained shall be in such form, for such periods of time, and with such insurers as Government may reasonably require or approve. All policies or certificates issued by the respective insurers for public liability and property insurance will name Government as an additional insured, provide that any losses shall be payable notwithstanding any act or failure to act or negligence of Lessee or Government or any other person, provide that no cancellation, reduction in amount or material change in coverage thereof shall be effective until at least thirty (30) calendar days after receipt by Government of written notice thereof; provide that the insurer shall have no right of subrogation against Government; and be reasonably satisfactory to Government in all other respects. In no circumstances will Lessee be entitled to assign to any third party, rights of action that Lessee may have against Government.

17.7 Lessee and sublessees shall deliver or cause to be delivered promptly to Government a certificate of insurance evidencing the insurance required by this Lease and shall also deliver prior to expiration of any such policy, a certificate of insurance evidencing each renewal policy covering the same risks.

18. LABOR PROVISION:

During the term of this Lease, Lessee agrees as follows:

18.1 Lessee will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. Lessee shall take affirmative action to ensure that applicants are employed, and that employees are

treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation and selection for training, including apprenticeship. Lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Government setting forth the provisions of this nondiscrimination clause.

18.1.1 Lessee shall, in all solicitations or advertisements for employees placed at Leased Premises by or on behalf of Lessee, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

18.1.2 Lessee shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by Government, advising the labor union or worker's representative of Lessee's commitments under this equal opportunity clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

18.1.3 Lessee shall comply with all provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and of the rules, regulations and relevant orders of the Secretary of Labor.

18.1.4 Lessee shall furnish all information and reports required by Executive order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and of the rules, regulations and relevant orders of the Secretary of Labor or pursuant thereto, and will permit access to his books, records and accounts by Government and the Secretary of Labor for purposes of investigating to ascertain compliance with such rules, regulations and orders.

18.1.5 In the event of Lessee's noncompliance with the equal opportunity clause of this Lease or with any of said rules, regulations or orders, this lease may be canceled, terminated or suspended in whole or in part and Lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended by Executive order 11375 of October 13, 1967, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, or by rule, regulation or order of the Secretary of Labor, or otherwise provided by law.

18.1.6 Lessee will include the above provisions in every sublease unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, as amended by

Gov't_____.

Lessee_____.

Executive Order 11375 of October 13, 1967, so that such provisions will be binding upon each sublessee. Lessee will take such action with respect to any sublessee as Government may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event Lessee becomes involved, or is threatened with litigation with sublessee as a result of such direction by Government, Lessee may request the United States to enter into such litigation to protect the interest of the United States.

18.2 This Lease, to the extent that it is a contract of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. 3703) and is not covered by the Walsh-Healy Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and exceptions of said Contract Work Hours and Safety Standards Act and to all other provisions and exceptions of said law.

18.2.1 Lessee shall not require or permit any laborer or mechanic in any workweek in which he is employed on any work under this Lease to work in excess of 40 hours in such work week on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all such hours worked in excess of 40 hours in such work week. The "basic rate of pay", as used in this clause, shall be the amount paid per hour, exclusive of Lessee's contribution or cost for fringe benefits and any cash payment made in lieu of providing fringe benefits or the basic hourly rate contained in the wage determination, whichever is greater.

18.2.2 In the event of any violation of the provision of Article 18.2.1, Lessee shall be liable to any affected employee for any amounts due, and to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions of Article 18.2.1 in the sum of ten \$10.00 for each calendar day on which such employee was required or permitted to be employed on such work in excess of the standard work week of 40 hours without payment of the overtime wages required by paragraph 18.2.1.

18.3 In connection with the performance of work required by this Lease, Lessee agrees not to employ any person undergoing a sentence of imprisonment at hard labor.

19. SUBMISSION OF NOTICES:

No notice, order, direction, determination, requirement, consent or approval under this Lease shall be of any effect unless made in writing and delivered to the addressees designated below. All correspondence, notices and claims concerning this Lease shall be directed to the addresses set out below or to such addresses as may from time to time be given by the parties. Such correspondence, notices and claims may be delivered by hand, express delivery, overnight courier or by prepaid registered or

certified mail, return receipt requested. The individuals so designated shall be the representatives of the parties and the points of contact during the period of this Lease, unless otherwise indicated by written notice of an individual party to the Lease to each party to the Lease.

If to Government:

Real Estate Contracting Officer
Base Realignment and Closure Program Management Office
1230 Columbia Street, Suite 1100
San Diego, CA 92101-8571

If to Lessee:

Lennar Homes of California, Inc.
25 Enterprise
Aliso Viejo, CA 92656
Attn: Robert Santos

20. AUDIT:

This Lease shall be subject to audit by any and all cognizant Government agencies. Lessee shall make available to such agencies for use in connection with such audits all records, which it maintains with respect to this Lease and copies of all reports, required to be filed hereunder. Government shall provide to Lessee reasonable documentation for all billings and assessments for costs incurred, and for any other Government demands for payment. In no event shall the provisions of this Article be construed to authorize or require the disclosure of documents protected from disclosure by the attorney-client privilege, or otherwise, the confidentiality of which is protected by state or federal law

21. AGREEMENT:

This Lease shall not be modified unless in writing and signed by both parties. No oral statements or representation made by, for or on behalf of either party shall be a part of this Lease. Should a conflict arise between the provisions of this Lease and any exhibit hereto, or any other agreement between Government and Lessee, the provisions of this Lease shall take precedence.

22. FAILURE TO INSIST ON COMPLIANCE:

The failure of Government to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this Lease shall not be

construed as a waiver or relinquishment of Government's right to the future performance of any such terms, covenants or conditions and Lessee's obligations in respect to such future performance shall continue in full force and effect.

23. DISPUTES:

23.1 This lease is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613) (the Act).

23.2 Except as provided in the Act, all disputes arising under or relating to this lease shall be resolved under this clause.

23.3 "Claim", as used in this clause, means a written demand or written assertion by Lessee or Government seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of lease terms, or other relief arising under or relating to this Lease. A claim arising under this Lease, unlike a claim relating to this Lease, is a claim that can be resolved under a lease clause that provides for the relief sought by the claimant. However, a written demand or written assertion by Lessee seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by subparagraph 23.4 below. A voucher, invoice or other routine request for payment that is not in dispute when submitted, is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

23.4 A claim by Lessee shall be made in writing and submitted within six (6) years after accrual of the claim, to the Government for a written decision.

23.4.1 Lessee shall provide the certification specified in subparagraph 23.4.3 of this clause when submitting any claim:

- (a) Exceeding \$100,000; or
- (b) Regardless of the amount claimed, when using:
 - (1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or
 - (2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to use in accordance with the Administrative Dispute Resolution Act (ADRA).

23.4.2 the certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

23.4.3 The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract

adjustment for which Lessee believes Government is liable; and that I am duly authorized to certify the claim on behalf of Lessee."

23.4.4 The certification may be executed by any person duly authorized to bind Lessee with respect to the claim.

23.5 For Lessee claims of \$100,000 or less, the Government, must, if requested in writing by Lessee, render a decision within 60 calendar days of the request. For Lessee-certified claims over \$100,000, the Government, must, within 60 calendar days, decide the claim or notify Lessee of the date by which the decision will be made.

23.6 The Government's decision shall be final unless Lessee appeals or files a suit as provided in the Act.

23.7 At the time a claim by the Lessee is submitted to Government, or a claim by Government is presented to Lessee, the parties, by mutual consent, may agree to use ADR. When using arbitration conducted pursuant to 5 U.S.C. 575-580, or when using any other ADR technique that the agency elects to employ in accordance with the ADRA, any claim, regardless of amount, shall be accompanied by the certification described in Article 23.4.3 of this clause, and executed in accordance with paragraph 23.4.4 of this clause.

23.8 Government shall pay interest on the amount found due and unpaid by Government from (1) the date the Government receives the claim (properly certified if required), or (2) the date payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Government initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury, as provided in the Act, which is applicable to the period during which the Government receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

23.9 Lessee shall proceed diligently with the performance of Lease, pending final resolution of any request for relief, claim, appeal or action arising under Lease, and comply with any decision of the Government.

24. COVENANT AGAINST CONTINGENT FEES:

Lessee warrants that no person or agency has been employed or retained to solicit or secure this Lease upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established commercial agencies maintained by Lessee for the purpose of securing business. For breach or violation of this warranty, Government shall have the right to annul this Lease without liability or in its discretion, to require Lessee to pay, in addition

to the rental or consideration, the full amount of such commission, percentage, brokerage or contingent fee.

25. LIENS:

Lessee shall promptly discharge or cause to be discharged any valid lien, right in rem, claim or demand of any kind, except one in favor of Government, which at any time may arise or exist with respect to the Leased Property or materials or equipment furnished therefore, or any part thereof, and if the same shall not be promptly discharged by Lessee, or should Lessee or sublessee be declared bankrupt or make an assignment on behalf of creditors, or should the leasehold estate be taken by execution, Government reserves the right to take immediate possession without any liability to Lessee or any sublessee. Lessee and any sublessee shall be responsible for any costs incurred by Government in securing clear title to its property.

26. TAXES:

Lessee shall pay to the proper authority, when and as the same become due and payable, all taxes, assessments and similar charges which, at any time during the term of this Lease, may be imposed upon Lessee with respect to Leased Premises. Title 10 United States Code, Section 2667(e) contains the consent of Congress to the Taxation of Lessee's interest in Leased Premises, whether or not the Leased Premises are in an area of exclusive federal jurisdiction. Should Congress consent to taxation of Government's interest in the property, this Lease will be renegotiated.

27. SUBJECT TO EXISTING AND FUTURE EASEMENTS AND RIGHTS-OF-WAY, AND TO CERTAIN POTENTIAL AIR NAVIGATION-RELATED RESTRICTIONS:

27.1 This Lease is subject to all outstanding easements and rights-of-way for location of any type of facility over, across, through, in and upon Leased Premises or any portion thereof and to the right of Government to grant such additional easements and rights-of-way over, across, in and upon Leased Premises as it shall determine to be in the public interest; provided that any such additional easement or right-of-way shall be conditioned on the assumption by the grantee thereof of liability to Lessee for such damages as Lessee shall suffer for property destroyed or property rendered unusable on account of the grantee's exercise of its rights there under. Such easements and rights of way shall include but not be limited to those for water, gas, electricity, telephone, sewer, pipelines, conduits and for any type of facility, including but not limited to those for communications, heating, cooling and power. There is hereby reserved to the holders of such easements and rights-of-way as are presently outstanding or which may hereafter be granted, to any workers officially engaged in the construction, installation, maintenance, operation, repair or replacement of facilities located thereon, and to any Federal, state or local official engaged in the official inspection thereof, such

reasonable rights of ingress and egress over Leased Premises as shall be necessary for the performance of their duties with regard to such facilities.

27.2 The Government has constructed and installed roads, structures, facilities, pipelines, and conduits on Leased Premises. For purposes of this Article, these roads, structures, facilities, pipelines, and conduits shall be treated as if they were within, easements and rights of way, and Lessee shall not interfere with or otherwise disturb such government-owned improvements without the prior written consent of the Government. Lessee shall protect or relocate them in a manner satisfactory to Government should such protection or relocation be required as a result of Lessee's use of Leased Premises.

27.3 The outstanding easements and rights of way referenced in paragraph 27.1 of this Lease shall be deemed to include, but shall not be limited to, the following:

27.3.1 the rights of the FAA, including its officers, employees, agents, contractors and subcontractors, to exercise rights of ingress and egress over, across, in and upon Leased Premises, and such other easements and/or rights of way as set forth in such paragraph 27.1, for purposes of accessing Buildings 372, 378, 746, and 796 and the adjacent land around such building, as identified in Exhibits F and G, and for construction, installation, maintenance, operation, repair or replacement of facilities thereon. Notwithstanding Article 9 of this Lease, the FAA and its officers, employees, agents, contractors and subcontractors may exercise rights of ingress and egress, and may conduct activities involving construction, installation, maintenance, operation, repair or replacement of facilities on or in Building 372, 378, 746 and 796 and the adjacent land around such building, as identified in Exhibit F without providing prior notice to Lessee.

27.3.2 The rights of the Orange County Water District ("OCWD") and Irvine Ranch Water District ("IRWD"), including their officers, employees, agents, contractors and subcontractors, to exercise rights of ingress and egress over, across, in and upon Leased Premises, and such other easements and/or rights of way as set forth in such paragraph 27.1, for purposes of access and rights-of-way for the construction, operation, and maintenance of the CERCLA Component of the Modified Irvine Desalter Project (CCMI) set forth in Paragraph VI.A of the "Settlement Agreement Among the Settling Federal Agencies (SFA), OCWD, and IRWD in Regard to Former Marine Corps Air Station (MCAS) El Toro" dated September 1, 2001 ("Settlement Agreement"). The OCWD and IRWD and their officers, employees, agents, contractors and subcontractors may exercise rights of ingress and egress, and may conduct activities involving construction, operation, maintenance, repair or replacement of the CCMI upon and beneath the Leased Premises without providing prior notice to Lessee.

27.3.3 The rights of the OCWD and IRWD, including their officers, employees, agents, contractors and subcontractors, to exercise rights of ingress and

egress over, across, in and upon Leased Premises, and such other easements and/or rights of way as set forth in such paragraph 27.1, upon reasonable notice and so as not to unreasonably interfere with Lessee's operations or other use of the Leased Premises, to take soil samples for the purpose of confirming that no such current operations or use have resulted in the release of hazardous substances that could impact the CCMI treatment system.

28. ADMINISTRATION:

Except as otherwise provided for under this Lease, Government shall, under the direction of the Base Realignment and Closure Program Management Office have complete charge of the administration of this Lease, and shall exercise full supervision and general direction thereof insofar as the interests of Government are affected.

29. SURRENDER:

In the event the lease is terminated, Lessee shall quietly and peacefully remove itself and its personal property and trade fixtures from Leased Premises and surrender the possession thereof to Government. Government may, in its discretion, declare any personal property and trade fixtures that have not been removed from Leased Premises upon termination provided for above, as abandoned property upon an additional 30 calendar days notice.

30. INTEREST:

30.1 Notwithstanding any other provision of this Lease, unless paid within thirty (30) calendar days, all amounts that become payable by Lessee to Government under this Lease (net any applicable tax credit under the Internal Revenue Code) shall bear interest from the date due. The rate of interest will be the Current Value of Funds rate published by the Secretary of Treasury pursuant to 31 U.S.C. 3717 (Debt Collection Act of 1982).

30.1.1 Amounts shall be due upon the earliest of:

30.1.1(a) the date fixed pursuant to this Lease,

30.1.1(b) the date of the first written demand for payment,
Consistent with this Lease, including demand consequent upon default termination,

30.1.1(c) the date of transmittal by Government to Lessee of a
proposed supplemental agreement to confirm completed negotiations fixing the amount,

30.1.1(d) if this Lease provides for revision of prices, the date of written notice to Lessee stating the amount of refund payable in connection with a pricing proposal or in connection with a negotiated pricing agreement not confirmed by Lease supplement.

31. AVAILABILITY OF FUNDS:

The Government's obligations under this Lease are subject to the availability of funds appropriated for such purposes. Nothing in this Lease shall be interpreted to require obligations or payments by Government that would be in violation of the Anti-Deficiency Act (31 USC 1341).

32. APPLICABLE RULES AND REGULATIONS:

Lessee and any Sublessees shall comply with all Federal, State and local laws, regulations and standards that are applicable or may become applicable to Lessee's or Sublessee' activities on the Leased Premises. These include, but are not limited to, laws and regulations regarding the environment, construction of facilities, health, safety, food service, water supply, sanitation, use of pesticides, and licenses or permits to do business. Lessee and any Sublessee are responsible for obtaining and paying for permits required for its operations under the Lease.

33. QUIET POSSESSION:

Government covenants and agrees that Lessee, upon paying any charges hereunder provided for and observing and keeping all covenants, agreements, and conditions of this Lease on its part to be observed and kept, shall quietly have and enjoy Leased Premises during the term of this Lease without hindrance or molestation by anyone claiming by or through Government, subject, however, to the exceptions, reservations and conditions of this Lease.

34. GOVERNMENT APPROVAL:

Whenever this Lease requires Government approval or consent, such approval or consent shall not be unreasonably withheld or delayed.

35. **EXHIBITS:**

The following exhibits are attached hereto and incorporated by reference herein:

- A. Description of the Leased Premises
- B. Executive Summary of Environmental Baseline Survey
- C. Finding of Suitability to Lease
- D. Work Exempt from Government Consent
- E. Facilities Containing FAD ACM or Requiring ACM Survey Prior to Use or Occupancy
- F. Portion of Leased Premises Reserved for Government Use
- G. FAA Parcel

IN WITNESS WHEREOF, the parties hereto have, on the respective dates set forth below duly executed this Lease as of the day and year first above written.

THE UNITED STATES OF AMERICA
Acting by and through the Department of the Navy

By: _____

Date: _____

HERITAGE FIELDS LLC

By: _____

Title: _____

Date: _____

**Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 2**

Exhibit "A"

EXHIBIT "A"
Description of "Property"

That certain real property situated in the County of Orange, State of California, including the following parcels, attached hereto and made a part hereof:

Parcel II-B
Parcel II-C
Parcel II-D
Parcel II-E
Parcel II-F
Parcel II-G
Parcel II-H
Parcel II-I
Parcel II-J
Parcel II-K
Parcel II-L
Parcel II-M
Parcel II-N
Parcel II-O
Parcel II-P
Parcel II-Q
Parcel II-R
Parcel II-S
Parcel II-T
Parcel II-U
Parcel II-V

PSOMAS

LEGAL DESCRIPTION

PARCEL II-B

In the City of Irvine, County of Orange, State of California, being that portion of Lot 273 of Block 154 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°22'54" West 3556.41 feet" as shown on sheet 10 of said Record of Survey; thence South 27°48'02" West 2229.30 feet to the **True Point of Beginning**; thence South 33°07'51" East 151.14 feet; thence South 57°46'16" West 278.47 feet; thence North 32°13'44" West 419.88 feet; thence North 57°46'16" East 147.64; thence North 32°13'44" West 215.55 feet; thence South 57°46'16" West 153.93 feet; thence North 32°13'44" West 143.24 feet; thence North 57°46'16" East 153.93 feet; thence North 32°13'44" West 192.65 feet; thence North 57°46'16" East 339.45 feet; thence South 32°13'44" East 318.47 feet; thence South 57°46'16" West 138.07 feet; thence South 32°13'44" East 231.96 feet; thence South 57°46'16" West 72.92 feet; thence South 32°13'44" East 269.76 to the **True Point of Beginning**.

Containing 6.729 acres (293,103 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on exhibit attached hereto and made a part hereof.

PSOMAS

1
2 This real property description has been prepared by me or under my direction, in
3 conformance with the Professional Land Surveyor's Act.
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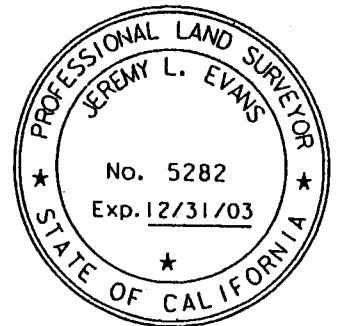
6 Jeremy L Evans

2-4-2005

7 Jeremy L. Evans, P.L.S. 5282

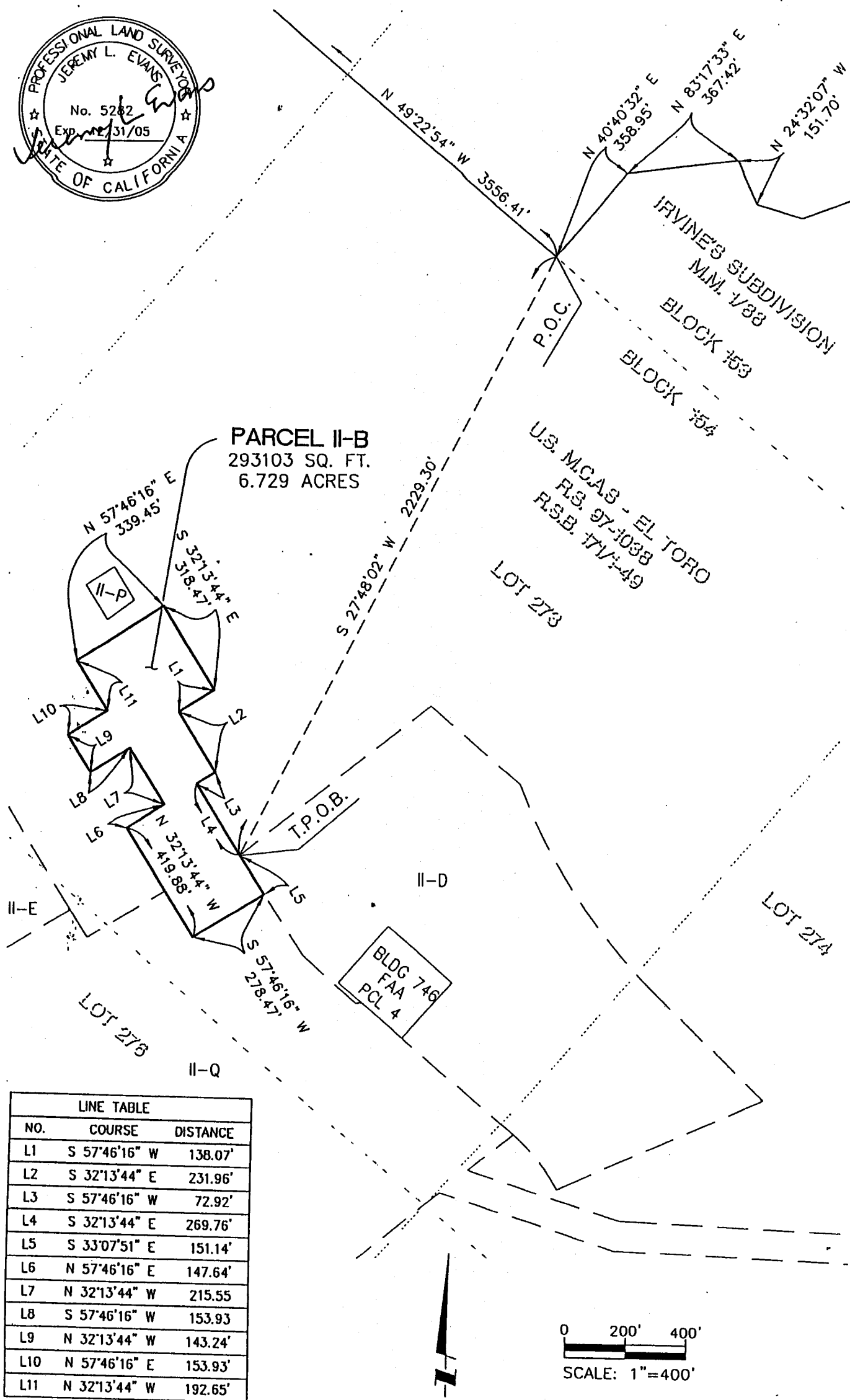
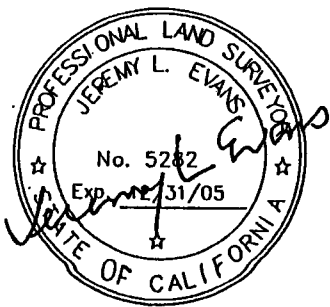
Date

8 Expires 12/31/05.
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30 REVIEWED BY CADASTRAL - RWS

EXHIBIT



LINE TABLE		
NO.	COURSE	DISTANCE
L1	S 57°46'16" W	138.07'
L2	S 32°13'44" E	231.96'
L3	S 57°46'16" W	72.92'
L4	S 32°13'44" E	269.76'
L5	S 33°07'51" E	151.14'
L6	N 57°46'16" E	147.64'
L7	N 32°13'44" W	215.55'
L8	S 57°46'16" W	153.93'
L9	N 32°13'44" W	143.24'
L10	N 57°46'16" E	153.93'
L11	N 32°13'44" W	192.65'

REVIEWED BY CADASTRAL-RWS

DESCRIPTION: That portion of Lot 273 of Block 154 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 11/07/04
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 400'

DRAFTED CHL

CHECKED J.E

DATE OCT. 2004

JOB

NUMBER 2NORD60100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-C

In the City of Irvine, County of Orange, State of California, being that portion of lot 362 of Block 153 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°22'54" West 3556.41 feet" as shown on sheet 10 of said Record of Survey; thence South 84°23'05" East 743.37 feet to the **True Point of Beginning**; thence North 65°43'54" East 138.01 feet; thence North 61°31'40" East 322.51 feet; thence North 53°48'35" East 387.83 feet; thence North 48°53'53" East 88.74 feet to the beginning of a non-tangent curve concave southwesterly having a radius of 200.00 feet, a radial line to said beginning bears North 15°57'52" West; thence easterly, southeasterly and southerly along said curve 426.23 feet through a central angle of 122°06'21" a radial to said point bears South 73°51'31" East; thence South 164.69 feet; thence South 12°40'49" East 102.50 feet; thence South 6°29'21" West 47.86 feet; thence South 78°08'55" West 54.78 feet to the beginning of a curve concave southeasterly having a radius of 230.00 feet; thence southwesterly along said curve 168.17 feet through a central angle of 41°53'36" to the beginning of a reverse curve concave northwesterly having a radius of 200.00 feet, a radial line to said beginning bears South 53°44'41" East; thence southwesterly along said curve 205.73 feet through a central angle of 58°56'15" to the beginning of a reverse curve concave southeasterly having a radius of 150.00 feet, a radial line to said beginning bears North 5°11'34" East; thence westerly and southwesterly along said curve 199.59 feet through a central angle of 76°14'22"; thence South 18°57'12" West 112.91 feet to the beginning of a curve concave northerly having a radius of 100.00 feet; thence southwesterly, westerly and northwesterly along said curve 220.13 feet through a central angle of 126°07'31"; thence North 34°55'17" West

PSOMAS

1 152.63 feet; thence North 45°39'31" West 164.62 feet; thence North 24°42'17" West
2 .259.30 feet to the True Point of Beginning.

3

4 Containing 13.318 acres (580,122 square feet), more or less

5

6 Subject to covenants, conditions and restrictions, rights-of-way and easements of record,
7 if any.

8

9 As shown on exhibit attached hereto and made a part hereof.

10

11 This real property description has been prepared by me or under my direction, in
12 conformance with the Professional Land Surveyor's Act.

13

14

15 Jeremy L. Evans

2-4-2005

16 Jeremy L. Evans, P.L.S. 5282

Date

17 Expires 12/31/05

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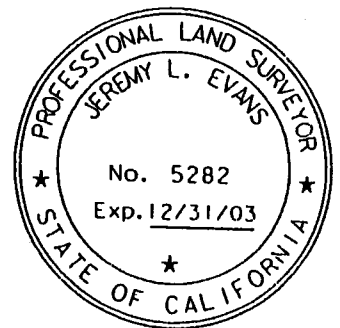
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REVIEWED BY CADASTRAL - RWS



EXHIBIT

U.S. MCAS - EL TORO
R.S. 97-1038
R.S.B. 171/1-40

LOT 362

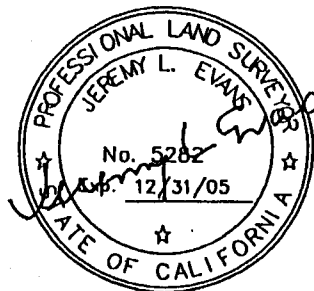
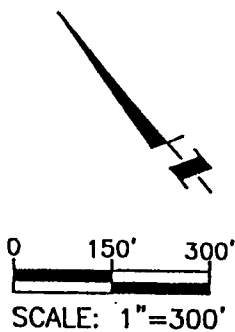
PARCEL II-C
580,122 SQ. FT.
13.318 ACRES

LOT 273

IRVINE'S SUBDIVISION
M.M. 1/88

BLOCK 153

BLOCK 154



REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Block 153 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	11/07/04
REV 2	

PSOMAS
3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SHEET 1 OF 1	SCALE 1" = 300'
DRAFTED CHL	
CHECKED JLE	
DATE NOV, 2004	
JOB NUMBER 2NOR060100 T7	

PSOMAS

LEGAL DESCRIPTION

.PARCEL II-D

In the City of Irvine, County of Orange, State of California, being that portion of Lots 273 and 274 of Block 154 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°22'54" West 3556.41 feet" as shown on sheet 10 of said Record of Survey; thence South 27°48'02" West 2229.30 feet to the **True Point of Beginning**; thence North 51°39'47" East 804.91 feet; thence South 49°47'05" East 388.30 feet to the beginning of a non-tangent curve concave northeasterly having a radius of 1860.00 feet, a radial line to said beginning of curve bears South 68°53'19" West; thence southeasterly along said curve 809.38 feet through a central angle of 24°55'56"; thence South 46°02'37" East 508.11 feet; thence South 64°12'47" West 748.02 feet to the beginning of a non-tangent curve concave southwesterly having a radius of 700.00 feet, a radial line to said beginning of said curve bears North 62°07'33" East; thence northwesterly along said curve 267.29 feet through a central angle of 21°52'40"; thence North 49°45'07" West 639.12 feet; thence South 83°39'35" West 20.27 feet; thence North 48°44'25" West 236.30 feet; thence North 33°07'51" West 388.10 feet to the **True Point of Beginning**.

Containing 28.286 acres (1,232,134 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on exhibit attached hereto and made a part hereof.

PSOMAS

This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyor's Act.

Jeremy L Evans

Jeremy L. Evans, P.L.S. 5282

2-4-2005

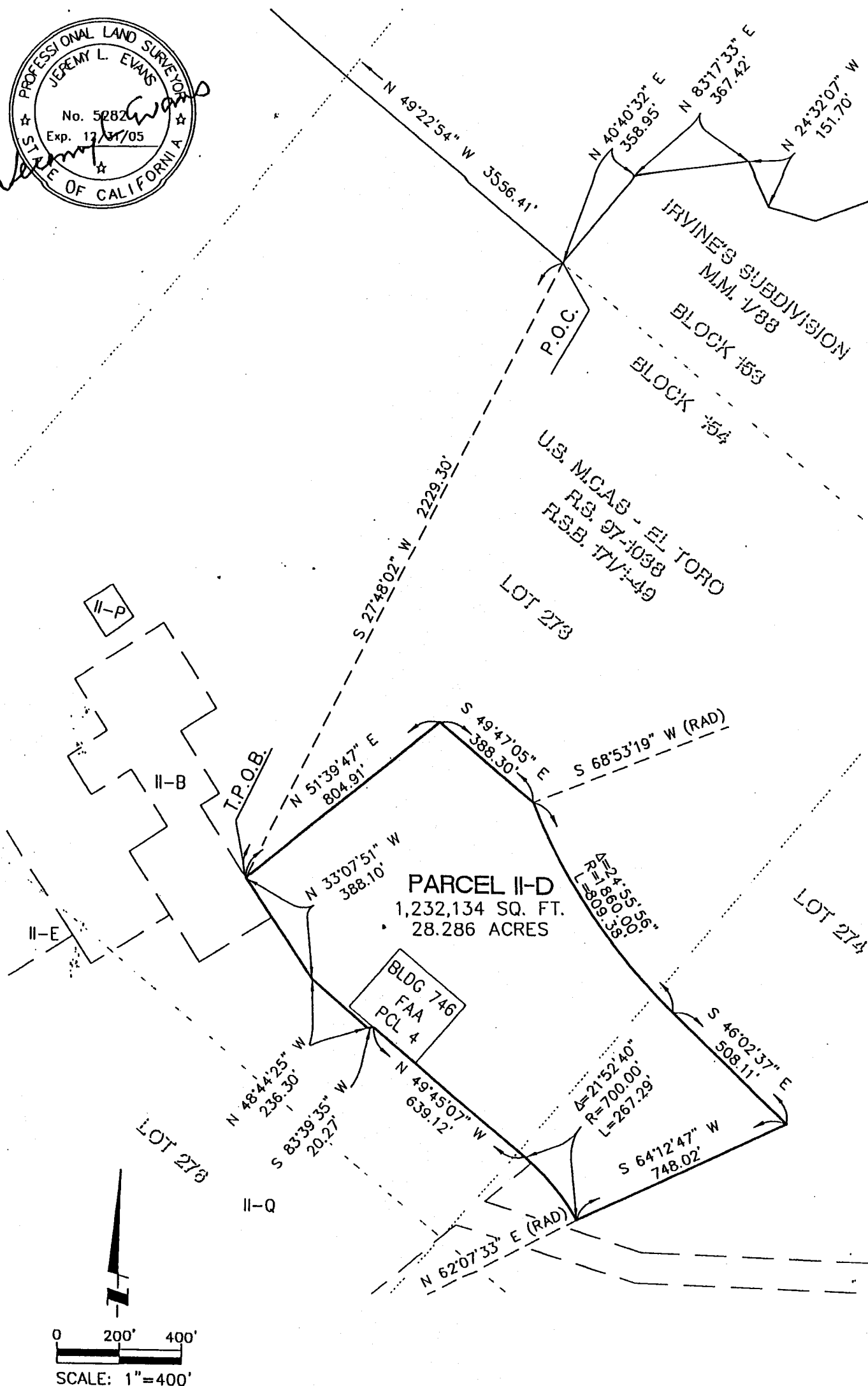
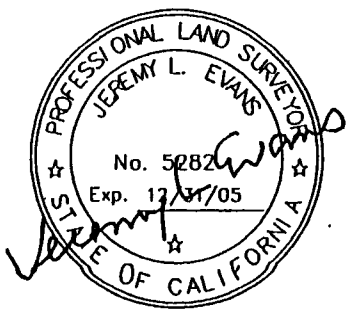
Date

Expires 12/31/05



REVIEWED BY CADASTRAL- RWS

EXHIBIT



REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lots 273 and 274 of Block 154 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	11/07/04
REV 2	

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 400'

DRAFTED CHL

CHECKED JLE

DATE OCT, 2004

JOB
NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-E

In the City of Irvine, County of Orange, State of California, being that portion of Lot 272 of Block 141 and Lots 273 and 276 of Block 154 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°22'54" West 3556.41 feet" as shown on sheet 10 of said Record of Survey; thence South 36°28'35" West 2693.05 feet to the **True Point of Beginning**; thence South 57°46'16" West 254.27 feet; thence North 32°01'02" West 1812.84 feet; thence North 57°46'16" East 515.47 feet; thence South 32°13'44" East 539.06 feet; thence South 57°46'16" West 380.78 feet; thence South 32°13'44" East 272.30 feet; thence North 57°46'16" East 112.89 feet; thence South 32°13'44" East 1001.46 feet to the **True Point of Beginning**.

Containing 13.052 acres (568,559 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on exhibit attached hereto and made a part hereof.

PSOMAS

This real property description has been prepared by me or under my direction, in
conformance with the Professional Land Surveyor's Act.

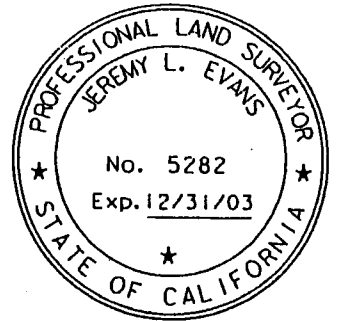
Jeremy L. Evans

Jeremy L. Evans, P.L.S. 5282

2-4-2005

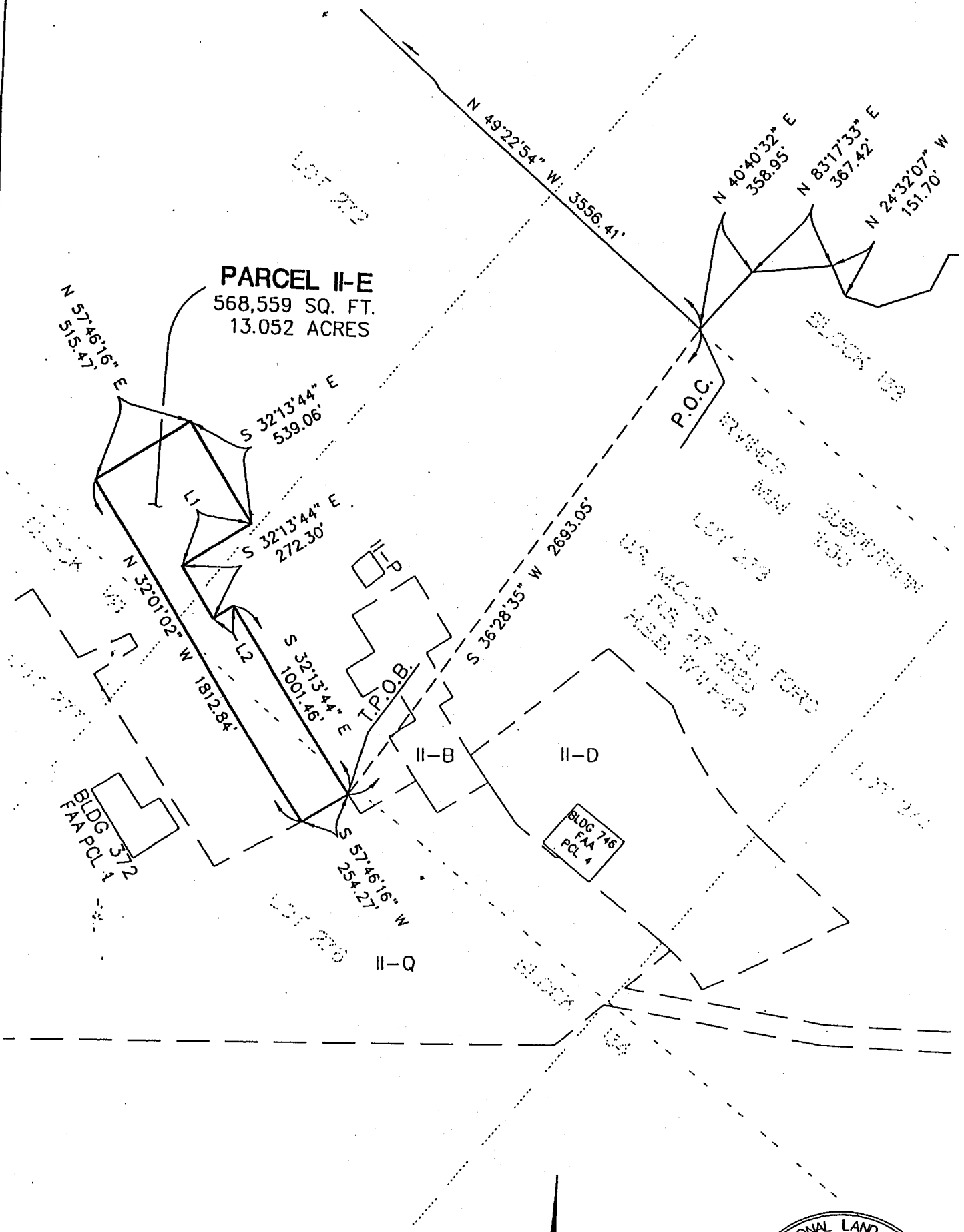
Date

Expires 12/31/05

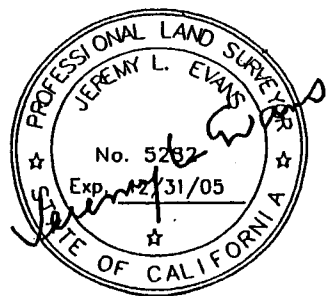
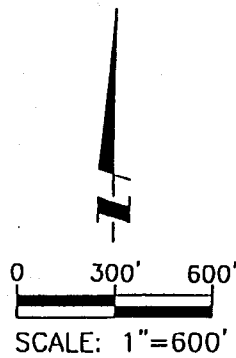


REVIEWED BY CADASTRAL - RWS

EXHIBIT



LINE DATA		
No.	BEARING	DISTANCE
L1	S 57°46'16" W	380.78'
L2	N 57°46'16" E	112.89'



REVIED BY CADASTRAL- RWS

DESCRIPTION: Those portions of Lot 272 of Block 141 and portions of Lots 273 and 276 of Block 154 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 11/07/04
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 600'

DRAFTED CHL

CHECKED JLE

DATE NOV, 2004

JOB NUMBER 2NOR06D100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-F

In the City of Irvine, County of Orange, State of California, being a portion of Block 153, Lot 274 of Block 154 and Lot 299 of Block 174 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the northwesterly terminus of that certain course in the line shown on said Record of Survey as "Department of Interior Survey Line" having a bearing and distance of "South 73°37'35" East 395.26 feet" as shown on sheet 10 of said Record of Survey; thence South 73°37'35" East along said line 120.53 feet to the **True Point of Beginning**; thence along said line the following 11 courses:

- 1) South 73°37'35" East 274.73 feet;
- 2) South 80°16'46" East 358.80 feet;
- 3) South 27°59'45" East 114.34 feet;
- 4) South 44°10'35" West 253.88 feet;
- 5) North 43°46'25" West 36.97 feet;
- 6) South 47°00'59" West 378.73 feet;
- 7) South 40°22'44" West 1009.86 feet;
- 8) South 49°37'06" East 2277.11 feet;
- 9) South 43°05'49" East 709.84 feet;
- 10) North 74°22'29" East 103.60 feet;
- 11) South 49°16'11" East 77.98 feet to the southeasterly line of said U.S. M.C.A.S El Toro property; thence leaving said "Department of Interior Survey Line" and along said southeasterly line South 70°30'52" West 549.50 feet; thence North 47°33'55" West 2699.53 feet; thence North 09°47'54" West 607.30 feet; thence North 37°49'30" East 46.49 feet; thence North 22°13'03" East 29.55 feet; thence

PSOMAS

1 North 40°22'44" East 233.74 feet; thence South 52°44'01" East 45.54 feet; thence
2 North 40°22'44" East 674.73 feet; thence North 46°14'38" West 80.06 feet; thence
3 North 41°05'24" East 375.14 feet; thence North 48°54'36" West 205.66 feet to the True
4 Point of Beginning.

5
6 Containing 41.544 acres (1,809,668 sq. ft.), more or less.

7
8 Subject to covenants, conditions and restrictions, rights-of-way and easements of record,
9 if any.

10
11 As shown on exhibit attached hereto and made a part hereof.

12
13 This real property description has been prepared by me or under my direction, in
14 conformance with the Professional Land Surveyor's Act.

15
16 Peter J. Fitzpatrick

17 Peter J. Fitzpatrick, P.L.S. 6777

2/20/05

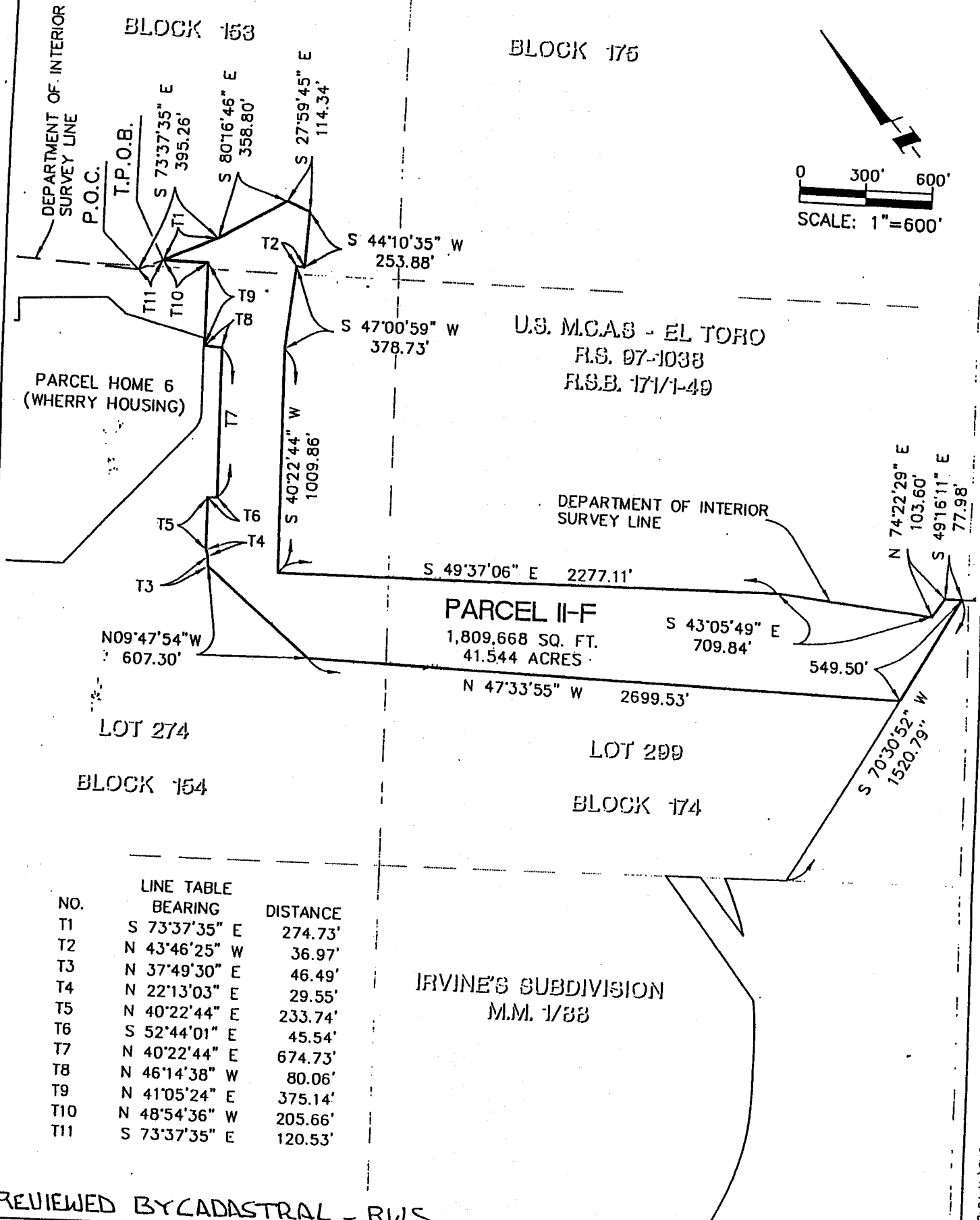
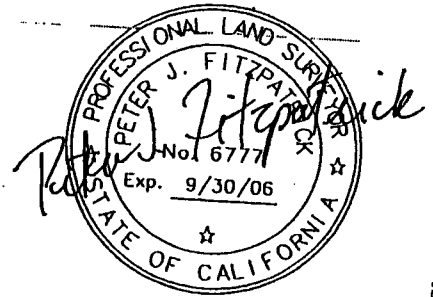
Date

18 Expires 9/30/06



30 REVIEWED BY CADASTRAL - RWS

EXHIBIT



DESCRIPTION: Those portions of Block 153, Lot 274 of Block 154 and Lot 299 of Block 174, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 5/26/04
REV 2 1/14/05

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 600'

DRAFTED CHL

CHECKED P.J.F.

DATE DEC, 2004

JOB NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-G

In the City of Irvine, County of Orange, State of California, being a portion of Lot 302 of Block 174 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at an angle point on the "U.S. M.C.A.S. - El Toro Boundary Line", said point being the northerly terminus of that certain course therein having a bearing and distance of "North 02°41'27" East 176.68 feet" as shown on sheet 11 of said Record of Survey; thence South 59°50'58" West 462.86 feet to the **True Point of Beginning**; thence North 50°41'23" West 211.80 feet; thence South 36°13'05" West 87.19 feet to the beginning of a curve concave northerly having a radius of 300.00 feet; thence southwesterly and westerly along said curve 327.00 feet through a central angle of 62° 27' 10"; thence North 81°19'45" West 73.75 feet; thence North 2°10'45" East 608.17 feet; thence South 81°15'00" East 605.20 feet; thence South 48°53'41" East 11.37 feet to the beginning of a curve concave westerly having a radius of 260.00 feet; thence southeasterly, southerly and southwesterly along said curve 400.26 feet through a central angle of 88°12'19"; thence South 39°18'37" W 133.40 feet to the **True Point of Beginning**.

Containing 7.746 acres (337,414 square feet), more or less.

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on exhibit attached hereto and made a part hereof.

PSOMAS

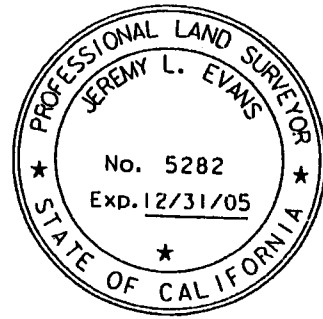
1
2 This real property description has been prepared by me or under my direction, in
3 conformance with the Professional Land Surveyor's Act.
4

5 Jeremy L Evans

6 Jeremy L. Evans, P.L.S. 5282

2-7-05

Date

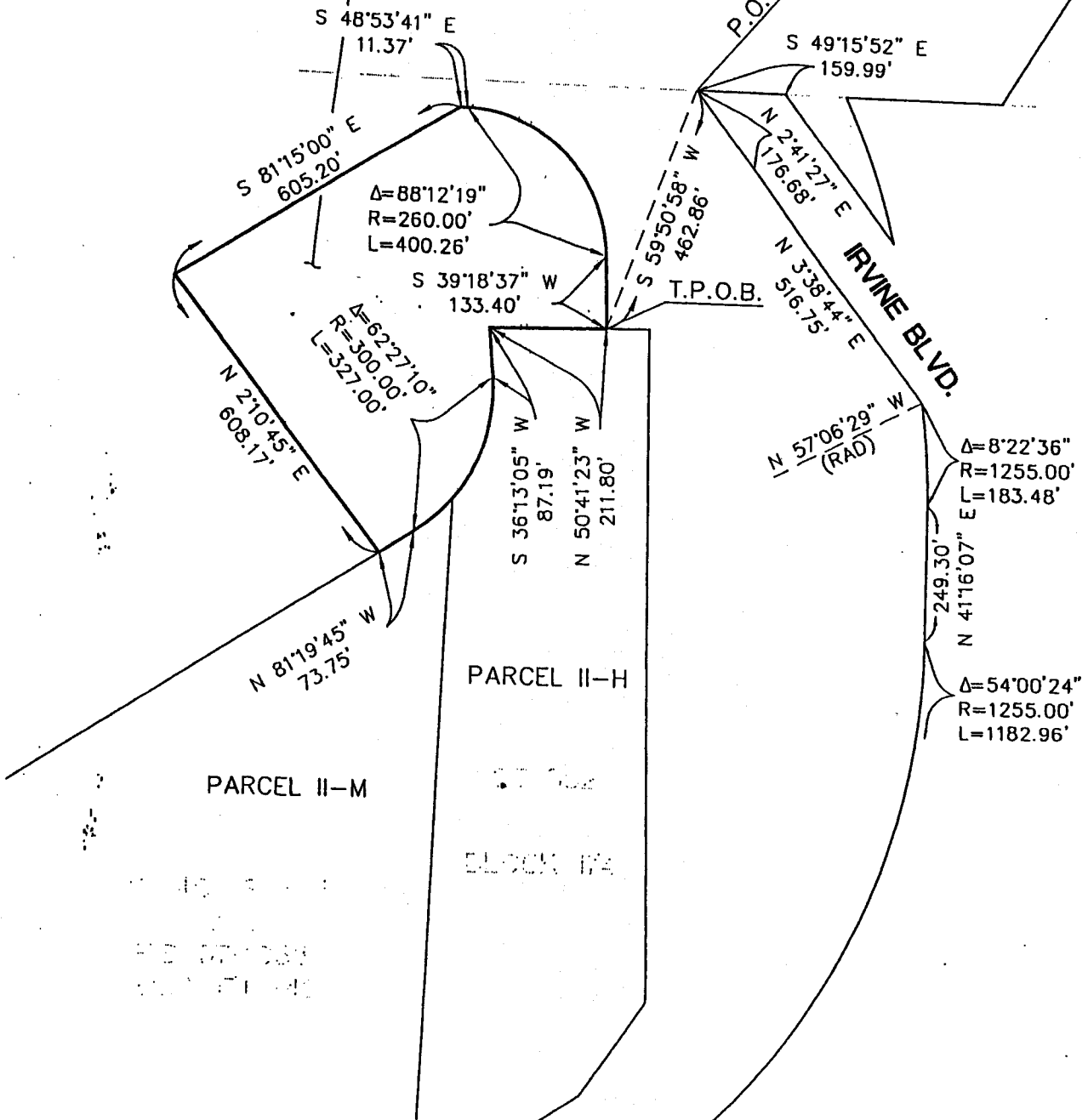


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32 REVIEWED BY CADASTRAL - RWS
33

EXHIBIT

PARCEL II-G

337,414 SQ. FT.
7.746 ACRES



REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 302 of Block 174, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 12/23/04
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 300'

DRAFTED CHL

CHECKED JLE

DATE DEC, 2004

JOB
NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-H

In the City of Irvine, County of Orange, State of California, being a portion of Lot 302 of Block 174 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the northeasterly terminus of that certain course in the southeasterly boundary of said property described as "North 40°38'23" East 1487.57 feet" as shown on sheet 11 of said Record of Survey; thence North 12°32'12" East 194.30 feet to the **True Point of Beginning**; thence North 83°07'54" West 362.68 feet; thence North 43°34'33" East 1279.56 feet to the beginning of a non-tangent curve concave northwesterly having a radius of 300.00 feet, a radial line to said beginning of curve bears South 9°00'40" East; thence northeasterly along said curve 234.42 feet through a central angle of 44°46'16"; thence North 36°13'04" East 87.19 feet; thence South 50°41'23" East 288.86 feet; thence South 40°33'38" West 1217.22 feet; thence South 75°27'38" West 207.13 feet to the **True Point of Beginning**.

Containing 11.961 acres (521,007 square feet), more or less.

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on exhibit attached hereto and made a part hereof.

PSOMAS

1 This real property description has been prepared by me or under my direction, in
2 conformance with the Professional Land Surveyor's Act.

3
4 Jeremy L. Evans

5 Jeremy L. Evans, P.L.S. 5282

2-4-2005

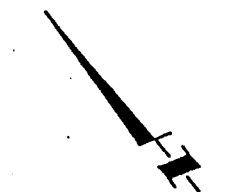
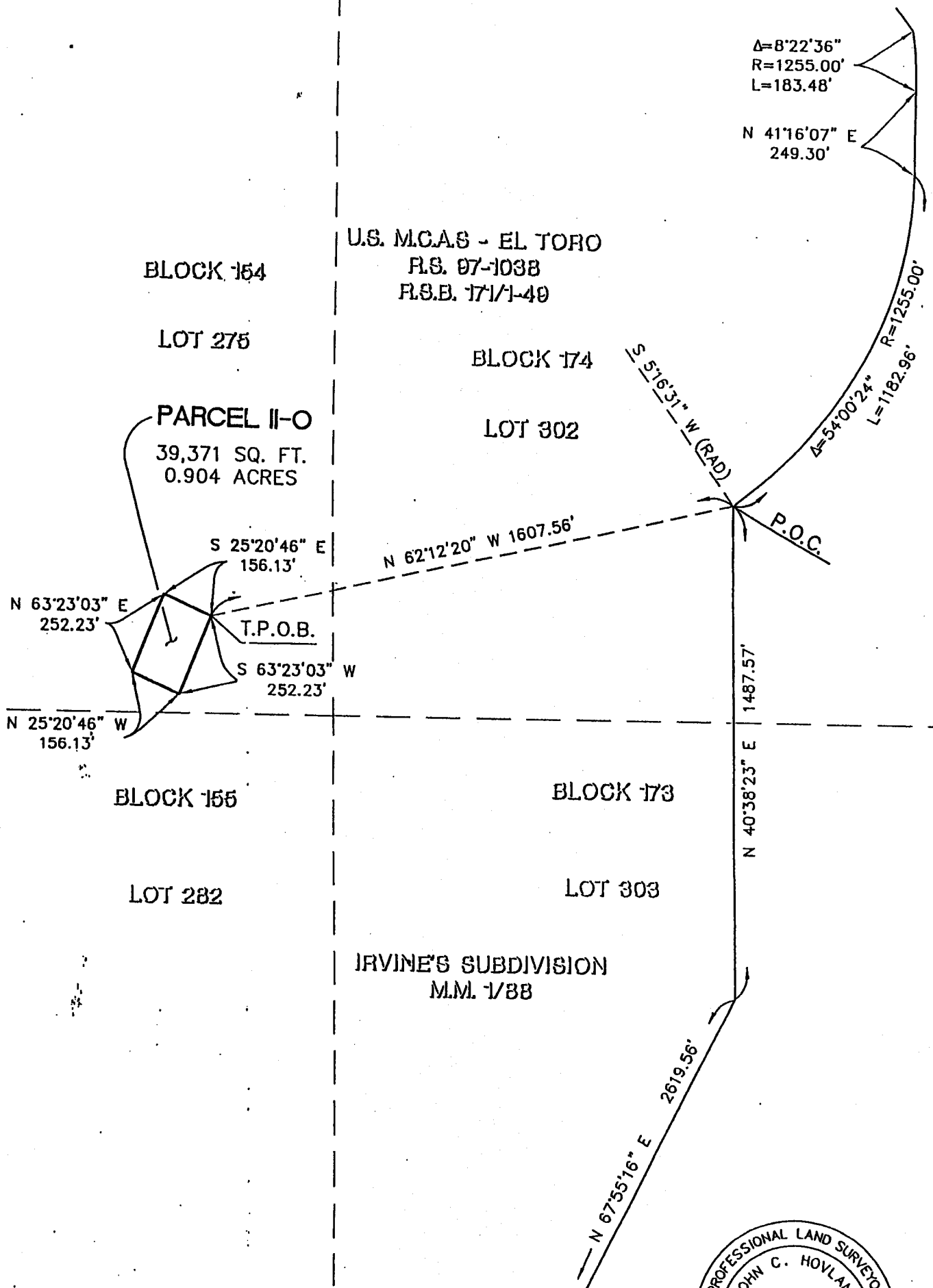
Date

6 Expires 12/13/05



29 REVIEWED BY CADASTRAL - RWS
30

EXHIBIT



0 200' 400'

SCALE: 1"=400'

REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 275 of Block 154, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 3/4/04
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 400'

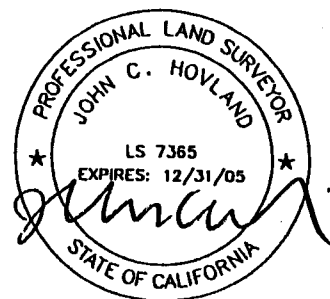
DRAFTED CHL

CHECKED JCH

DATE FEB, 2004

JOB

NUMBER 2NOR060100 T7



PSOMAS

LEGAL DESCRIPTION

PARCEL II-P

In the City of Irvine, County of Orange, State of California, being a portion of Lot 273 of Block 154 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°22'54" West 3556.41 feet" as shown on sheet 10 of said Record of Survey; thence South 54°29'00" West 1796.17 feet to the **True Point of Beginning**; thence South 32°16'32" East 124.45 feet; thence South 54°46'29" West 109.86 feet; thence North 32°16'32" West 130.11 feet; thence North 57°43'28" East 109.72 feet to the **True Point of Beginning**.

Containing 0.321 acres (13,965 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

Refer to the exhibit attached hereto and made a part hereof.

This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyor's Act.

Jeremy L. Evans

Jeremy L. Evans, P.L.S. 5282

Expires 12/31/05

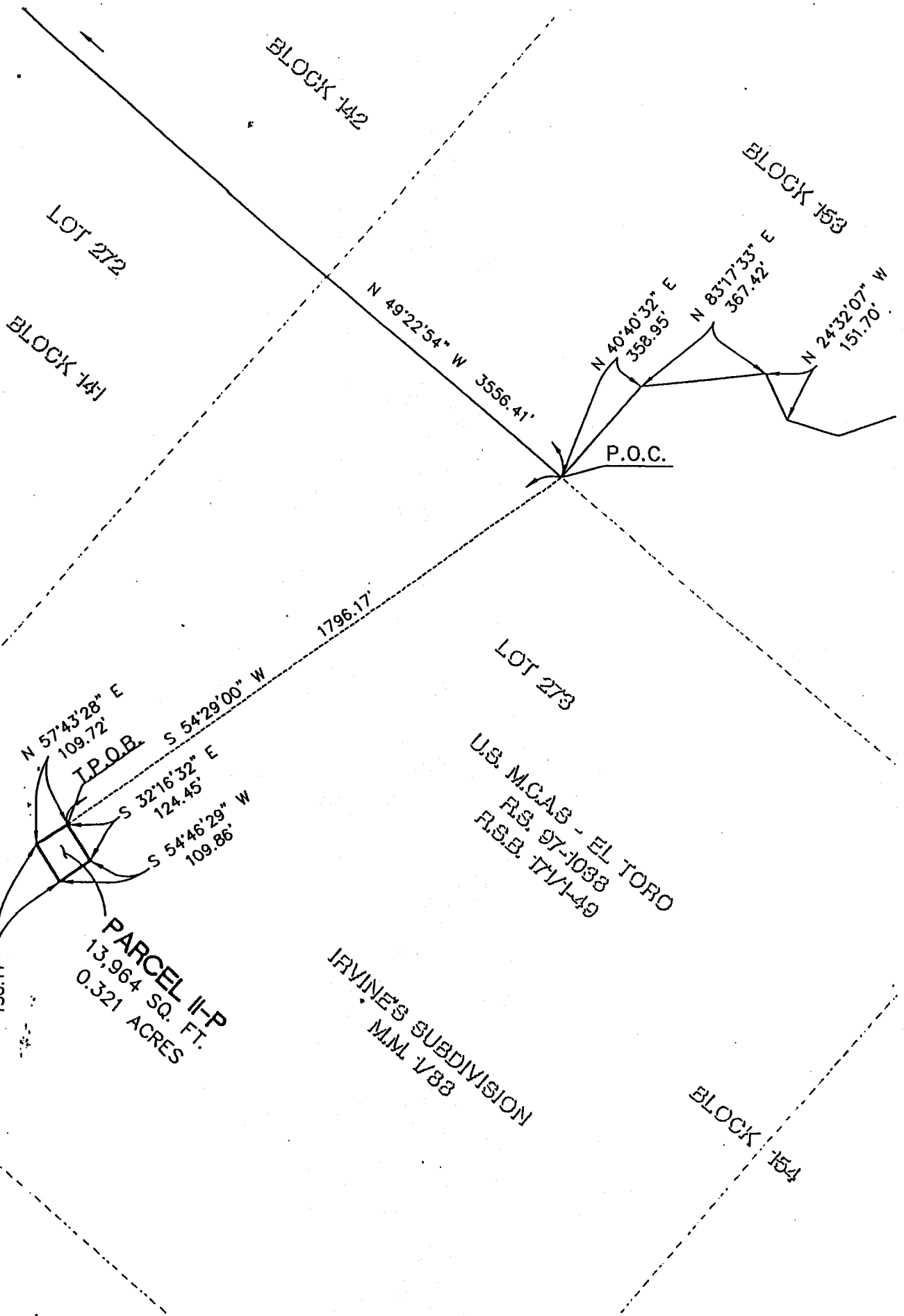
2-8-2005

Date

REVIEWED BY CADASTRAL - RWS

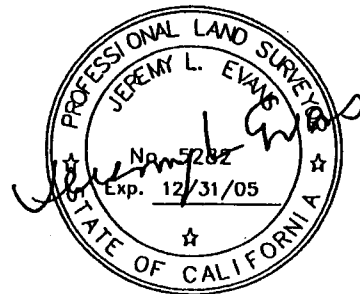


EXHIBIT



SCALE: 1"=400'

REVIEWED BY CADASTRAL - RWS



DESCRIPTION: That portion of Lot 273 of Block 154, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	5/26/04
REV 2	12/23/04

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8803

SCALE 1" = 400'

DRAFTED LCM

CHECKED JLE

DATE DEC, 2004

JOB

NUMBER 2NOR060100 17

PSOMAS

LEGAL DESCRIPTION

PARCEL II-Q

In the City of Irvine, County of Orange, State of California, being that portion of Lot 277 of Block 141 and Lots 273, 274, 275 and 276 of Block 154 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°22'54" West 3556.41 feet" as shown on sheet 10 of said Record of Survey; thence South 24°31'01" West 2306.52 feet to the **True Point of Beginning**; thence South 33°07'51" East 236.96 feet; thence South 48°44'25" East 236.30 feet; thence North 83°39'35" East 20.27 feet; thence South 49°45'07" East 639.12 to the beginning of a curve concave southwesterly having a radius of 700.00 feet; thence southeasterly along said curve 27.98 feet though a central angle of 2°17'25" feet, a radial bearing to said point bears North 42°32'18" East; thence South 49°12'10" West 279.35 feet; thence South 79°18'27" East 927.04 feet; thence South 86°44'52" East 1242.24 feet; thence South 9°47'54" East 102.65 feet; thence North 86°44'52" West 1271.92 feet; thence North 79°18'27" West 1013.11 feet; thence South 49°12'10" West 294.82 feet; thence North 89°43'16" West 2661.43 feet; thence North 0°38'11" East 1918.79 feet; thence North 57°43'10" East 267.60 feet; thence South 35°18'40" East 366.47 feet; thence North 64°39'14" East 261.01 feet; thence South 32°16'50" East 67.80 feet; thence South 57°43'10" West 232.50 feet; thence South 32°16'50" East 1039.17 feet; thence North 62°29'27" East 459.83 feet; thence North 57°46'16" East 254.27 feet; thence South 32°13'44" East 107.30 feet; thence North 57°46'16" East 301.89 feet; thence South 32°13'44" East 179.46 feet; thence North 57°46'16" East 278.47 feet to the **True Point of Beginning**.

PSOMAS

1 Containing 88.815 acres (3,868,759 square feet), more or less

2
3 Subject to covenants, conditions and restrictions, rights-of-way and easements of record,
4 if any.

5
6 As shown on exhibit attached hereto and made a part hereof.

7
8 This real property description has been prepared by me or under my direction, in
9 conformance with the Professional Land Surveyor's Act.

10
11
12 Jeremy L. Evans

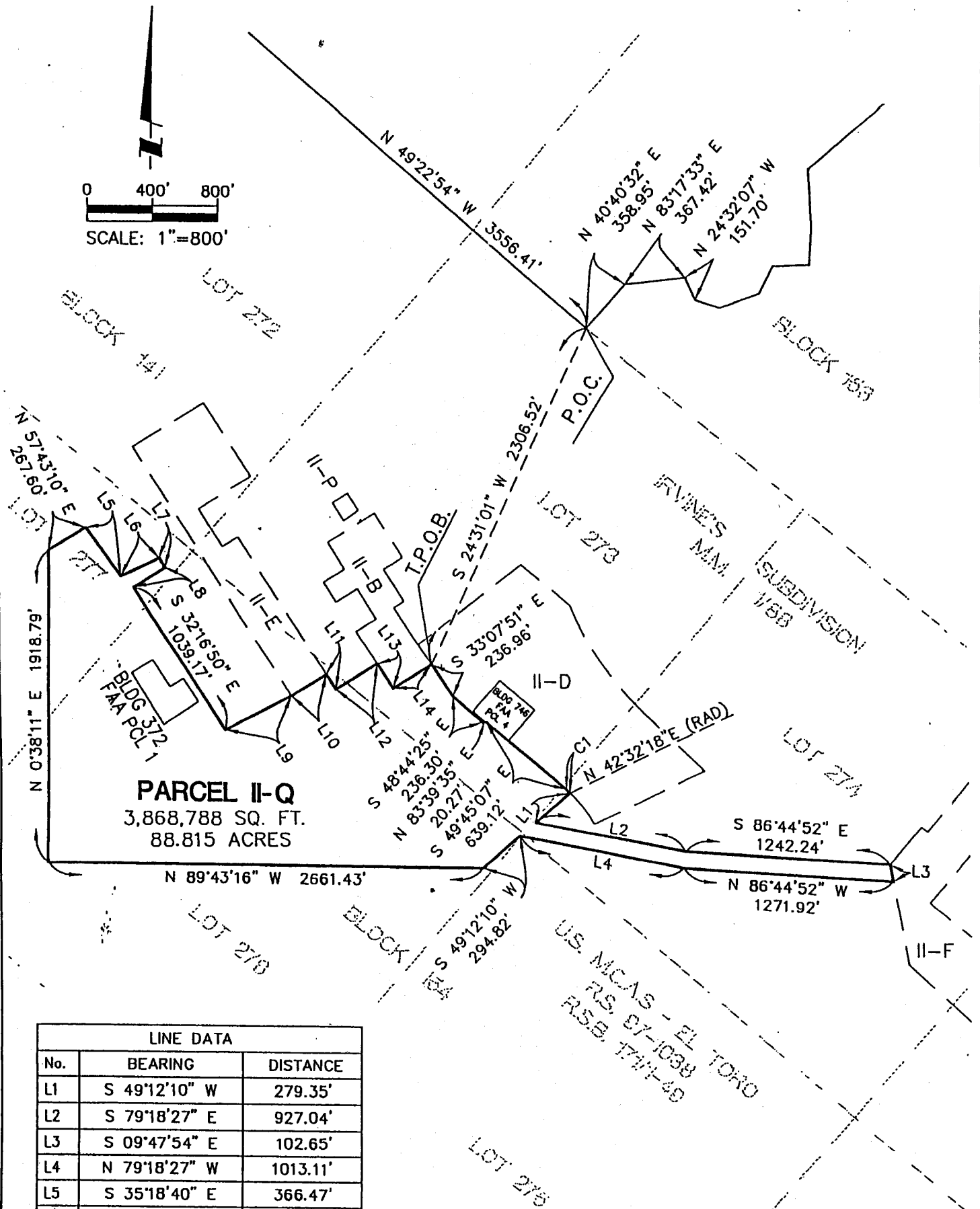
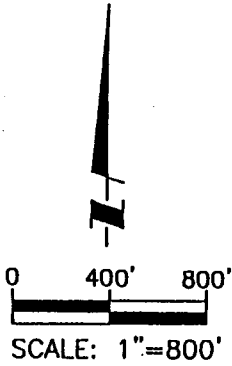
13 Jeremy L. Evans, P.L.S. 5282

2-4-2005
Date

14 Expires 12/31/05

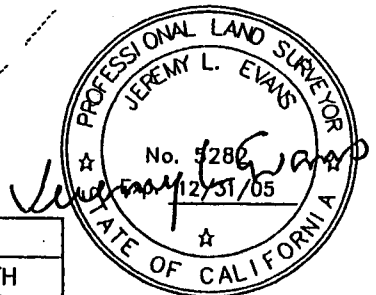


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29 REVIEWED BY CADASTRAL - RLS



LINE DATA		
No.	BEARING	DISTANCE
L1	S 49°12'10" W	279.35'
L2	S 79°18'27" E	927.04'
L3	S 09°47'54" E	102.65'
L4	N 79°18'27" W	1013.11'
L5	S 35°18'40" E	366.47'
L6	N 64°39'14" E	261.01'
L7	S 32°16'50" E	67.80'
L8	S 57°43'10" W	232.50'
L9	N 62°29'27" E	459.83'
L10	N 57°46'16" E	254.27'
L11	S 32°13'44" E	107.30'
L12	N 57°46'16" E	301.89'
L13	S 32°13'44" E	179.46'
L14	N 57°46'16" E	278.47'

CURVE DATA			
No.	DELTA	RADIUS	LENGTH
C1	2°17'25"	700.00'	27.98'



DESCRIPTION: That portions of Lots 273, 274, 275 and 276 of Block 154 and Lot 277 of Block 141 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 11/07/04
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 800'

DRAFTED CHL

CHECKED JLE

DATE OCT, 2004

JOB

NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-R

In the unincorporated territory of the County of Orange, State of California, being a portion of Lot 282 of Block 155 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

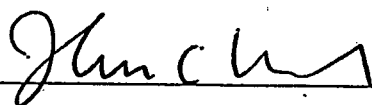
Commencing at an angle point on the "U.S. M.C.A.S. - El Toro Boundary Line", said point being the southwesterly terminus of that certain course therein having a bearing and distance of "North 40°38'23" East 1487.57 feet" as shown on sheet 11 of said Record of Survey; thence North 52°04'30" West 2216.95 feet to the **True Point of Beginning**; thence South 63°20'53" West 240.02 feet; thence North 26°39'07" West 221.12 feet; thence North 63°20'53" East 240.02 feet; thence South 26°39'07" East 221.12 feet to the **True Point of Beginning**.

Containing 1.218 acres, more or less.

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

Refer to the exhibit attached hereto and made a part hereof.

This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyor's Act.



John C. Hovland, P.L.S. 7365

5/28/04

Date

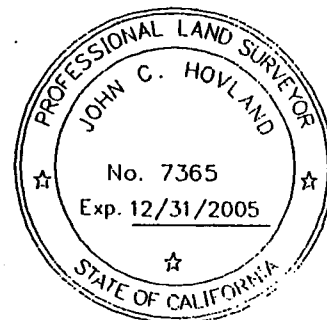
Expires 12/31/05

Page 1 of 1

M:\2NOR060100\survey\Task 7\Legals\Parcel II-R.doc

Last printed 3/1/2004 3:20 PM

REVIEWED BY CADASTRAL RWS



EXHIBIT

BLOCK 154

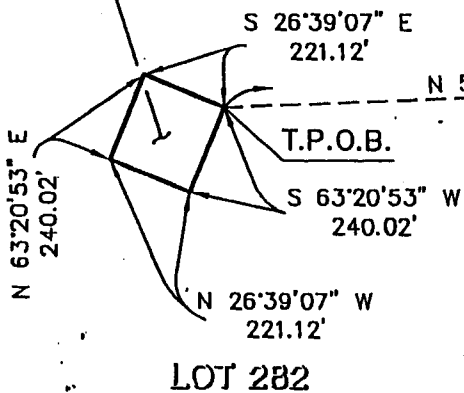
BLOCK 174

LOT 275

LOT 302

$\Delta = 54'00.24''$
 $R = 1255.00'$
 $L = 1182.96'$

PARCEL II-R
 53,073 SQ. FT.
 1.218 ACRES



LOT 282

U.S. MCAS - EL TORO
 F.S. 07-1038
 F.S.B. 171/1-49

BLOCK 155

BLOCK 173

LOT 303

IRVINE'S SUBDIVISION
 M.M. 1/88

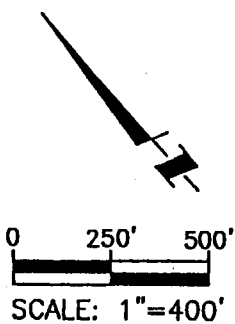
LOT 283

N 67°55'16" E 2619.56'

N 40°39'13" E
 951.44'

N 49°20'18" W
 725.06'

LOT 306



REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 282 of Block 155, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 5/26/04
 REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
 Suite 250
 Costa Mesa, CA 92626
 (714) 751-7373 Fax (714) 545-8883

SCALE 1" = 500'

DRAFTED CHL

CHECKED JCH

DATE FEB, 2004

JOB

NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-S

In the City of Irvine, County of Orange, State of California, being a portion of Lot 282 of Block 155 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the northeasterly terminus of that certain course in the southeasterly boundary of said property described as "North 40°39'13" East 951.44 feet" as shown on sheet 8 of said Record of Survey; thence North 1°23'57" East 2808.46 feet to the **True Point of Beginning**; thence North 26°39'08" West 12.99 feet; thence North 21°33'14" East 32.02 feet; thence North 26°39'08" West 168.10 feet; thence North 63°20'52" East 153.89 feet; thence South 26°39'08" East 69.61 feet; thence North 63°20'52" East 182.64 feet; thence South 26°39'08" East 132.82 feet; thence South 63°20'52" West 360.41 feet to the **True Point of Beginning**.

Containing 1.285 acres (55,975 square feet), more or less.

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on the exhibit attached hereto and made a part hereof.

REVIEWED BY CADASTRAL - RWS

PSOMAS

This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyor's Act.

Jeremy L. Evans

2-22-05

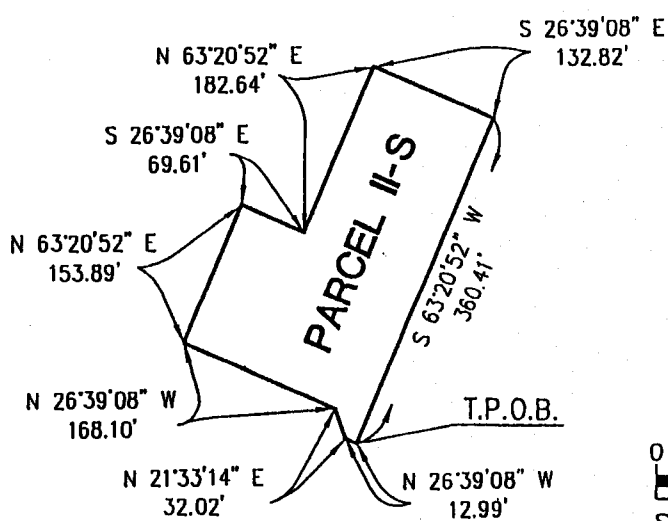
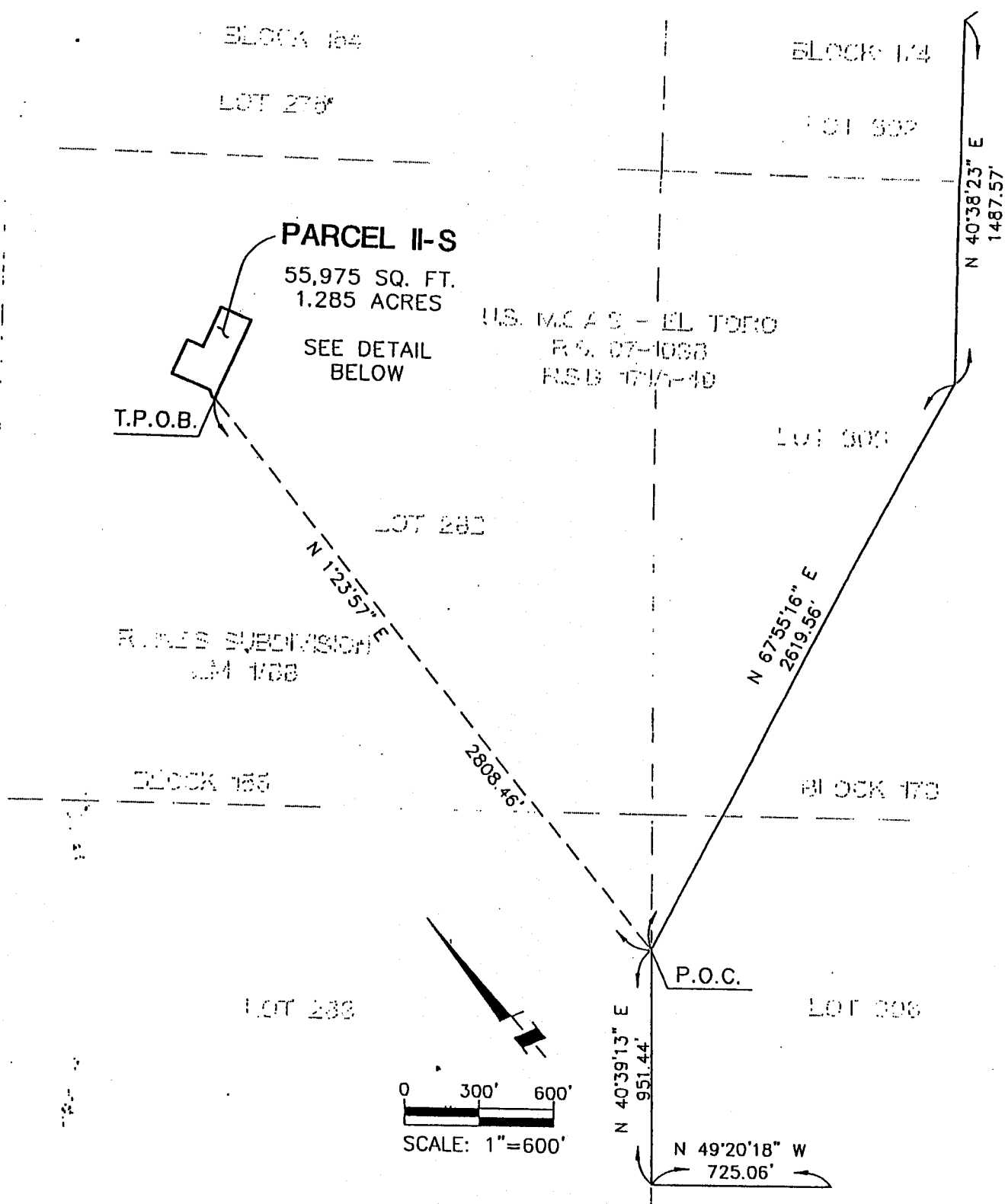
Jeremy L. Evans, P.L.S. 5282

Date



REVIEWED BY CADASTRAL - RWS

EXHIBIT



DETAIL

REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 282 of Block 155, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	01/04/05
REV 2	

SHEET 1 OF 1

P S O M A S

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8803

SCALE	AS NOTED
-------	----------

DRAFTED CHL

CHECKED JE

DATE JAN, 2005

JOB
NUMBER 2N08060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-T

In the unincorporated territory of the County of Orange, State of California, being a portion of Lot 282 of Block 155 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at an angle point on the "U.S. M.C.A.S. - El Toro" boundary line, said point being the southwesterly terminus of that certain course therein having a bearing and distance of "North 67°55'16" East 2916.56 feet" as shown on sheet 8 of said Record of Survey; thence North 16°17'09" West 2869.98 feet to the **True Point of Beginning**; thence South 63°24'29" West 100.76 feet; thence North 26°35'31" West 39.55 feet; thence South 63°24'29" West 19.37 feet; thence North 26°35'31" West 119.83 feet; thence North 63°24'29" East 120.13 feet; thence South 26°35'31" East 159.38 feet to the **True Point of Beginning**.

Containing 0.422 acres (18,380 square feet), more or less.

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

Refer to the exhibit attached hereto and made a part hereof.

PSOMAS

1 This real property description has been prepared by me or under my direction, in
2 conformance with the Professional Land Surveyor's Act.

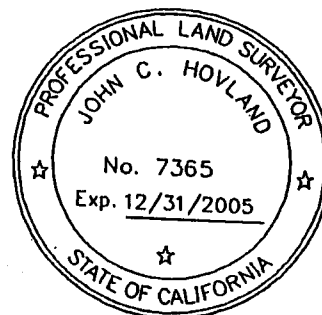
3
4 John C. Hovland

5 John C. Hovland, P.L.S. 7365

6 Expires 12/13/05

5/28/04

Date



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32 REVIEWED BY CADASTRAL — RWS

EXHIBIT



LOT 276

LOT 302

IRVINE'S SUBDIVISION
M.M. 1/88

U.S. MCAS - EL TORO
R.S. 97-1038
R.S.B. 171/1-49

LOT 303

PARCEL II-T LOT 282
18,380 SQ. FT.
0.422 ACRES

S 26°35'31" E
159.38'
T.P.O.B.

N 63°24'29" E
120.13'

N 26°35'31" W
119.83'

N 16°17'09" W BLOCK 155

BLOCK 173

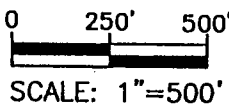
LOT 283

LOT 306

LINE TABLE		
NO.	BEARING	DISTANCE
T1	S 63°24'29" W	100.76'
T2	N 26°35'31" W	39.55'
T3	S 63°24'29" W	19.37'

N 40°39'13" E
951.44'

N 49°20'18" W
725.06'



REVIEWED BY CADASTRAL-RUC

DESCRIPTION: That portion of Lot 282 of Block 155, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.	SHEET 1 OF 1		SCALE 1" = 500'
	PSOMAS 3187 Red Hill Avenue Suite 250 Costa Mesa, CA 92626 (714) 751-7373 Fax (714) 545-8883		DRAFTED CHL
			CHECKED JCH
			DATE MAR, 2004
MCAS-EL TORO	REV 1	5/25/04	JOB
	REV 2		NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-U

In the City of Irvine, County of Orange, State of California, being those portions of Lots 271 and Lots 272 of Block 141, Lot 273 of Block 154 and Block 153 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S." El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northeasterly boundary of said property described as "North 49°21'16" West 2640.69 feet" as shown on sheet 6 of said Record of Survey, said terminus also being the Southwest quarter corner of Block 142 of said Irvine's Subdivision; thence North 49°21'16" West 66.14 feet along said line, thence leaving said line South 40°12'23" West 64.43 feet to the **True Point of Beginning**; thence South 63°26'06" East 62.64 feet; thence South 56°18'36" East 215.69 feet; thence South 50°03'49" East 353.14 feet ; thence South 49°44'42" East 565.20 feet; thence South 49°22'55" East 1165.56 feet; thence South 50°07'02" East 599.05 feet; thence South 49°59'21" East 242.79 feet; thence South 50°00'01" East 412.30 feet; thence South 50°32'01" East 931.95 feet; thence South 50°37'23" East 1260.90 feet; thence South 24°06'36" West 38.09 feet; thence North 50°16'34" West 1271.07 feet; thence North 50°26'25" West 657.51 feet; thence North 50°13'41" West 684.11 feet; thence North 49°29'19" West 245.56 feet; thence North 50°07'02" West 599.19 feet; thence North 49°29'16" West 849.69 feet; thence North 49°53'15" West 1241.25 feet; thence North 56°18'36" West 215.69 feet; thence North 63°26'06" West 55.40 feet; thence North 40°12'23" East 28.98 feet to the **True Point of Beginning**.

Containing 3.901 acres (169,924 square feet), more or less

PSOMAS

1 Subject to covenants, conditions and restrictions, rights-of-way and easements of record,
2 .if any.

3
4 Refer to the exhibit attached hereto and made a part hereof.

5
6 This real property description has been prepared by me or under my direction, in
7 conformance with the Professional Land Surveyor's Act.

8
9 Jeremy L Evans

10 Jeremy L. Evans, P.L.S. 5282

1-8-2005

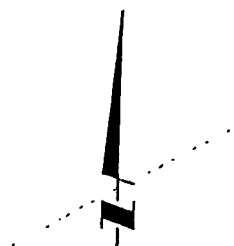
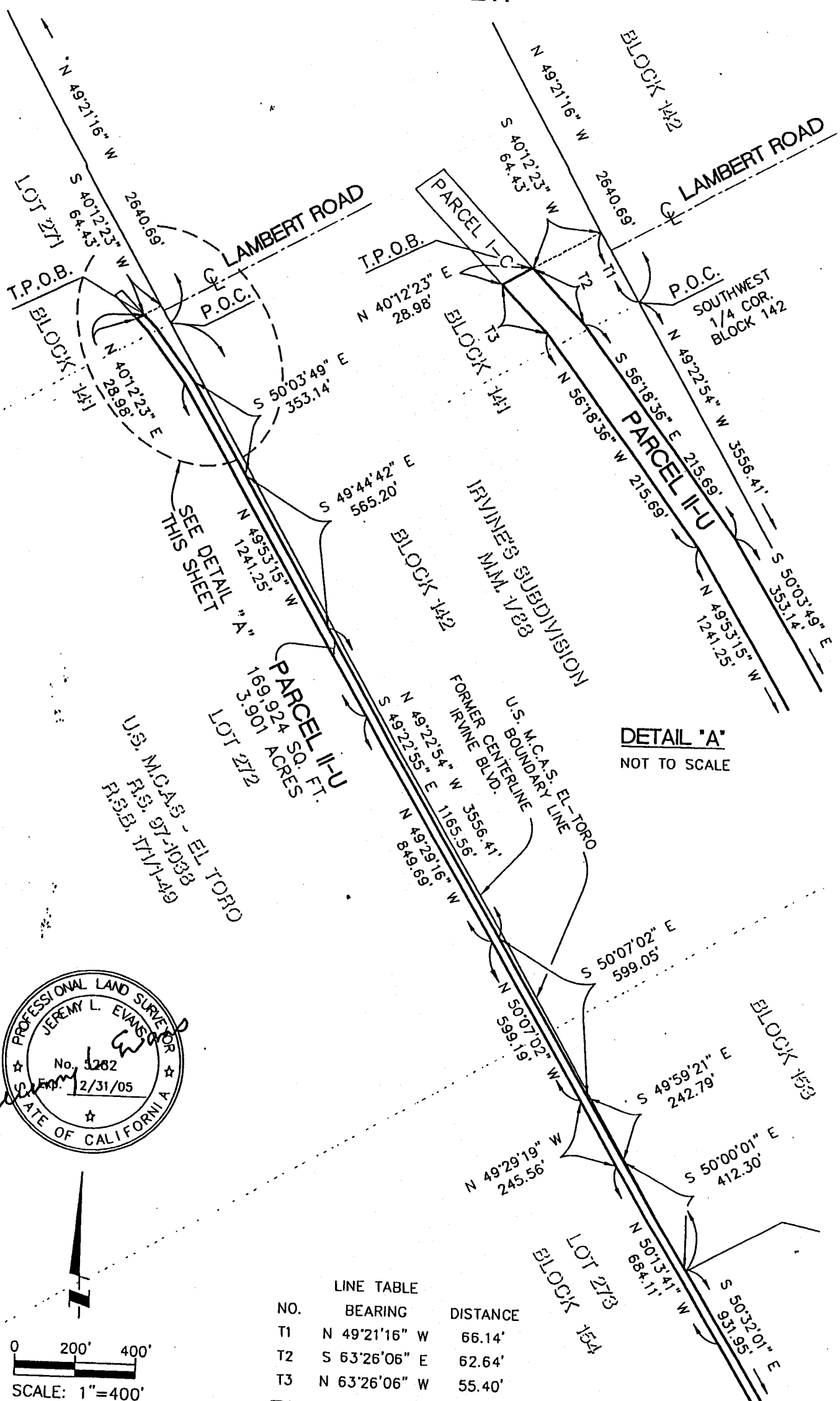
Date

11 Expires 12/31/05



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32 REVIEWED BY CADASTRAL- RWS

EXHIBIT



LINE TABLE		
NO.	BEARING	DISTANCE
T1	N 49°21'16" W	66.14'
T2	S 63°26'06" E	62.64'
T3	N 63°26'06" W	55.40'

REVIEWED BY CADASTRAL-RWS

SHEET 2

DESCRIPTION: Those portions of Lots 271 and 272 of Block 141, Lot 273 and 274 of Block 154, and Block 153 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	5/26/04
REV 2	12/23/04

SHEET 1 OF 2

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 400'

DRAFTED CHL

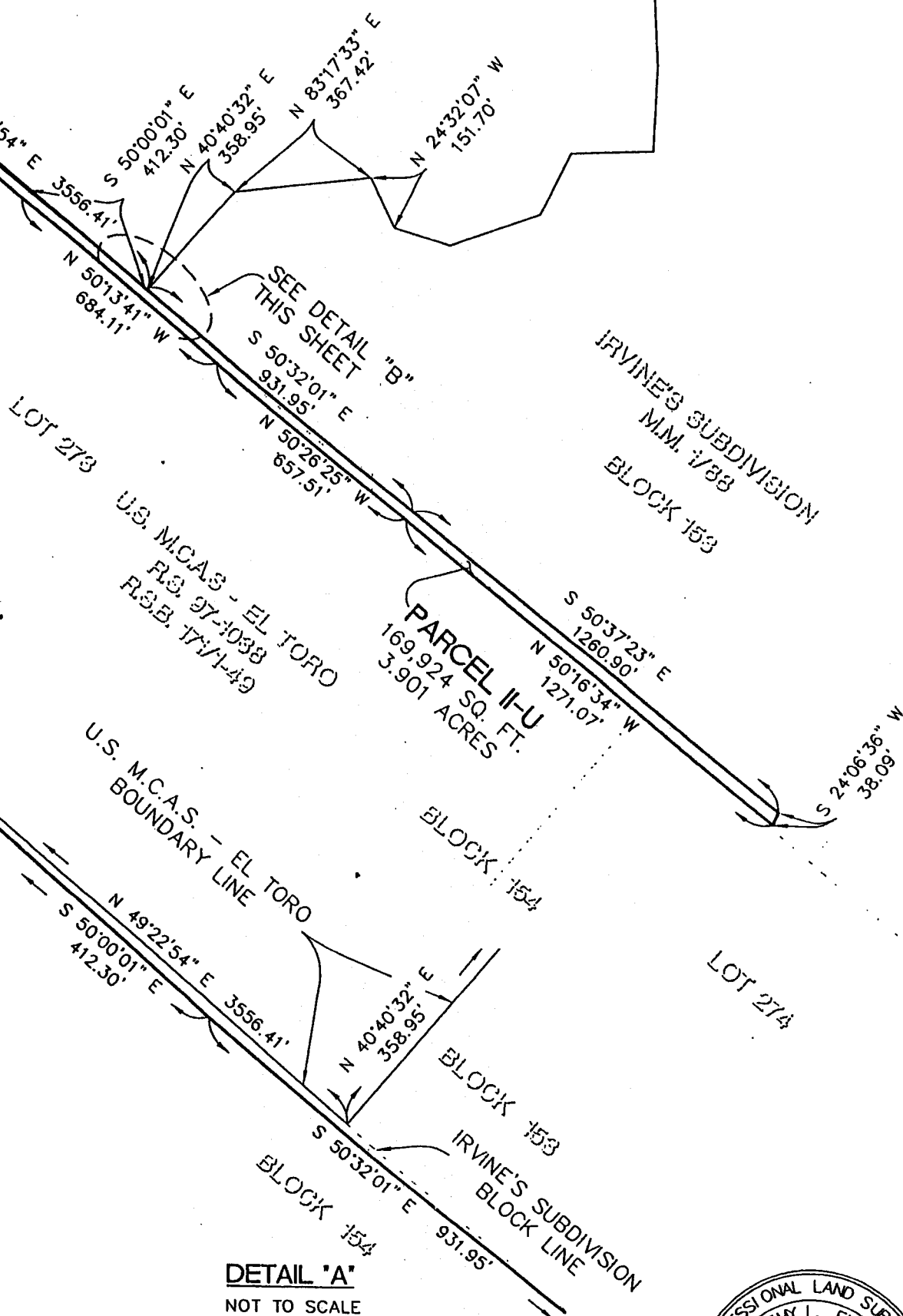
CHECKED JLE

DATE DEC, 2004

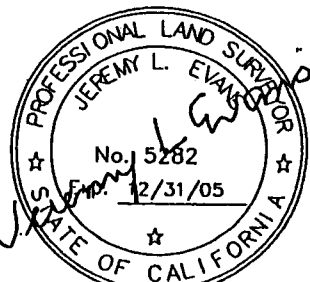
JOB
NUMBER 2NDR060100 T7

EXHIBIT

SHEET 1



DETAIL 'A'
NOT TO SCALE



REVIEWED BY CADASTRAL - RLJS

DESCRIPTION: That portion of Lots 271 and 272 of Block 141, Lots 273 and 274 of Block 154, and Block 153 in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 5/26/04
REV 2 12/23/04

SHEET 2 OF 2
PSOMAS
3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 00'
DRAFTED CHL
CHECKED JLE
DATE DEC. 2004
JOB
NUMBER 2NORD60100 T7

PSOMAS

LEGAL DESCRIPTION

PARCEL II-V

In the City of Irvine, County of Orange, State of California, being portions of Lot 300 of Block 174 and Lot 313 of Block 175 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Beginning at the intersection of the "Department of Interior Survey Line" as shown on sheet 13 on said Record of Survey with the southeasterly line of said Block 175; thence South 35°55'17" West 1775.84 feet along said southwesterly line; thence leaving said southwesterly line North 77°03'31" West 1372.06 feet; thence North 69°59'03" West 113.12 feet; thence North 60°13'02" West 187.23 feet to the beginning of a non-tangent curve concave westerly having a radius of 280.00 feet; a radial bearing to said beginning bears South 53°33'35" East; thence southwesterly along said curve 65.49 feet through a central angle of 13°24'01"; to a point on the southwesterly line of Lot 300; thence North 49°16'11" West 304.19 feet along said southwesterly line to the westerly terminus of that certain course in said "Department of Interior Survey Line" having a bearing and distance of "North 84°39'33" West 132.97 feet" as shown on sheet 13 of said Record of Survey; thence along said "Department of Interior Survey Line" the following 16 courses:

- 1) South 84°39'33" East 132.97 feet;
- 2) South 23°59'33" East 37.00 feet;
- 3) North 65°30'27" East 184.71 feet;
- 4) North 21°00'30" West 83.12 feet;
- 5) North 68°59'30" East 155.00 feet;
- 6) South 21°00'30" East 65.00 feet;
- 7) North 67°20'15" East 612.07 feet;

PSOMAS

- 8) North 88°45'15" East 78.87 feet;
- 9) North 64°40'15" East 290.62 feet;
- 10) North 44°40'15" East 34.25 feet;
- 11) North 75°55'15" East 257.59 feet;
- 12) North 55°15'15" East 103.32 feet;
- 13) North 79°45'15" East 265.63 feet;
- 14) North 78°20'15" East 165.87 feet;
- 15) North 82°25'15" East 320.43 feet;
- 16) North 76°05'15" East 476.64 feet to the point of beginning.

Containing 43.004 acres (1,873,279.13 sq. ft.), more or less.

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on exhibit attached hereto and made a part hereof.

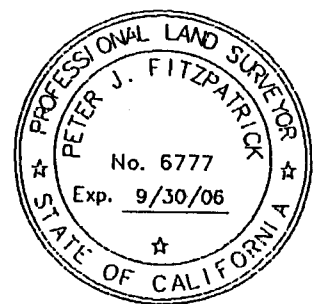
This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyor's Act.

Peter J. Fitzpatrick

Peter J. Fitzpatrick, P.L.S. 6777

Expires 9/30/06

2/5/05
Date



REVIEWED BY CADASTRAL - RUS

EXHIBIT

LOT 364

LOT 313

BLOCK 175

U.S. MCAS - EL TORO
R.S. 97-1038
R.S.B. 171/1-49

P.O.B.

N 76°05'15" E
476.64'

N 82°25'15" E
320.43'

N 78°20'15" E
165.87'

N 79°45'15" E
265.63'

N 75°55'15" E
257.59'

N 55°15'15" E
103.32'

N 64°40'15" E
290.62'

N 44°40'15" E
34.25'

N 88°45'15" E
78.87'

PARCEL II-V

1,873,254 SQ. FT.
43.004 ACRES

DEPARTMENT OF INTERIOR
SURVEY LINE

LOT 299

N 65°30'27" E
184.71'

S 23°59'33" E
37.00'

S 84°39'33" E
132.97'

N 68°59'30" E
155.00'

S 21°00'30" E
65.00'

N 67°20'15" E
83.12'

N 21°00'30" W
83.12'

N 60°13'02" W
187.23'

N 77°03'31" W
1372.06'

N 69°59'03" W
113.12'

LOT 300

1571.85'

N 49°16'11" W 1921.10'

SEE DETAIL
BELOW

N 70°30'52" E
1520.79'

BLOCK 174

IRVINE'S SUBDIVISION
M.M. 1/88

NON-TANGENT
S 40°09'34" E (RAD)
Δ=13°24'01"
R=280.00'
L=65.49'

45.06'

S 53°33'35" E
304.19'

S 84°39'33" E
132.97'

N 70°30'52" E
1520.79'

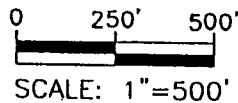
45.06'

304.19'

N 49°16'11" W 1921.10'

DETAIL
NOT TO SCALE

REVIEWED BY CADASTRAL-RWS



SCALE: 1"=500'

DESCRIPTION: That portion of Lot 300 of Block 174 and Block 175, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 12/23/04
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 500'

DRAFTED CHL

CHECKED PJF

DATE DEC, 2004

JOB NUMBER 2NOR060100 17

EXECUTIVE SUMMARY

Background

This environmental baseline survey (EBS) for former Marine Corps Air Station (MCAS) El Toro, California, has been prepared for the Department of the Navy (DON), Southwest Division, Naval Facilities Engineering Command (SWDIV), as authorized by the Pacific Division, Naval Facilities Engineering Command (PACNAVFACENGCOM), under the Comprehensive Long-Term Environmental Action Navy (CLEAN II) Program, Contract Number N62742-94-D-0048, Contract Task Order (CTO) 104.

The EBS has been prepared to document the environmental condition of property at former MCAS El Toro and adjacent property resulting from the storage, release, treatment, and disposal of hazardous substances and petroleum products and their derivatives over the station's history. The EBS will establish a baseline for use by the DON in making decisions concerning property transactions. The intended reuse of Former MCAS El Toro is primarily recreational (Great Park) with some educational and commercial/light industrial development. Future use of the installation for aviation-related purposes is not anticipated. The preparation of an EBS is required by Department of Defense (DoD) policy before any property can be sold, leased, transferred, or acquired. The EBS can be used by the DON to assist in determining what remedial-type obligations, if any, the DON would retain under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. (U.S.C.), Section 120(h) subsequent to transfer of the property. DON will utilize the EBS to determine, e.g., whether a given parcel can be or has been properly identified as "uncontaminated" in accordance with 42 U.S.C. Section 120(h)(4), or whether the Government can issue a covenant that all necessary remedial action has been taken with respect to a given parcel in accordance with 42 U.S.C. Section 120(h)(3). Guidance is also provided in the 1997 Base Reuse and Implementation Manual (BRIM) Sections F23 to F26 and F29 to F37.

The Community Environmental Response Facilitation Act (CERFA) amends Section 120(h) of CERCLA, and was enacted to facilitate the rapid return of uncontaminated properties to local communities during the Base Realignment and Closure (BRAC) process. CERFA provides a mechanism for identifying and documenting uncontaminated real property, or parcels thereof, that are suitable for transfer and reuse. Uncontaminated property refers to real property on which no hazardous substances and no petroleum products or their derivatives are known to have been released or disposed, including no migration of these substances from adjacent areas. In order to identify uncontaminated properties on military installations undergoing closure or realignment, an EBS is conducted and the results are documented in a report. DON received regulator concurrence on uncontaminated property identified and documented in the 1995 EBS and the Final Community Environmental Response Facilitation Act Report dated April 1, 1995, as required and defined under CERCLA 120(h)(4) (SWDIV 1995). The property now considered Parcel IV in its entirety was found to be uncontaminated in 1995, as well as other portions of Parcels I, II, III and V. This EBS incorporates the CERFA findings from the 1995 EBS and Final CERFA Report.

The findings of this EBS are based on existing environmental information related to past and present release or disposal of hazardous substances and petroleum products on the station. Furthermore, this EBS addresses cleanup-related comments received on the Draft Final and Final Environmental Impact Statement (EIS) for Disposal and Reuse of MCAS El Toro. These comments related to the cleanup program were responded to in the Final EIS (March 2002, Vol. 2), and were forwarded to the Base Environmental Coordinator (BEC) for coordination. Comments that are further addressed by this EBS include L12-13, L12-18, L12-21, L12-23, O1-8, O7-1, O7-2, O7-4, O11-10, O11-130, O11-283, O11-292, C2-2, C25-1, C41-2, C58-16 through -20, C58-24, C104-4, C105-5, C110-8, T2-2, T7-7, and T46-5 (see Appendix D).

Executive Summary

This EBS is being prepared as an update to the April 1995 EBS prepared for former MCAS El Toro in support of upcoming property transfer actions. The report updates the status of environmental factors and locations of concern (LOCs) identified in the 1995 EBS and presents information regarding new potential release locations (PRLs) identified since the 1995 EBS was submitted. Additionally, all buildings situated on former MCAS El Toro were visually inspected as part of this EBS, since the station was operational and could not facilitate the visual inspection of buildings and associated operations during the 1995 EBS. The findings of this EBS have been used to determine the Environmental Condition of Property (ECP) and assign Area Type categories to property to determine whether it is suitable for transfer. This report is intended to serve as a reference document for the DON to determine the existing and future environmental suitability of the property for transfer.

This EBS is based on existing environmental information related to the past and present storage, release, treatment, or disposal of hazardous substances or petroleum products on the installation. This EBS includes new information and data from studies, surveys, and investigations conducted since the publication of the 1995 EBS. Information contained within the 1995 EBS was verified, expanded, and/or updated, as necessary, within this document. The information presented in this EBS is complete and accurate as of March 2003. However, as investigation and remediation efforts under the Installation Restoration Program (IRP) and other environmental programs continue, the status of facilities and sites at former MCAS El Toro can be expected to change.

Boundaries of the Survey Area

Former MCAS El Toro is situated in south-central Orange County, California. The majority of the station is within an unincorporated area of Orange County; however, property within the south portion of the station is within the city of Irvine. The station, which currently comprises approximately 3,717 acres, is bordered on the east and southeast by the city of Lake Forest, to the southeast, south, and southwest by the city of Irvine, and to the west, north, and northeast by unincorporated portions of Orange County. Approximately 1,000 acres of the former station's maximum acreage (4,710 acres) have been transferred or are pending transfer and are not addressed within this EBS. In 1998, the Bake Parkway/Interstate 5 public highway expansion project resulted in the transfer of approximately 23 acres of property at the southeast corner of the station to the California Department of Transportation (Caltrans). In 2001, 896.7 acres of property in the northeast portion of the station were transferred to the Federal Aviation Administration (FAA). As these properties are no longer Navy property, they are not included within the survey area addressed by this EBS. In addition, 73.7 acres in the northeast portion of the station are pending transfer to the Federal Bureau of Investigation (FBI). All necessary environmental and property transfer documentation for the FBI transfer has been completed. This acreage is not included within the total station acreage and is not included within the study area addressed by this EBS. Based upon property transfers that have occurred and are pending, the amount of property addressed within this EBS is 3,717 acres.

Content of the Environmental Baseline Survey Report

This EBS is based on information obtained from the 1995 EBS and through a records search, interviews, and visual site inspections (VSIs) conducted in April-May 2002. The records search included a review of available Navy and other agency records within the station files, including environmental restoration and compliance reports, audits, surveys, and inspection reports; an analysis of aerial photographs; and a review of recorded chain-of-title documents for the property. Interviews with caretaker employees and visual and physical inspections of the station property and facilities were also conducted. Former employees were interviewed in support of previous

investigations; information from those reports has been incorporated into this EBS update, as appropriate.

A recorded chain-of-title search was conducted for the 1995 EBS for on-base parcels to determine prior ownership or uses that could reasonably have contributed to an environmental concern. The title search reviewed DoD acquisition of on-station parcels covering a period of at least 60 years (i.e., 1934 to 1994). Prior to government acquisition of the property, the area was primarily used for agricultural purposes. A review of the data obtained from the title search did not identify any areas of environmental concern related to property use prior to government acquisition.

This EBS also includes an assessment of the environmental condition of off-station properties immediately adjacent (contiguous) to or relatively near the station that could pose environmental concern and/or affect the subject property. Visual inspections of adjacent off-station properties were conducted from station property or public roads. Environmental databases maintained by federal and state agencies were also searched to identify sites of concern on adjacent properties.

Based on an analysis of the available data, LOCs were assigned ECP Area Type categories. Depending on the Area Types of the LOCs, property within former MCAS El Toro was classified into one of seven ECP Area Type categories:

- *ECP Area Type 1* - Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).
- *ECP Area Type 2* - Areas where only release or disposal of petroleum products has occurred.
- *ECP Area Type 3* - Areas where release, disposal, and/or migration of hazardous substances have occurred, but at concentrations that do not require a removal or remedial action.
- *ECP Area Type 4* - Areas where release, disposal, and/or migration of hazardous substances have occurred, and all remedial actions necessary to protect human health and the environment have been taken.
- *ECP Area Type 5* - Areas where release, disposal, and/or migration of hazardous substances have occurred, removal and/or remedial actions are under way, but all required remedial actions have not yet been taken.
- *ECP Area Type 6* - Areas where release, disposal, and/or migration of hazardous substances have occurred, but required response actions have not yet been implemented.
- *ECP Area Type 7* - Areas that are unevaluated or require additional evaluation.

Category 2 addresses release or disposal of petroleum products only. A release of petroleum products would not prohibit the affected property's transfer under CERCLA Section 120(h). ECP Area Type 2 property has been divided into five subcategories in order to further define petroleum product releases. Area Types 2a through 2e correspond to Area Types 3 through 7, except the Area Type 2 definitions refer to petroleum products rather than hazardous substances. All Area Type 2 property is suitable for transfer regardless of subcategories. Category 2 definitions are as follows:

- *ECP Area Type 2a* - Facilities where release, disposal, and/or migration of petroleum products have occurred, but at concentrations that do not require a response action.
- *ECP Area Type 2b* - Facilities where release, disposal, and/or migration of petroleum products have occurred, and all response actions to protect human health and the environment have been taken.

- *ECP Area Type 2c* - Facilities where release, disposal, and/or migration of petroleum products have occurred, and response actions are underway, but all required response actions have not been completed.
- *ECP Area Type 2d* - Facilities where release, disposal, and/or migration of petroleum products have occurred, but required response actions have not yet been implemented.
- *ECP Area Type 2e* - Facilities that have never been evaluated or require additional investigation. Category 2e facilities include areas that may have had a release of petroleum products, but have had no sampling or field screening and require such investigations to confirm that a release has or has not occurred.

Areas where no past or present release or disposal of hazardous substances or petroleum products and their derivatives were identified are considered to be Category 1. Category 2 designations were assigned based on evidence of releases of petroleum products. Category 3 designations were based upon existing information (e.g., personnel interviews, VSIs, written records, reports) to document that contaminant levels, if present, are below action levels. Areas where known or suspected contamination has occurred were classified as Category 4 through 7 properties based upon existing documentation or VSIs.

Pursuant to U.S. Environmental Protection Agency (EPA) and DoD guidance, this EBS identifies property as uncontaminated, even if some limited quantity of hazardous substances or petroleum products were released or disposed in cases where the available information indicates that such release or disposal poses no threat to human health or the environment. Examples, as provided in the EPA guidance include usage of common household chemicals and storage of heating fuel in base housing areas, incidental releases of petroleum products on roadways and parking lots, and the routine licensed application of pesticides.

Property designated as Area Types 1 through 4 is suitable for property transfer. In general, a parcel that contains land that is deemed "unsuitable for transfer" (i.e., Area Types 5 and 6) may still be eligible for early transfer or lease (would require deferral of CERCLA covenant), provided that the intended future use is protective of human health and the environment, and with specified recommended restrictions on use of the property to protect human health and the environment or the environmental restoration process. Area Type 7 sites require further evaluation prior to determining suitability to transfer. Area types for property presented in this EBS may have changed since the designation in the 1995 EBS based upon the identification of new LOCs or based upon ongoing or completed response actions that have occurred since the 1995 EBS was published. All sites with hazardous substance or potential hazardous substance releases, disposal, and/or migration should be considered Area Types 5 through 7 until concurrence with a no further action finding is received.

Findings of the Environmental Baseline Survey Report

The following types of LOCs (with the exception of PRLs which are not considered LOCs) have been identified and have been assigned an ECP Area Type in order to determine the overall property categorization and suitability to transfer at former MCAS El Toro. The number of LOCs requiring no further action and the number of LOCs requiring further evaluation, implementation of response actions, or completion of ongoing response action are presented below:

- A total of 76 new PRLs were identified as a result of this 2003 EBS. Of these 76 sites, 15 sites require no further action and 61 sites require further evaluation for potential releases of waste to the environment. The one remaining site (the Airfield Operations Area/Runways) has been identified with a discrete "carve-out" area requiring further evaluation and the remaining portions of this site require no further action.

- A total of 92 Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) sites are addressed within this EBS. Of these 92 RFA sites, 76 sites require no further action and 16 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- A total of 64 temporary accumulation area (TAA) sites are addressed within this EBS. Of these 64 TAA sites, 19 of the sites require no further action and 45 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- A total of 123 aerial photograph features/anomalies (APHO) sites are addressed within this EBS. Of these 123 APHO sites, 90 of the sites require no further action and 33 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- A total of 21 IRP sites are addressed within this EBS. Of these 21 sites, 13 sites require no further action and 7 sites require implementation and completion of response actions. The remaining one site, IRP 24 requires no further action for the vadose zone portion and further action for the shallow groundwater unit.
- A total of 39 aboveground storage tank (AST) sites are addressed within this EBS. Of these 39 AST sites, 36 are suitable for transfer and 3 sites require further evaluation for releases of petroleum products and/or hazardous substances.
- A total of 401 underground storage tank (UST) sites are addressed within this EBS. Of these 401 UST sites, 356 are suitable for transfer and 45 sites require further evaluation or completion of response actions for releases of petroleum products or hazardous substances.
- A total of 55 oil/water separator (OWS) sites are addressed within this EBS. Of these 55 OWS sites, 44 of the sites require no further action and 11 sites require further evaluation for releases of hazardous substances or completion of ongoing response actions.
- A total of 29 wash rack sites are addressed within this EBS. Of these 29 wash rack sites, 26 sites require no further action and 3 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- Eight silver recovery units (SRU) sites are addressed within this EBS. These eight sites are considered PRLs; of these eight sites, one requires no further action and seven require further evaluation to determine whether releases of hazardous substances have occurred.
- A total of 130 polychlorinated biphenyl (PCB) transformer locations are addressed within this EBS. These 130 transformer locations require no further action. In addition, six areas have been identified as PCB transformer/equipment storage areas or areas where PCBs have been detected. Of these six areas, two areas require no further action and four require further actions.
- A total of 18 miscellaneous LOCs are addressed within this EBS. Of these 18 miscellaneous LOCs, 12 require no further action and 6 require further evaluation for releases of hazardous substances or petroleum products.

Table ES-1 summarizes the types, number, and status of LOCs identified at former MCAS El Toro.

Based on the findings of this EBS, it has been determined that approximately 78 percent of the 3,717 acres of base property is environmentally suitable for transfer at this time. Figure ES-2 depicts the transferable and non-transferable property within former MCAS El Toro. Ongoing and future environmental investigations and response actions will cause the amount of property suitable for transfer to increase in the future.

Table ES-1: Location of Concern Status Table(a)

STATUS	USTs	ASTs	OWSs	APHOs	SWMU (93)/ TAAAs (64)	Other MSC	PCB XFRMRs	IRP SITES	PRLs
TOTAL (1,022)	404	39	56	124	157	18	124	24	76
NFA (787)	356	36	45	90	96 ^(b)	12	124	13	15
% Complete (78)	88	92	79	73	61	67	100	54	20
In Review (36)	13	2	2	0	17	2	0	0	0
In Progress (199)	35	1	9	34	44	4	0	11	61

Notes: ^a The total number of LOCs listed include the following number of LOCs within parcels that have already been transferred: USTs -3; OWS-1; APHO-1; SWMU-1; IRP Sites -3. Therefore, the total number of LOCs addressed in this EBS is lower. SRUs are listed under MSC (3) and PRLs (8), and are counted in both categories due to PRLs addressing the entire facility.

^b Includes 3 SWMUs (104, 105, & 106) with NFA determinations pending results of radiological survey.

APHO = aerial photograph features/anomalies
AST = aboveground storage tank
IRP = Installation Restoration Program
MSC = miscellaneous
NFA = no further action
OWS = oil/water separator
PCB = polychlorinated biphenyl
PRL = Potential Release Location
SWMU = solid waste management unit
TAA = temporary accumulation area
UST = underground storage tank
XFRMR = transformer

Source: United States Marine Corps (USMC) 2003.

**Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance**

Exhibit "C"

MCAS EL TORO LIFO - Finding of Suitability to Lease

EXHIBIT D

WORK EXEMPT FROM GOVERNMENT CONSENT

All work must be in accordance with Paragraph 13 of this Lease and the Finding of Suitability to Lease (FOSL). In the event of any conflict between this Exhibit D and Paragraph 13 of this Lease or the FOSL, the language of Paragraph 13 and/or the FOSL shall take precedence over the language of Exhibit D. If any such work involves any asbestos containing materials or lead based paint, prior Government approval of the work will be required. All work within the portion of the Leased Premises identified in Exhibit F (the VORTAC area) is subject to prior review, as provided in Paragraph 8.1 of this Lease.

For the leased premises, the following work may be accomplished without requesting prior Government approval:

Interior building improvements including:

- Wall & ceiling finishes/painting
- Carpeting/Flooring repair/replacement
- Lighting changes
- Plumbing changes
- HVAC repair/improvements
- Removal of partition walls.
- Construction of partition walls.

Exterior building improvements including:

- Exterior painting
- Building signage
- Roofing repair and replacement
- Window repair and replacement

Utilities: All maintenance, repair, and improvements required to provide utilities to the Leased Premises except activities that require digging or other disturbance of the ground surface

Roads and Grounds: All maintenance, repair and improvements required to maintain the roads and grounds of the Leased Premises, to include existing landscaping and existing irrigation systems, except those activities that require digging or other disturbance of the ground surface.

Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 2

Exhibit "E"

**Facilities Containing FAD ACM or Requiring ACM Survey Prior to Use or
Occupancy**

130, 131, 133, 308, 380, 392, 390, 442, 447, 457, 552, 555, 556, 605, 606, 617,
618, 637, 658, 673, 673T3, 695, 696, 697, 698, 726, 734, 735, 748, 749, 752,
761, 763, 764, 772, 779, 796, 798, 840, 858, 860, 903, 914, 923, 1804

Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 2

Exhibit "F"

Portion of Leased Premises Reserved for Government Use

The attached legal description and plat map, referred to as Parcel 1 (FAA Easement, Buildings 372 and 378), describes a portion of the Leased Premises reserved for Government use.

LEGAL DESCRIPTION

PARCEL 1 (FAA Easement, Buildings 372 & 378)

In the unincorporated territory of the County of Orange, State of California, being a portion of Lot 276 of Block 154 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49 inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southwest quarter corner of Block 142, said quarter corner being shown on said Record of Survey; thence along the northeasterly line of Lot 271, Block 141 of said Irvine's Subdivision, said line being also the former centerline of Irvine Boulevard, as shown on said Record of Survey, North 49°21'16" West 49.00 feet to the centerline of Lambert Road as shown on said Record of Survey; thence continuing North 49°21'16" West 17.14 feet along said centerline; thence leaving said centerline South 40°12'23" West 208.48 feet to the beginning of a curve concave northwesterly having a radius of 3776.61 feet; thence southwesterly along said curve 1107.25 feet through a central angle of 16°47'54" to the beginning of a reverse curve concave southeasterly having a radius of 1200.00 feet, a radial line to the beginning of said curve bears North 32°59'43" West; thence southwesterly & southerly along said curve 1193.90 feet through a central angle of 57°00'17"; thence SOUTH 1456.34 feet to the beginning of a curve concave northwesterly having a radius of 2400.00 feet; thence southerly & southwesterly along said curve 705.60 feet through a central angle of 16°50'42"; thence along a radial line of said curve South 73°09'18" East 1639.05 feet to the True Point of Beginning; thence North 57°43'59" East 150.69 feet; thence South 32°16'04" East 196.70 feet; thence North 57°34'38" East 97.59 feet; thence South 32°16'15" East 170.58 feet; thence South 56°31'32" West 255.06 feet; thence North 32°22'13" West 140.40 feet; thence North 58°41'16" East 2.34 feet; thence North 31°07'34" West 232.08 feet to the True Point of Beginning.

PSOMAS

1
2 .Containing 1.70 acres, more or less.
3

4 Subject to covenants, conditions, restrictions, rights-of-way and easements of record, if
5 any.
6

7 Refer to the exhibit attached hereto and made a part hereof.
8

9 This real property description has been prepared by me or under my direction, in
10 conformance with the Professional Land Surveyors' Act.
11

12 Jeremy L. Evans

13 Jeremy L. Evans, P.L.S. 5282

9-8-03

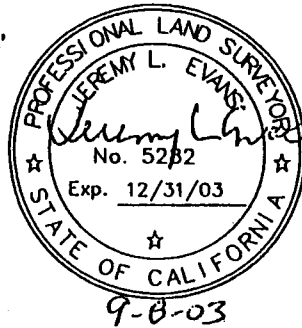
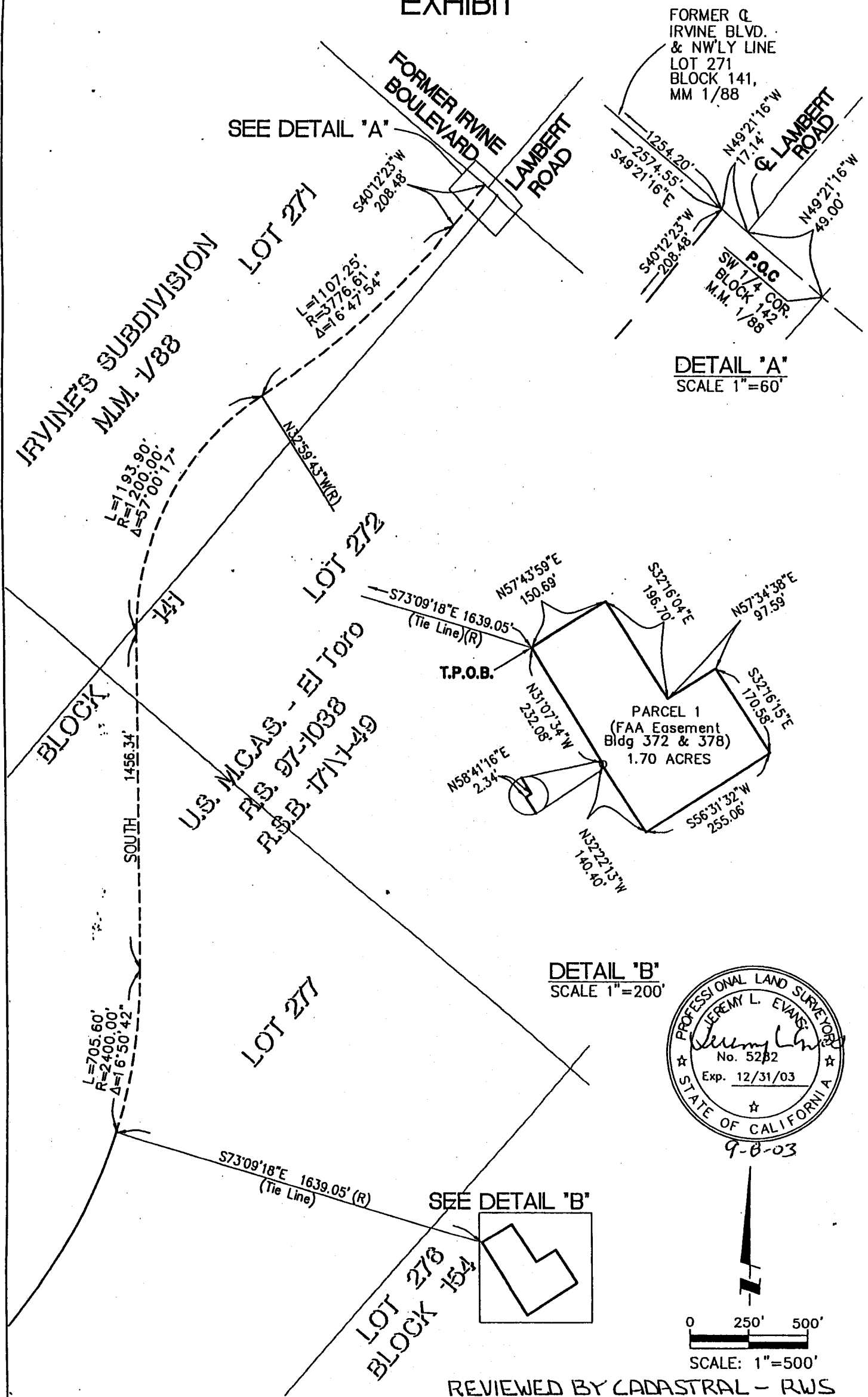
Date

15 Expires 12/31/03
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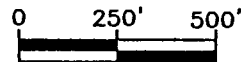


38 REVIEWED BY CADASTRAL- RWS

EXHIBIT



9-8-03



SCALE: 1"=500'

REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 276 of Block 154, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 8/28/03
REV 2

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8863

SCALE 1" = 500'

DRAFTED SFB

CHECKED JLE

DATE JULY, 2003

JOB

NUMBER 2NOR060100 T4

Plotted 8/29/03 14:29:29 H:\2NOR060100\Survey\Design\JLE\Task-A\Parcel_372.dwg Chg:ym

Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 3

All correspondence in connection
with this contract should include reference to:
N4769205RP05P45

LEASE IN FURTHERANCE OF CONVEYANCE
BETWEEN
THE UNITED STATES OF AMERICA
AND
HERITAGE FIELDS, LLC
FOR
MCAS EL TORO PARCEL 3

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LEASE IN FURTHERANCE OF CONVEYANCE
BETWEEN
THE UNITED STATES OF AMERICA
AND
HERITAGE FIELDS, LLC
FOR
MCAS EL TORO PARCEL 3

THIS LEASE is made this _____ day of _____, 2005, by and between the **UNITED STATES OF AMERICA**, acting by and through the Department of the Navy (**Government**), and **HERITAGE FIELDS, LLC, (Lessee)**, purchaser of certain real property at the former Marine Corps Air Station, El Toro, Irvine California (hereinafter referred to as MCAS El Toro or the Installation).

RECITALS

A. The Government has closed the former Marine Corps Air Station El Toro (MCAS El Toro) pursuant to the Defense Base Closure and Realignment Act of 1990, Pub.L. 101-510), as amended (10 U.S.C. § 2687 note) (hereinafter referred to as DBCRA) and is selling portions of that property through a public sale, said portions identified in Exhibit A hereto and hereinafter referred to as the "Sale Property".

B. Lessee has purchased a portion of the Sale Property, known as Parcel 3, pursuant to Invitation for Bids No. 9PR-2004-188 (IFB). Government is in the process of remediating environmental sites within Parcel 3. Pursuant to said IFB, title to each such site will not be conveyed until site closure is attained and the Government issues a Finding of Suitability to Transfer (FOST) addressing each such site.

C. As consideration for the purchase of Parcel 3, Government will allow Lessee limited access and use of the environmental sites, hereinafter referred to as the Leased Premises, and identified in Exhibit A, in accordance with the terms and conditions of this Lease until Government issues a FOST addressing the Leased Premises and title has transferred.

D. Pending final disposition, 10 U.S.C. § 2667(f) authorizes the Government to lease real property located at a military installation closed under DBCRA.

E. In accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, the Government prepared a Final Environmental Impact Statement

Gov't_____.

Lessee_____.

(EIS) for the disposal and reuse of the former MCAS El Toro. A NEPA Record of Decision regarding the disposal of MCAS El Toro was issued on 23 April 2002.

F. An Environmental Baseline Survey (EBS) has been prepared for MCAS El Toro as well as a Finding of Suitability to Lease (FOSL) in accordance with 10 U.S.C. § 2667(f)(3), and Department of Defense policy guidelines. The "Finding of Suitability to Lease for Carve-Out Areas Within Parcels I, II, and III, Former Marine Corps Air Station El Toro, dated August 3, 2004, concludes that activities allowed under this Lease, if conducted in accordance with the restrictions contained therein, are consistent with protection of human health and the environment. Cognizant state and federal regulatory agencies have concurred on the FOSL.

G. The Government has agreed to grant this Lease in furtherance of and pending conveyance by deed for Leased Premises to the Lessee and the Lessee has agreed to enter into this Lease.

MUTUAL UNDERSTANDINGS

NOW THEREFORE, in consideration of the terms, covenants, and conditions hereinafter set forth, Government and Lessee hereby agree as follows:

1. LEASED PREMISES:

Government does hereby lease, and demise to Lessee in furtherance of and pending conveyance, and Lessee does hereby hire from Government, the Leased Premises, identified in Exhibit A, together with all improvements and all personal property thereon together with right of ingress and egress to said Leased Premises.

2. TERM:

2.1. The term of this Lease shall be for or until, as applicable, the earlier of: (A) a period of fifty (50) years beginning on the date of execution of this Lease and ending on the 11th day of July, 2055; or (B) the effective date of conveyance by Quitclaim Deed of a portion of the Leased Premises, unless sooner terminated in accordance with the provisions of Article 14. The Lessee shall accept title to any portion of the Leased Premises within ten (10) calendar days following delivery by the Government of a Quitclaim Deed for such portion of the Leased Premises. The Government shall not deliver any such Quitclaim Deed for a portion of the Leased Premises prior to execution of a FOST for such portion of the Leased Premises.

2.2. This Lease shall automatically terminate upon conveyance by Quitclaim Deed with respect to any conveyed portion as if such date were the stated expiration date contained herein and neither party hereto shall have any further obligation under

this Lease with respect to such conveyed portion (other than any obligations which otherwise would survive termination of this Lease). All references to the Leased Premises shall be deemed to exclude such conveyed portions and this Lease shall continue in full force and effect with respect to the remainder of the Leased Premises.

3. CONSIDERATION:

As consideration for this Lease, Lessee agrees to provide protection and maintenance to the extent described in Article 12.

4. USE OF LEASED PREMISES:

4.1 The sole purpose for which Leased Premises may be used, in the absence of prior written approval by Government for any other use, is in accordance with projected state and local zoning and land plans for the Leased Premises, and in accordance with the restrictions described in Section 5 of the Finding of Suitability to Lease (FOSL), attached as Exhibit C to this Lease. Government hereby reserves to itself the exclusive use of, and right to access, those portions of the Leased Premises identified in Exhibit F, until such time as Government determines, in its sole discretion, that it no longer requires such exclusive access and use.

4.2 No known historic or archeological sites or materials exist on the Leased Premises. Should such sites or materials be encountered, Lessee shall stop work immediately and notify Government.

5. SUBLETTING:

5.1 Lessee may sublease the Leased Premises without the prior approval of Government. Any sublease that involves the use of hazardous or toxic materials, including those of an explosive, flammable, or pyrotechnic nature, as provided in 10 U.S.C. 2692, shall require prior Government approval. Such consent shall not be unreasonably withheld or delayed. Under no circumstance shall Lessee assign this Lease without the prior written approval of the Government.

5.2 For the purposes of Article 5 and this Lease, "sublease" shall include licenses, use and occupancy agreements, concession agreements and other similar agreements.

5.3 Any sublease granted by Lessee shall contain a copy of this Lease as an attachment and be subject to all terms and conditions of this Lease and shall terminate immediately upon the expiration or any earlier termination of this Lease, without any liability on the part of Government to Lessee or any sub lessee. Under any sublease

made, with or without consent, the sub lessee shall be deemed to have assumed all of the obligations of Lessee under this Lease. No sublease shall relieve Lessee of any of its obligations hereunder.

5.4 Upon execution of any sublease, a copy of such sublease shall immediately be furnished to Government. Should conflict arise between the provisions of this Lease and a provision of the sublease, the provisions of this Lease shall take precedence. Any sublease shall not be taken or construed to diminish or enlarge any of the rights or obligations of either of the parties under this Lease.

6. CONDITION OF PROPERTY:

Leased Premises shall be delivered to Lessee "AS IS", "WHERE IS". Government makes no warranty as to Leased Premises' usability generally or as to its fitness for any particular purpose. Any safety and/or health hazards identified shall be corrected, at Lessee's expense, prior to use and occupancy.

7. ENVIRONMENTAL BASELINE SURVEY AND FINDING OF SUITABILITY TO LEASE:

The Executive Summary of the Environmental Baseline Survey (EBS) and a Finding of Suitability to Lease (FOSL) are attached as Exhibits B and C, respectively, and made part of this Lease. Copies of the EBS and FOSL have been provided to Lessee and all documents referenced therein have been made available to Lessee. The EBS describes the environmental conditions on the Installation. The FOSL sets forth the basis for the Government's determination that Leased Premises are suitable for leasing. Lessee is hereby made aware of the notifications contained in the FOSL attached hereto as an exhibit and shall comply with Lease restrictions set forth therein.

8. ALTERATIONS:

8.1 Lessee shall not construct or make or permit its sublessees to construct or make any substantial alterations, additions, excavations, improvements to, installations upon or otherwise modify or alter Leased Premises in any way (collectively "Work"), including those which may adversely affect the cleanup, human health or the environment, without the prior written consent of Government. No consent shall be required for Work described in Exhibit D.

8.2 Lessee shall provide Government with prior written notification and a full description of all proposed Work on Leased Premises (other than work described in Exhibit D), a projected schedule and cost thereof, and an analysis as to how and why such Work will or will not adversely affect the environmental clean up of Leased

Premises, human health, or the environment. Lessee shall deliver such written notification to Government's representative as designated in Article 19 of this Lease.

8.3 In the event of termination of this lease pursuant to either subparagraph 14.1.2 or 14.1.3 of Article 14 of this Lease, Lessee shall abandon any Work in place, at which time title to such Work shall vest in the Government.

8.4 In the event of termination, revocation or surrender of this Lease, all personal property and trade fixtures of Lessee or any third person may be removed and Lessee shall repair any damages to Leased Premises resulting from such removal.

9. ACCESS BY GOVERNMENT:

In addition to access required under Article 13, at all reasonable times throughout the term of this Lease, Government shall be allowed access to Leased Premises for any purposes upon notice to Lessee. Government normally will give Lessee or any sublessee twenty-four (48) hour prior notice of its intention to enter Leased Premises, unless it determines the entry is required for safety, environmental, operations or security purposes. Lessee shall have no claim on account of any entries against Government or any officer, agent, employee, contractor or subcontractor of Government. All keys to the buildings and facilities occupied by Lessee or any sublessee shall be made available to Government upon request. Any access by Government will take into consideration its obligations under Article 33.

10. UTILITIES AND SERVICES:

10.1 Procurement of utilities, i.e., electricity, water, gas, steam, sewer, telephone and trash removal will be the responsibility of Lessee.

10.2 Lessee shall furnish the Government with any utilities maintained by Lessee that Government may require. In the event it does so, Government shall reimburse Lessee for the cost incurred in providing such utilities, which amount shall be agreed upon between the parties in advance.

11. NON-INTERFERENCE WITH GOVERNMENT OPERATIONS:

Lessee shall not conduct operations or make any alterations that would interfere with or otherwise restrict operations, environmental clean-up or restoration actions by Navy, Environmental Protection Agency (EPA), state environmental regulators, or their contractors. Environmental clean-up, restoration or testing activities by these parties shall take priority over Lessee's use of Leased Premises in the event of any conflict. However, Government and Lessee agree to coordinate to minimize potential conflicts

between necessary remediation of environmental contamination, including investigation and remedial actions, and Lessee's and sublessee's use of Leased Premises.

12. PROTECTION AND MAINTENANCE SERVICES:

12.1 Government shall not be required to furnish any services or facilities to Lessee or to make any repair or alteration in or to Leased Premises.

12.2 During the term of this Lease, debris, trash and other useless materials not generated by Government shall be promptly removed from Leased Premises.

12.3 Lessee shall provide or cause to be provided all security services necessary to assure security and safety within Leased Premises. Any crimes or other offenses, including traffic offenses and crimes and offenses involving damage to or theft of Government property, shall be reported to the appropriate authorities for their investigation and disposition and to Government as property owner.

12.4 Lessee shall take or cause to be taken, all reasonable fire protection precautions at Leased Premises consistent with the level of use on the property.

12.5 Lessee, at its own expense, is solely responsible for protection, maintenance, preservation and repair of Leased premises, with the exception of those areas reserved for Government use, as identified in Exhibit F. Government shall be solely responsible for protection, maintenance, preservation and repair of those portions of the Leased Premises identified in Exhibit F for the duration of any period of such exclusive use, as set forth in Article 4.

12.6 Lessee expressly agrees, at its own expense, to keep the Leased Premises in a safe, neat, clean, and orderly condition. Lessee shall provide a complete and proper arrangement for the adequate sanitary handling and disposal, acceptable to the Government of all trash, garbage, and other refuse caused as a result of Lessee's operations on the Premises. Lessee shall provide and use suitable, covered receptacles for all garbage, trash and other refuse on or in connection with the Premises. Piling of boxes, cartons, barrels, or other similar items in an unsightly or unsafe manner, on or about the Leased Premises, is prohibited. Government shall have the right to enter upon and inspect the Premises at anytime for cleanliness and safety activities.

13. ENVIRONMENTAL PROTECTION PROVISIONS:

13.1 Lessee, sublessees and contractors shall comply with all applicable Federal, state and local laws, regulations and standards that are or may become applicable to Lessee's activities on Leased Premises.

13.2 The Lessee or any sublessee shall be solely responsible for obtaining at its cost and expense any environmental permits required for its operations under the Lease, independent of any existing permits held by the Government. Any and all environmental permits required for any of Lessee's or sublessee's operations or activities would be subject to prior concurrence of Government. Lessee acknowledges that the Government will not consent to being named a secondary discharger or co-permittee for any operations or activities of the Lessee or any sublessee under the Lease. In the event the Government is named as a secondary discharger or co-permittee for any activity or operation of the Lessee or any sublessee, Government shall have the right to take reasonable actions necessary to prevent, suspend, or terminate such activity or operation, including terminating this Lease, without liability or penalty.

13.3 Government's rights under this Lease specifically include the right for Government officials to inspect upon reasonable notice Leased Premises for compliance with environmental, safety and occupational health laws and regulations, whether or not Government is responsible for enforcing them. Such inspections are without prejudice to the right of duly constituted enforcement officials to make such inspections. Government normally will give Lessee or sublessee twenty-four (24) hours prior notice of its intention to enter Leased Premises unless it determines the entry is required for safety, environmental, operations or security purposes. Lessee shall have no claim on account of any entries against the United States or any officer, agent, employee, contractor or subcontractor thereof.

13.4 Government has entered into a Federal Facility Agreement (FFA) for MCAS El Toro with the United States Environmental Protection Agency (USEPA) and the State of California (through the Department of Toxic Substances Control (DTSC) and Santa Ana Regional Water Quality Control Board) pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 as amended. The Installation has been identified as a National Priorities List (NPL) Site under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980, as amended. Lessee acknowledges that Government has provided it with a copy of the installation Federal Facility Agreement (FFA) entered into by the United States Environmental Protection Agency (EPA) Region, the state equivalent and the Military Department, and Lessee agrees that should any conflict arise between the terms of such agreement as it presently exists or may be amended and the provisions of this Lease, the terms of the FFA will take precedence. Lessee further agrees that notwithstanding any other provision of this Lease, Government assumes no liability to Lessee or its sublessees or licensees should implementation of the FFA interfere with Lessee's or any sublessee's and licensee's use of Leased Premises. Lessee shall have no claim on account of any such interference against the United States or officer, agent, employee, contractor or subcontractor thereof, other than for abatement of rent, where applicable.

13.5 Government, EPA, DTSC, and the State and their officers, agents, employees, contractors and subcontractors, have the right, upon reasonable notice to Lessee and/or any sublessee, to enter upon Leased Premises for the purposes enumerated in this subparagraph and for such other purposes consistent with any provisions of the cleanup program (including but not limited to the BRAC Cleanup Plan, IRP, or FFA):

13.5.1 to conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, testpitting, testing soil borings and other activities related to the cleanup program;

13.5.2 to inspect field activities of Government and its contractors and subcontractors in implementing the cleanup program;

13.5.3 to conduct any test or survey required by EPA or applicable state equivalent relating to the implementation of the cleanup program;

13.5.4 to construct, operate, maintain or undertake any other response or remedial action as required or necessary under the cleanup program, including but not limited to monitoring wells, pumping wells and treatment facilities.

13.6 Lessee shall comply with the provisions of any health or safety plan in effect under the IRP or the FFA during the course of any of the above described response or remedial actions. Any inspection, survey, investigation or other response or remedial action will, to the extent practicable, be coordinated with representatives designated by Lessee and any sublessee. Lessee and sublessee shall have no claim on account of such entries against the United States or any officer, agent, employee, contractor or subcontractor thereof. In addition, Lessee shall comply with all applicable Federal, state and local occupational safety and health regulations.

13.7 Lessee further agrees that in the event of any sublease of Leased Premises, Lessee shall provide to U.S. EPA and California EPA, DTSC by certified mail a copy of the agreement or sublease of Leased Premises (as the case may be) within fourteen (14) calendar days after the effective date of such transaction. Lessee may delete the financial terms and any other proprietary information from the copy of any agreement of sublease furnished pursuant to this condition.

13.8 Lessee shall strictly comply with the hazardous waste permit requirements under the Resource Conservation and Recovery Act or its applicable state equivalent and any other applicable laws, rules or regulations. Except as specifically authorized by Government in writing, Lessee must provide at its own expense such hazardous waste management facilities complying with all laws and regulations, as Lessee may need for such storage. Government hazardous waste management facilities will not be available

to Lessee. Any violation of the requirements of this condition shall be deemed a material breach of this Lease.

13.9 DoD component accumulation points for hazardous and other waste will not be used by Lessee or any sublessee. Neither Lessee nor any sublessee will permit its hazardous wastes to be commingled with hazardous waste of DoD Component.

13.10 Lessee shall have a Government-approved plan for responding to hazardous waste, fuel and other chemical spills prior to commencement of operations on Leased Premises. The contingency plan shall be consistent with the provisions of California Code of Regulations, Title 22, Chapter 15, Article 4 beginning with Section 66265.50. Such plan shall be independent of Installation plan and, except for initial fire response and/or spill containment, shall not rely on use of Installation personnel or equipment. Should Government provide any personnel or equipment whether for initial fire response and/or spill containment, or otherwise on request of Lessee, or because Lessee was not, in the opinion of Government, conducting timely cleanup actions, Lessee agrees to reimburse Government for its costs in association with such response or cleanup.

13.11 The presence of known asbestos-containing material (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCBs), Potential Release Locations (PRLs), and radiological materials investigation locations is identified in the FOSL, attached as Exhibit C.

13.11.1 Access and occupancy of buildings/structures/facilities and sites identified in Exhibit C, sections 5.1 and 5.10, and in Exhibit E are prohibited without the prior written approval of the Government, except for short-term tours and emergency maintenance.

13.11.2 Buildings identified in Exhibit E may be occupied only after the lessee conducts all necessary surveys and abatement in accordance with to all federal, state, and local laws, and regulatory requirements and has obtained the prior written approval of the Government.

13.11.3. The Lessee shall be responsible for the management of ACM, including, but not limited to, surveys, removal and/or demolition of structures containing ACM, in accordance with applicable regulatory requirements.

13.11.4 If Lessee intends to demolish any facilities containing ACM, or to make any improvements or repairs that require the removal of asbestos, an appropriate asbestos disposal plan must be incorporated into the plans and specifications required under Article 8 and submitted to Government. The asbestos disposal plan will identify the proposed disposal site for the asbestos, or in the event the site has not been identified, will provide for disposal at a licensed facility authorized to receive it.

13.11.5 ACM which during the period of this lease becomes damaged or deteriorated through the passage of time, as the result of a natural disaster or as a consequence of Lessee's activities under this Lease, including but not limited to any emergency, will be abated by Lessee at its sole cost and expense. In an emergency, Lessee will notify Government as soon as practicable of its emergency ACM responses. Lessee shall be responsible for monitoring the condition of existing ACM on Leased Premises for deterioration or damage and accomplishing repairs or abatement pursuant to the applicable conditions of this Lease.

13.12 LBP which during the period of this lease becomes damaged or deteriorated through the passage of time, as the result of a natural disaster or as a consequence of Lessee's activities under this Lease, including but not limited to any emergency, will be abated by Lessee at its sole cost and expense. In an emergency, Lessee will notify Government as soon as practicable of its emergency LBP responses. Lessee shall be responsible for monitoring the condition of existing LBP on Leased Premises for deterioration or damage and accomplishing repairs or abatement pursuant to the applicable conditions of this Lease.

13.12.1. Use of buildings/structures built prior to 1 January 1978 for residential purposes or any use involving children is prohibited without the prior written approval of the government.

13.12.2. Demolition of any facilities containing LBP, or any improvements or repairs that require the removal of LBP must have the prior written approval of the government. Lessee shall be responsible for the management of LBP, including surveys, removal, and/or demolition in accordance with federal, state and local laws and regulatory requirements.

13.12.3. Lessee shall be responsible for conducting post-demolition sampling for and any necessary abatement of soil-lead hazards at target housing or residential real property.

13.13 Lessee shall relieve, indemnify, protect, defend and hold harmless Government from any costs, expenses, liabilities, fines or penalties resulting from discharges, emissions, spills, storage or disposal arising from Lessee's occupancy, use or operations, or any other action by Lessee or any sublessee giving rise to Government liability, civil or criminal, or any other action by Lessee or any sublessee giving rise or responsibility under Federal, state or local environmental laws. Lessee's obligations hereunder shall apply whenever Government incurs costs or liabilities for Lessee's activities or activities of any sublessee as provided hereunder. This provision shall survive the expiration or termination of this Lease.

13.14 Storage, treatment or disposal of toxic or hazardous materials on the Leased Premises is prohibited excepted as authorized by Government in accordance with 10 U.S.C. § 2692.

13.15 Lessee shall not conduct any subsurface excavation, digging, drilling or other disturbance of the ground surface without prior Government approval.

13.16 Lessee shall not install new groundwater wells of any type and shall not use contaminated groundwater without prior written Government approval.

13.17 Lessee shall not install any well that has the potential to affect plume migration.

13.18 Lessee shall not alter, disturb or remove groundwater monitoring wells, remedial action equipment (e.g. pumps), or associated utilities without prior written Government approval

13.19 Removal of or damage to security features (e.g. locks on monitoring wells, survey monuments, signs or monitoring equipment and associated pipelines and appurtenances is prohibited without prior written Government approval.

13.20 Use or occupancy of IRP Sites 8, 11, and 12 within Carve Out III-B is prohibited pending completion of associated remedial/removal actions.

13.21 The following additional conditions are specific to Carve Out III-B (Site 24), in accordance with The Navy's Final Record of Decision, Operable Unit 1, Site 18 Regional Volatile Organic Compound Groundwater Plume Operable Unit 21 Site 24 VOC Source Area, former Marine Corps Air Station El Toro, California, June 2002 (Site 24 ROD). A copy of the Record of Decision can be obtained by contacting the El Toro Public Administrative Record Manager at (949) 726-5398.

13.21.1 No new wells of any type shall be installed within the Site 24 Shallow Groundwater Plume or buffer zone without prior review and written approval from the DON, DTSC, U.S. EPA, and RWQCB. The Lessee shall also obtain permits for such wells as required by OCHA and IRWD

13.21.2 Extraction, injection, and monitoring wells and associated piping and equipment that are included in the remedial action shall not be altered, disturbed, or removed without the prior review and written approval from the DON, DTSC, U.S. EPA, RWQCB.

13.21.3 The DON, U.S. EPA, DTSC, RWQCB, and their authorized agents, employees, contractors and subcontractors shall have the right to enter upon the Site 24 portion of the Leased Premises to conduct investigations, tests, or surveys;

inspect field activities; or construct, operate, and maintain the remedial action described in the ROD or undertake any other remedial response or remedial action as required or necessary under the cleanup program, including, but not limited to, monitoring wells, pumping wells, and treatment facilities.

13.21.4 The Lessee and any future lessees must comply with all terms and conditions relating to land use restrictions set forth in the Site 24 ROD.

13.21.5 The Lessee and any future lessees must notify subsequent lessees of all land use restrictions and access provisions set forth in this Section 13.21.

14. TERMINATION:

14.1 Government shall have the right to terminate this Lease, in whole or in part, without liability, upon thirty (30) calendar days notice:

14.1.1 In the event of a national emergency as declared by the President or the Congress of the United States; or

14.1.2 In the event of breach by Lessee of any terms and conditions hereof. In the event of a breach involving the performance of any obligation, Lessee shall be afforded thirty (30) calendar days from the receipt of Government's notice of intent to terminate within which to complete the performance of the obligation or to otherwise cure the breach and avoid termination of this Lease, unless Government determines that a shorter period is required for safety, environmental, operational, or security purposes. In the event that Government shall elect to terminate this Lease on account of the breach by Lessee of any of the terms and conditions, Government shall be entitled to recover and Lessee shall pay to Government:

14.1.2(a) the costs incurred in reacquiring possession of the Leased Premises.

14.1.2(b) the costs incurred in performing any obligation on the part of Lessee to be performed hereunder.

14.1.2(c) An amount equal to the aggregate of any maintenance obligations and charges assumed hereunder and not paid or satisfied, which amounts shall be due and payable at the time when such obligations and charges would have accrued or become due and payable under this Lease.

14.1.3 In the event of failure by Lessee to take title to any portion of the Leased Premises within ten (10) calendar days following tender by the Government of a Quitclaim Deed for such portion of the Leased Premises

14.2 Lessee shall have the right to terminate this Lease upon thirty (30)-calendar days written notice to Government in the event of breach by Government of any of the terms and conditions hereof. In the event of a breach involving the performance of any obligation, Government shall be afforded sixty (60) calendar days from the receipt of Lessee's notice of intent to terminate within which to complete performance of the obligation or otherwise cure the breach and avoid termination of this Lease. Lessee shall also have the right to terminate this Lease in the event of damage to or destruction of all of the improvements on Leased Premises or such a substantial portion thereof as to render Leased Premises incapable of use for the purposes for which it is leased hereunder, provided:

14.2.1 Government either has not authorized or directed the repair, rebuilding or replacement of the improvements or has made no provision for payment for such repair, rebuilding or replacement by application of insurance proceeds or otherwise; and

14.2.2 That such damage or destruction was not occasioned by the fault or negligence of Lessee or any of its officers, agents, servants, employees, sublessees or invitees, or by any failure or refusal on the part of Lessee to fully perform its obligations under this Lease.

14.2.3 If Government requires Lessee to vacate all or a substantial portion of Leased Premises pursuant to Article 15 of this Lease for a period in excess of thirty (30) calendar days, Lessee may terminate this Lease by written notice to Government given at any time while Lessee shall continue to be denied use of all or a substantial portion of Leased Premises. Lessee shall thereafter surrender possession of Leased Premises within fifteen (15) calendar days of such notice.

14.3 In the event this lease is terminated due to a breach, for any reason, by either party, in no way will Lessee be entitled to a refund of a portion of the purchase price of the associated sale parcel or other compensation.

15. ENVIRONMENTAL CONTAMINATION:

In the event environmental contamination is discovered on Leased Premises which creates, in Government's determination, an imminent and substantial endangerment to human health or the environment which necessitates evacuation of Leased Premises, and notwithstanding any other termination rights and procedures contained in this Lease, Lessee shall vacate or require any sublessee to vacate Leased Premises immediately upon notice from Government of the existence of such condition. Exercise of this right by Government shall be without liability, except that Lessee shall not be responsible for the payment of consideration during the period Leased Premises is vacated. The amount of deduction shall be determined on a daily pro-rata basis. Government's exercise of this right herein to order the Leased Premises immediately

vacated does not alone constitute a termination of the Lease, but such right may be exercised in conjunction with any other termination rights provided in this Lease or by law.

16. NON-ENVIRONMENTAL INDEMNIFICATION BY LESSEE:

Lessee shall at all times relieve, indemnify, protect, defend and hold harmless the United States of America, and all of its officers, agents and employees from any and all claims and demands, actions, proceedings, losses, liens, costs and judgments of any kind and nature whatsoever, including expenses incurred in defending against legal actions, for death or injury to persons or damage to property and for civil fines and penalties arising or growing out of, or in any manner connected with, the occupation or use of the Leased Premises by Lessee and the employees, agents, servants, guests, invitees, contractors and sublessees of Lessee. These include, but are not limited to, any fines, claims, demands and causes of action of every nature whatsoever which may be made upon, sustained or incurred by Government by reason of any breach, violation, omission or non-performance of any term, covenant or condition hereof on the part of Lessee or the employees, agents, servants, guests, invitees and sublessees of Lessee. However, this indemnity shall not extend to damages due to the sole fault or negligence of Government or its contractors. This covenant shall survive the termination of this Lease for any injury or damage occurring after the commencement of term of the Lease.

17. INSURANCE:

17.1 Except to the extent of any obligation on the part of the Government to indemnify pursuant to Public law 102-484, Section 330, as amended, Lessee shall bear all risk of loss or damage to the Leased Premises, and for claims arising from any incident with respect to bodily injuries or death resulting there from, property damage, or both, suffered or alleged to have been suffered by any person or persons resulting from the operations of Lessee, sublessees, contractors and invitees under the terms of this Lease.

17.2 At the commencement of this Lease, Lessee shall obtain, from a reputable insurance company or companies, comprehensive general liability insurance. The insurance shall provide an amount not less than the minimum combined single limit of \$5,000,000.00 for any number of persons or claims arising from any one incident with respect to bodily injuries or death resulting there from, property damage or both, suffered or alleged to have been suffered by any person or persons resulting from the operations of Lessee, sublessees, contractors and invitees under the terms of this Lease. Lessee shall require its insurance company to furnish Government a copy of the policy or policies, or if acceptable to Government, certificates of insurance evidencing the purchase of such insurance. The minimum amount of liability insurance coverage is

subject to revision by Government every three years or upon renewal or modification of this Lease.

17.3 As to those structures and improvements on Leased Premises constructed by or owned by Government, Lessee shall procure and maintain at Lessee's expense a standard fire and extended coverage insurance policy or policies on Leased Premises in the minimum amount of \$1,000,000.00, but not less than the amount required to demolish damaged or destroyed structures and improvements, remove debris, and clear the Leased Premises. Lessee shall procure such insurance from a reputable company or companies. The insurance policy shall provide that in the event of loss thereunder, the proceeds of the policy or policies, at the election of Government, shall be payable to Lessee to be used solely for the demolition of damaged or destroyed structures and improvements, removal of debris, and clearing of the Leased Premises or for repair, restoration, or replacement of the property damaged or destroyed. Any balance of the proceeds not required for such purposes shall be paid to Government. If Government does not elect, by notice in writing to the insurer within thirty (30) calendar days after the damage or destruction occurs, to have the proceeds paid to Lessee for the purposes herein above set forth, then such proceeds shall be paid to Government, provided however that the insurer, after payment of any proceeds to Lessee in accordance with the provision of the policy or policies, shall have no obligation or liability with respect to the use or disposition of the proceeds by Lessee. Nothing herein contained shall be construed as an obligation upon Government to repair, restore, or replace Leased Premises or any part thereof.

17.4 If and to the extent required by law, Lessee shall provide worker's compensation or similar insurance in form and amounts required by law.

17.5 During the entire period this Lease shall be in effect, Lessee shall require its contractors or sublessees or any contractor performing work at Lessee's or sublessee's request on Leased Premises to carry and maintain the insurance required below:

17.5.1 Comprehensive general liability insurance, in an amount not less than \$1,000,000.00.

17.5.2 Workmer's compensation or similar insurance in form and amounts required by law.

17.6 All insurance which this Lease requires Lessee or sublessee to carry and maintain or cause to be carried or maintained shall be in such form, for such periods of time, and with such insurers as Government may reasonably require or approve. All policies or certificates issued by the respective insurers for public liability and property insurance will name Government as an additional insured, provide that any losses shall be payable notwithstanding any act or failure to act or negligence of Lessee or Government or any other person, provide that no cancellation, reduction in amount or

material change in coverage thereof shall be effective until at least thirty (30) calendar days after receipt by Government of written notice thereof; provide that the insurer shall have no right of subrogation against Government; and be reasonably satisfactory to Government in all other respects. In no circumstances will Lessee be entitled to assign to any third party, rights of action that Lessee may have against Government.

17.7 Lessee and sublessees shall deliver or cause to be delivered promptly to Government a certificate of insurance evidencing the insurance required by this Lease and shall also deliver prior to expiration of any such policy, a certificate of insurance evidencing each renewal policy covering the same risks.

18. LABOR PROVISION:

During the term of this Lease, Lessee agrees as follows:

18.1 Lessee will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. Lessee shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation and selection for training, including apprenticeship. Lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Government setting forth the provisions of this nondiscrimination clause.

18.1.1 Lessee shall, in all solicitations or advertisements for employees placed at Leased Premises by or on behalf of Lessee, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

18.1.2 Lessee shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by Government, advising the labor union or worker's representative of Lessee's commitments under this equal opportunity clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

18.1.3 Lessee shall comply with all provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and of the rules, regulations and relevant orders of the Secretary of Labor.

18.1.4 Lessee shall furnish all information and reports required by Executive order 11246 of September 24, 1965, as amended by Executive Order 11375

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of October 13, 1967, and of the rules, regulations and relevant orders of the Secretary of Labor or pursuant thereto, and will permit access to his books, records and accounts by Government and the Secretary of Labor for purposes of investigating to ascertain compliance with such rules, regulations and orders.

18.1.5 In the event of Lessee's noncompliance with the equal opportunity clause of this Lease or with any of said rules, regulations or orders, this lease may be canceled, terminated or suspended in whole or in part and Lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended by Executive order 11375 of October 13, 1967, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, or by rule, regulation or order of the Secretary of Labor, or otherwise provided by law.

18.1.6 Lessee will include the above provisions in every sublease unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, so that such provisions will be binding upon each sublessee. Lessee will take such action with respect to any sublessee as Government may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event Lessee becomes involved, or is threatened with litigation with sublessee as a result of such direction by Government, Lessee may request the United States to enter into such litigation to protect the interest of the United States.

18.2 This Lease, to the extent that it is a contract of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. 3703) and is not covered by the Walsh-Healy Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and exceptions of said Contract Work Hours and Safety Standards Act and to all other provisions and exceptions of said law.

18.2.1 Lessee shall not require or permit any laborer or mechanic in any workweek in which he is employed on any work under this Lease to work in excess of 40 hours in such work week on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all such hours worked in excess of 40 hours in such work week. The "basic rate of pay", as used in this clause, shall be the amount paid per hour, exclusive of Lessee's contribution or cost for fringe benefits and any cash payment made in lieu of providing fringe benefits or the basic hourly rate contained in the wage determination, whichever is greater.

18.2.2 In the event of any violation of the provision of Article 18.2.1, Lessee shall be liable to any affected employee for any amounts due, and to the United

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States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions of Article 18.2.1 in the sum of ten \$10.00 for each calendar day on which such employee was required or permitted to be employed on such work in excess of the standard work week of 40 hours without payment of the overtime wages required by paragraph 18.2.1.

18.3 In connection with the performance of work required by this Lease, Lessee agrees not to employ any person undergoing a sentence of imprisonment at hard labor.

19. SUBMISSION OF NOTICES:

No notice, order, direction, determination, requirement, consent or approval under this Lease shall be of any effect unless made in writing and delivered to the addressees designated below. All correspondence, notices and claims concerning this Lease shall be directed to the addresses set out below or to such addresses as may from time to time be given by the parties. Such correspondence, notices and claims may be delivered by hand, express delivery, overnight courier or by prepaid registered or certified mail, return receipt requested. The individuals so designated shall be the representatives of the parties and the points of contact during the period of this Lease, unless otherwise indicated by written notice of an individual party to the Lease to each party to the Lease.

If to Government:

Real Estate Contracting Officer
Base Realignment and Closure Program Management Office
1230 Columbia Street, Suite 1100
San Diego, CA 92101-8571

If to Lessee:

Lennar Homes of California, Inc.
25 Enterprise
Aliso Viejo, CA 92656
Attn: Robert Santos

20. AUDIT:

This Lease shall be subject to audit by any and all cognizant Government agencies. Lessee shall make available to such agencies for use in connection with such audits all records, which it maintains with respect to this Lease and copies of all reports, required to be filed hereunder. Government shall provide to Lessee reasonable

documentation for all billings and assessments for costs incurred, and for any other Government demands for payment. In no event shall the provisions of this Article be construed to authorize or require the disclosure of documents protected from disclosure by the attorney-client privilege, or otherwise, the confidentiality of which is protected by state or federal law

21. AGREEMENT:

This Lease shall not be modified unless in writing and signed by both parties. No oral statements or representation made by, for or on behalf of either party shall be a part of this Lease. Should a conflict arise between the provisions of this Lease and any exhibit hereto, or any other agreement between Government and Lessee, the provisions of this Lease shall take precedence.

22. FAILURE TO INSIST ON COMPLIANCE:

The failure of Government to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this Lease shall not be construed as a waiver or relinquishment of Government's right to the future performance of any such terms, covenants or conditions and Lessee's obligations in respect to such future performance shall continue in full force and effect.

23. DISPUTES:

23.1 This lease is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613) (the Act).

23.2 Except as provided in the Act, all disputes arising under or relating to this lease shall be resolved under this clause.

23.3 "Claim", as used in this clause, means a written demand or written assertion by Lessee or Government seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of lease terms, or other relief arising under or relating to this Lease. A claim arising under this Lease, unlike a claim relating to this Lease, is a claim that can be resolved under a lease clause that provides for the relief sought by the claimant. However, a written demand or written assertion by Lessee seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by subparagraph 23.4 below. A voucher, invoice or other routine request for payment that is not in dispute when submitted, is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

23.4 A claim by Lessee shall be made in writing and submitted within six (6) years after accrual of the claim, to the Government for a written decision.

23.4.1 Lessee shall provide the certification specified in subparagraph 23.4.3 of this clause when submitting any claim:

- (a) Exceeding \$100,000; or
- (b) Regardless of the amount claimed, when using:
 - (1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or
 - (2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to use in accordance with the Administrative Dispute Resolution Act (ADRA).

23.4.2 the certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

23.4.3 The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which Lessee believes Government is liable; and that I am duly authorized to certify the claim on behalf of Lessee."

23.4.4 The certification may be executed by any person duly authorized to bind Lessee with respect to the claim.

23.5 For Lessee claims of \$100,000 or less, the Government, must, if requested in writing by Lessee, render a decision within 60 calendar days of the request. For Lessee-certified claims over \$100,000, the Government, must, within 60 calendar days, decide the claim or notify Lessee of the date by which the decision will be made.

23.6 The Government's decision shall be final unless Lessee appeals or files a suit as provided in the Act.

23.7 At the time a claim by the Lessee is submitted to the Government or a claim by Government is presented to Lessee, the parties, by mutual consent, may agree to use ADR. When using arbitration conducted pursuant to 5 U.S.C. 575-580, or when using any other ADR technique that the agency elects to employ in accordance with the ADRA, any claim, regardless of amount, shall be accompanied by the certification described in Article 23.4.3 of this clause, and executed in accordance with paragraph 23.4.4 of this clause.

23.8 Government shall pay interest on the amount found due and unpaid by Government from (1) the date the Government receives the claim (properly certified if required), or (2) the date payment otherwise would be due, if that date is later, until the

date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Government initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury, as provided in the Act, which is applicable to the period during which the Government receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

23.9 Lessee shall proceed diligently with the performance of Lease, pending final resolution of any request for relief, claim, appeal or action arising under Lease, and comply with any decision of the Government.

24. COVENANT AGAINST CONTINGENT FEES:

Lessee warrants that no person or agency has been employed or retained to solicit or secure this Lease upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established commercial agencies maintained by Lessee for the purpose of securing business. For breach or violation of this warranty, Government shall have the right to annul this Lease without liability or in its discretion, to require Lessee to pay, in addition to the rental or consideration, the full amount of such commission, percentage, brokerage or contingent fee.

25. LIENS:

Lessee shall promptly discharge or cause to be discharged any valid lien, right in rem, claim or demand of any kind, except one in favor of Government, which at any time may arise or exist with respect to the Leased Property or materials or equipment furnished therefore, or any part thereof, and if the same shall not be promptly discharged by Lessee, or should Lessee or sublessee be declared bankrupt or make an assignment on behalf of creditors, or should the leasehold estate be taken by execution, Government reserves the right to take immediate possession without any liability to Lessee or any sublessee. Lessee and any sublessee shall be responsible for any costs incurred by Government in securing clear title to its property.

26. TAXES:

Lessee shall pay to the proper authority, when and as the same become due and payable, all taxes, assessments and similar charges which, at any time during the term of this Lease, may be imposed upon Lessee with respect to Leased Premises. Title 10 United States Code, Section 2667(e) contains the consent of Congress to the Taxation of Lessee's interest in Leased Premises, whether or not the Leased Premises are in an area of exclusive federal jurisdiction. Should Congress consent to taxation of Government's interest in the property, this Lease will be renegotiated.

**27. SUBJECT TO EXISTING AND FUTURE EASEMENTS AND RIGHTS-OF-WAY,
AND TO CERTAIN POTENTIAL AIR NAVIGATION-RELATED RESTRICTIONS:**

27.1 This Lease is subject to all outstanding easements and rights-of-way for location of any type of facility over, across, through, in and upon Leased Premises or any portion thereof and to the right of Government to grant such additional easements and rights-of-way over, across, through, in and upon Leased Premises as it shall determine to be in the public interest; provided that any such additional easement or right-of-way shall be conditioned on the assumption by the grantee thereof of liability to Lessee for such damages as Lessee shall suffer for property destroyed or property rendered unusable on account of the grantee's exercise of its rights there under. Such easements and rights of way shall include but not be limited to those for water, gas, electricity, telephone, sewer, pipelines, conduits and for any type of facility, including but not limited to those for communications, heating, cooling and power. There is hereby reserved to the holders of such easements and rights-of-way as are presently outstanding or which may hereafter be granted, to any workers officially engaged in the construction, installation, maintenance, operation, repair or replacement of facilities located thereon, and to any Federal, state or local official engaged in the official inspection thereof, such reasonable rights of ingress and egress over Leased Premises as shall be necessary for the performance of their duties with regard to such facilities.

27.2 The Government has constructed and installed roads, structures, facilities, pipelines, and conduits on Leased Premises. For purposes of this Article, these roads, structures, facilities, pipelines, and conduits shall be treated as if they were within easements and rights of way, and Lessee shall not interfere with or otherwise disturb such government-owned improvements without the prior written consent of the Government. Lessee shall protect or relocate them in a manner satisfactory to Government should such protection or relocation be required as a result of Lessee's use of Leased Premises.

27.3 The outstanding easements and rights of way referenced in paragraph 27.1 of this Lease shall be deemed to include, but shall not be limited to, the following:

27.3.1 The rights of the Orange County Water District (OCWD) and Irvine Ranch Water District (IRWD), including their officers, employees, agents, contractors, and subcontractors, to exercise rights of ingress and egress over, across, in, and upon Leased Premises, and such other easements, and/or rights of way as set forth in such paragraph 27.1, for purposes of access and rights-of-way for the construction, operation, and maintenance of the CERCLA Component of the Modified Irvine Desalter Project (CCMI) set forth in Paragraph VI.A of the "Settlement Agreement Among the Settling Federal Agencies (SFA), OCWD, and IRWD in Regard to Former Marine Corps Air Station (MCAS) El Toro dated September 1, 2001 ("Settlement Agreement"). The

OCWD and IRWD and their officers, employees, agents, contractors, and subcontractors may exercise rights of ingress and egress, and may conduct activities involving construction, operation, maintenance, repair, or replacement of the CCMI upon and beneath the Leased Premises without providing prior notice to Lessee.

27.3.2 The rights of OCWD and IRWD, including their officers, employees, agents, contractors, and subcontractors, to exercise rights of ingress and egress over, across, in and upon Leased Premises, and such other easements, and/or rights of way as set forth in such paragraph 27.1, upon reasonable notice, and so as not to unreasonably interfere with Lessee's operations or other use of the Leased Premises, to take soil samples for the purpose of confirming that no such current operations or use have resulted in the release of hazardous substances that could impact the CCMI treatment system.

28. ADMINISTRATION:

Except as otherwise provided for under this Lease, Government shall, under the direction of the Base Realignment and Closure Program Management Office, have complete charge of the administration of this Lease, and shall exercise full supervision and general direction thereof insofar as the interests of Government are affected.

29. SURRENDER:

In the event the lease is terminated, Lessee shall quietly and peacefully remove itself and its personal property and trade fixtures from Leased Premises and surrender the possession thereof to Government. Government may, in its discretion, declare any personal property and trade fixtures that have not been removed from Leased Premises upon termination provided for above, as abandoned property upon an additional 30 calendar days notice.

30. INTEREST:

30.1 Notwithstanding any other provision of this Lease, unless paid within thirty (30) calendar days, all amounts that become payable by Lessee to Government under this Lease (net any applicable tax credit under the Internal Revenue Code) shall bear interest from the date due. The rate of interest will be the Current Value of Funds rate published by the Secretary of Treasury pursuant to 31 U.S.C. 3717 (Debt Collection Act of 1982).

30.1.1 Amounts shall be due upon the earliest of:

30.1.1(a) the date fixed pursuant to this Lease,

30.1.1(b) the date of the first written demand for payment,
Consistent with this Lease, including demand consequent upon default termination,

30.1.1(c) the date of transmittal by Government to Lessee of a
proposed supplemental agreement to confirm completed negotiations fixing the amount,

30.1.1(d) if this Lease provides for revision of prices, the date of
written notice to Lessee stating the amount of refund payable in connection with a
pricing proposal or in connection with a negotiated pricing agreement not confirmed by
Lease supplement.

31. AVAILABILITY OF FUNDS:

The Government's obligations under this Lease are subject to the availability of
funds appropriated for such purposes. Nothing in this Lease shall be interpreted to
require obligations or payments by Government that would be in violation of the Anti-
Deficiency Act (31 USC 1341).

32. APPLICABLE RULES AND REGULATIONS:

Lessee and any Sublessees shall comply with all Federal, State, and local laws,
regulations, and standards that are applicable or may become applicable to Lessee's or
Sublessee's activities on the Leased Premises. These include, but are not limited to,
laws and regulations regarding the environment, construction of facilities, health, safety,
food service, water supply, sanitation, use of pesticides, and licenses or permits to do
business. Lessee and any Sublessee are responsible for obtaining and paying for
permits required for its operations under the Lease.

33. QUIET POSSESSION:

Government covenants and agrees that Lessee, upon paying any charges
hereunder provided for and observing and keeping all covenants, agreements, and
conditions of this Lease on its part to be observed and kept, shall quietly have and enjoy
Leased Premises during the term of this Lease without hindrance or molestation by
anyone claiming by or through Government, subject, however, to the exceptions,
reservations and conditions of this Lease.

34. GOVERNMENT APPROVAL:

Whenever this Lease requires Government approval or consent, such approval or consent shall not be unreasonably withheld or delayed.

35. EXHIBITS:

The following exhibits are attached hereto and incorporated by reference herein:

- A. Description of the Leased Premises
- B. Executive Summary of Environmental Baseline Survey
- C. Finding of Suitability to Lease
- D. Work Exempt from Government Consent
- E. Facilities Containing FAD ACM or Requiring ACM Survey Prior to Use or Occupancy
- F. Portion of Leased Premises Reserved for Government Use

Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 3

All correspondence in connection
with this contract should include reference to:
N4769205RP05P45

IN WITNESS WHEREOF, the parties hereto have, on the respective dates set forth below duly executed this Lease as of the day and year first above written.

THE UNITED STATES OF AMERICA
Acting by and through the Department of the Navy

By: _____

Date _____

HERITAGE FIELDS, LLC

By: _____

Title: _____

Date: _____

**Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 3**

Exhibit "A"

EXHIBIT "A"
Description of "Property"

That certain real property situated in the County of Orange, State of California, including the following parcels, described attached hereto and made a part hereof; excluding however, all real property described as Home 1 and Home 5

Included: Parcel III-B
Parcel III-C
Parcel III-D

Excluded: Home 1
Home 5

PSOMAS

LEGAL DESCRIPTION

PARCEL III-B

In the unincorporated territory of the County of Orange, State of California, being a portion of Lots 279, 280, 285 and 286 of Block 140 and Lots 281 and 284 of Block 155 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Beginning at the southwesterly terminus of that certain course in the northwesterly boundary of said property described as "North 40°39'31" East 5230.34 feet" as shown on sheet 4 of said Record of Survey; thence North 40°39'31" East 3072.31 feet along said line; thence leaving said line South 49°20'29" East 799.19 feet; thence North 40°39'31" East 88.33 feet; thence South 49°20'29" East 1185.57 feet; thence North 40°39'31" East 64.14 feet; thence South 47°28'22" East 501.80 feet to the beginning of a non-tangent curve concave northeasterly having a radius of 1000.00 feet, a radial line to said beginning of curve bears North 88°02'31" West; thence southeasterly along said curve 904.32 feet through a central angle of 51°48'49"; thence South 49°51'20" East 281.26 feet; thence North 42°16'45" East 235.22 feet to the beginning of a curve concave southeasterly having a radius 2500.00 feet; thence northeasterly along said curve 101.88 feet through a central angle of 2°20'06"; thence South 47°28'22" East 2361.69 feet; thence South 68°59'53" East 342.12 feet; thence South 0°57'09" West 105.32 feet to the beginning of a curve concave easterly having a radius of 120.00 feet; thence southerly and southeasterly along said curve 89.47 feet through a central angle 42°43'00"; thence South 22°33'33" West 432.82 feet; thence South 17°00'09" East 565.15 feet to the beginning of a non-tangent curve concave northwesterly having a radius of 1200.00 feet a radial line to said beginning of curve bears South 64°10'20" East; thence southwesterly along said curve 292.75 feet through a central curve of 13°58'40"; thence South 39°48'20" West 226.79 feet to the beginning of a curve concave southeasterly having a radius of 900.00 feet; thence southerly along said

PSOMAS

curve 605.19 feet through a central angle of $38^{\circ}31'40''$; thence South $1^{\circ}16'40''$ West
.129.84 feet to the beginning of a non-tangent curve concave southerly having a radius of
1600.00 feet, a radial line to said beginning of said curve bears North $1^{\circ}09'46''$ East;
thence easterly along said curve 201.16 feet through a central angle of $7^{\circ}12'12''$; thence
South $38^{\circ}25'50''$ West 251.55 feet; thence South $8^{\circ}02'01''$ West 336.30 feet; thence
South $39^{\circ}18'52''$ West 783.87 feet to the southwesterly boundary of said property; thence
North $49^{\circ}20'21''$ West 7709.08 feet along said property to the **Point of Beginning**.

Containing 512.600 acres (22,328,821 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record,
if any.

Refer to the exhibit attached hereto and made a part hereof.

This real property description has been prepared by me or under my direction, in
conformance with the Professional Land Surveyor's Act.



John C. Hovland, P.L.S. 7365

5/28/04

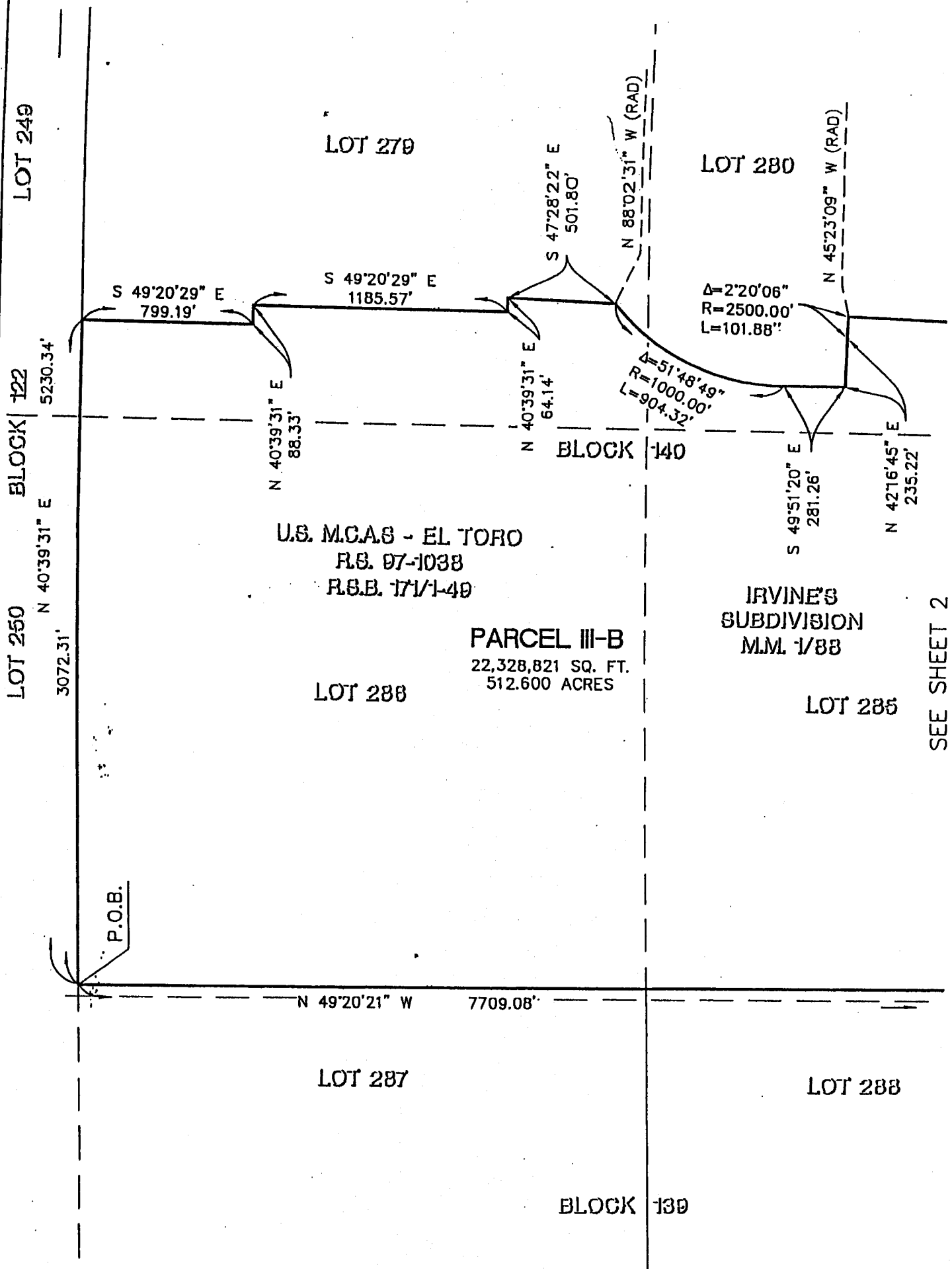
Date

Expires 12/13/05



REVIEWED BY CADASTRAL - RWS

EXHIBIT



REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lots 279, 280, 285 and 286 of Block 140 and Lots 281 and 284 of Block 155, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 5/26/04
REV 2

SHEET 1 OF 2

PSOMAS

3107 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-0003

SCALE 1" = 600'

DRAFTED CHL

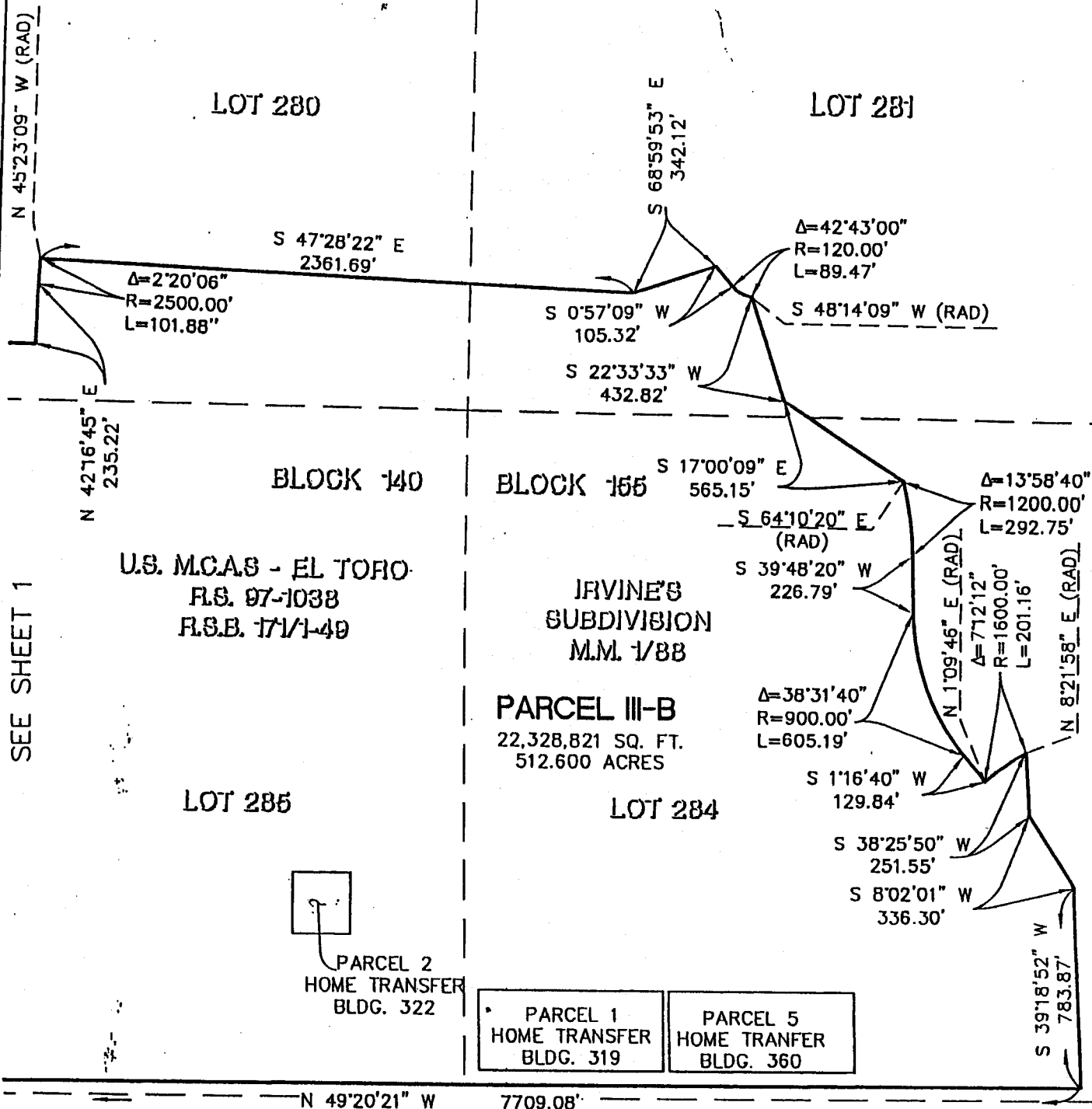
CHECKED JCH

DATE FEB, 2004

JOB

NUMBER 2NOR060100 T7

EXHIBIT



SEE SHEET 1

REVIEWED BY CADASTRAL-RWS

DESCRIPTION: That portion of Lots 279, 280, 285 and 286 of Block 140 and Lots 281 and 284 of Block 155, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	5/26/04
REV 2	

SHEET 2 OF 2

PSOMAS

3187 Red TIM Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8803

SCALE 1" = 600'

DRAFTED CHL

CHECKED JCH

DATE FEB, 2004

JOB	NUMBER	2NOR06D100	TZ
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PSOMAS

LEGAL DESCRIPTION

•PARCEL III-C

In the City of Irvine, County of Orange, State of California, being a portion of Lot 279 of Block 140 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northwesterly boundary of said property described as "North 49°19'46" West 400.00 feet" as shown on sheet 4 of said Record of Survey; thence along said northwesterly line the following two courses:

1. South 40°36'53" West 217.80 feet;

2. South 40°39'31" West 1414.81 feet;

thence leaving said northwesterly line South 49°20'29" East 1849.04 feet to the **True Point of Beginning**; thence South 49°14'49" East 240.39 feet; thence South 40°45'11" West 147.68 feet; thence North 49°14'49" West 240.39 feet; thence North 40°45'11" East 147.68 feet to the **True Point of Beginning**.

Containing 0.815 acres (35,500 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on the exhibit attached hereto and made a part hereof.

PSOMAS

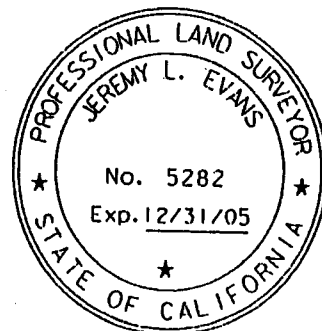
1 This real property description has been prepared by me or under my direction, in
2 conformance with the Professional Land Surveyor's Act.

3
4 Jeremy L. Evans

5 Jeremy L. Evans, P.L.S. 5282

2-5-2005

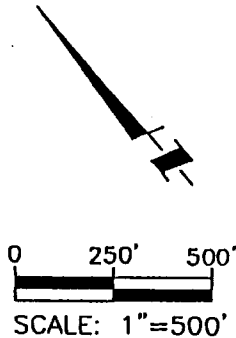
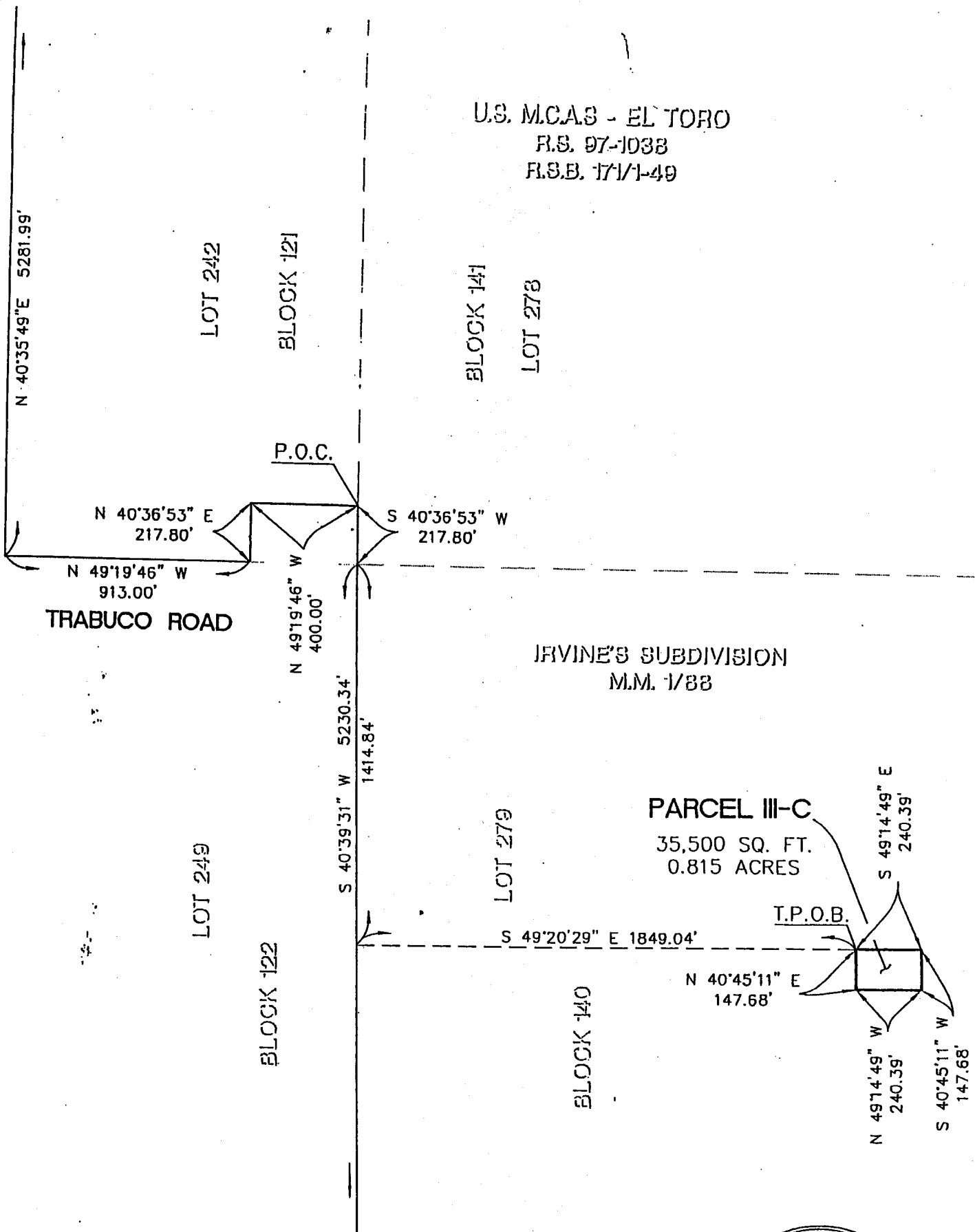
Date



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29 REVIEWED BY CADASTRAL — RWS

EXHIBIT

U.S. MCAS - EL TORO
R.S. 97-1038
R.S.B. 171/1-49



REVIEWED BY CADASTRAL - RJS

DESCRIPTION: That portion of Lot 279 of Block 140, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 12/23/2004
REV 2

SHEET 1 OF 1
PSOMAS
3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 500'
DRAFTED CHL
CHECKED JE
DATE DEC. 2004
JOB
NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

.PARCEL III-D

In the City of Irvine, County of Orange, State of California, being a portion of Lot 279 of Block 140 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at the southeasterly terminus of that certain course in the northwesterly boundary of said property described as "North 49°19'46" West 400.00 feet" as shown on sheet 4 of said Record of Survey; thence along said northwesterly line the following two courses:

1. South 40°36'53" West 217.80 feet;

2. South 40°39'31" West 1732.63 feet;

thence leaving said northwesterly line South 49°20'29" East 1492.83 feet to the **True Point of Beginning**; thence South 49°14'49" East 238.45 feet; thence North 40°45'11" East 128.81 feet; thence South 49°14'49" East 278.65 feet; thence South 40°45'11" West 401.68 feet; thence North 47°28'22" West 24.73 feet; thence South 40°39'31" West 64.14 feet; thence North 49°20'29" West 492.48 feet; thence North 40°45'11" East 337.05 feet to the **True Point of Beginning**.

Containing 4.784 acres (208,389 square feet), more or less

Subject to covenants, conditions and restrictions, rights-of-way and easements of record, if any.

As shown on the exhibit attached hereto and made a part hereof.

PSOMAS

This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyor's Act.

Jeremy L. Evans

Jeremy L. Evans P.L.S. 5282

2-4-2005

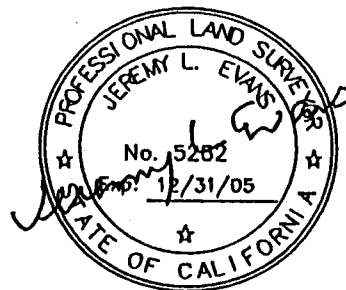
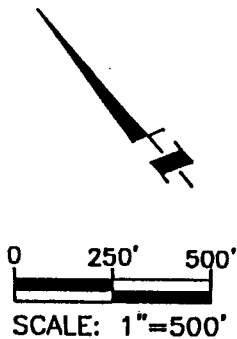
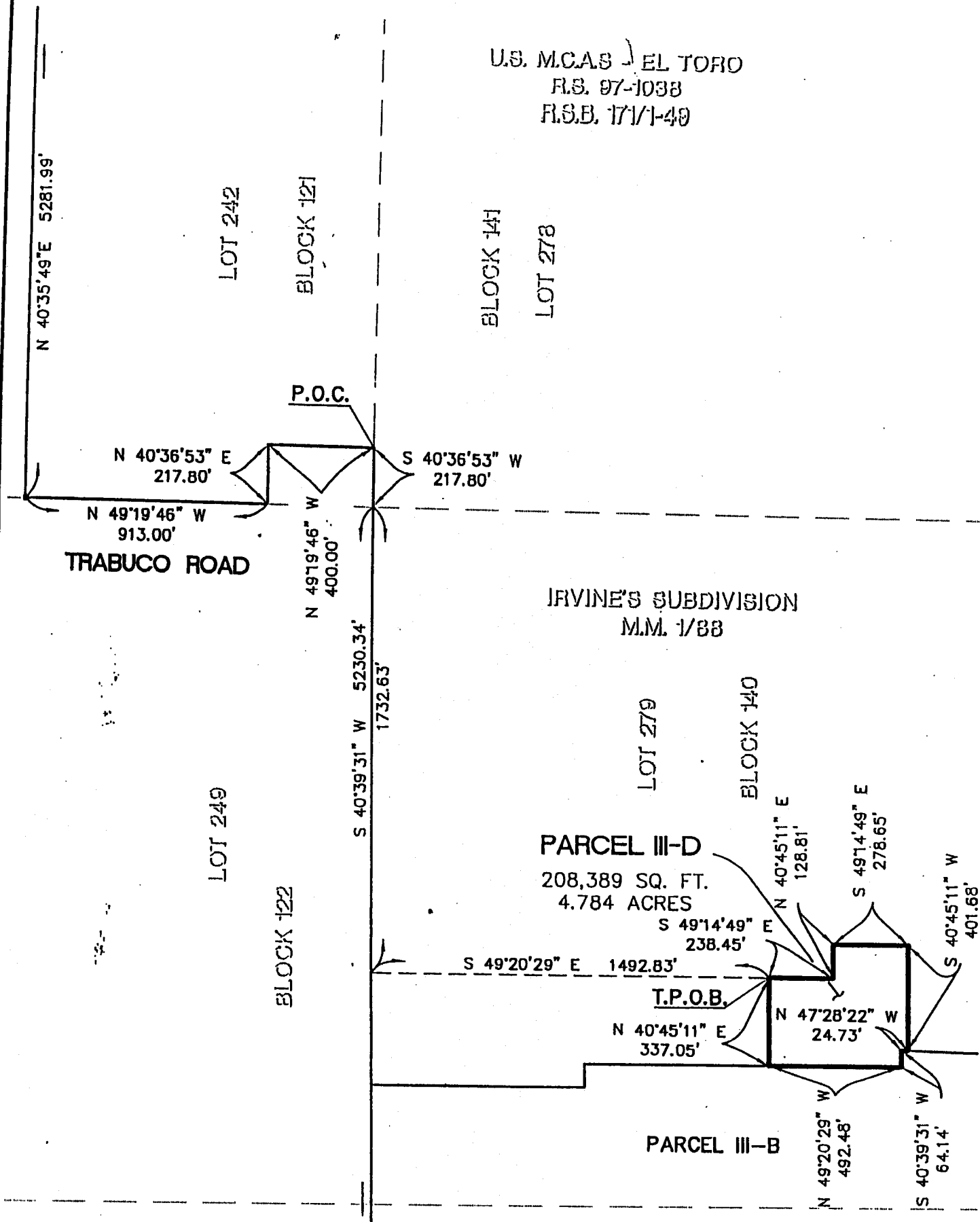
Date



REVIEWED BY CADASTRAL - RWS

EXHIBIT

U.S. MCAS EL TORO
R.S. 97-1038
R.S.B. 171/1-40



REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 279 of Block 140, in the City of Irvine, County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1 12/23/2004
REV 2

SHEET 1 OF 1
PSOMAS
3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 945-8083

SCALE 1" = 500'
DRAFTED CHL
CHECKED JE
DATE DEC, 2004
JOB NUMBER 2NOR060100 T7

PSOMAS

LEGAL DESCRIPTION

EXHIBIT "A"

HOME 1 (Transfer, Bldg 319)

In the City of Irvine, County of Orange, State of California, being a portion of Lot 284 of Block 155 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at a point in that certain course in the U.S. M.C.A.S. El Toro boundary line as shown on sheet 5 of said Record of Survey 97-1038, having a bearing and distance of "North 49°20'21" West 10570.18 feet", said point lying distant thereon North 49°20'21" West 4504.11 from the southeasterly terminus of said course, said point being the True Point of Beginning; thence continuing along said course North 49°20'21" West 730.00 feet; thence North 40°31'30" East 418.01 feet; thence South 49°20'00" East 264.56 feet; thence South 40°40'00" West 50.07 feet; thence South 49°20'00" East 465.56 feet; thence South 40°31'30" West 367.87 feet to the True Point of Beginning.

Containing 6.469 acres, more or less.

Subject to covenants, conditions, restrictions, rights-of-way and easements of record, if any.

Refer to Exhibit "B" attached hereto and made a part hereof.

PSOMAS

1 This real property description has been prepared by me or under my direction, in
2 conformance with the Professional Land Surveyors' Act.

3
4
5 Kari J. Launen

6 Kari J. Launen, PLS 5679

7 PSOMAS

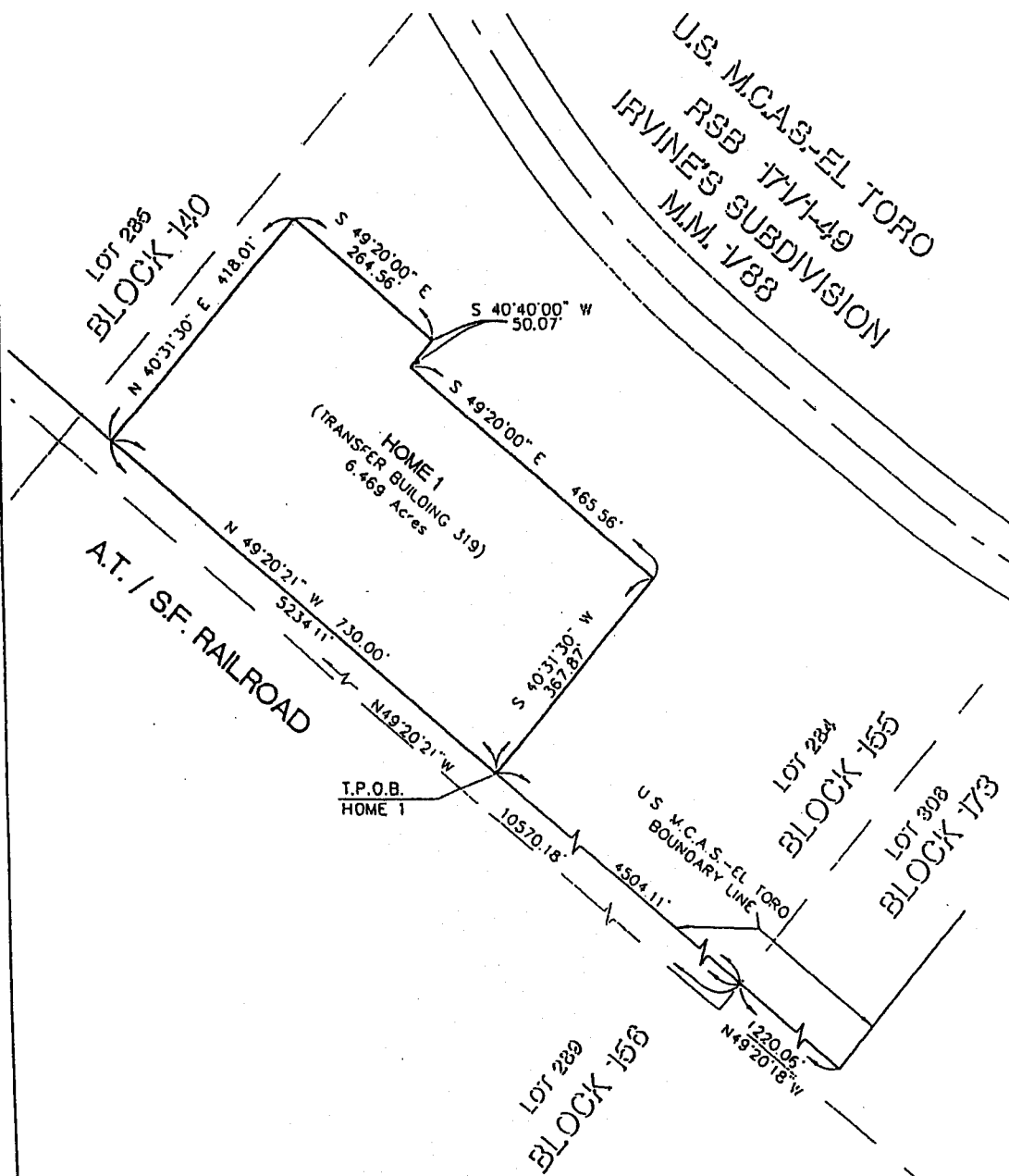
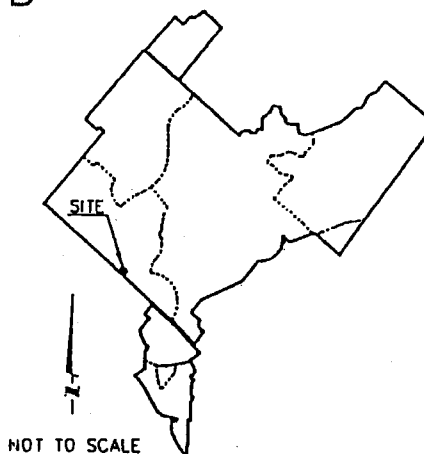
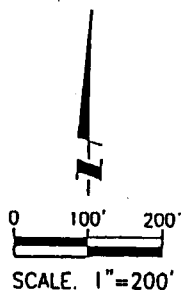
MAY 11, 2005

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EXHIBIT "B"



DESCRIPTION: That portion of Lot 284 of Block 155, in the City of Irvine of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

MCAS-EL TORO

REV 1	04/29/05
REV 2	05/09/05

SHEET 1 OF 1

PSOMAS

3141 Red Hill Avenue
Suite 150
Costa Mesa, CA 92626
(714) 751-1111 fax (714) 751-6881

SCALE 1" = 200'

DRAFTED	ROM
CHECKED	PJ
DATE	05/09/05
JOB NUMBER	2LE0504 TASK 1

PSOMAS

LEGAL DESCRIPTION

HOME 5 (Transfer, Bldg 360)

In the unincorporated territory of the County of Orange, State of California, being a portion of Lot 284 of Block 155 of Irvine's Subdivision, as shown on the map filed in Book 1, Page 88 of Miscellaneous Maps, records of said County, lying within the U.S. M.C.A.S. El Toro property, as shown on Record of Survey 97-1038, filed in Book 171, Pages 1 through 49, inclusive, of Records of Survey, records of said County, described as follows:

Commencing at a point in that certain course in the U.S. M.C.A.S. El Toro boundary line as shown on sheet 5 of said Record of Survey 97-1038, having a bearing and distance of "North 49°20'21" West 10570.18 feet", said point lying distant thereon North 49°20'21" West 3750.65 from the southeasterly terminus of said course; thence North 40°39'39" East 54.73 feet to the **True Point of Beginning**; thence North 49°14'50" West 730.01 feet; thence North 40°26'50" East 312.00 feet; thence South 49°14'50" East 730.01 feet; thence South 40°26'50" West 312.00 feet to the **True Point of Beginning**.

Containing 5.23 acres, more or less.

Subject to covenants, conditions, restrictions, rights-of-way and easements of record, if any.

Refer to the exhibit attached hereto and made a part hereof.

This real property description has been prepared by me or under my direction, in conformance with the Professional Land Surveyors' Act.

PSOMAS

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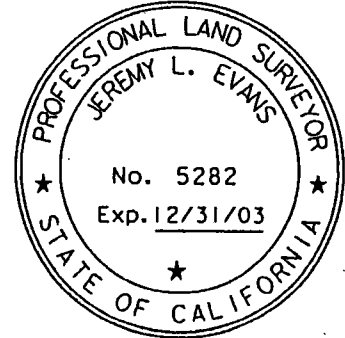
Jeremy L Evans

9-9-03

Jeremy Evans, P.L.S. 5282

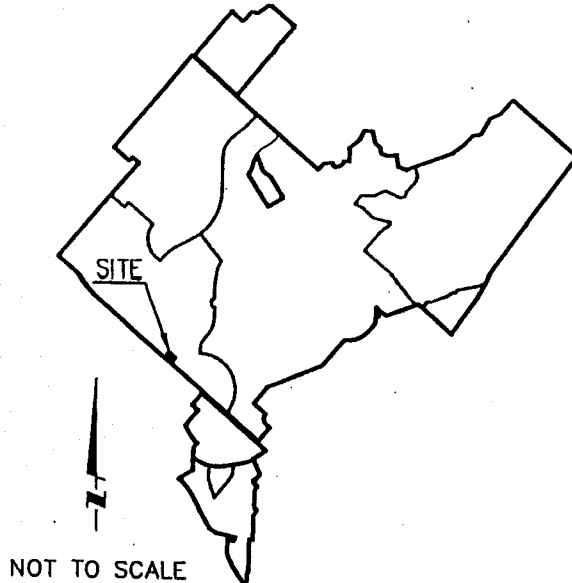
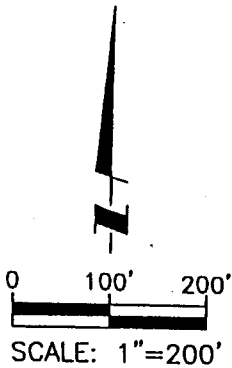
Date

License Expires 12/31/03



REVIEWED BY CADASTRAL - RWS

EXHIBIT



U.S. MCAS-EL TORO
RSB 17/1-49
IRVINE'S SUBDIVISION
M.M. 1/88

LOT 284

BLOCK 155

HOME 5
(TRANSFER BLDG 360)
5.23 Acres

N40°26'50"E
312.00'

S49°14'50"E
730.01'

N49°14'50"W
6819.53'

N49°20'21"W

A.T. / S.F. RAILROAD

T.P.O.B.

730.01'

S40°26'50"W
312.00'

N40°39'39"E
54.73'

U.S. MCAS-EL TORO
BOUNDARY LINE

P.O.C.

3750.65'
10570.18'

N49°20'18"W
1220.06'

780.00'
N40°39'42"E

REVIEWED BY CADASTRAL - RWS

DESCRIPTION: That portion of Lot 284 of Block 155, in the unincorporated territory of the County of Orange, State of California, as shown on Irvine's Subdivision, filed in Book 1 Page 88, M.M.

SHEET 1 OF 1

PSOMAS

3187 Red Hill Avenue
Suite 250
Costa Mesa, CA 92626
(714) 751-7373 Fax (714) 545-8883

SCALE 1" = 200'

DRAFTED SFB

CHECKED RMV

DATE August, 2003

JOB
NUMBER 2NOR060100 T5

MCAS-EL TORO

REV 1 8/30/03
REV 2

EXECUTIVE SUMMARY

Background

This environmental baseline survey (EBS) for former Marine Corps Air Station (MCAS) El Toro, California, has been prepared for the Department of the Navy (DON), Southwest Division, Naval Facilities Engineering Command (SWDIV), as authorized by the Pacific Division, Naval Facilities Engineering Command (PACNAVFACENGCOM), under the Comprehensive Long-Term Environmental Action Navy (CLEAN II) Program, Contract Number N62742-94-D-0048, Contract Task Order (CTO) 104.

The EBS has been prepared to document the environmental condition of property at former MCAS El Toro and adjacent property resulting from the storage, release, treatment, and disposal of hazardous substances and petroleum products and their derivatives over the station's history. The EBS will establish a baseline for use by the DON in making decisions concerning property transactions. The intended reuse of Former MCAS El Toro is primarily recreational (Great Park) with some educational and commercial/light industrial development. Future use of the installation for aviation-related purposes is not anticipated. The preparation of an EBS is required by Department of Defense (DoD) policy before any property can be sold, leased, transferred, or acquired. The EBS can be used by the DON to assist in determining what remedial-type obligations, if any, the DON would retain under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S. Code (U.S.C.), Section 120(h) subsequent to transfer of the property. DON will utilize the EBS to determine, e.g., whether a given parcel can be or has been properly identified as "uncontaminated" in accordance with 42 U.S.C. Section 120(h)(4), or whether the Government can issue a covenant that all necessary remedial action has been taken with respect to a given parcel in accordance with 42 U.S.C. Section 120(h)(3). Guidance is also provided in the 1997 Base Reuse and Implementation Manual (BRIM) Sections F23 to F26 and F29 to F37.

The Community Environmental Response Facilitation Act (CERFA) amends Section 120(h) of CERCLA, and was enacted to facilitate the rapid return of uncontaminated properties to local communities during the Base Realignment and Closure (BRAC) process. CERFA provides a mechanism for identifying and documenting uncontaminated real property, or parcels thereof, that are suitable for transfer and reuse. Uncontaminated property refers to real property on which no hazardous substances and no petroleum products or their derivatives are known to have been released or disposed, including no migration of these substances from adjacent areas. In order to identify uncontaminated properties on military installations undergoing closure or realignment, an EBS is conducted and the results are documented in a report. DON received regulator concurrence on uncontaminated property identified and documented in the 1995 EBS and the Final Community Environmental Response Facilitation Act Report dated April 1, 1995, as required and defined under CERCLA 120(h)(4) (SWDIV 1995). The property now considered Parcel IV in its entirety was found to be uncontaminated in 1995, as well as other portions of Parcels I, II, III and V. This EBS incorporates the CERFA findings from the 1995 EBS and Final CERFA Report.

The findings of this EBS are based on existing environmental information related to past and present release or disposal of hazardous substances and petroleum products on the station. Furthermore, this EBS addresses cleanup-related comments received on the Draft Final and Final Environmental Impact Statement (EIS) for Disposal and Reuse of MCAS El Toro. These comments related to the cleanup program were responded to in the Final EIS (March 2002, Vol. 2), and were forwarded to the Base Environmental Coordinator (BEC) for coordination. Comments that are further addressed by this EBS include L12-13, L12-18, L12-21, L12-23, O1-8, O7-1, O7-2, O7-4, O11-10, O11-130, O11-283, O11-292, C2-2, C25-1, C41-2, C58-16 through -20, C58-24, C104-4, C105-5, C110-8, T2-2, T7-7, and T46-5 (see Appendix D).

Executive Summary

This EBS is being prepared as an update to the April 1995 EBS prepared for former MCAS El Toro in support of upcoming property transfer actions. The report updates the status of environmental factors and locations of concern (LOCs) identified in the 1995 EBS and presents information regarding new potential release locations (PRLs) identified since the 1995 EBS was submitted. Additionally, all buildings situated on former MCAS El Toro were visually inspected as part of this EBS, since the station was operational and could not facilitate the visual inspection of buildings and associated operations during the 1995 EBS. The findings of this EBS have been used to determine the Environmental Condition of Property (ECP) and assign Area Type categories to property to determine whether it is suitable for transfer. This report is intended to serve as a reference document for the DON to determine the existing and future environmental suitability of the property for transfer.

This EBS is based on existing environmental information related to the past and present storage, release, treatment, or disposal of hazardous substances or petroleum products on the installation. This EBS includes new information and data from studies, surveys, and investigations conducted since the publication of the 1995 EBS. Information contained within the 1995 EBS was verified, expanded, and/or updated, as necessary, within this document. The information presented in this EBS is complete and accurate as of March 2003. However, as investigation and remediation efforts under the Installation Restoration Program (IRP) and other environmental programs continue, the status of facilities and sites at former MCAS El Toro can be expected to change.

Boundaries of the Survey Area

Former MCAS El Toro is situated in south-central Orange County, California. The majority of the station is within an unincorporated area of Orange County; however, property within the south portion of the station is within the city of Irvine. The station, which currently comprises approximately 3,717 acres, is bordered on the east and southeast by the city of Lake Forest, to the southeast, south, and southwest by the city of Irvine, and to the west, north, and northeast by unincorporated portions of Orange County. Approximately 1,000 acres of the former station's maximum acreage (4,710 acres) have been transferred or are pending transfer and are not addressed within this EBS. In 1998, the Bake Parkway/Interstate 5 public highway expansion project resulted in the transfer of approximately 23 acres of property at the southeast corner of the station to the California Department of Transportation (Caltrans). In 2001, 896.7 acres of property in the northeast portion of the station were transferred to the Federal Aviation Administration (FAA). As these properties are no longer Navy property, they are not included within the survey area addressed by this EBS. In addition, 73.7 acres in the northeast portion of the station are pending transfer to the Federal Bureau of Investigation (FBI). All necessary environmental and property transfer documentation for the FBI transfer has been completed. This acreage is not included within the total station acreage and is not included within the study area addressed by this EBS. Based upon property transfers that have occurred and are pending, the amount of property addressed within this EBS is 3,717 acres.

Content of the Environmental Baseline Survey Report

This EBS is based on information obtained from the 1995 EBS and through a records search, interviews, and visual site inspections (VSIs) conducted in April-May 2002. The records search included a review of available Navy and other agency records within the station files, including environmental restoration and compliance reports, audits, surveys, and inspection reports; an analysis of aerial photographs; and a review of recorded chain-of-title documents for the property. Interviews with caretaker employees and visual and physical inspections of the station property and facilities were also conducted. Former employees were interviewed in support of previous

investigations; information from those reports has been incorporated into this EBS update, as appropriate.

A recorded chain-of-title search was conducted for the 1995 EBS for on-base parcels to determine prior ownership or uses that could reasonably have contributed to an environmental concern. The title search reviewed DoD acquisition of on-station parcels covering a period of at least 60 years (i.e., 1934 to 1994). Prior to government acquisition of the property, the area was primarily used for agricultural purposes. A review of the data obtained from the title search did not identify any areas of environmental concern related to property use prior to government acquisition.

This EBS also includes an assessment of the environmental condition of off-station properties immediately adjacent (contiguous) to or relatively near the station that could pose environmental concern and/or affect the subject property. Visual inspections of adjacent off-station properties were conducted from station property or public roads. Environmental databases maintained by federal and state agencies were also searched to identify sites of concern on adjacent properties.

Based on an analysis of the available data, LOCs were assigned ECP Area Type categories. Depending on the Area Types of the LOCs, property within former MCAS El Toro was classified into one of seven ECP Area Type categories:

- *ECP Area Type 1* - Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).
- *ECP Area Type 2* - Areas where only release or disposal of petroleum products has occurred.
- *ECP Area Type 3* - Areas where release, disposal, and/or migration of hazardous substances have occurred, but at concentrations that do not require a removal or remedial action.
- *ECP Area Type 4* - Areas where release, disposal, and/or migration of hazardous substances have occurred, and all remedial actions necessary to protect human health and the environment have been taken.
- *ECP Area Type 5* - Areas where release, disposal, and/or migration of hazardous substances have occurred, removal and/or remedial actions are under way, but all required remedial actions have not yet been taken.
- *ECP Area Type 6* - Areas where release, disposal, and/or migration of hazardous substances have occurred, but required response actions have not yet been implemented.
- *ECP Area Type 7* - Areas that are unevaluated or require additional evaluation.

Category 2 addresses release or disposal of petroleum products only. A release of petroleum products would not prohibit the affected property's transfer under CERCLA Section 120(h). ECP Area Type 2 property has been divided into five subcategories in order to further define petroleum product releases. Area Types 2a through 2e correspond to Area Types 3 through 7, except the Area Type 2 definitions refer to petroleum products rather than hazardous substances. All Area Type 2 property is suitable for transfer regardless of subcategories. Category 2 definitions are as follows:

- *ECP Area Type 2a* - Facilities where release, disposal, and/or migration of petroleum products have occurred, but at concentrations that do not require a response action.
- *ECP Area Type 2b* - Facilities where release, disposal, and/or migration of petroleum products have occurred, and all response actions to protect human health and the environment have been taken.

Executive Summary

- *ECP Area Type 2c* - Facilities where release, disposal, and/or migration of petroleum products have occurred, and response actions are underway, but all required response actions have not been completed.
- *ECP Area Type 2d* - Facilities where release, disposal, and/or migration of petroleum products have occurred, but required response actions have not yet been implemented.
- *ECP Area Type 2e* - Facilities that have never been evaluated or require additional investigation. Category 2e facilities include areas that may have had a release of petroleum products, but have had no sampling or field screening and require such investigations to confirm that a release has or has not occurred.

Areas where no past or present release or disposal of hazardous substances or petroleum products and their derivatives were identified are considered to be Category 1. Category 2 designations were assigned based on evidence of releases of petroleum products. Category 3 designations were based upon existing information (e.g., personnel interviews, VSIs, written records, reports) to document that contaminant levels, if present, are below action levels. Areas where known or suspected contamination has occurred were classified as Category 4 through 7 properties based upon existing documentation or VSIs.

Pursuant to U.S. Environmental Protection Agency (EPA) and DoD guidance, this EBS identifies property as uncontaminated, even if some limited quantity of hazardous substances or petroleum products were released or disposed in cases where the available information indicates that such release or disposal poses no threat to human health or the environment. Examples, as provided in the EPA guidance include usage of common household chemicals and storage of heating fuel in base housing areas, incidental releases of petroleum products on roadways and parking lots, and the routine licensed application of pesticides.

Property designated as Area Types 1 through 4 is suitable for property transfer. In general, a parcel that contains land that is deemed "unsuitable for transfer" (i.e., Area Types 5 and 6) may still be eligible for early transfer or lease (would require deferral of CERCLA covenant), provided that the intended future use is protective of human health and the environment, and with specified recommended restrictions on use of the property to protect human health and the environment or the environmental restoration process. Area Type 7 sites require further evaluation prior to determining suitability to transfer. Area types for property presented in this EBS may have changed since the designation in the 1995 EBS based upon the identification of new LOCs or based upon ongoing or completed response actions that have occurred since the 1995 EBS was published. All sites with hazardous substance or potential hazardous substance releases, disposal, and/or migration should be considered Area Types 5 through 7 until concurrence with a no further action finding is received.

Findings of the Environmental Baseline Survey Report

The following types of LOCs (with the exception of PRLs which are not considered LOCs) have been identified and have been assigned an ECP Area Type in order to determine the overall property categorization and suitability to transfer at former MCAS El Toro. The number of LOCs requiring no further action and the number of LOCs requiring further evaluation, implementation of response actions, or completion of ongoing response action are presented below:

- A total of 76 new PRLs were identified as a result of this 2003 EBS. Of these 76 sites, 15 sites require no further action and 61 sites require further evaluation for potential releases of waste to the environment. The one remaining site (the Airfield Operations Area/Runways) has been identified with a discrete "carve-out" area requiring further evaluation and the remaining portions of this site require no further action.

- A total of 92 Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) sites are addressed within this EBS. Of these 92 RFA sites, 76 sites require no further action and 16 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- A total of 64 temporary accumulation area (TAA) sites are addressed within this EBS. Of these 64 TAA sites, 19 of the sites require no further action and 45 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- A total of 123 aerial photograph features/anomalies (APHO) sites are addressed within this EBS. Of these 123 APHO sites, 90 of the sites require no further action and 33 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- A total of 21 IRP sites are addressed within this EBS. Of these 21 sites, 13 sites require no further action and 7 sites require implementation and completion of response actions. The remaining one site, IRP 24 requires no further action for the vadose zone portion and further action for the shallow groundwater unit.
- A total of 39 aboveground storage tank (AST) sites are addressed within this EBS. Of these 39 AST sites, 36 are suitable for transfer and 3 sites require further evaluation for releases of petroleum products and/or hazardous substances.
- A total of 401 underground storage tank (UST) sites are addressed within this EBS. Of these 401 UST sites, 356 are suitable for transfer and 45 sites require further evaluation or completion of response actions for releases of petroleum products or hazardous substances.
- A total of 55 oil/water separator (OWS) sites are addressed within this EBS. Of these 55 OWS sites, 44 of the sites require no further action and 11 sites require further evaluation for releases of hazardous substances or completion of ongoing response actions.
- A total of 29 wash rack sites are addressed within this EBS. Of these 29 wash rack sites, 26 sites require no further action and 3 sites require further evaluation, implementation of response actions, or completion of ongoing response actions.
- Eight silver recovery units (SRU) sites are addressed within this EBS. These eight sites are considered PRLs; of these eight sites, one requires no further action and seven require further evaluation to determine whether releases of hazardous substances have occurred.
- A total of 130 polychlorinated biphenyl (PCB) transformer locations are addressed within this EBS. These 130 transformer locations require no further action. In addition, six areas have been identified as PCB transformer/equipment storage areas or areas where PCBs have been detected. Of these six areas, two areas require no further action and four require further actions.
- A total of 18 miscellaneous LOCs are addressed within this EBS. Of these 18 miscellaneous LOCs, 12 require no further action and 6 require further evaluation for releases of hazardous substances or petroleum products.

Table ES-1 summarizes the types, number, and status of LOCs identified at former MCAS El Toro.

Based on the findings of this EBS, it has been determined that approximately 78 percent of the 3,717 acres of base property is environmentally suitable for transfer at this time. Figure ES-2 depicts the transferable and non-transferable property within former MCAS El Toro. Ongoing and future environmental investigations and response actions will cause the amount of property suitable for transfer to increase in the future.

Executive Summary

Table ES-1: Location of Concern Status Table^(a)

STATUS	USTs	ASTs	OWSs	APHOs	SWMU (93)/ TAAs (64)	Other MSC	PCB XFRMRs	IRP SITES	PRLs
TOTAL (1,022)	404	39	56	124	157	18	124	24	76
NFA (787)	356	36	45	90	96 ^(b)	12	124	13	15
% Complete (78)	88	92	79	73	61	67	100	54	20
In Review (36)	13	2	2	0	17	2	0	0	0
In Progress (199)	35	1	9	34	44	4	0	11	61

Notes: ^a The total number of LOCs listed include the following number of LOCs within parcels that have already been transferred: USTs -3; OWS-1; APHO-1; SWMU-1; IRP Sites -3. Therefore, the total number of LOCs addressed in this EBS is lower. SRUs are listed under MSC (3) and PRLs (8), and are counted in both categories due to PRLs addressing the entire facility.

^b Includes 3 SWMUs (104, 105, & 106) with NFA determinations pending results of radiological survey.

APHO = aerial photograph features/anomalies

AST = aboveground storage tank

IRP = Installation Restoration Program

MSC = miscellaneous

NFA = no further action

OWS = oil/water separator

PCB = polychlorinated biphenyl

PRL = Potential Release Location

SWMU = solid waste management unit

TAA = temporary accumulation area

UST = underground storage tank

XFRMR = transformer

Source: United States Marine Corps (USMC) 2003.

**Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance**

Exhibit "C"

MCAS EL TORO LIFOC – Finding of Suitability to Lease

EXHIBIT D

WORK EXEMPT FROM GOVERNMENT CONSENT

All work must be in accordance with Paragraph 13 of this Lease and the Finding of Suitability to Lease (FOSL). In the event of any conflict between this Exhibit D and Paragraph 13 of this Lease or the FOSL, the language of Paragraph 13 and/or the FOSL shall take precedence over the language of Exhibit D. If any such work involves any asbestos containing materials or lead based paint, prior Government approval of the work will be required. All work within the portion of the Leased Premises identified in Exhibit F (the VORTAC area) is subject to prior review, as provided in Paragraph 8.1 of this Lease.

For the leased premises, the following work may be accomplished without requesting prior Government approval:

Interior building improvements including:

- Wall & ceiling finishes/painting
- Carpeting/Flooring repair/replacement
- Lighting changes
- Plumbing changes
- HVAC repair/improvements
- Removal of partition walls.
- Construction of partition walls.

Exterior building improvements including:

- Exterior painting
- Building signage
- Roofing repair and replacement
- Window repair and replacement

Utilities: All maintenance, repair, and improvements required to provide utilities to the Leased Premises except activities that require digging or other disturbance of the ground surface

Roads and Grounds: All maintenance, repair and improvements required to maintain the roads and grounds of the Leased Premises, to include existing landscaping and existing irrigation systems, except those activities that require digging or other disturbance of the ground surface.

Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance
Parcel 3

Exhibit "E"

**Facilities Containing FAD ACM or Requiring ACM Survey Prior to Use or
Occupancy**

28, 155, 244, 245, 296, 297, 306, 309, 311, 312, 314, 321, 322, 324, 325, 326,
335, 360, 369, 375, 379, 383, 388, 445, 496, 529, 599, 616, 671, 700, 725, 742,
758, 759, 760, 765, 769, 770, 771, 778, 789, 801, 825, 862, 865, 866, 867, 889,
926, 1595, 1601, 1703,

**Former Marine Corps Air Station El Toro
Lease in Furtherance of Conveyance**

Exhibit "F"

Portion of Leased Premises Reserved for Government Use

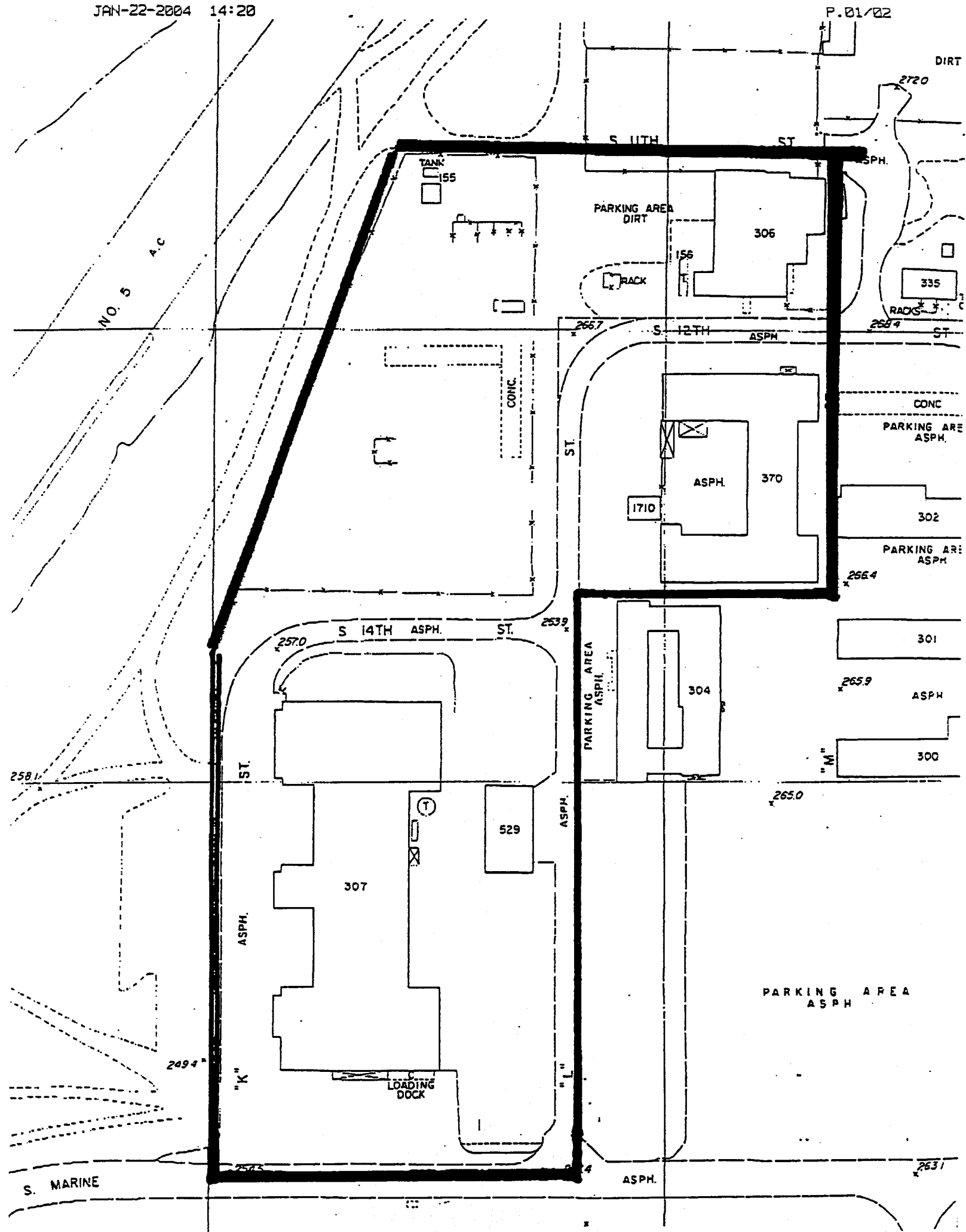


EXHIBIT "E"

ADDITIONAL CONDITIONS AND REQUIREMENTS

This Exhibit is an integral part of the Lease to which it is attached. Capitalized terms not otherwise defined in this Exhibit shall have the meanings given to such terms in the Lease. Lessee shall apply conservation measures and use the Premises, by following generally accepted local farming practices. Lessee shall in no manner substantially change the contour or condition of the land except for such changes as shall be reasonably necessary to improve the agricultural resources or protect the Project.

1. DESCRIPTION. The Premises is a part of the Project and is shown on Exhibit A attached to the Lease.

2. USE. Typical crops grown on the irrigable units are strawberries.

3. PLANTING SCHEDULE. Lessee shall plan and implement his planting schedule so that all crops are harvested and removed from the parcel by the termination date of the lease. There shall be no extension of the lease term for the purpose of harvesting crops.

4. CONSERVATION WORK. Conservation practices are intended to:

(1) Protect the ecological balance of the land to assure the continued productivity of the land while permitting economic returns to Lessee and Lessor. Protection of the Project's resources from deterioration by erosion, wildfire, noxious weeds, rodents, and pest infestations, or other detriments is considered part of the sound land management to be carried out by Lessee.

5. NON-REIMBURSABLE PROJECTS.

(1) IRRIGATION DITCHES. Lessee shall maintain all irrigation ditches essentially free of weeds, silt, and debris by Lessee at his own expense. All ditches shall be constructed at least 8 feet from utility poles, survey, monuments, and manholes. Lessee shall repair immediately all leaking irrigation ditches to prevent soil erosion and to provide unimpaired vehicle access between parcels. Borders and/or furrows shall be constructed as needed for an efficient distribution of irrigation water.

(2) DRAIN DITCHES. Project drainage ditches shall not be used by Lessee for supplying or discharging irrigation water.

(3) HARVESTED CROP STORAGE. Lessee may store harvested crops only in areas designated by Lessor.

(4) MECHANICAL METHODS FOR WEED CONTROL. If Lessee elects to control weeds by mechanical means such as mowing or discing, the operation shall be accomplished by Lessee at his own expense at least twice during the lease year. Once prior to the maturing of weed seeds, and once again to control late growing weeds. Mowing or discing shall be done to keep weeds below a 10-inch height year-round.

(5) AERIAL APPLICATION OF PESTICIDES OR FERTILIZERS. All aerial applications of pesticides and/or fertilizers or any other use of aircraft on the Premises is prohibited.

(6) MINIMUM TILLAGE. Lessee shall practice "minimum tillage" whereas practical and feasible for his farming operations. Lessee shall vary the depth of plowing from year to year to prevent a "plow forming and to facilitate water penetration. To reduce possible hazard to aircraft, tillage operations shall be scheduled to minimize the time during which soil will be subject to wind erosion and dust production.

(7) SOIL RIPPING AND DAMAGES TO ADJACENT PROPERTY. Soil ripping/chiseling is a very beneficial practice for enhancing water penetration and reducing toxic salt accumulations. Lessee shall be very careful when ripping/chiseling or slip plowing to avoid damaging improvements/utilities located on or adjacent to the Premises. Signs, poles, piezometer, survey markers, or structures adjacent to or included within the parcel shall not be damaged. Lessee shall be held liable for all damages to Lessor-owned structures, utilities, monuments, and improvements that result from activities on the Premises. Lessor shall bill Lessee for any and all expenses for repairing damage to Lessor's property or the Project that is attributed to the farming activities of Lessee.

(8) PEST MANAGEMENT. Lessee shall vigorously undertake to control by mechanical means or by pesticide/herbicide application all noxious and undesirable weeds and rodents, insects, and other pests on the parcel. The term "pesticide" includes herbicides, insecticides, fungicides, rodenticides, and algacides. Lessee shall be responsible for complying with all federal, state, and local environmental standards, including obtaining required permits.

(9) MOSQUITO ABATEMENT. In order to minimize mosquito breeding, Lessee shall not permit tail water or runoff to stand in ditches between irrigation operations. Lessee is responsible for the abatement of mosquitoes and if Lessor takes preventive measures on behalf of Lessee with respect to such abatement efforts shall be billed by Lessor for any and all mosquito control expenses incurred by Lessor and attributed to the farming activities of Lessee.

(10) ROAD DAMAGE PREVENTION. Lessee shall not maneuver "track-laying" or "spike-wheeled" vehicles over the Project's roads (including the Access Roads) unless road protective measures are taken. Lessee shall be billed by Lessor for any and all road damage repairs attributed to the activities of Lessee.

(11) DUST CONTROL. Lessee shall control excessive dust generated from farming and activities on the unpaved roads in the Premises through the application of water at his own expense.

(12) FIRE PREVENTION. Lessee shall comply with the Lessor's and the City of Irvine's fire control and prevention regulations. Lessee shall be liable for any fire damage to Lessor-owned structures and improvements and associated costs of fire suppression attributed to the activities of Lessee.

(a) EQUIPMENT. All engine driven equipment used by Lessee on the Premises shall be equipped with properly operating spark arresters, mufflers, and tailpipe

assemblies. In addition, any vehicle having a catalytic converter shall not be driven through areas of dry, combustible material due to the extreme heat generated by this device.

(b) STORAGE OF EQUIPMENT AND FLAMMABLE MATERIALS.

Equipment, fuel, and oil may be stored only in the designated "Lessee Storage Area". All flammables shall be surrounded by a 20-foot firebreak of bare disced soil.

(c) SPARK-PRODUCING EQUIPMENT. Arc, gas, TIG ("Heli-Arc")

welders shall be used only with a fire extinguisher in the "Lessee Storage Area" or for repairs on a specific piece of equipment parked on and surrounded by at least 50 of bare soil in all directions.

(d) CROP RESIDUE. Crop stubble or residue shall be disced into the soil

within two weeks after harvest. Grazing and fire shall not be used to eliminate residue. All parcels or portions thereof planted to cotton are subject to local county regulations concerning planting and "plow down" dates.

(13) DEBRIS REMOVAL. Lessee, at its own expense, shall dispose of all debris generated at his work sites to the satisfaction of Lessor. Within 30 days of being notified, Lessee shall correct any deficiency noted by Lessor.

(14) EROSION CONTROL. Lessee, at its own expense, shall apply prudent erosion control measures to reduce soil loss.

(15) FALLOW LAND MANAGEMENT. If Lessee elects to lay fallow any portion of the Premises for whatever reason(s), the area shall be disced frequently enough to maintain a "weed free" condition until the land is again cropped normally. All fallowing expenses and practices shall be borne by Lessee at its sole cost and expense.

(16) LICENSING AND IDENTIFICATION. Vehicles used by Lessee and associated lease employees, contractors, and agents shall meet California licensing requirements, California vehicle safety standards, and California vehicle insurance requirements. The lease document shall be presented when registering vehicles. All migrant farm workers shall be properly authorized to work in the United States and shall provide current employees full name, DL number or alien card number, list shall be signed and dated by Lessee.

(17) NO HUNTING. Hunting is not allowed on the Premises.

(18) PROTECTION OF HISTORIC/ARCHEOLOGICAL PROPERTY. Lessee shall not undertake any activity that may affect an identified historic or archaeological property, including excavation, construction, alteration or repairs of the Premises. Buried cultural materials may be present on and around the Premises. Lessee shall do nothing to disturb such cultural materials.

ELEVENTH AMENDMENT TO FARMING LEASE

THIS ELEVENTH AMENDMENT TO FARMING LEASE ("Amendment"), is made and entered into on June 30, 2016 ("Effective Date"), by and between the CITY OF IRVINE, a municipal corporation (the "Lessor"), and EL TORO FARMS, LLC, a California limited liability company ("Lessee").

Recitals

A. Lessor and Lessee entered into a Farming Lease Agreement dated July 12, 2005 (the "Lease") concerning certain real property located in the City of Irvine, California, within the site of the former Marine Corps Air Station, El Toro, currently known as the Orange County Great Park, as more particularly described in the Lease.

B. Pursuant to City Council action on October 14, 2014, the City Manager has the authority to act on behalf of the City to exercise up to two (2) renewal options of one (1) year each.

C. On or about June 30, 2015, Lessor exercised one (1) of the two (2) renewal options, extending the term of the Lease to June 30, 2016.

D. Lessor and Lessee desire to extend the term of the Lease for one (1) additional year such that it shall expire on June 30, 2017.

E. Lessor, by entering into this Amendment, desires to exercise the second of the two (2) renewal options, extending the term of the Lease to June 30, 2017.

NOW, THEREFORE the parties hereby amend the Lease as follows:

1. The foregoing Recitals are true and correct and are a substantive part of this Amendment.
2. Section 7 of the Basic Terms of the Lease is hereby amended as follows: The lease term shall commence on July 1, 2015 and terminate on June 30, 2017.
3. Lessee acknowledges that (i) on February 23, 2016, the Irvine City Council adopted a policy for pesticide use on City properties (the "Pesticide Policy"), (ii) Lessor has provided Lessee with a copy of the Pesticide Policy, and (iii) Lessee has read and understands the Pesticide Policy. Commencing at such time as Lessee harvests the current crops, all of Lessee's use of and operations on the Premises shall be conducted in compliance with the Pesticide Policy.
4. Except as provided in this Amendment, all other provisions of the Lease shall remain in full force and effect.



IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by and through their respective authorized officers, as of the date first above written.

CITY OF IRVINE,
A municipal corporation


Sean Joyce, City Manager

10-27-16
Date

EL TORO FARMS, LLC
A California Limited Liability Company

10-4-16
Date

APPROVED AS TO FORM:
RUTAN & TUCKER, LLP


City Attorney

10-5-16
Date

ATTEST:


CITY CLERK OF THE CITY OF IRVINE

TWELFTH AMENDMENT TO FARMING LEASE

THIS TWELFTH AMENDMENT TO FARMING LEASE ("Amendment") is made and entered into on July 1, 2017 ("Effective Date"), by and between the CITY OF IRVINE, a California municipal corporation and charter city ("Lessor"), and EL TORO FARMS, LLC, a California limited liability company ("Lessee").

Recitals

- A. Lessor and Lessee entered into a Farming Lease Agreement dated July 13, 2005 ("Original Lease") concerning certain real property located in the City of Irvine, California, within the site of the former Marine Corps Air Station, El Toro, currently known as the Orange County Great Park, as more particularly described in the Lease.
- B. The Original Lease has been amended eleven (11) times (collectively "Lease").
- C. The most recent Amendment to the Lease ("Amendment 11") was entered into by the Parties on June 30, 2016. In Amendment 11, Lessor exercised the second of two (2) renewal options, extending the term of the Lease to June 30, 2017. The term of the Lease currently expires on June 30, 2017.
- D. Lessor and Lessee, by entering into this Agreement, desire to extend the term of the Lease an additional two (2) years from the Effective Date of this Twelfth Amendment, until July 1, 2019. Lessor and Lessee intend for either Party to have the authority to terminate the Lease at any time by providing at least thirty (30) days written notice to the other Party.

NOW, THEREFORE, the parties hereby amend the Lease as follows:

- 1. The foregoing Recitals are true and correct and are a substantial part of this Amendment.
- 2. The Original Lease and all amendments are hereby incorporated into this Amendment. All terms defined in the Lease shall have the same meaning in this Amendment as in the Lease. Except to the extent the Lease is modified by this Amendment, the remaining terms and provisions of the Lease shall remain unmodified and in full force and effect. In the event of a conflict between the terms of the Lease and the terms of this Amendment, the terms of this Amendment shall prevail.
- 3. Section 7 of the Basic Terms of the Original Lease is hereby amended as follows:

The term of this Lease shall begin on July 1, 2017 and shall terminate on July 1, 2019, unless terminated earlier by either Party in accordance with this Section 7. At any point during the term of the Lease, Lessor may terminate the Lease by providing at least 30-days written notice to Lessee and the Lease shall thereafter terminate 30 days from delivery of such notice. At any point during the term of the Lease, Lessee may

terminate the Lease by providing at least 30-days written notice to Lessor and the Lease shall thereafter terminate 30 days from delivery of such notice.

4. Lessee shall continue to pay Basic Rent in accordance with the terms of the Lease.
5. Section 10(h) of the Standard Terms of the Original Lease is hereby amended as follows:

(h) Withdrawal of Land. Lessor reserves the right at any time and from time, as provided in Section 1(d) above, to withdraw from the Premises any field or parcel within the Premises by delivery of not less than ten (10) days written notice to Lessee. As to the field or parcel identified in Lessor's notice, this Lease shall terminate as of the date specified in Lessor's notice. No consideration whatsoever shall be payable to Lessee as a result of such termination, regardless of whether the date specified is prior to the date crops on such field or parcel may be harvested or whether the date specified is after the date such crops may be harvested.

6. The second to last sentence of Section 5(f) of the Standard Terms of the Original Lease (regarding Lessee's Indemnity for Toxic Materials) is hereby amended as follows to include the underlined language, and the remaining terms and provisions of Section 5(f) of the Original Lease shall remain unmodified and in full force and effect:

The provisions and undertakings and indemnifications in this Section 5(f) shall survive termination and expiration of this Lease.

7. Lessee acknowledges that (i) on February 23, 2016, the Irvine City Council adopted a policy for pesticide use on City properties (the "Pesticide Policy"), (ii) Lessor has provided Lessee with a copy of the Pesticide Policy, and (iii) Lessee has read and understands the Pesticide Policy. Commencing at such time as Lessee harvests the current crops, all of Lessee's use of and operations on the Premises shall be conducted in compliance with the Pesticide Policy.
8. Lessee acknowledges that the Housing and Real Estate Administrator of the City of Irvine has the authority to act on behalf of Lessor for all purposes of this Lease, including, but not limited to, providing notice to terminate the Lease.
9. This Amendment embodies the entire understanding between Lessor and Lessee with respect to its subject matter and can be changed only by an instrument in writing signed by Lessor and Lessee.
10. This Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same Amendment.
11. Each individual executing this Amendment represents that he or she is duly authorized to execute and deliver this Amendment and that the Amendment is binding on the Parties in accordance with its terms.

IN WITNESS WHEREOF, each of the parties hereto has executed this Lease as of the day and year stated above.

“LESSOR”

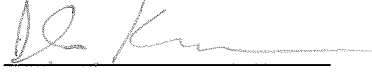
CITY OF IRVINE, a California municipal corporation and charter city

By: _____
Sean Joyce, City Manager

Date: _____

“LESSEE”

EL TORO FARMS, LLC, a California limited liability company

By: 

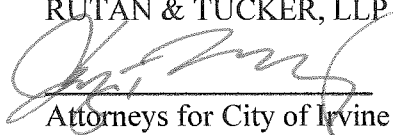
Name: A.G. KAWAMURA

Date: JUNE 7, 2017

ATTEST:

City Clerk

APPROVED AS TO FORM:
RUTAN & TUCKER, LLP


Attorneys for City of Irvine

Date

3.6

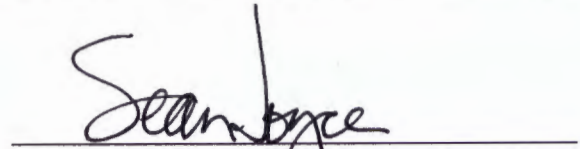


REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: AUTHORIZATION TO APPLY FOR COUNTY OF ORANGE RECYCLING GRANTS


Assistant City Manager


City Manager

RECOMMENDED ACTION

Adopt - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, AUTHORIZING SUBMITTAL OF APPLICATIONS FOR ALL COUNTY OF ORANGE RECYCLING GRANTS FOR WHICH THE CITY OF IRVINE IS ELIGIBLE

EXECUTIVE SUMMARY

The County of Orange (County) periodically awards grants to local jurisdictions for implementation of state mandated recycling programs. To be eligible to receive such funding, local jurisdictions must adopt a resolution authorizing submittal of grant applications to the County. Adoption of the proposed Resolution will enable the City to apply for recycling grants whenever they become available over the next five years.

State law AB 1826 mandates local jurisdictions to conduct outreach and educate businesses on how to recycle organic waste and monitor compliance with recycling requirements. Currently, through its Fourth Cycle Regional Recycling and Waste Reduction Grant, the County is offering \$3 million in funds to Orange County cities over five years to help advance recycling goals, particularly efforts to comply with state mandates related to commercial organics and food waste reduction and recycling. Adopting the proposed Resolution enables the City to compete for a share of this grant funding to implement state mandated outreach on food waste diversion programs. The City currently budgets approximately \$125,000 to provide technical assistance to businesses and promote compliance with recycling laws, as required by state mandates. Approximately \$80,000 is allocated for education and monitoring of compliance with AB 1826 in the next fiscal year. If awarded, over the next three years this project will use the County grant to fund nearly 80 percent of the City's existing technical assistance to businesses relating to mandated diversion of food waste and other organics from landfills. Adoption of the attached Resolution is necessary for the City to qualify for County grants to help fund these programs.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ANALYSIS

The County's OC Waste & Recycling agency provides various funding opportunities to local jurisdictions through its Regional Recycling and Waste Reduction Grant program. The purpose of these grants is to enhance regional partnerships between the County and local cities, special districts, non-profit organizations and private entities to help develop local markets for diverted and recycled materials and to assist in compliance with state recycling mandates. This program is currently offering \$3 million in grant funds, preferably for state mandated commercial organic waste diversion under AB 1826, including food rescue and food waste recycling. Of the total grant, up to \$600,000 will go to each Supervisorial District over a three-year period. Approval of the attached Resolution would enable the City to apply for current and future County recycling grants over the next five years.

For this current grant cycle, staff proposes to seek nearly \$185,000 in grant funds to pay for a portion of its existing ongoing commercial-sector recycling outreach activities over a three-year period. These activities are state-mandated, routinely planned for and included in the City's annual budget. If awarded, over the next three years this project will use the County grant to fund nearly 80 percent of the City's existing technical assistance program to aid businesses in complying with AB 1826. The program will engage approved City consultants with local partners such as the Irvine Chamber of Commerce, food recovery nonprofits such as Waste-Not OC and Second Harvest, and organic waste haulers to educate 500 businesses on how to implement comprehensive, cost-effective AB 1826 recycling programs. The proposed project will promote food recovery, which provides the dual benefit of feeding the needy while keeping consumable surplus food out of landfills. State law mandates both of these initiatives.

SB 1383 requires that by 2025 not less than 20 percent of currently disposed edible food must be recovered for human consumption instead of thrown away. Consistent with future SB 1383 compliance, this project will help promote public awareness of local food recovery operations such as the non-profit Waste-Not OC, which is planning to expand its Irvine collection routes, and Irvine-based Second Harvest Food Bank, one of the nation's largest food recovery operations feeding over 330,000 County residents through its existing programs.

To be eligible to compete for a share of the funding made available by the County, the City Council must adopt a resolution authorizing submittal of applications for County of Orange recycling grants.

ALTERNATIVES CONSIDERED

The City could forego opportunities to apply for County grants for recycling programs mandated by state law (including AB 939, AB 341, AB 1826, and SB 1383). In doing so,

the City would rely strictly on its own resources or other grant opportunities provided by other agencies to fund the City's obligation to conduct outreach and monitoring of mandated waste diversion and recycling programs.

FINANCIAL IMPACT

Approval of this resolution will make the City eligible to apply for County recycling grant funding over a five-year period to assist the City in its efforts to comply with state mandated programs. The City has budgeted approximately \$80,000 annually, funded through waste hauler franchise fees, to provide technical assistance to businesses on state mandated AB 1826 commercial recycling requirements. The proposed grant project seeks approximately \$185,000 to fund nearly 80 percent of this cost over a three-year period. If awarded, the grant will free up this amount for other purposes. The City will need to maintain the existing program budget after completion of the grant project to continue its compliance with state mandates.

REPORT PREPARED BY

Sona Coffee, Environmental Programs Administrator
Michael J. Byrne, Senior Management Analyst

ATTACHMENTS

1. Resolution

CITY COUNCIL RESOLUTION NO. 17-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
IRVINE, CALIFORNIA, AUTHORIZING SUBMITTAL OF
APPLICATIONS FOR ALL COUNTY OF ORANGE
RECYCLING GRANTS FOR WHICH THE CITY OF IRVINE IS
ELIGIBLE

WHEREAS, the California Integrated Waste Management Act of 1989 (AB 939) mandates that cities and counties reduce the amount of waste disposed in landfills by 50% or potentially incur fines of up to \$10,000 per day; and

WHEREAS, subsequent statutes including AB 341 (2011) established an increased statewide solid waste diversion goal of 75%, AB 1826 (2014) requires businesses to recycle organic materials they generate and local government to actively assist private sector compliance, and SB 1383 (2016) establishes targets to reduce landfill disposal of organics by 50% by 2020 and 75% by 2025; and

WHEREAS, on April 18, 2006, the Orange County Board of Supervisors approved the AB 939 Surcharge on all self-hauled waste to support regional compliance with state recycling mandates through Regional Recycling and Waste Reduction Grants; and

WHEREAS, the County of Orange periodically releases such recycling and waste reduction grants to help facilitate and advance local compliance with state recycling statutes; and

WHEREAS, the grants aim to enhance regional partnerships with local cities, special districts, non-profit organizations and private entities; and

WHEREAS, these County grant opportunities have placed focus on commercial and residential recycling, organics recycling, composting, and education and outreach programs; and

WHEREAS, the State has required local municipalities and jurisdictions to develop local markets for diverted and recycled materials; and

WHEREAS, the County of Orange has recently released its Fourth Cycle Regional Recycling and Waste Reduction Grant, in part, to assist municipalities in meeting state recycling mandates.

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

SECTION 1. The City Council of the City of Irvine authorizes the submittal of application(s) to the County of Orange for all waste reduction and recycling related grants for which the City of Irvine is eligible.

SECTION 2. The City Council of the City of Irvine authorizes the City Manager, or the City's Environmental Programs Administrator as his/her designee, to execute in the name of the City of Irvine all grant documents, including but not limited to, letters of authorization, applications, agreements, amendments and requests for payment, necessary to secure grant funds and implement or participate in approved grant projects.

SECTION 3. These authorizations are effective for five (5) years from the date of adoption of this resolution.

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.

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular meeting held on the 27th day of June 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 27th day of June 2017.

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

ABSTAIN: COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE

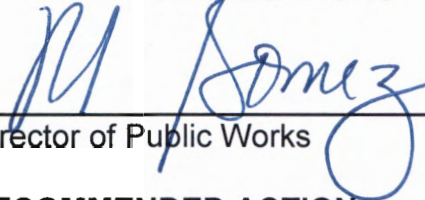
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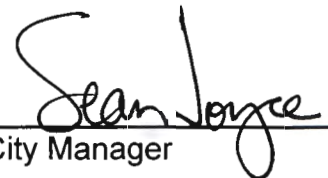
REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: APPROVAL OF PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR THE SAN CARLO PARK AND VALENCIA PARK PLAYGROUND
REHABILITATIONS



Director of Public Works



City Manager

RECOMMENDED ACTION

1. Approve the construction plans, specifications and contract documents for the San Carlo Park and Valencia Park Playground Rehabilitations, Capital Improvement Projects 371506 and 371507.
2. Approve the Engineer's Estimate, Construction Contingency and Project Funding Summary.
3. Authorize staff to solicit competitive bids and award the construction contract to the lowest responsive and responsible bidder, in accordance with the City's purchasing policies and procedures, within the approved project budget.

EXECUTIVE SUMMARY

Plans, specifications and contract documents for the rehabilitation of playground equipment and sidewalks at San Carlo Park (located in Westpark) and Valencia Park (located in West Irvine) are complete and ready for City Council approval. These documents are available for public review in the Public Works department. The proposed work consists of replacing existing playground surfaces and play equipment for conformance with current Americans with Disabilities Act and California Health and Safety Code standards, replacement of portions of sidewalks to improve accessibility and replacement of sand play areas with new safety surfacing. 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

On June 6, 2017, the Irvine Residents with Disabilities Advisory Board reviewed the concept plans for the playground rehabilitation at both parks. The board did not take a formal action; however, expressed support for the project and the individual project features.

ANALYSIS

The proposed San Carlo Park and Valencia Park playground rehabilitation will update existing playground infrastructure and equipment, making active play more accessible to people of all abilities. Project components were selected to comply with California Health and Safety Code and Americans with Disabilities Act (ADA) requirements. The proposed improvements enhance access within and immediately adjacent to the playgrounds. Infrastructure improvements planned at both parks include installation of new playground equipment (Attachment 2), sidewalk replacement to meet current ADA requirements, and replacement of the existing sand surfaces with safety surfacing to provide wheelchair access to the play areas.

Proposed improvements at San Carlo Park replace the existing play equipment with a new structure featuring a slide, climbing apparatus, new swings and shade structure. Proposed improvements at Valencia Park modify the existing boat play structure to accommodate wheelchair access and install a new shade structure over the existing fort play structure. A sensory wall will also be added to the Valencia Park site featuring activities including a ball maze, gear panel and tick-tac-toe game that encourage interactive play experiences.

The construction contract cost estimate prepared by the consultant design engineer for the project is \$440,000. A budget allowance of \$35,000 for construction engineering and \$75,000 for construction contingency is recommended, as shown in the Project Funding Summary (Attachment 3). The City's construction contracting policies and procedures limit the award of the construction contract by staff to a maximum of 10 percent over the engineer's estimate and limit the use of the construction contingency only for unforeseen circumstances that may arise necessary to complete the work within the approved project scope and budget.

Staff is seeking City Council approval to proceed with soliciting competitive bids for construction. A copy of the Notice Inviting Bids, Construction Contract, Plans, Specifications, and the proposed Schedule of Work listing the individual bid items for this project is included as Attachment 4. If approved by the City Council, construction is anticipated to begin in September 2017 with completion by November 2017. Work activity will take place primarily Monday through Friday between the hours of 7 a.m. and 3:30 p.m. To facilitate construction activities and ensure safety of park users, both playgrounds will be closed to the public during construction.

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 is categorically exempt from the requirements of CEQA, under State Guideline Section 15301, Class 1(d), and Existing Facilities.

ALTERNATIVES CONSIDERED

The City Council could elect to direct staff to defer the proposed rehabilitation project to a future date or may direct staff to modify any of the elements of the project scope. The City Council may also approve the construction plans and related documents, authorize staff to solicit competitive bids and direct staff to bring back the results of the competitive bid process to the City Council for its review and consideration prior to award of the contract.

FINANCIAL IMPACT

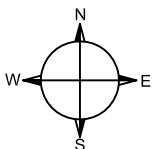
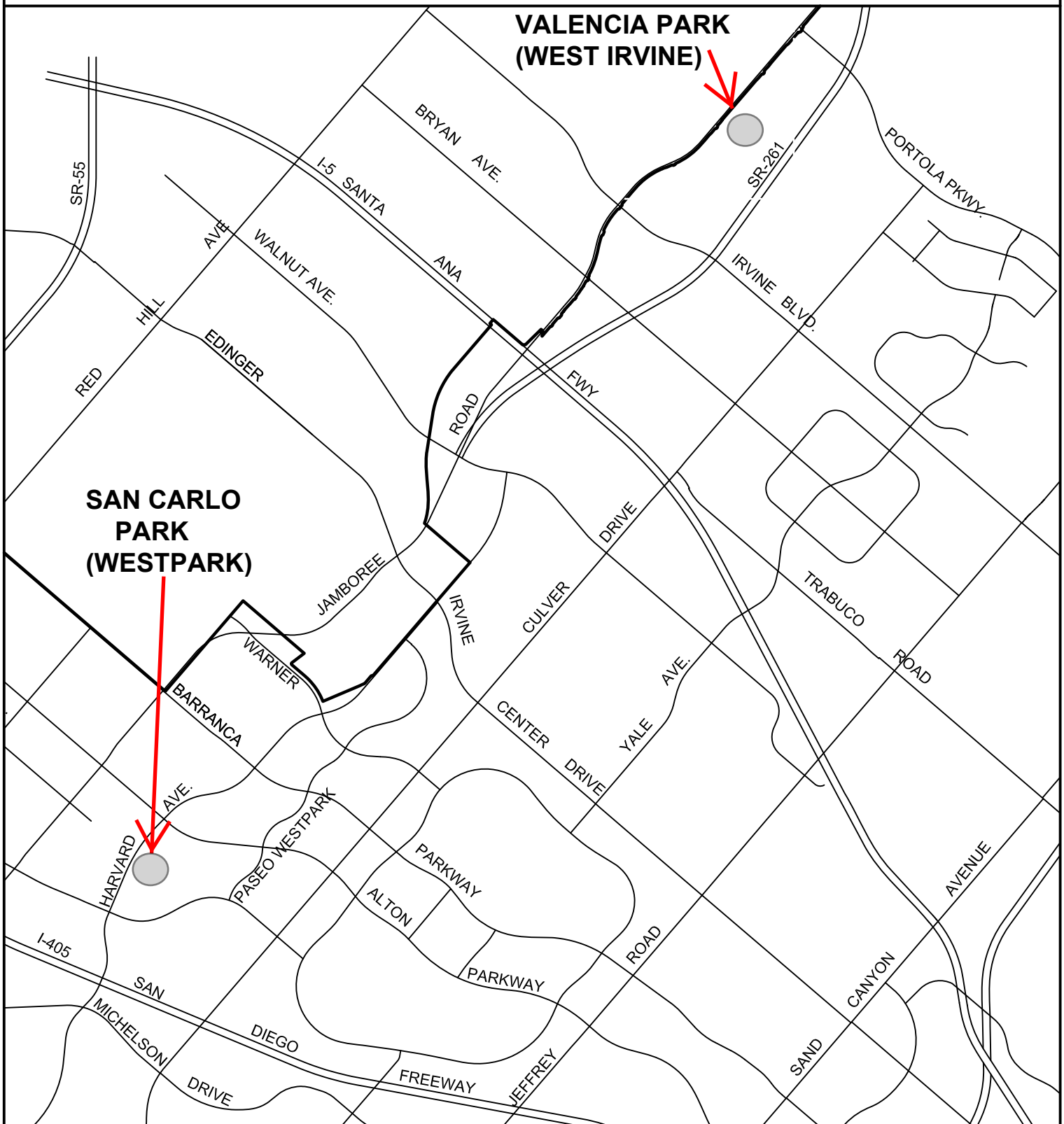
Project expenditures to date for preparation of the construction plans and contract documents total \$50,000. Funding for the construction phase is available in the City Council approved CIPs 371506 and 371507 from System Development Charge Fees. The construction contract estimate prepared by the consultant design engineer is \$440,000. A complete Project Funding Summary is provided in Attachment 3.

REPORT PREPARED BY Eric Gruber, Senior Project Manager

ATTACHMENTS

1. Vicinity Map
2. Proposed New Playgrounds
3. Project Funding Summary
4. Notice Inviting Bids, Construction Contract, Plans, Specifications and Proposed Schedule of Work

SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS



VICINITY MAP



SAN CARLO PARK



landscape
structures



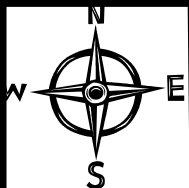
Better playgrounds.
Better world.®
playlsi.com



Proudly presented by:
Tim Hodges



landscape
structures



PROPOSED NEW PLAYGROUND ATTACHMENT 2



VALENCIA PARK



landscape structures



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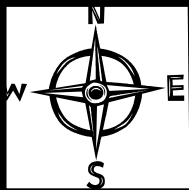
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Tim Hodges



landscape structures



PROPOSED NEW PLAYGROUND



Project Funding Summary

SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS

CIP 371506 and 371507

June 27, 2017

Project Expenditures

Design Engineering	\$ 50,000
Construction Contract (Engineer's Estimate)	\$ 440,000
Construction Engineering	\$ 35,000
Construction Contingency	<u>\$ 75,000</u>
Total Estimated Project Cost	\$ 600,000

Project Funding

San Carlo Park Playground Rehabilitation (CIP 371506)	\$ 300,000
Valencia Park Playground Rehabilitation (CIP 371507)	<u>\$ 300,000</u>
Total Funding Available	\$ 600,000



CITY OF IRVINE

ORANGE COUNTY, CALIFORNIA

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

**SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS
CIP 371506 AND 371507
BID NO. 17-1251**

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

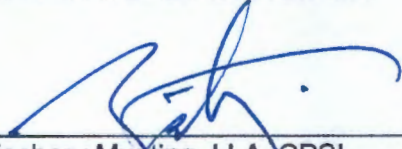
PREPARED BY:
RJM Design Group
31591 Camino Capistrano
San Juan Capistrano, CA 92675

APRIL 2017

ATTACHMENT 4

**San Carlo Park and Valencia Park Playground Rehabilitations
CIP 371506 and CIP 371507**

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

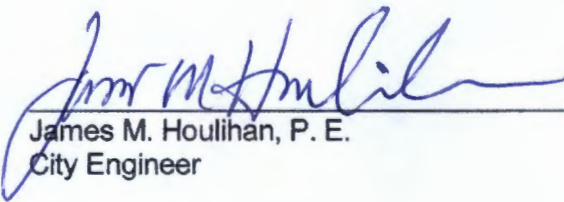


Zachary Mueeting, LLA, CPSI
RJM Design Group

5731

License #.

APPROVED BY:



James M. Houlihan, P. E.
City Engineer

51568

R.C.E. No.

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CITY OF IRVINE, CALIFORNIA
NOTICE INVITING BIDS
Bid No. 17-1251

NOTICE IS HEREBY GIVEN that sealed bids with online bid price submittal will be received by the Purchasing Agent of the City of Irvine, California, for furnishing all labor services, materials, tools, equipment, supplies, transportation, utilities and all other items and facilities necessary therefore, as provided in the contract documents for **San Carlo Park and Valencia Park Playground Rehabilitations, CIP 371506 and 371507** 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 14](#). All other required documents for the bid proposal packet ([pages 12, 16-30](#)) must be received at One Civic Center Plaza, Irvine, California, 92606-5207 no later than [XX:XX:XX a.m. on Day of Week, Month Date, 20XX](#), 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. 17-1251 FOR SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS, CIP 371506 AND 371507."** 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, on **15 San Carlo and 3081 Trevino Drive.**

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

Remove and dispose of existing playground sand; remove and dispose of existing playground equipment; remove concrete paving; modify and/or install new drainage systems; provide and install new playground equipment; provide renovations to existing equipment; provide reinforced concrete base for resilient rubber surfacing; provide and install new play surfacing (to include both resilient rubber and sand surfaces); provide and install/modify existing irrigation system; repair/replace existing turf areas. Contractor shall provide all necessary supervision, labor, equipment, and materials and supplies necessary to renovate the playground areas at San Carlo Park and Valencia Park, and other items not mentioned here, but are required by the plans and the Special Provisions. Contractor, sub-contractor, other persons, and/or organization involved in the portion of the project to install park playground equipment shall have a minimum five (5) years' experience in said park playground equipment installation, as a certified installer. Certifications: Certification by manufacturer that Installer is an approved applicator of the playground surfacing system and certified playground installer. International Play Equipment Manufacturers Association (IPEMA) certified.

The Engineer's Construction cost estimate for the projects are as follows:

- A) San Carlo Park -\$210,000
- B) Valencia Park -\$230,000

The Engineer's Construction Cost Estimate for these projects is \$440,000 (rounded to the nearest thousand).

LICENSE REQUIREMENT: Prime Contractor must possess a valid **Class "A" or "B" with a "C61/D34" license prior to award of contract.** At the time of submitting the bid, the Bidder shall be licensed as a contractor in accordance with the provisions of California Business and Professions Code Chapter 9, Division 3.

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

COMPLETION OF WORK AND LIQUIDATED DAMAGES: All work shall be completed in a total of **Fifty (50) Working Days** from the date specified in the Notice to Proceed. Liquidated damages shall be **Eight Hundred Dollars (\$800)** per Calendar Day, for each and every Calendar Days delay in finishing the work in excess of the number of Working Days prescribed above.

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

PROPOSAL GUARANTEE AND BONDS: Each bid proposal packet 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 Bond 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 Bond and Performance Bond 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 Eric Gruber, Senior Project Manager, by facsimile to 949-724-7565 or by email to egruber@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

Published by:
Publication Date:

INSTRUCTIONS TO BIDDERS, PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

2. BID PROPOSALS: To be considered, bids shall be made 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. 17-1251 FOR SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS, CIP 371506 AND 371507." 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 shall 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 may 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-responsible if the hearing officer finds evidentiary support that the Bidder has committed any of the following: (1) violated a term of a contract, present or past, with the City or other entity; (2) committed an act or omission which negatively reflects on the Contractor's quality, fitness, or capacity to perform a contract with the City or any other entity or engaged in a pattern or practice which negatively reflects on the same; (3) committed an act or omission which evidences a lack of business integrity or business honesty; (4) made or submitted a false claim against the City or any other entity; or (5) received a fine or citation for performing work in an unsafe manner; or (6) violated a condition,

rule, regulation, permit, or standard applicable to a contract with the City or any other entity. In arriving at his or her determination, the hearing officer may consider Bidder's past conduct on City projects or on any other public or private projects upon which Bidder performed work.

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

- 5) Signature of an authorized representative of the protesting party.
- c) **DEADLINE TO SUBMIT BID PROTESTS:** Bid protests must be filed within five (5) business days after the deadline for receiving bids.
- d) **WHERE TO FILE:** All protests are to be directed to the City of Irvine Purchasing Agent. Protests must be submitted in writing via email to: purchasing@cityofirvine.org. A copy of the email must also be sent to the project manager whose email address is set forth in the bid documents. (A document is considered filed on a particular calendar day when it is received via email by the City of Irvine Purchasing Agent by 5:00 p.m., Pacific Standard Time, on that calendar day.) Although not required, in addition to submitting a protest via email, an original protest letter may be sent via United States Postal Service to: Attn: Purchasing Agent, City of Irvine, P.O. Box 19575, Irvine, CA 92623-9575.
- e) **BID PROTEST REVIEW:** Upon receipt, the Purchasing Agent shall consider the protest and may give notice of the protest and its basis to other persons including bidders involved in or affected by the protest. A protest shall be dismissed for failure to comply with any of the requirements set forth in the "Bid Protest Contents" section above. The Purchasing Agent shall review all material submitted with the protest. No additional material will be accepted for consideration from the protesting party unless specifically requested by the Purchasing Agent. If additional material is requested, it must be submitted by the requested date. The Purchasing Agent shall respond to the protesting party via email within ten (10) business days after receipt of the protest. Final determinations shall be binding, except as otherwise provided below.
- f) **RECONSIDERATION OF PROTEST DECISION:** A protesting party may request the Purchasing Agent's reconsideration of a decision prior to contract award only if one or both of the following conditions are met:
- 1) New information becomes available that was not previously known, or could not have been reasonably known, at the time of the original protest; and/or
 - 2) The Purchasing Agent's decision contains an error of law.
- Any request for reconsideration of a protest decision must be submitted in writing via email to the Purchasing Agent within three (3) business days from the date of issuance of the initial decision. The request must include a detailed explanation of the basis for reconsideration as set forth above. The Purchasing Agent shall respond to the request for reconsideration within seven (7) business days from receipt of the request.
- g) **CONTRACT AWARD:** At its discretion, the City may delay the execution of any proposed agreement pending the resolution of a protest unless one or both of the following conditions are present:
- 1) The project or service being procured is urgently required; and/or
 - 2) Failure to make prompt award will otherwise cause undue harm to the City.

- h) REMEDIES: There shall be no limitation on remedies selected by the City. Nothing contained herein shall be considered to either act as a limitation on the City's choice of remedies or confer any right upon any interested party to a remedy. In determining the appropriate remedy, the City shall consider all the circumstances surrounding the solicitation, the contract selection, and/or the contract award, including, but not limited to: the seriousness of any deficiency found to exist in the contracting process; the effect of the action of the competitive process; any urgency surrounding the contract requirement; and the effect that implementing the remedy will have on the City's overall ability to accomplish its mission. If the City determines that the award or proposed award was not made in accordance with the applicable City statutes, regulations, policies, and procedures, the City may, in its sole discretion, grant any of the following or any other remedy it deems appropriate: If pre-award, reject all bids and issue a new solicitation, make a new contractor selection or award a contract consistent with applicable statutes, regulations, policies, and procedures; or if post-award, refrain from extending the term of the contract or awarding task orders under an existing task order agreement; or at its sole discretion, take no further action.

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

The Contractor shall not commence work in advance of the execution of the Contract 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. Such award, if made, will be made within ninety (90) Calendar Days after the opening of the proposals. The ninety (90) Calendar Days period shall be subject to extension for such further period as may be agreed upon in writing between the City and the Bidder(s) concerned. All bids will be compiled on the basis of the estimated quantities of work to be done as shown in the Proposal. However until an award is made, the City of Irvine reserves the right to reject any and all bids or to waive any informality in bids received, if doing so is deemed to best serve the interest of the City.

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

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

"Contract Bonds," and as specified in the Special Provisions and shall be secured from a surety company satisfactory to the City.

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

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

The Contract shall be signed by the successful Bidder, and delivered to the City together with the Contract bonds within ten (10) days of the date specified in the Notice of Award issued by the City, not including Saturdays, Sundays and legal holidays. The Contractor shall submit insurance certificates electronically in accordance with 7-3 of the Standard Specifications and 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
SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS

CIP 371506 and 371507
BID NO. 17-1251

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

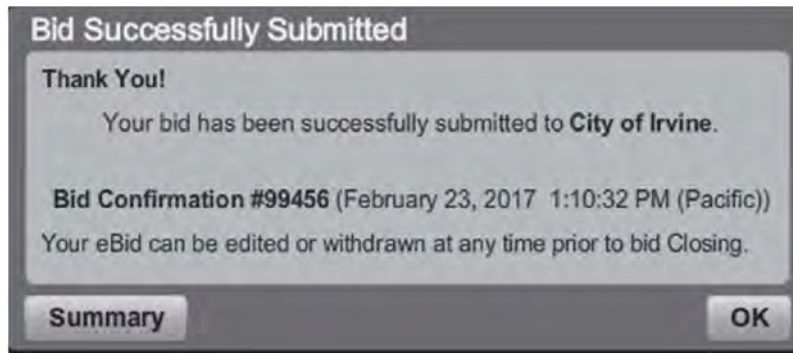
SCHEDULE OF WORK

[illegible]

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:



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.

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 Received</u>

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

INFORMATION REQUIRED OF BIDDERS

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

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

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

Name:	Address:

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

Check appropriate box: None ☐ See list below ☐

Type of Project	Client Name	Contact Person	Contact Phone No. 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 **SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS**, your firm is currently constructing. For each project, list the type of project, contract amount, client's name, contact person, current telephone number, email address, and a brief description.

Check appropriate box: None ☐ See list below ☐

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

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

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

10. List projects of a similar nature to the **SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS**, your firm has **completed** within the last five years. For each project, list the type of project, contract amount, date of completion, client's name, contact person, current telephone number, email address, and a brief description.

Check appropriate box: None ☐ See list below ☐

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

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

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

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

Name:	Date of Inspection:

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

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

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

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

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

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 **Fifty (50) 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. 17-1251

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

SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS
CIP 371506 AND 371507
BID NO. 17-1251

(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 **SAN CARLO PARK AND VALENCIA PARK PLAYGROUND
REHABILITATIONS, CIP 371506 AND 371507** 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

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

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

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

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

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

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

CRIMINAL CONVICTIONS

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

CRIMINAL CONVICTION CERTIFICATION

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

I _____ hereby certify that neither
Print name

Contractor name

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

has been convicted of a criminal violation as described above.

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

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

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

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

Provide on the following page labeled "Criminal Convictions Information." (1) the date of conviction, (2) the name and court case identification number, (3) the identity of the law violated, (4) the identity of the prosecuting 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

SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS
CIP 371506 AND 371507
BID NO.17-1251

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

W I T N E S S E T H:

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

1. The complete Contract includes all of the Contract Documents, which are incorporated herein by this reference, to wit:

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

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

2. CONTRACTOR shall provide and furnish all labor, materials, necessary tools, expendable equipment, and all utility and transportation services required for the following work of improvement: **SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS.**
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 and as prepared by RJM DESIGN GROUP, 31591 CAMINO CAPISTRANO, SAN JUAN CAPISTRANO, CA 92675.

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 **Fifty (50) 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: Eight Hundred Dollars (\$800) per Calendar Day, for each and every Calendar Days delay in finishing the Work. 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 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

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

SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS
CIP 371506 AND 371507
BID NO.17-1251

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

SAN CARLO PARK AND VALENCIA PARK PLAYGROUND REHABILITATIONS
CIP 371506 AND 371507
BID NO.17-1251

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:

2-2 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. 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.

All work shall be performed in accordance to the Standard Specification for Public Works Construction "Greenbook" (2015 Edition, with all current supplements), the California Building Code (2016 Edition) with City Amendments, the California Electrical Code (2016 Edition) with City Amendments, the California Plumbing Code (2016 Edition) with key amendments, California Green Building Standards Code (2016 Edition), Building Energy Efficiency Standards (2016 Edition), California Playground Safety Regulations; All City of Irvine Codes & Ordinances, City of Irvine's Grading Manual, City of Irvine's Standards and Design Manual; City of Irvine's Park/Public Facility Standards; City of Irvine's Construction Site Security Requirements, Americans with Disabilities Act (ADA), Chapter 11B Title 24 of the California Code of Regulations; California Public Contract Laws; these Specifications, Attachments, and the Construction Drawings, and all applicable requirements.

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.

2-9.2 Survey Service. *DELETE the 1st sentence in the 1st paragraph and SUBSTITUTE with the following:*

The Contractor will engage a licensed land surveyor or civil engineer registered in the State of California to perform surveying and calculations required by the Work of this Contract. All survey requests and directions to the survey team will be handled through the Agency Representative.

DELETE the last sentence in the 1st paragraph and SUBSTITUTE with the following:

Staking will be in accordance with Chapter 12 "Construction Surveys" of the State of California, Department of Transportation "Survey Manual." A copy of the Manual is available at http://www.dot.ca.gov/hq/row/landsurveys/SurveysManual/12_Surveys.pdf.

Any construction stakes required in addition to those listed in the "Survey Manual", or any re-staking required by loss of stakes, or additional costs encountered by significant delays or conditions which cause the use of more difficult survey methods during field operations and which are, in the judgment of the Agency, caused by interference of Contractors' operations, equipment or materials, shall be paid for by the Contractor at the hourly rate schedule of the surveying firm. Costs shall be deducted from any monies due or to become due the Contractor and any delays due to the replacement or restoration of stakes shall be the responsibility of the Contractor.

ADD:

2-9.5 Conformity with Contract Documents. The Work shall conform to the lines, grades, dimensions, tolerances, and material and equipment requirements shown on the Contract Documents. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the Contract Documents and his decision as to any allowable deviations therefrom shall be final.

If specific lines, grades, and dimensions are not shown on the Plans, those furnished by the Engineer 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.

ADD:

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

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

The Contractor shall submit a request to the Engineer for approval, a minimum five (5) Calendar Days, in advance of inspections requested by or made necessary as a result of the actions of the Contractor on Saturdays, Sundays or Agency and/or Federal holidays. The Contractor shall pay for these inspections at the prevailing

rate of 1-1/2 times for Saturdays and 2 times the regular hourly wage rate for Sundays or Agency and/or Federal holidays plus associated overhead costs.

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

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

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

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

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

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

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

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

- a) If the notice is given to the Agency, by personal delivery or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to the Agency, postage prepaid and registered.

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

ADD:

2-13 CORRESPONDENCE. Unless specified otherwise or requested by the Engineer, the use of facsimile (fax) machines or internet email for the transmittal of routine correspondence, including submittals, shall not be allowed. The City will allow the use of fax machines or internet email for urgent matters such as notification of change of conditions. Unless otherwise allowed by the Engineer, all faxes or internet email shall be directed to the Engineer. The fax number and internet email address for the Engineer will be provided at the pre-construction meeting. Faxes or internet email received after 2:00 p.m. shall be considered as being received the following working day. All faxes or internet email shall be followed up with a paper copy that is mailed to the Engineer on the same day the fax or internet email is forwarded. The Engineer will not accept any illegible faxed or internet email correspondence.

ADD:

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

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

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

SECTION 3 - CHANGES IN WORK

REVISE as follows:

3-1 CHANGES REQUESTED BY THE CONTRACTOR.

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

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

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

3-2 CHANGES INITIATED BY THE AGENCY.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3-2.2 Contract Unit Prices.

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

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

3-2.2.2 Increases of More than 25 Percent. *MODIFY to ADD the following:*

If payment for units of a bid item that exceeds 125 percent of the price shown on the Bid Item List is less than \$5,000 at the unit price, the Engineer may not adjust the unit price unless asked to do so in writing by the Contractor.

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

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

3-3 EXTRA WORK.

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

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

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

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

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

3-3.2.3 Markup.

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

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

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

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

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

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

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

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

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

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

SECTION 4 - CONTROL OF MATERIALS

REVISE as follows:

4-1 MATERIALS AND WORKMANSHIP.

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

ADD:

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

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

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

ADD:

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

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

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

4-1.3 Inspection Requirements. *ADD the following before the 1st paragraph:*
Materials to be used in the Work will be subject to inspection and tests by the Engineer. The Contractor shall furnish without charge such samples as may be required. The Contractor shall furnish the Engineer a list of his sources of materials and the locations at which such materials will be available for inspection a minimum of twenty (20)

Calendar Days in advance of their intended use. The Engineer 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 Engineer 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 Engineer 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 Engineer before acceptance of the Contract Work.

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

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

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

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

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

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

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

ADD:

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

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

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

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

The Contractor shall:

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

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

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

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

The following limitations shall apply to substitutions:

- a) During the bidding period, Instructions to Bidders govern times for submitting requests for substitutions under requirements specified in this Subsection.

- b) Requests for substitutions of products will be considered only within the time period specified in the Contract Documents. Subsequent requests will be considered only in the case of product unavailability or other conditions beyond control of Contractor. Material delivery schedules will not be considered justification for substitution.
- c) Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request or when requested directly by subcontractor or supplier, or when acceptance will require substantial revision of Contract Documents.
- d) Substitute products shall not be ordered or installed without written acceptance by the Engineer.
- e) Only one request for substitution for each product line will be considered. When substitution is not accepted, provide specified product.
- f) The Engineer will determine acceptability of substitutions.

Requests for substitutions shall conform to the following:

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

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

ADD:

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

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

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

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

SECTION 5 - UTILITIES

REVISE as follows:

ADD:

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

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

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

5-1 LOCATION. *MODIFY to ADD 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 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 7-16 shall include (but not be limited to) the accurate locations of underground utilities determined pursuant to this 5-1 and remaining in place, as well as utilities rearranged by either the Contractor or the utility owners.

At least two (2) Working Days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California [USA] 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.*

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 markings. All such photographs shall show the subject markings in relation to one or more identifiable landmarks that will remain in place after completion of the Work and completion of any utility removal and/or rearrangement work in the vicinity.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ADD the following at the beginning of the last paragraph:

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

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

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

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

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

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

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

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

ADD:

5-7 CONTRACTOR RESPONSIBILITIES.

The Contractor shall:

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

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

ADD:

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

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

REVISE as follows:

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

The Contractor shall begin the Work on or before the date stipulated in the Notice to Proceed and shall diligently prosecute the Contract to completion within the time limit provided in the Contract.

The Contractor shall notify the Engineer of his intent to begin work at least two (2) Working Days prior to the start of any work.

The Contractor may, upon written approval from the Agency, begin work in advance of the date in the Notice to Proceed; however, no work shall be started in advance of the complete execution of the Contract and acceptance of the Contractor's construction schedule by the Agency. The Agency may, but shall not be required to, provide access to the site prior to the date specified in the Notice to Proceed.

Unless specified elsewhere in these Special Provisions, within ten (10) days after execution of the Contract, the Contractor shall deliver to the Agency Representative a construction progress schedule employing the critical path method, in a form satisfactory to the Engineer, 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 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.
- d) Provide a two week look-ahead schedules (updated weekly).

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) Show lane closures notifications and lane closure dates.
- c) Provide sub-schedules to define major and significant portions of entire schedule.
- d) Show accumulated percentage of completion of each item, and total percentage of Work completed as of first day of each month.
- e) 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.
- f) Show delivery dates for Agency-furnished products, if applicable.

- g) Show the critical path.

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.

Payment for conforming to these requirements shall be included in the various items of work and no additional compensation will be allowed therefor.

6-1.1 General. Within ten (10) days after the date of the City's execution of the Contract, the Contractor shall submit a proposed construction schedule to the Engineer for approval. The construction schedule shall be in accordance with 6-1.2 and 6-1.3 and shall be in sufficient detail to show chronological relationship of all activities of the Work. These include, but are not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, utility relocation efforts, procurement of materials and scheduling of equipment.

Prior to issuing the Notice to Proceed, the Engineer will schedule a Pre-Construction Meeting with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination and clarify inspection procedures.

Notwithstanding any other provisions of the contract, the Contractor shall not be obligated to perform any work and the City shall not be obligated to accept or pay for any work performed by the Contractor prior to delivery of the Notice to Proceed. The City's knowledge of work performed prior to the delivery of the Notice to Proceed shall not obligate the City to accept or pay for such work. The Contractor shall provide the

required contract bonds and evidences of insurance prior to commencing work at the site.

6-1.2 Definitions. The following definitions shall apply to this section:

- a) **ACTIVITY** — a task, event or other project element on a schedule that contributes to completing the project. Activities have a description, start date, finish date, duration and one or more logic ties.
- b) **BASELINE SCHEDULE** — the initial schedule representing the Contractor's work plan on the first working day of the project.
- c) **CONTRACT COMPLETION DATE** — the current extended date for completion of the contract shown on the Weekly Statement of Working Days furnished by the Engineer in conformance with the provisions in 6-7.
- d) **CRITICAL PATH** — the longest continuous chain of activities for the project that has the least amount of total float of all chains. In general, a delay on the critical path will extend the scheduled completion date.
- e) **CRITICAL PATH METHOD (CPM)** — a network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.
- f) **DATA DATE** — the day after the date through which a schedule is current. Everything occurring earlier than the data date is “as-built” and everything on or after the data date is “planned.”
- g) **FLOAT** — the difference between the earliest and latest allowable start or finish times for an activity.
- h) **FRAGNET** — a fragnet is defined as the sequence of new activities that are proposed to be added to the existing schedule, to demonstrate either added scope, or a change and the corresponding impact. The fragnet shall identify the predecessors to the new activities and demonstrate the impacts to successor activities.
- i) **MILESTONE** — an event activity that has zero duration and is typically used to represent the beginning or end of a certain stage of the project.
- j) **NEAR CRITICAL PATH** — a chain of activities with total float exceeding that of the critical path but having no more than ten (10) Working Days of total float.
- k) **SCHEDULED COMPLETION DATE** — the planned project finish date shown on the current accepted schedule.
- l) **TOTAL FLOAT** — the amount of time that an activity or chain of activities can be delayed before extending the scheduled completion date.
- m) **UPDATE SCHEDULE** — a current schedule developed from the baseline or subsequent schedule through regular monthly review to incorporate as-built progress and any planned changes.

6-1.3 General Requirements. The Contractor shall meet with the Engineer on a date mutually agreed by the parties with the intent of discussing the schedule requirements. This meeting shall happen before the Contractor begins the work on the Baseline schedule.

The Contractor shall submit to the Engineer baseline, monthly update, look-ahead schedules and final update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule.

Schedules shall show the order in which the Contractor proposes to carry out the work with logical links between time-scaled work activities and calculations made using the critical path method to determine the controlling operation or operations. The Contractor is responsible for assuring that all activity sequences are logical and that each schedule shows a coordinated plan for complete performance of the work.

The Contractor shall produce schedules using computer software and shall furnish compatible software for the Engineer's exclusive possession and use. The Contractor shall furnish network diagrams and schedule data as parts of each schedule submittal.

The schedule shall be prepared using the latest version of Oracle's Primavera P6 scheduling tool or approved equal. Any tool other than Primavera shall first require approval from the Engineer.

The Contractor shall not sequester float through strategies such as extending activity duration estimates to consume available float, using preferential logic, using extensive crew/resource constraints, using special lead/lag logic restraints, using imposed dates or other float suppression techniques.

Schedules shall include, but not be limited to, applicable activities that show the following:

- a) Project characteristics, salient features, or interfaces, including those with outside entities that could affect time of completion.
- b) Project start date, scheduled completion date and other milestones.
- c) Work performed by the Contractor, subcontractors and suppliers.
- d) Submittal development, delivery, review and approval, including those from the Contractor, subcontractors and suppliers.
- e) Procurement, delivery, installation and testing of materials, plants and equipment.
- f) Testing and settlement periods.
- g) Utility notification and relocation.
- h) Erection and removal of false work and shoring.
- i) Lane closures, ramp closures, etc.
- j) Major traffic stage switches.
- k) Finishing roadway and final cleanup.
- l) Schedule shall further include the following:
 - 1) A clear and legible description for each activity.
 - 2) A detailed Work Breakdown Structure (WBS) or Activity Coding Structure, sufficient to clearly organize, sort and filter activities as needed.

- 3) A duration of not less than one (1) Working Day, except for event activities, and not more than twenty (20) Working Days, unless otherwise authorized by the Engineer.
- 4) At least one predecessor and one successor activity, except for project start and finish milestones.
- 5) Required constraints.

The Engineer's review and acceptance of schedules shall not waive any contract requirements and shall not relieve the Contractor of any obligation thereunder or responsibility for submitting complete and accurate information. Schedules that are rejected shall be corrected by the Contractor and resubmitted to the Engineer within five (5) Working Days of notification by the Engineer, at which time a new review period of one week will begin.

Errors or omissions on schedules shall not relieve the Contractor from finishing all work within the time limit specified for completion of the contract. If, after a schedule has been accepted by the Engineer, either the Contractor or the Engineer discover that any aspect of the schedule has an error or omission, it shall be corrected by the Contractor on the next update schedule.

The Contractor shall include the following for each schedule submittal:

- a) Two sets of originally plotted, time-scaled network diagrams.
- b) Two copies of a narrative report.
- c) Two copies of each of three (3) sorts of the CPM software-generated tabular reports.
- d) Electronic copy of the schedule data.

The time-scaled network diagrams shall conform to the following:

- a) Show a continuous flow of information from left to right.
- b) Be based on early start and early finish dates of activities.
- c) Clearly show the primary paths of criticality using graphical presentation.
- d) Include a title block and a timeline on each page.

Tabular reports shall be software-generated and provide information for each activity included in the project schedule. Three different reports shall be sorted by (1) activity ID, (2) early start and (3) total float. Tabular reports shall be 8 ½" x 11" in size and shall include, as a minimum, the following applicable information:

- a) Data date
- b) Activity number and description
- c) Predecessor and successor activity and numbers and descriptions
- d) Activity codes
- e) Scheduled, or actual and remaining durations (work days) for each activity
- f) Earliest start (calendar) date
- g) Earliest finish (calendar) date
- h) Actual start (calendar) date

- i) Actual finish (calendar) date
- j) Latest start (calendar) date
- k) Latest finish (calendar) date
- l) Free float (working days)
- m) Total float (working days)
- n) Percentage of activity completed and remaining duration for incomplete activities
- o) Lags
- p) Required constraints

Schedule submittals will only be considered complete when all documents and data have been provided as described above.

6-1.4 Computer Software. The software shall be the current version of Oracle's Primavera P6 for Windows or equal. If the Contractor proposes to use a different software than Primavera, the Contractor shall submit to the Engineer for approval a description of proposed software. All software shall be compatible with the latest Windows operating system.

The Contractor shall furnish schedule software and all original software instruction manuals to the Engineer with submittal of the baseline schedule. The furnished schedule software will be returned to the Contractor upon Project Acceptance.

The Contractor shall instruct the Engineer in the use of the software and provide software support until the contract is accepted. Within twenty (20) Working Days of approval of the Contract, the Contractor shall provide a commercial 16-hour training session and training manuals for 3 City employees in the use of the software at a location acceptable to the Engineer. It is recommended that the Contractor also send at least 3 employees to the same training session to facilitate development of similar knowledge and skills in the use of the software.

6-1.5 Schedule Submittals, Network Diagrams and Reports.

The Contractor shall:

- a) Submit the Baseline Schedule within twenty (20) Working Days after the approval of the Contract. Review 6-1.6 for more details on the Baseline Schedule requirements.
- b) Contractor shall incorporate any revisions deemed necessary by the City after the City's review of the Baseline Schedule.
- c) Once the City approves the Baseline Schedule, the Contractor shall submit two (2) color plots on "E" size sheets (approximately 34" x 44") of each required schedule, four (4) copies of the schedule in 11" x 17" format. A computer copy of the schedule data in the native file format should also be presented.
- d) Submit the Monthly Updated Schedules and reports along with the computer copy of the schedule file, on or within the first working day of each month. The Monthly Updated Schedule shall incorporate the Project's actual progress (or as-built information) as of the data date indicated on the update into the Baseline Schedule or the latest monthly update as appropriate.

- e) Submit a 3-Week Look-Ahead Schedule weekly and at every progress meeting during construction.
- f) Submit Final As-Built Schedule upon completion of the entire Project.

6-1.6 Baseline Schedule. The Contractor shall submit to the Engineer a baseline schedule within ten (10) days after the date of the City's execution of the Contract. The Contractor shall allow three (3) weeks for the Engineer's review after the baseline schedule and all support data are submitted. Beginning the week the baseline schedule is first submitted, the Contractor shall meet with the Engineer weekly to discuss and resolve schedule issues until the baseline schedule is accepted.

The baseline schedule shall include the entire scope of work and shall show how the Contractor plans to complete all work contemplated. The baseline schedule shall clearly identify the activities that define the critical path. Multiple critical paths and near-critical paths shall be kept to a minimum. Not more than 30 percent of the baseline schedule activities shall be critical or near critical, unless otherwise authorized by the Engineer. The baseline schedule shall not extend beyond the number of Working Days originally provided in these Special Provisions. The baseline schedule shall have a data date of the first working day of the contract and not include any completed work to date. The baseline schedule shall not attribute negative float or negative lag to any activity.

Each baseline schedule submittal shall include the following:

- a) A Baseline Narrative report which must include the following information:
 - 1) Explanation of the Contractor's general approach to this project and an explanation of what the Contractor considers as key factors to successfully complete the project within the contractual time.
 - 2) A brief explanation of where the work will begin and the how the work and crews will flow through the project.
 - 3) Describe how the Agency's jurisdictional requirements regarding working times and lane closures have been factored in the schedule.
 - 4) A general explanation of the anticipated workdays per week, number of shifts per day, number of hours per shift, and holidays observed.
 - 5) A description of problems, risks or issues anticipated.
 - 6) Typical crew sizes and major equipment to be used in the job.
 - 7) Long lead items.
- b) Hard copy of the schedule in 11" x 17" format.
- c) Color plots in "E" sheet (Approximately 34" x 44".)

6-1.7 Update Schedule. The Contractor shall submit an update schedule and meet with the Engineer to review contract progress, on or before the first day of each month, beginning one month after the baseline schedule is accepted. The Contractor shall allow two (2) weeks for the Engineer's review after the update schedule and all support data are submitted, except that the review period shall not start until any previous month's required schedule is accepted. Update schedules that are not accepted or rejected within the review period will be considered accepted by the Engineer.

The update schedule shall have a data date of the last date of the reporting period month or other date established by the Engineer. The update schedule shall show the status of work actually completed to date and the work yet to be performed as planned. The following shall be included with each monthly update:

- a) The electronic copy of the schedule file in the native file format.
- b) Hard copies of the schedule in 11" x 17" format and color plots in "E" sheet size.
- c) A critical path report, showing only the longest path in the project.
- d) A list and detailed description of all changes made to the schedule.
- e) A narrative report. The narrative report shall be organized in the following sequence with all applicable documents included:
 - 1) Contractor's transmittal letter.
 - 2) Work completed during the period.
 - 3) Identification of unusual conditions or restrictions regarding labor, equipment or material; including multiple shifts, 6-day work weeks, specified overtime or work at times other than days or hours.
 - 4) Description of the critical path method.
 - 5) Changes to the critical path and scheduled completion date since the last schedule submittal.
 - 6) Description of the problem areas.
 - 7) Current and anticipated delays:
 - (a) Cause of Delay.
 - (b) Impacts of delay on other activities, milestones and completion dates.
 - (c) Corrective action and schedule adjustments to correct the delay.
 - 8) Pending Items and status thereof:
 - (a) Permits
 - (b) Change Orders
 - (c) Time adjustments
 - (d) Non-compliance notices
 - 9) Reasons for an early or late schedule completion date in comparison to the contract completion date.

6-1.8 Look-Ahead Schedule. The Contractor shall prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the Baseline/Monthly Update. Each task in the Look Ahead Schedule shall be referenced back to a relevant Activity ID on the Master Schedule (Either the Baseline or the latest Monthly Update). Activities shall not exceed five (5) Working Days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the work. The Contractor shall update this schedule weekly.

6-1.9 Time Impact Analysis (TIA). The Contractor shall submit a written TIA to the Engineer with each request for adjustment of contract time, or when the Contractor or

Engineer consider that an approved or anticipated change may impact the critical path or contract progress. The Contractor shall submit the TIA for review within ten (10) Working Days after the date of the alleged delay impact to the schedule or within ten (10) Working Days after receiving a written request for TIA from the Engineer. Delays of any non-critical Work shall not be the basis for an extension of Contract time until the delays consume the float associated with that non-critical work activity and cause the work activity to become critical. The City will not grant time extensions unless substantiated by the CPM Schedule, and then not until the project float becomes zero. If the Contractor fails to submit a TIA within the aforementioned time specified, then the City shall deem the Contractor to have agreed that there is no time impact and that the Contractor has irrevocably waived its rights to any additional Contract time.

For each TIA the Contractor shall provide information justifying the request and stating the extent of the adjustment requested for each specific change or alleged delay. Each TIA shall be in a form and content suitable to the Engineer and include the following:

- a) The TIA shall illustrate the impacts of each change or delay on the current schedule completion date or internal milestones, as appropriate.
- b) The TIA shall include a written narrative. The narrative shall detail the proposed methodology for creating the Fragnet, include a chronology of events leading to the delay, and an explanation of how the delay impacted the critical path.
- c) The analysis shall use the accepted schedule that has a data date closest to and prior to the event. If the Engineer determines that the accepted schedule used does not appropriately represent the conditions prior to the event, the accepted schedule shall be updated to the day before the event being analyzed.
- d) The TIA shall include an impact schedule developed from incorporating the event into the accepted schedule by adding or deleting activities, or by changing durations or logic of existing activities. If the impact schedule shows that incorporating the event modifies the critical path and completion date of the accepted schedule, the difference between schedule completion dates of the two schedules shall be equal to the adjustment of Contract time. The Engineer may construct and utilize an appropriate project schedule or other recognized method to determine adjustments in Contract time until the Contractor provides the TIA.

The Contractor shall allow the Engineer 2 weeks after receipt to approve or reject the submitted TIA. If the TIA is accepted, the contract completion time shall be adjusted accordingly. All approved TIA schedule changes shall be shown on the next update schedule.

If the TIA submitted by the Contractor is rejected by the Engineer, the Contractor shall meet with the Engineer to discuss and resolve issues related to the TIA. If agreement is not reached, the Contractor will be allowed 15 days from the meeting with the Engineer to give notice in conformance with the provisions in Section 3. The Contractor shall only show actual as-built work, not unapproved changes related to the TIA, in subsequent update in schedules. If agreement is reached at a later date, approved schedule changes shall be shown on the next update schedule.

6-1.10 Final Update Schedule. The Contractor shall submit a final update, as-built schedule with actual start and finish dates for the activities, within thirty (30) Calendar Days after completion of the Work. The Contractor shall provide a written certificate with

this submittal signed by the Contractor's project manager and an officer of the company stating, "To my knowledge and belief, the enclosed final update schedule reflects the actual start and finish dates of the actual activities for the project contained herein." An officer of the company may delegate in writing the authority to sign the certificate to a responsible manager.

6-1.11 Retention. The City will retain an amount equal to 25 percent of the estimated value of the Work performed during each estimate period in which the Contractor fails to submit an acceptable schedule conforming to the requirements of these Special Provisions as determined by the Engineer. Schedule retentions will be released for payment on the next monthly estimate for partial payment following the date that acceptable schedules are submitted to the Engineer or as otherwise specified herein. Upon completion of all contract work and submittal of the final update schedule and certification, any remaining retained funds associated with this section, "Progress Schedule (Critical Path Method)," will be released for payment. Retentions held in conformance with this section shall be in addition to other retentions provided for in the contract. No interest will be due the Contractor on retention amounts.

6-1.12 Payment. Payment for Construction Schedule (critical path method) shall be at the contract unit price per Lump Sum and shall include full compensation for furnishing all labor, materials, equipment, and incidentals, including computer software, and for doing all the work involved in preparing, furnishing, and updating schedules, and instructing and assisting the Engineer in the use of computer software, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Payment for the construction schedule (critical path method) contract item will be made progressively as follows:

- a) A total of 25 percent of the item amount will be paid upon achieving all of the following:
 - 1) Completion of 5 percent of all contract item work.
 - 2) Software training for Agency staff.
 - 3) Acceptance of all schedules and any time impact analyses required at the time 5 percent of all contract item work is complete.
- b) A total of 50 percent of the item amount will be paid upon completion of 25 percent of all contract item work and acceptance of all schedules and time impact analyses required at the time 25 percent of all contract item work is complete.
- c) A total of 75 percent of the item amount will be paid upon completion of 50 percent of all contract item work and acceptance of all schedules and time impact analyses required at the time 50 percent of all contract item work is complete.
- d) A total of 100 percent of the item amount will be paid upon completion of all percent of all contract item work and acceptance of all schedules and time impact analyses required at the time all percent of all contract item work is complete, and submittal of the certified final update schedule.

If the Contractor fails to complete any of the work or provide any of the schedules required by this section, the Engineer shall make an adjustment in the compensation in conformance with the provisions in Section 3 "Changes of Work," of the Standard

Specifications for the work not performed. Adjustments in compensation for schedules will not be made for any increased or decreased work ordered by the Engineer in furnishing schedules.

Should the Contractor fail to meet the requirements under 6-1 of these Special Provisions, the Engineer reserves the right to withhold payment for work being performed. Furthermore, if after notice is given to the Contractor to perform work to meet these requirements, and the Contractor refuses or for any reason fails to perform sufficiently to meet these schedules, City may withhold or deny payment for work being performed.

6-2 PROSECUTION OF THE WORK.

ADD:

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

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

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

No forfeiture due to delay shall be made because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor (including but not restricted to acts of nature or of the public enemy, acts of the government, acts of the Agency, or acts of another contractor in the performance of a contract with the Agency, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather). Any such delays, except for acts of the Agency, shall not entitle the Contractor to any additional compensation. The sole remedy of the Contractor shall be an extension of time obtained in accordance with this section.

The Contractor shall, within ten (10) Calendar Days from the beginning of any such delay, notify the Agency Representative in writing of the cause of delay, whereupon the Agency Representative will ascertain the facts and extent of the delay and extend the

time for completing the Work if, in his judgment, the findings of the fact justify such an extension, and the Agency Representative's findings of facts thereon shall be final and conclusive.

ADD:

6-2.2 Order of Work Requirements. When required by these Special Provisions or the Plans, the Contractor shall follow the sequence of operations and restrictions as set forth therein.

The Work shall be performed in conformance with the staging of construction shown on the Plans and indicated below. Subject to approval by the Engineer, non-conflicting work in subsequent stages may proceed concurrently with work in preceding stages, provided satisfactory progress is maintained in the preceding stages of construction. The Engineer's approval of any Contractor-requested modifications to the order of work or staging of the work shall not be grounds for a Change Order request or time extension request by the Contractor. If the Contractor deviates from the specified order of work or the staging plans, it does so at its own risk and shall assume all time impacts and cost associated with such deviations.

The order of work described below is not intended to include all work items necessary to complete a particular construction stage and serves to only summarize the order of major work items.

- a) San Carlo Park
- b) Valencia Park

6-3 SUSPENSION OF THE WORK.

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

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

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

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

Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3. For purposes of 6-6.3, delays resulting from

suspensions ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the Contract, shall not be delays for which the Agency is responsible.

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

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

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

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

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

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

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

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

- a) The Engineer will issue the Contractor a signed written notice, specifying that the Contract is to be terminated. Upon termination of the Contract, the Contractor will be relieved of further responsibility for damage to the Work (excluding materials) as specified in 4-1.2 of the Standard Specifications, 7-16 of these Special Provisions and, except as otherwise directed in writing by the Engineer, the Contractor shall:
 - 1) Stop all work under the Contract except that specifically directed to be completed prior to Acceptance.
 - 2) Perform work the Engineer deems necessary to secure the project for termination.
 - 3) Remove equipment and plant from the site of the Work.
 - 4) Take action that is necessary to protect materials from damage.
 - 5) Notify all subcontractors and suppliers that the Contract is being terminated and that their contracts or orders are not to be further performed unless otherwise authorized in writing by the Engineer.

- 6) Provide the Engineer with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the Work and not yet used in the Work, including its storage location, and such other information as the Engineer may request.
 - 7) Dispose of materials not yet used in the Work as directed by the Engineer. It shall be the Contractor's responsibility to provide the Agency with good title to all materials purchased by the Agency hereunder, including materials for which partial payment has been made as provided in 9-3.2 and with bills of sale or other documents of title for those materials.
 - 8) Subject to the prior written approval of the Engineer, settle all outstanding liabilities and all claims arising out of subcontracts or orders for materials terminated hereunder. To the extent directed by the Engineer, the Contractor shall assign to the Agency all the right, title and interest of the Contractor under subcontracts or orders for materials terminated hereunder.
 - 9) Furnish the Engineer with the documentation required to be furnished by the Contractor under the provisions of the Contract including, on projects as to which Federal funds are involved, all documentation required under the Federal requirements included in the Contract.
 - 10) Take other actions directed by the Engineer.
- b) Acceptance of the contract as hereinafter specified shall not relieve the Contractor of responsibility for damage to materials. The Contractor shall continue to be responsible for damage to materials after issuance of the Notice of Termination, except as follows:
- 1) The Contractor's responsibility for damage to materials for which partial payment has been made as provided in 9-3.2 and for materials furnished by the Agency for use in the Work and unused shall terminate when the Engineer certifies that those materials have been stored in the manner and at the locations the Engineer has directed.
 - 2) The Contractor's responsibility for damage to materials purchased by the Agency subsequent to the issuance of the notice that the Contract is to be terminated shall terminate when title and delivery of those materials has been taken by the Agency.

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

- c) Termination of the Contract shall not relieve the surety of its obligation for any just claims arising out of the work performed.
- d) Where Agency terminates the Contract for Agency's convenience and not due to the fault of Contractor, the total compensation to be paid to the Contractor shall be determined by the Engineer based on the following:
- 1) The reasonable cost to the Contractor, without profit, for all work performed under the contract, including mobilization, demobilization and

work done to secure the project for termination. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by the sale of materials, and for other appropriate credits against the cost of the work. When, in the opinion of the Engineer, the cost of a contract item of work is excessively high due to costs incurred to remedy or replace defective or rejected work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that work in compliance with the requirements of the Plans and Specifications and the excessive actual cost shall be disallowed.

- 2) A reasonable allowance for profit on the cost of the work performed as determined under part (1) above, provided the Contractor establishes to the satisfaction of the Engineer that it is reasonably probable that the Contractor would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed 4 percent of the cost.
- 3) The reasonable cost to the Contractor of handling material returned to the vendor, delivered to the Agency or otherwise disposed of as directed by the Engineer.
- 4) A reasonable allowance for the Contractor's administrative costs in determining the amount payable due to termination of the Contract.

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

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

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

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

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

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

6-8.1 Completion. *DELETE in its entirety and SUBSTITUTE with the following:*

When the Contractor considers the Work, or a designated portion of Work, if specified in the Contract Documents, is complete, the Contractor shall submit a written request to the Engineer for inspection. By submittal of such request, Contractor certifies that:

- a) Contract Documents have been reviewed by the Contractor.
- b) Work has been completed in accordance with Contract Documents and is ready for inspection.
- c) Equipment and systems have been tested, adjusted/balanced and are fully operational.

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

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

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

ADD:

6-8.4 Reinspections. Should status of completion of Work require reinspection(s) by Agency due to failure of the Contractor to make corrections on initial inspection, Agency may deduct the amount of compensation for reinspection services from final payment to Contractor. Observed deficiencies in excess of three (3) will be reason for reinspection.

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

ADD:

6-8.5 Closeout Submittals.

Contractor shall submit:

- a) Project Record Documents clearly marked with all changes to Plans within thirty (30) Calendar Days of Final Acceptance
- b) Operation and Maintenance Data
- c) Warranties and Bonds
- d) Spare Parts and Maintenance Materials, as specified

- e) Evidence of Payment and Release of Stop Payment Notices
- f) Other data and materials as may be required in the Contract Documents

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

Liquidated damages shall be as specified in the Contract.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

Contractor, sub-contractor, other persons, and/or organization involved in the portion of the project to install park playground equipment shall have a minimum five (5) years' experience in said park playground equipment installation, as a certified installer. Certifications: Certification by manufacturer that Installer is an approved applicator of the playground surfacing system and certified playground installer. International Play Equipment Manufacturers Association (IPEMA) certified.

REVISE as follows:

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

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

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

ADD:

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

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

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

Upon request, the Contractor shall submit manufacturer's information that designates portable vehicle scale capacities.

The Contractor's measuring devices shall be tested and approved under California Test 109 in the Agency's presence or by any of the following:

- a) County Sealer of Weights and Measures
- b) Certified Scale Service Agency
- c) Division of Measurement Standards Official

7-1.2 Temporary Utility Services. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall, at its own expense, make all arrangements to furnish, install and maintain temporary water, electricity, telephone, and sanitary facilities for construction needs throughout construction period. Materials may be new or used, but must be adequate for the purposes intended, and must not violate requirements of applicable codes, specifications or standards.

The Contractor shall maintain systems to provide continuous services, modify, and extend services, as work progress requires. The Contractor shall completely remove temporary materials and equipment when construction needs can be met by use of permanent utility facilities.

The Contractor shall clean and repair damage caused by installation or use of temporary facilities, restore existing facilities used for temporary services to original or better condition, and restore permanent facilities used for temporary services to original condition.

For water, the Contractor shall:

- a) Provide adequate supply of water suitable for construction usage and needs.

Water Source: Irvine Ranch Water District (IRWD)

- a) Obtain meter, inspections and approvals prior to use of existing system.
- b) Comply with IRWD requirements.

Conservation:

- a) Minimize water use whenever possible.
- b) Maintain watering equipment in good working order.
- c) Repair leaks promptly.

When necessary to maintain pressure, provide temporary pumps, tanks and compressors.

For electricity, the Contractor shall:

- a) Provide portable power plants and/or connection to existing system for construction needs.
- b) Source of existing power: Southern California Edison Company (SCE). Prior to connecting to existing system:
 - 1) Obtain permit from City of Irvine, Community Development Department for installation of temporary power pole and/or system.
 - 2) Arrange for required inspections and coordinate temporary meter installation with City and SCE.

For sanitary facilities, the Contractor shall:

- a) Furnish and maintain portable toilet units in a clean, operable and sanitary condition for use by construction personnel.
- b) Place units in conformance with applicable laws, codes and regulations.

Pay all fees and charges for applications, non-City permits and inspections, installations, temporary meters, utility usage, service charges, maintenance, removals and restoration.

Contractor shall use standard products of service companies. At Contractor's option with prior approval by the Agency, patented specialty devices may be used, when in compliance with applicable codes and service company requirements.

7-2.3 Payroll Records. *MODIFY to ADD the following:*

The Contractor and all its subcontractors shall submit to the City and the Labor Commissioner (Division of Labor Standards Enforcement) certified payroll records every Friday until Notice of Completion is filed and recorded.

7-3 INSURANCE.

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 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, 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:

- a) 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
- b) 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 One Million Dollars (\$1,000,000) each loss and Two Million Dollars (\$2,000,000) in the aggregate.

Prior to commencing work, the Contractor shall provide the City the names and locations of disposal facilities for approval by the City.

7-3.8 Self-Insurance. Self-insurance will be subject to the Agency's review and prior approval. If the Contractor uses any form of self-insurance, it shall submit:

- a) A notice of election to self-insure.
- b) The coverages for which self-insurance applies.
- c) The amount of self-insurance.
- d) Declaration under the penalty of perjury by a certified public accountant certifying the accountant has applied Generally Accepted Accounting Principles (GAAP) guidelines and the Contractor has sufficient funds or other resources to cover the self-insurance amounts.
- e) Copy of its commercial general liability policy and its excess policy, including the declarations page, all amendments, riders, endorsements and other modifications in effect at the time of contract execution, for those amounts not covered by self-insurance.

Self-insurance programs and self-insured retentions in insurance policies are subject to separate annual review and approval by the Agency of evidence of the Contractor's financial capacity to respond. Additionally, self-insurance programs or retentions must provide the Agency with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance.

7-5 PERMITS. *DELETE in its entirety and SUBSTITUTE with the following:*

7-5 PERMITS AND LICENSES. Except as otherwise specified in the Special Provisions, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the Work. These permits and licenses shall be obtained in sufficient time to prevent delays to the Work. The Contractor shall maintain a copy of all permits on the site. The Contractor shall furnish the Agency with copies of permits and licenses within one (1) Working Day of obtaining them. The Contractor shall comply with all rules and regulations included in permits. Should the Contractor fail to conform to said rules and regulations, the Agency reserves the right to perform the work necessary to conform to the rules and regulations and the cost of such work will be deducted from any monies due or to become due to the Contractor.

The Contractor and all subcontractors shall obtain within five (5) Calendar Days of executing the Contract, a current City of Irvine Business License and maintain such license(s) throughout the term of the Contract.

In the event that the Agency has obtained permits, licenses or other authorizations applicable to the Work, the Contractor shall obtain a rider, pay all fees and comply with the provisions of said permits, licenses and other authorizations.

7-6 THE CONTRACTOR'S REPRESENTATIVE. *DELETE the 3^d sentence in the 1st paragraph and SUBSTITUTE with the following:*

Said authorized representative shall be present at the site of the Work at all times while Work is actually in progress on the Contract. When Work is not in progress and during

periods when Work is suspended, arrangements acceptable to the Agency Representative shall be made for any emergency work, which may be required.

ADD the following after the last sentence of the 1st paragraph:

Whenever the Contractor or his authorized representative is not present on any particular part of the Work where it may be desired to give direction, orders will be given by the Agency Representative, which shall be received and obeyed by the superintendent or supervisor who may have charge of the particular work in reference to which the orders are given.

The Agency reserves the right to approve the Contractor's Superintendent. Once approved, the Superintendent shall remain on the project for the duration of the project so long as he is in the employment of the Contractor.

7-7 COOPERATION AND COLLATERAL WORK. *DELETE in its entirety 4th paragraph and SUBSTITUTE with the following:*

Nothing in the Contract shall be interpreted as granting to the Contractor exclusive occupancy of the site of the project. The Contractor must ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by the Agency in the construction of the project, to the end that the Contractor may perform this Contract in the light of such other constraints, if any.

The Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on or adjacent to the project. If the performance of any Contract for the project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Engineer will decide which contractor shall cease work temporarily and which contractor shall continue or whether the work under the contracts can be coordinated so that the Contractors may proceed simultaneously. On all questions concerning conflicting interest of Contractors performing related work, the decision of the Engineer shall be binding upon Contractors concerned. The Agency, the Engineer, the Agency Representative, and each of their officers, employees, and agents shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the award of performance or attempted performance of any other contract or contracts on the project or caused by a decision or omission of the Engineer respecting the order of precedence in the performance of the contracts.

If, through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the Work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Agency, the Engineer, the Agency Representative, or their consultants on account of any damage alleged to have been so sustained, the Agency will notify the Contractor. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of the assertion of any such claims or liabilities against the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents against any such claim.

ADD:

7-7.1 Coordination. It is anticipated that work by other contractors, utility companies and City of Irvine forces will be underway adjacent to or within the limits of this project during progress of the Work on this contract.

The Contractor shall coordinate his operations with the operations of other contractors during stage construction, traffic shifts, opening of new lanes, closing of lanes, roads or ramps, detours, traffic signal facilities, shared irrigation facilities for landscaped areas and during any other operation that may affect or have influence on adjacent projects including, but not limited to, those identified in this subsection.

7-8 WORK SITE MAINTENANCE. *MODIFY to ADD the Following:*

Section 7-8 includes specifications for performing work site maintenance, including spill prevention and control, material management, waste management, water pollution control and nonstormwater management.

Projects are required to comply with the City of Irvine Resolution No. 07-18, which establishes requirements for recycling and diversion of construction and demolition waste.

The Contractor shall implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and nonstormwater at the job site before they come in contact with storm drain systems and receiving waters.

Linear sediment barriers must comply with 7-8.6.2 of the Standard Specifications and the Contract Special Provisions.

ADD:

7-8.1.1 Construction Cleaning. The Contractor shall:

- a) Initiate and maintain a daily program to prevent accumulation of debris on-site and along access roads and haul routes. Maintain areas under Contractor's control free of waste materials, debris, weeds 6" high, and rubbish. Maintain site in a clean and orderly condition.
- b) Provide suitable covered containers for deposit of debris and rubbish. Dispose of accumulation of extraneous materials, prohibit overloading of trucks to prevent spillages on access and haul routes and provide daily inspection of haul routes to enforce requirements.
- c) The Contractor shall supply self-loading motorized street sweepers equipped with a functional water spray system as part of his daily program.
- d) Schedule at a minimum, weekly collection and disposal of debris. Provide additional collections and disposals of debris whenever the weekly schedule is inadequate to prevent accumulation.

The Contractor shall remove debris from closed or remote spaces prior to closing the space, control cleaning operations to minimize dust and other particulates and immediately remove clay and earth which adhere to the paved surface of the roadway. Remove by hand scraping, washing, sweeping, and/or other method(s) which will leave a clean non-skid surface without impairing, injuring or loosening the surface.

The Contractor shall remove waste materials, debris, vegetation, other rubbish, and non-recyclable materials as required by the Contract Documents, and dispose of off-site in an approved disposal site or recycling center.

Unless otherwise specified in the Special Provisions, all concrete, asphalt, aggregate or sand base material, cement block, trees, shrubs, bushes, and all other recyclable material generated during cleaning, demolition, clearing and grubbing or other phases of the work is to be disposed of at appropriate recycling centers. The Contractor shall be responsible for removing reinforcing steel, wood, or other deleterious materials as required by the recycling center for acceptance of recycled materials. The Contractor shall supply proof of disposal at a recycling center. The proof of disposal shall include verification of tonnage by certified weigh masters tickets. If weigh masters tickets are not feasible, the Contractor and Agency Representative shall estimate the tonnage prior to disposal at the recycling centers.

Known recycling centers:

Ewles Materials
16081 Construction Circle West
Irvine

The Contractor is required to control dust throughout the life of the Contract. The control may be required by job conditions or Agency Representative. In any case, the Contractor shall use water or other means to control the dust. No chemical agents may be used without written authorization from the Agency. The Contractor shall be solely responsible for safety problems, accidents or any other complications or claims arising from inadequate dust control.

No separate payment will be made for any work performed or material used to control dust resulting from the Contractor's performance of the Work, or by public traffic, either inside or outside the right of way. Full compensation for such dust control will be considered as included in the price paid for the various items of work involved.

No separate payment will be made for any work performed or material used in cleaning the project. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefor.

ADD:

7-8.1.2 Final Cleaning. The Contractor shall execute cleaning prior to inspection for completion of the Work. The Contractor shall use materials which will not create hazards to health or property, and which will not damage surfaces, remove debris from and otherwise clean exposed-to-view surfaces, remove temporary protection and labels not required to remain, clean finishes free of foreign substances, remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean, clean other exterior surfaces and where applicable:

- a) Clean transparent and glossy materials to a polished condition; remove foreign substances. Polish reflective surfaces to a clear shine.
- b) Vacuum clean carpeted and similar soft surfaces.

- c) Clean resilient and hard surface floors.
- d) Clean surfaces of equipment; remove excess lubrication.
- e) Clean plumbing fixtures to a sanitary condition.
- f) Clean permanent filters of ventilating equipment and replace disposable filters when units have been operated during construction; in addition, clean ducts, blowers, and coils when units have been operated without filters during construction.
- g) Clean light fixtures and lamps.
- h) Remove waste, foreign matter, and debris from roofs, gutters, areaways, and drainage systems.

ADD:

7-8.4.3 Material Management.

7-8.4.3.1 General. The Contractor shall minimize or eliminate discharge of material into the air, storm drain systems, and receiving waters while taking delivery of, using, or storing the following materials:

- a) Hazardous chemicals, including acids, lime, glues, adhesives, paints, solvents, and curing compounds
- b) Soil stabilizers and binders
- c) Fertilizers
- d) Detergents
- e) Plaster
- f) Petroleum materials, including fuel, oil, and grease
- g) Asphalt and concrete components
- h) Pesticides and herbicides

The Contractor's employees trained in emergency spill cleanup procedures must be present during the unloading of hazardous materials or chemicals.

The Contractor shall use less hazardous materials if practicable.

The following activities must be performed at least 100 feet from concentrated flows of stormwater, drainage courses, and inlets if within the floodplain and at least 50 feet if outside the floodplain, unless otherwise authorized:

- a) Stockpiling materials
- b) Storing pile-driving equipment and liquid waste containers
- c) Washing vehicles and equipment in outside areas
- d) Fueling and maintaining vehicles and equipment

7-8.4.3.2 Material Storage. If materials are stored by the Contractor, he shall:

- a) Store liquids, petroleum materials, and substances listed in 40 CFR 110, 117, and 302 and place them in secondary containment facilities as specified by USDOT for storage of hazardous materials.

- b) Ensure that secondary containment facilities are impervious to the materials stored there for a minimum contact time of 72 hours.
- c) Cover secondary containment facilities during nonworking days and whenever precipitation is forecasted. Secondary containment facilities must be adequately ventilated.
- d) Keep secondary containment facilities free of accumulated rainwater or spills. After precipitation, or in the event of spills or leaks, collect accumulated liquid and place it into drums within 24 hours. Handle the liquid as hazardous waste in accordance with subsection 7-8 of the Standard Specifications and these Special Provisions.
- e) Not store incompatible materials, such as chlorine and ammonia, in the same secondary containment facility.
- f) Store materials in their original containers with the original material labels maintained in legible condition. Immediately replace damaged or illegible labels.
- g) Ensure that secondary containment facilities have the capacity to contain precipitation from a 24-hour-long, 25-year storm, plus 10 percent of the aggregate volume of all containers or the entire volume of the largest container within the facility, whichever is greater.
- h) Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during nonworking days and whenever precipitation is forecasted.
- i) Provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well-organized, and equipped with cleanup supplies appropriate for the materials being stored.
- j) Repair or replace perimeter controls, containment structures, covers, and liners as necessary. Inspect storage areas before and after precipitation and at least weekly during other times.

7-8.4.3.3 Stockpile Management. The Contractor shall minimize stockpiling of materials at the job site.

The Contractor shall implement water pollution control practices within 72 hours of stockpiling material or before a forecasted storm event, whichever occurs first. If stockpiles are being used, do not allow soil, sediment, or other debris to enter storm drains, open drainages, and watercourses.

Active and inactive soil stockpiles must be:

- a) Covered with soil stabilization material or a temporary cover
- b) Surrounded with a linear sediment barrier

Stockpiles of asphalt concrete and PCC rubble, HMA, aggregate base, or aggregate sub base must be:

- a) Covered with a temporary cover
- b) Surrounded with a linear sediment barrier

Stockpiles of pressure-treated wood must be:

- a) Placed on pallets
- b) Covered with impermeable material

Stockpiles of cold mix asphalt concrete must be:

- a) Placed on an impervious surface
- b) Covered with an impermeable material
- c) Protected from stormwater run-on and runoff

The Contractor shall control wind erosion year round.

The Contractor shall repair or replace linear sediment barriers and covers as needed to keep them functioning properly. Whenever sediment accumulates to 1/3 of the linear sediment barrier height, remove the accumulated sediment.

7-8.5.3 Spill Prevention and Emergency Response Plan.

ADD:

7-8.5.3.1 Spill Prevention and Control. The Contractor shall keep material or waste storage areas clean, well-organized, and equipped with enough cleanup supplies for the material being stored.

The Contractor shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site. Whenever the Contractor spills or leaks chemicals or hazardous substances at the job site, he is responsible for all associated cleanup costs and related liability.

The Contractor shall report minor, semi significant, and significant or hazardous spills to the WPC manager and the WPC manager must notify the Engineer immediately.

As soon as it is safe, the Contractor shall contain and clean up spills of petroleum materials and sanitary and septic waste substances listed under 40 CFR, parts 110, 117, and 302.

ADD:

7-8.5.3.2 Minor Spills. Minor spills consist of quantities of oil, gasoline, paint, or other materials that are small enough to be controlled by a first responder upon discovery of the spill.

The Contractor shall clean up a minor spill using the following procedures:

- a) Contain the spread of the spill
- b) Recover the spilled material using absorption
- c) Clean the contaminated area
- d) Dispose of the contaminated material and absorbents promptly and properly

ADD:

7-8.5.3.3 Semi Significant Spills. Semi significant spills consist of spills that can be controlled by a first responder with help from other personnel.

The Contractor shall clean up a semi significant spill immediately using the following procedures:

- a) Contain the spread of the spill.
- b) On paved or impervious surfaces, encircle and recover the spilled material with absorbent materials. Do not allow the spill to spread widely.
- c) If the spill occurs on soil, contain the spill by constructing an earthen dike and dig up the contaminated soil for disposal.
- d) If the spill occurs during precipitation, cover the spill with 10-mil plastic sheeting or other material to prevent contamination of runoff.
- e) Dispose of the contaminated material promptly and properly.

ADD:

7-8.5.3.4 Significant or Hazardous Spills. Significant or hazardous spills consist of spills that cannot be controlled by job site personnel.

The Contractor shall immediately notify qualified personnel of a significant or hazardous spill and take the following steps:

- a) Do not attempt to clean up the spill until qualified personnel have arrived.
- b) Notify the Engineer and follow up with a report.
- c) Obtain the immediate services of a spill contractor or hazardous material team.
- d) Notify local emergency response teams by dialing 911 and county officials by using the emergency phone numbers retained at the job site.
- e) Notify the California Emergency Management Agency State Warning Center at 916-845-8911.
- f) Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under 40 CFR 110, 119, and 302.
- g) Notify other agencies as appropriate, including:
 - 1) Fire Department
 - 2) Public Works Department
 - 3) Coast Guard
 - 4) Highway Patrol
 - 5) City Police or County Sheriff's Department
 - 6) Department of Toxic Substances
 - 7) California Division of Oil and Gas
 - 8) Cal/OSHA
 - 9) Regional Water Resources Control Board

The Contractor shall prevent a spill from entering stormwater runoff before and during cleanup activities and shall not bury or wash the spill with water.

ADD:

7-8.5.4 Waste Management.

7-8.5.4.1 Paint Waste. The Contractor shall clean water-based and oil-based paint from brushes or equipment within a contained area in a way that does not contaminate soil, receiving waters, or storm drain systems. Handle and dispose of the following as hazardous waste: paints, thinners, solvents, residues, and sludges that cannot be recycled or reused. When thoroughly dry, dispose of the following as solid waste under: dry latex paint, paint cans, used brushes, rags, absorbent materials, and drop cloths.

7-8.5.4.2 Concrete Waste. The Contractor shall use practices to prevent the discharge of asphalt concrete, PCC, and HMA waste into storm drain systems and receiving waters.

The Contractor shall collect and dispose of asphalt concrete, PCC, and HMA waste at locations where:

- a) Concrete material, including grout, is used.
- b) Concrete dust and debris result from demolition.
- c) Saw cutting, coring, grinding, grooving, or hydro-concrete demolition creates a residue or slurry.
- d) Concrete trucks or other concrete-coated equipment is cleaned at the job site.

7-8.5.4.3 Sanitary and Septic Waste. The Contractor shall not bury or discharge wastewater from a sanitary or septic system anywhere at the site of Work. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. The Contractor shall place a portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines.

The Contractor shall comply with local health agency provisions if using an on-site disposal system.

7-8.5.4.4 Liquid Waste. The Contractor shall use practices that will prevent job-site liquid waste from entering storm drain systems and receiving waters. Liquid wastes include the following:

- a) Drilling slurries or fluids
- b) Grease-free and oil-free wastewater and rinse water
- c) Dredgings, including liquid waste from cleaning drainage systems
- d) Liquid waste running off a surface, including wash or rinse water
- e) Other nonstormwater liquids not covered by separate permits

The Contractor shall hold liquid waste in structurally sound, leak-proof containers, such as roll-off bins or portable tanks.

Liquid waste containers must be of sufficient quantity and volume to prevent overflow, spills, and leaks.

The Contractor shall store containers at least 50 feet from moving vehicles and equipment.

The Contractor shall remove and dispose of deposited solids from sediment traps in accordance with 7-8 of the Standard Specifications and these Special Provisions. Liquid waste may require testing to determine hazardous material content before disposal.

The Contractor shall dispose of drilling fluids and residue.

If an authorized location is available within the job site, fluids and residue exempt under 23 CA Code of Regs § 2511(g) may be dried by evaporation in a leak-proof container. The Contractor shall dispose of the remaining solid waste in accordance with 7-8 of the Standard Specifications and these Special Provisions.

ADD:

7-8.5.5 Nonstormwater Management.

7-8.5.5.1 Water Control and Conservation. The Contractor shall manage water used for work activities in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Obtain authorization before washing anything at the job site with water that could discharge into a storm drain system or receiving waters. Report discharges immediately.

The Contractor shall implement water conservation practices if water is used at the job site. Inspect irrigation areas. Adjust watering schedules to prevent erosion, excess watering, or runoff. Shut off the water source to broken lines, sprinklers, or valves and repair breaks within 24 hours. Reuse water from waterline flushing for landscape irrigation if practicable. Sweep and vacuum paved areas. Do not wash paved areas with water.

The Contractor shall direct runoff water, including water from water line repair, from the job site to areas where it can infiltrate into the ground. Do not allow runoff water to enter storm drain systems and receiving waters. Do not allow spilled water to escape filling areas for water trucks. Direct water from off-site sources around the job site if practicable. Minimize the contact of off-site water with job site water.

7-8.5.5.2 Illicit Connection and Illegal Discharge Detection and Reporting. Before starting work, the Contractor shall inspect the job site and the job site's perimeter for evidence of illicit connections, illegal discharges, and dumping. After starting work, inspect the job site and perimeter on a daily schedule for illicit connections and illegal dumping and discharges.

Whenever illegal connections, discharges, or dumping are discovered, The Contractor shall notify the Engineer immediately, should take no further action unless ordered and assume that unlabeled or unidentifiable material is hazardous.

The Contractor shall look for the following evidence of illicit connections, illegal discharges, and dumping:

- a) Debris or trash piles
- b) Staining or discoloration on pavement or soils

- c) Pungent odors coming from drainage systems
- d) Discoloration or oily sheen on water
- e) Stains and residue in ditches, channels, or drain boxes
- f) Abnormal water flow during dry weather
- g) Excessive sediment deposits
- h) Nonstandard drainage junction structures
- i) Broken concrete or other disturbances at or near junction structures

7-8.5.5.3 Vehicle and Equipment Cleaning. The Contractor shall limit vehicle and equipment cleaning or washing at the job site except for what is necessary to control vehicle tracking or hazardous waste. The Contractor shall notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam and contain and recycle or dispose of resulting waste under 7-10.4.4. The Contractor shall not use diesel to clean vehicles or equipment and minimize the use of solvents.

The Contractor shall clean or wash vehicles and equipment in a structure equipped with disposal facilities. The Contractor may wash vehicles in an outside area if the area is:

- a) Paved with asphalt concrete, HMA, or PCC
- b) Surrounded by a containment berm
- c) Equipped with a sump to collect and dispose of wash water

The Contractor shall use as little water as practicable whenever washing vehicles and equipment with water and hoses used must be equipped with a positive shutoff valve.

The Contractor shall discharge liquid from wash racks to a recycling system or to another authorized system. Remove liquids and sediment as necessary.

7-8.5.5.4 Vehicle and Equipment Fueling and Maintenance. If practicable, the Contractor shall perform maintenance on vehicles and equipment off-site.

If fueling or maintenance must be done at the job site, the Contractor shall assign a site or sites, and obtain authorization before using them. The Contractor shall minimize mobile fueling and maintenance activities. The Contractor's fueling and maintenance activities must be performed on level ground in areas protected from stormwater run-on and runoff.

The Contractor shall use containment berms or dikes around fueling and maintenance areas. Keep adequate quantities of absorbent spill-cleanup material and spill kits in the fueling or maintenance area and on fueling trucks. The Contractor shall dispose of spill-cleanup material and kits immediately after use and use drip pans or absorbent pads during fueling or maintenance.

The Contractor shall not leave fueling or maintenance areas unattended during fueling and maintenance activities. The Contractor's fueling nozzles must be equipped with an automatic shutoff control. The Contractor shall use equipment with vapor-recovery fueling nozzles where required by the Air Quality Management District, secure nozzles in an upright position when not in use and shall not top off fuel tanks.

The Contractor shall recycle or properly dispose of used batteries and tires.

If leaks cannot be repaired immediately, the Contractor shall remove the vehicle or equipment from the job site.

7-8.5.5.5 Material and Equipment Used Over Water. The Contractor shall place drip pans and absorbent pads under vehicles and equipment used over water, keep an adequate supply of spill-cleanup material with vehicles and equipment, place drip pans or plastic sheeting under vehicles and equipment on docks, barges, or other surfaces over water whenever vehicles or equipment will be idle for more than one (1) hour.

The Contractor shall furnish watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools and shall secure material to prevent spills or discharge into the water due to wind.

The Contractor shall report discharges to receiving waters immediately upon discovery and shall submit a discharge notification.

7-8.5.5.6 Structure Removal Over or Adjacent to Water. The Contractor shall not allow demolished material to enter storm drain systems and receiving waters, use authorized covers and platforms to collect debris, use attachments on equipment to catch debris during small demolition activities and empty debris-catching devices daily and dispose of debris in accordance with 7-8 of the Standard Specifications and these Special Provisions.

7-8.5.5.7 Paving, Sealing, Saw Cutting, Grooving, and Grinding Activities. The Contractor shall prevent material from entering storm drain systems and receiving waters including:

- a) Cementitious material
- b) Asphaltic material
- c) Aggregate or screenings
- d) Saw cutting, grooving, and grinding residue
- e) Pavement chunks
- f) Shoulder backing
- g) Methacrylate
- h) Sandblasting residue

The Contractor shall cover drainage inlets and use linear sediment barriers to protect downhill receiving waters until paving, sealing, saw cutting, grooving, and grinding activities are completed and excess material has been removed and cover drainage inlets and manholes during the application of seal coat, tack coat, slurry seal, or fog seal.

Whenever precipitation is forecasted, the Contractor shall limit paving, saw cutting, and grinding to places where runoff can be captured.

The Contractor shall not start seal coat, tack coat, slurry seal, or fog seal activities whenever precipitation is forecasted during the application and curing period and shall not excavate material from existing roadways during precipitation.

The Contractor shall use a vacuum to remove slurry immediately after slurry is produced and shall not allow the slurry to run onto lanes open to traffic or off the pavement.

The Contractor shall collect the residue from PCC grooving and grinding activities with a vacuum attachment on the grinding machine. The Contractor shall not leave the residue on the pavement or allow the residue to flow across pavement.

The Contractor shall not coat asphalt trucks and equipment with substances that contain soap, foaming agents, or toxic chemicals.

The Contractor shall park paving equipment over drip pans or plastic sheeting with absorbent material to catch drips if the paving equipment is not in use.

7-8.5.5.8 Thermoplastic Striping and Pavement Markers. The Contractor shall not preheat, transfer, or load thermoplastic within 50 feet of drainage inlets and receiving waters.

The Contractor shall not unload, transfer, or load bituminous material for pavement markers within 50 feet of drainage inlets and receiving waters.

The Contractor shall collect and dispose of bituminous material from the roadway after removing markers.

7-8.5.5.9 Pile Driving. The Contractor shall keep spill kits and cleanup materials at pile driving locations; park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material; protect pile driving equipment by parking on plywood and covering with plastic whenever precipitation is forecasted.

The Contractor shall store pile driving equipment on level ground and protect it from stormwater run-on when not in use. Use vegetable oil instead of hydraulic fluid if practicable.

7-8.5.5.10 Concrete Curing. The Contractor shall not overspray chemical curing compounds and shall not allow runoff of curing compounds.

The Contractor shall minimize the drift by spraying as close to the concrete as practicable, cover drainage inlets before applying the curing compound, and minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture when concrete is curing.

7-8.5.5.11 Concrete Finishing. The Contractor shall collect and dispose of water and solid waste from high-pressure water blasting, collect and dispose of sand and solid waste from sandblasting. Before sandblasting, the Contractor shall cover drainage inlets within 50 feet of sandblasting, and shall minimize the drift of dust and blast material by keeping the nozzle close to the surface of the concrete. If the character of the blast

residue is unknown, the Contractor shall test it for hazardous materials and dispose of it properly.

The Contractor shall inspect containment structures for concrete finishing for damage before each day of use and before forecasted precipitation and remove liquid and solid waste from containment structures after each work shift.

7-8.5.5.12 Sweeping. The Contractor shall sweep by hand or mechanical methods, such as vacuuming, and shall not use methods that use only mechanical kick brooms. The Contractor shall sweep paved roads at construction entrance and exit locations and paved areas within the job site:

- a) During clearing and grubbing activities
- b) During earthwork activities
- c) During trenching activities
- d) During pavement structure activities
- e) When vehicles are entering and leaving the job site
- f) After soil-disturbing activities
- g) After observing off-site tracking of material
- h) As deemed necessary by the Engineer

The Contractor shall monitor paved areas and roadways within the project and sweep within:

- a) 1 hour whenever sediment or debris is observed during activities that require sweeping.
- b) 24 hours whenever sediment or debris is observed during activities that do not require sweeping.

The Contractor shall remove collected material, including sediment, from paved shoulders, drain inlets, curbs and dikes, and other drainage areas, may stockpile collected material at the job site, and shall dispose of collected material at least once per week if stockpiled.

The Contractor shall keep dust to a minimum during street sweeping activities and use water or a vacuum whenever dust generation is excessive or sediment pickup is ineffective.

The Contractor shall remove and dispose of trash collected during sweeping.

7-8.5.5.13 Dewatering. Dewatering consists of discharging accumulated stormwater, groundwater, or surface water from excavations or temporary containment facilities. The Contractor shall perform dewatering work as specified for the work items involved, such as temporary active treatment system or dewatering and discharge.

If dewatering and discharging activities are not specified under a work item and the Contractor performs dewatering activities, he shall:

- a) Conduct dewatering activities under the Caltrans' *Field Guide for Construction Site Dewatering*.
- b) Ensure that any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials.
- c) Discharge the water within the project limits if approved by the Engineer. Dispose of the water if it cannot be discharged within project limits due to site constraints or contamination.
- d) Not discharge stormwater or nonstormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface.
- e) Notify the Engineer immediately upon discovering any such condition.

7-8.6 Water Pollution Control.

7-8.6.1 General. *ADD the following after the last paragraph:*

This project is Risk Level 2.

ADD:

7-8.6.1.1 Definitions and Abbreviations.

Active and inactive areas: (1) Active areas have soil disturbing work activities occurring at least once within 15 days, and (2) Inactive areas are areas that have not been disturbed for at least 15 days.

BMPs: Best Management Practices are water pollution control practices.

Construction phase: Construction phases are (1) Highway Construction including work activities for building roads and structures, (2) Plant Establishment including maintenance on vegetation installed for final stabilization, and (3) Suspension where work activities are suspended and areas are inactive.

NAL: Numeric Action Level.

NEL: Numeric Effluent Limit.

Normal working hours: The hours the Contractor normally works on this project.

Preparation Manual: The Caltrans' "Storm Water Pollution Prevention Plan and Water Pollution Control Program Preparation Manual."

QSD: Qualified SWPPP Developer.

QSP: Qualified SWPPP Practitioner.

Qualified rain event: A qualified rain event is a storm that produces at least 0.5 inch of precipitation with a 48 hour or greater period between storms.

REAP: Rain Event Action Plan.

SAP: Sampling and Analysis Plan.

SSC: Suspended Sediment Concentration.

SWRCB: State Water Resources Control Board.

WPC: Water Pollution Control.

WPC Manager: The Contractor's Water Pollution Control Manager. The WPC Manager implements water pollution control work described in the SWPPP and oversees revisions and amendments to the SWPPP.

7-8.6.1.2 Summary. Section 7-8.6 includes general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water.

Information on forms, reports, and other documents can be found in the following Caltrans manuals:

- a) *Field Guide for Construction Site Dewatering*
- b) *Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual*
- c) *Construction Site Best Management Practices (BMP) Manual*
- d) *Construction Site Monitoring Program (CSMP) Guidance Manual*

For the above-referenced manuals, go to the Caltrans' 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, in accordance with 7-8.6.3 of the Special Provisions, is authorized.
- b) The waste discharge identification number is issued if the project requires a SWPPP.
- c) WPCP or SWPPP review requirements have been fulfilled. If the RWQCB requires time for review, allow 30 days for the review.

If the Contractor operates a Contractor-support facility, the Contractor shall protect stormwater systems or receiving waters from the discharge of potential pollutants by using water pollution control practices.

Contractor-support facilities include:

- a) Staging areas
- b) Storage yards for equipment and materials
- c) Mobile operations
- d) Batch plants for PCC and HMA
- e) Crushing plants for rock and aggregate
- f) Other facilities installed by the Contractor for his, such as haul roads

Discharges from manufacturing facilities, such as batch plants and crushing plants, must comply with the general waste discharge requirements for *Order No. 97-03-DWQ, NPDES General Permit No. CAS000001*, issued by the State Water Resources Control Board for "*Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities*" and referred to herein as "General Industrial Permit." For the

General Industrial Permit, go to the 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). *MODIFY to ADD the following:*

BMPs shall be maintained and/or added based on the REAP and any exceedances of Numeric Action Levels (NALs) and Numeric Effluent Limitations (NELs). The Contractor shall make any necessary changes to the SWPPP and implement additional BMPs that will result in effluent levels below that of NALs.

7-8.6.3.2 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 SWPP 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

7-8.6.4 Dewatering. *MODIFY to ADD the following:*

Submittals

Before the Contractor starts dewatering, he shall submit a dewatering and discharge work plan. The dewatering and discharge work plan must include:

- a) Title sheet and table of contents
- b) Description of dewatering and discharge activities detailing locations, quantity of water, equipment, and discharge point
- c) Estimated schedule for dewatering and discharge start and end dates of intermittent and continuous activities
- d) Discharge alternatives, such as dust control or percolation
- e) Visual monitoring procedures with inspection log
- f) Copy of written approval to discharge into a sanitary sewer system at least 5 business days before starting discharge activities

The Contractor shall submit the following informational submittals:

- a) MSDS at least 5 business days before material is used or stored
- b) Monthly inventory records for material used or stored

The Contractor shall submit written approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system.

7-8.6.5 Payment. *DELETE in its entirety and SUBSTITUTE with the following:*

Payment for implementation and maintenance of BMPs and dewatering shall be included in the Contract Unit Price paid for SWPPP.

ADD:

7-8.7 Drainage Control. The Contractor shall maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete, or other acceptable material will be permitted when necessary. Such dams shall be removed from the site as soon as their use is no longer necessary.

The Contractor shall ensure that storm and drainage water does not pond due to the temporary blockage of existing drainage facilities. To this end, the Contractor shall provide temporary works that allow for the passage of storm and drainage water in a manner equivalent to the existing drainage system.

No separate payment will be made for any work performed or material used in drainage control. Full compensation for such controls shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefor.

ADD:

7-8.8 Graffiti Control. Throughout all phases of Work, including suspension of Work, and until final acceptance, the Contractor shall keep Work, all equipment, field offices,

storage facilities, fences, signs, and other facilities free of graffiti. Within twenty-four (24) hours after notification by the Agency Representative, graffiti shall be water blasted and cleaned to original surface or repainted if previously painted.

No separate payment will be made for any work performed or material used in graffiti control. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefor.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. *ADD the following before the 1st paragraph:*

Material shown on the Plans or designated in the Special Provisions which is to be salvaged or used in the reconstructed work and which has been damaged or destroyed as a result of the Contractor's operations, shall be repaired or replaced by the Contractor at his expense.

ADD:

7-9.1 Preservation of Property. The Contractor shall exercise due care to avoid injury to existing improvements or facilities, utility facilities, adjacent property, and trees and shrubbery that are not to be removed.

All damage done to existing improvements by the Contractor shall be repaired by him to the satisfaction of the Engineer. Where sidewalks, curbs or gutters are to be repaired, the repairs shall be made by removing and replacing the damaged section back to the nearest scoring lines.

All trees and shrubbery that are not to be removed, and pole lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and waterlines, all highway or street facilities, and any other improvements of facilities within or adjacent to the work shall be protected from injury or damage, and the Contractor shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operation, they shall be replaced or restored at the Contractor's expense to a condition as good as when the Contractor entered upon the work or as good as required by the Plans and Specifications if any such objects are a part of the work being performed.

The fact that any such pipe or other underground facility is not shown on the Plans shall not relieve the Contractor of his responsibility under this article. It shall be the Contractor's responsibility to ascertain the existence of any underground improvement or facilities which may be subject to damage by reason of his operations.

In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site of the work which are in any way affected by the excavations or other operations connected with the performance of the Work.

Whenever any notice is required to be given by the Agency or the Contractor to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by the Contractor.

ADD:

7-9.2 Video Recording and Photographing of Pre-existing Conditions. The Contractor shall video record and photograph pre-existing conditions of the project site prior to any construction activities such as, but not limited to:

- a) Property markers
- b) Right of way and easement conditions
- c) Utility markings and USA markings
- d) Existing property damages
- e) Survey conditions
- f) Pavement conditions, markings, and striping
- g) Adjacent property conditions
- h) Sidewalk, median, curb, and gutter conditions
- i) Safety conditions
- j) Unusual conditions or equipment
- k) Existing landscape conditions (including vegetation and irrigation) along the project limit.

The Contractor shall submit recordings/photographs on CD, DVD or USB media to the Engineer no later than (five) 5 Working Days after Notice to Proceed.

Payment for video recording and photographing services shall be included in the various Bid Items and no additional compensation will be allowed therefor.

7-10.4.1.2 Work Site Safety Official. *MODIFY to ADD the following:*

Failure by the Contractor to provide the required Work Site Safety Official shall be grounds for the Agency to direct the cessation of all work activities and operations at no cost to the Agency until the Contractor is in compliance.

ADD:

7-10.4.1.3 Emergencies. Unusual conditions may arise on the Work which will require that immediate and unusual provisions be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the Work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

The Contractor shall use such foresight and shall take such steps and precautions as his operations make necessary to protect from danger or damage, or loss of life or property, which would result from the interruption or contamination of public water supply, irrigation or other public service, or from failure or partly completed work.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured by process of construction on account of such neglect; and whenever in the opinion of the Engineer, immediate action shall be considered necessary in order to protect public or private, personal or property interest, or prevent likely loss of human life or damage on account of

the operations under the Contract, then and in that event the Agency may provide suitable protection to said interest by causing such work to be done and material to be furnished as, in the opinion of the Agency Representative may seem reasonable and necessary.

The cost and expense of said labor and material, together with the cost and expense of such repairs as may be deemed necessary, shall be borne by the Contractor, and if he shall not pay said cost and expense upon presentation of the bills therefor, duly certified by the Agency Representative, then said cost and expense will be paid by the Agency and shall thereafter be deducted from any amounts due, or which may become due to the Contractor. Failure of the Agency, however, to take such precautionary measure, shall not relieve the Contractor of his full responsibility for public safety.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the Agency.

7-10.4.2.1 General. *DELETE in its entirety 2nd paragraph and SUBSTITUTE with the following:*

The Contractor shall submit to the Engineer, as a condition of obtaining City issued permits and in advance of excavation, a permit from the Division of Occupational Safety and Health pursuant to Chapter 6 (commencing with Section 6500) of Part 1 of Division 5 of the Labor Code along with a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five (5) feet or more in depth. The plan shall be prepared by a registered civil or structural engineer. As a part of the plan, a notice shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CAL/OSHA Construction Safety Orders. A copy of the plan and permit shall be submitted to the Engineer.

In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during performance of the Work, and the Contractor shall fully comply with all local, county, state and federal laws, rules, regulations, and orders relating to safety of the public and workers.

The Contractor shall hold harmless, indemnify, and defend the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents from civil or criminal penalties resulting from a failure to comply with applicable safety laws, rules, regulations and orders. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the event of any such failure to comply with applicable safety laws, rules, regulations or orders.

The duty, if any, of the Agency Representative to conduct construction review or inspection of the Contractor's performance is not intended to include review or inspection of the adequacy of the Contractor's safety measures in, on, or near the construction site.

7-10.5.3 Steel Plate Covers. *MODIFY to ADD the following:*

The Contractor shall protect transverse or longitudinal cuts, voids, trenches, holes, and excavations in the right-of-way that cannot be properly completed within one (1) Working Day by adequately designed barricades and structural steel plates (plates) that will support legal vehicle loads in such a way as to preserve unobstructed traffic flow.

The Contractor shall secure approval, in advance, from Engineer concerning the use of any bridging proposed on the Work.

The Contractor shall adequately shore trenches to support the bridging and traffic loads.

The Contractor shall design plates for HS 20-44 truck loading in accordance with Caltrans Bridge Design Specifications Manual.

For the minimum thickness of plates refer to Table 7-10.5.3(A):

Table 7-10.5.3(A) - Trench Width/Minimum Plate Thickness

Trench Width	Minimum Plate Thickness
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 1/4"

For spans greater than 5'-3", submit a structural design prepared by a California Registered Civil Engineer to the Engineer.

The surface of the plates shall be skid-resistant with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342.

The plates shall extend a minimum 12" beyond the edges of the trench.

Plates must provide complete coverage to prevent any person, bicycle, motorcycle or motor vehicle from being endangered due to plate movement causing separations or gaps.

Install and secure plates against movement or displacement by using adjustable cleats, shims, welding, or other devices in a manner that will minimize noise.

The Contractor shall Install plates as follows:

Mill the pavement to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Alternative installation method may be submitted in accordance with 2-5.3, "Submittals" for the Engineer's approval.

The Contractor is responsible for maintenance of the plates and shoring, or any other approved device used to secure the plates. The Contractor shall immediately mobilize necessary personnel and equipment after being notified by the Agency Representative, the Agency Code Enforcement or Police Department of a repair needed e.g., plate movement, noise, anchors, and asphalt ramps. Failure to respond to the emergency request within 2 hours will be grounds for Agency to perform necessary repairs that will be invoiced at actual cost including overhead or \$500 per incident, whichever is greater.

When plates are removed, the Contractor shall repair any damage to the pavement with fine graded asphalt concrete mix or slurry seal satisfactory to the Engineer.

Payment for Steel Plate Covers is included in the various bid items of work.

7-11 PATENT FEES AND ROYALTIES. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work and shall hold harmless, indemnify, and defend the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents from all claims, suits or actions of every nature for or on account of the use of any patented materials, equipment devices, or processes. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of any such claim, suit or action.

7-13 LAWS TO BE OBSERVED. *DELETE in its entirety and SUBSTITUTE with the following:*

The Contractor shall keep itself fully informed of all existing and future State and National laws and County and Municipal ordinances and regulations which in any manner affect those engaged or employed in the Work or the materials used in the Work or which in any way affect the conduct of the Work and of all such order and decrees of bodies or tribunals having any jurisdiction or authority in the Plans, Specifications, or Contract for the Work in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same to the Agency Representative in writing.

The Contractor shall at all times observe and comply with and shall cause all its agents, employees, and subcontractors to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees even though such requirements may not be specifically mentioned in the specifications or shown on the Plans, and shall hold harmless, indemnify, and defend the Agency, the Engineer, the Agency Representative and each of their officers, employees, and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by itself, its employees, its agents, or its subcontractors. To the maximum extent permitted by law, all obligations of the Contractor stated in 7-3.2 shall apply in the case of any such claim or liability.

As a material part of this Contract, Contractor's and subcontractors' owners and employees agree to be bound by and adhere to the Federal Department of Transportation (DOT) regulations found in Title 49 CFR 382. All Contractor's and subcontractors' owners and employees who are required to hold commercial licenses and/or who are in safety sensitive positions shall be subject to the provisions of the DOT regulations.

ADD:

7-14.1 Property Rights in Materials. Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the Work or the soil, or after payment has been made for materials delivered to the site of the Work, or stored subject to or under the control of the Agency.

ADD:

7-14.2 Warranty of Title. No materials, supplies or equipment for the Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials,

supplies, and equipment installed and incorporated in the Work and agrees upon completion of all Work to deliver the premises together with all improvements and appurtenances constructed or placed thereon by him to the Agency free from any claims, liens, encumbrances, or charges and further agrees that neither he nor any persons, firm, or corporation furnishing any material or labor for any work covered by the Contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. Nothing contained in this article, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor in the hands of the Agency.

The provisions of this subsection shall be physically inserted in all subcontracts and material contracts and notices of its provision shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

ADD:

7-15 CONTRACTOR'S RESPONSIBILITY FOR THE WORK. Until Acceptance of the Work, the Contractor shall have the responsibility, charge and care of the Work and of the materials to be used therein (including materials for which it has received partial payment or materials which have been furnished by the Agency) and shall bear the risk of injury, loss or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work.

The Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the work or the material occasioned by any cause before its completion and acceptance and shall bear the expense thereof. Where necessary to protect the work or materials from damage, the Contractor shall at his expense provide suitable drainage and erect such temporary structures as are necessary to protect the work or materials from damage. The suspension of the work from any cause whatever shall not relieve the Contractor of his responsibility for the work and materials as herein specified. If ordered by the Agency Representative, the Contractor shall at his expense properly store materials which have been partially paid for by the Agency or which have been furnished by the Agency. Such storage by the Contractor shall be on behalf of the Agency, the Agency shall at all times be entitled to the possession of such materials, and the Contractor shall promptly return the same to the site of the work when requested. The Contractor shall not dispose of any of the materials so stored, except on written authorization from the Agency.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, is authorized to act at his discretion to prevent such threatened loss or injury, and he shall so act as though instructed to do so by the Agency.

ADD:

7-16 PROJECT RECORD DOCUMENTS.

7-16.1 Maintenance of Documents and Samples. The Contractor shall maintain one record copy of:

- a) Contract Drawings
- b) Specifications
- c) Addenda
- d) Change Orders and Other Modifications to the Contract
- e) Reviewed Shop Drawings, Product Data, and Samples
- f) Field Test Records
- g) Construction Schedules
- h) Manufacturer's Certificates

The Contractor shall maintain documents in clean, dry, legible condition and not used for construction purposes.

The Contractor shall keep Record Documents and samples accessible for inspection by Agency Representative. Applications for partial payment will not be approved if the Record Documents are not kept current. The Agency Representative must so verify prior to submittal of each Application for Payment.

ADD:

7-16.2 Recording. The Contractor shall record changes to the plans and discoveries of buried objects at the Work on Record Documents with red ball-point pen, label each Document "PROJECT RECORD" in large printed letters, record information concurrently with construction progress, not conceal any work until required information is recorded and legibly mark each item on Contract Drawings and Shop Drawings to record actual construction, including:

- a) Measured depths of elements in relation to fixed datum point
- b) Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements
- c) Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction
- d) Field changes of dimension and detail
- e) Changes made by Contract modifications
- f) Details not on original Contract Drawings
- g) Previously unknown buried objects

The Contractor shall legibly mark each item to record actual construction, including:

- a) Manufacturer, Trade Name, and Catalog Number of each product actually installed, particularly optional items and substitute items
- b) Changes made by Addenda or modifications

The Contractor shall maintain other documents per requirements of individual specifications sections.

7-16.3 Submittals. At Contract closeout the Contractor shall deliver Record Documents and samples as specified in 7-16.1. Request for final payment will not be approved until all Record Documents have been delivered.

The submittals shall be transmitted with cover letter with signature of Contractor or authorized representative, listing date, project title and number and number and title of each Record document.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

DELETE in its entirety, not part of this project.

SECTION 9 - MEASUREMENT AND PAYMENT

REVISE as follows:

9-2 LUMP SUM WORK. *DELETE 2nd paragraph in its entirety.*

ADD:

9-2.1 Detailed Schedule. The Contractor shall furnish the Agency a cost break-down for all contract lump sum items. Cost break-down tables shall be submitted to the Agency Representative for acceptance within fifteen (15) days after award of Contract. Cost break-down tables will be approved, in writing, by the Agency Representative before any partial payment will be made for the applicable items involved.

The Contractor shall determine the quantities required to complete the Work shown on the Plans. The quantities and their values shall be included in the cost break-downs submitted to the Agency Representative for approval. The Contractor shall be responsible for the accuracy of the quantities and values used in the cost break-downs submitted for approval.

The sum of the amounts for the line items of work listed in each cost break-down table for each lump sum item shall be equal to the contract lump sum price bid. Overhead and profit shall be included in each individual line item of work listed in a cost break-down table.

No adjustment in compensation will be made in the contract lump sum prices due to differences between the quantities shown in the cost break-downs furnished by the Contractor and the quantities required to complete the Work as shown on the plans and as specified in the Special Provisions.

Individual line item values in the approved cost break-down tables will be used to determine partial payments during the progress of the Work and as the basis for calculating an adjustment in compensation for the contract lump sum items due to changes in line items of work ordered by the Engineer. When the total of ordered changes to line items of work increases or decreases the lump sum price bid by more than twenty-five percent, the adjustment in compensation for the applicable lump sum item will be determined in the same manner specified for increases and decreases in the total pay quantity of an item of work in Section 3 of the Standard Specifications and the Special Provisions.

9-3 PAYMENT.

9-3.1 General. *ADD the following at the end of the 2nd paragraph:*

The cost of items of work not listed in the "Schedule of Work and Prices" in the Bidders Proposal shall be considered to be included in the cost of the other work that is listed and no additional compensation will be allowed therefor.

When an item of work is designated as (F) or (S-F) in the "Schedule of Work and Prices", the estimated quantity for that item of work shall be the final pay quantity, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity

of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions. If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

The estimated quantity for each item of work designated as (F) or (S-F) in the "Schedule of Work and Prices" shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the Plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the "Schedule of Work and Prices" for a final pay item and the quantity or summation of quantities for the same item shown on the Plans, payment will be based on the quantity shown in the "Schedule of Work and Prices."

ADD:

9-3.1.1 Application for Payment. The Contractor shall use the City of Irvine Certified Invoice for Progress Payment Form; furnished to the Contractor.

The Contractor shall type the required information, follow the schedule of work and bid prices in accepted Bidder's proposal for unit price contract, execute certification by signature of an authorized officer, use data on accepted Schedule of Values for lump sum work, provide dollar value in each column for each line item for portion of work performed, list each authorized Change Order number and dollar amount and adjusted Contract Price, and obtain the Agency Representative concurrence on invoiced amounts prior to submittal for payment.

The Contractor shall follow the following submittal procedures: Submit original and one (1) copy of each Application for Payment at times stipulated in 9-3.2; submit under transmittal letter; include submittal date, project title and number and submit updated Progress Schedule with Application for verification of progress. Incomplete application for payment will be rejected.

When Agency Representative requires substantiating information, the Contractor shall submit data justifying line item amounts in question.

The Contractor shall provide one copy of data with cover letter for each copy of submittal, show application number and date, and line item by number and description.

9-3.2 Partial and Final Payment. *DELETE in their entirety 1st and 2nd paragraphs and SUBSTITUTE with the following:*

Payment for services will be made monthly on approved invoices, with payment terms of net thirty (30) days upon receipt of invoice. The Contractor shall submit invoices within fifteen (15) days from the end of each month on the form (Certified Invoice For Progress Payment) provided by the Agency. This estimate shall include the value of the total amount of the work completed by the Contractor during the calendar month previous to that in which the estimate is made.

When the Work has been completed to the satisfaction of the Engineer, the Contractor shall make a final estimate of the total amount of work done thereunder and the amount to be paid therefor under the terms of the Contract and shall certify to the Agency the amount of the final estimate. If the Agency finds the Work has been completed according to the Contract, the Agency will accept the work, will file a notice of completion, and will pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be retained under the provisions of the Contract and upon receiving signed unconditional releases upon final payment from all subcontractors and material suppliers. All prior progress estimates and payments shall be subject to correction in the final estimate and payment. The project retention release will not be due and payable until the expiration of the 60 days from the date of filing a notice of completion of the Work by the Agency.

Interest penalties are not required on payment delays due to disagreement between the Agency and Contractor over the payment amount or other issues involving contract compliance.

It is mutually agreed between the parties to the Contract that no certificate given or payment made under the Contract shall be conclusive evidence of performance of the Contract and no payment shall be construed to be an acceptance of any defective work or improper materials.

The Contractor further agrees that the payment and acceptance of the final amount due under the Contract shall release the Agency, the Agency Representative, the Engineer, and their consultants from any and all claims or liability arising out of the Contract.

ADD:

9-3.2.1 Agency's Right to Withhold Certain Amounts and Make Application

Thereof. In addition to the amount which the Agency may retain under the above article on progress payments, the Agency may withhold a sufficient amount or amounts from any payment otherwise due to the Contractor as in the Agency's judgment may be necessary to cover:

- a) Payments which may be past due and payable for just claims against the Contractor or any subcontractors for labor or materials furnished in or about the performance of the Work on the project under this Contract.
- b) Estimated or actual costs for correcting defective work not remedied.
- c) Amounts claimed by the Agency as forfeiture due to delay or other offsets.
- d) Any other amounts the Agency is authorized to withhold under the Contract Documents or under applicable law.

The Agency may apply such withheld amount or amounts to the payment of such claims in its discretion. In so doing, the Agency shall be deemed the agent of the Contractor and any payments so made by the Agency shall be considered as a payment made under the Contract by the Agency to the Contractor, and the Agency shall not be liable to the

Contractor for such payment made in good faith. Such payments may be made without prior judicial determination of the claim or claims. The Agency will render to the Contractor a prior account of such funds disbursed in behalf of the Contractor.

ADD:

9-3.2.2 Substitution of Securities. Upon the Contractor's request, the Agency will make payment of funds withheld from progress payments pursuant to the requirements of Public Contract Code Section 22300 if the Contractor deposits in escrow with a bank acceptable to the Agency, securities eligible for the investment of State funds under Government Code Section 16430 or bank or savings and loan certificates of deposit, upon the following conditions:

- a) The Contractor shall bear the expense of the Agency and the Escrow Agent in connection with the escrow deposit made.
- b) Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to the Contractor pursuant to this section.
- c) The Contractor shall enter into an escrow agreement satisfactory to the Agency, such agreement shall include provisions governing inter alia;
 - 1) The amount of securities to be deposited,
 - 2) The providing of powers of attorney or other documents necessary for the transfer of the securities to be deposited,
 - 3) Conversion to cash to provide funds to meet defaults by the Contractor including, but not limited to, termination of the Contractor's control over the Work, stop notices filed pursuant to law, assessment of liquidated damages or other amounts to be kept or retained under the provisions of the Contract,
 - 4) Decrease in value of securities on deposit, and
 - 5) The termination of the escrow upon completion of the Contract.
- d) The Contractor shall obtain the written consent of the surety of such agreement.

9-3.4 Mobilization *DELETE in its entirety and SUBSTITUTE with the following:*

9-3.4.1 General. Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, materials and incidentals to the project site necessary for work on the project and for all other work and operations which must be performed or costs incurred including bonds, insurance, and financing prior to beginning work on the various contract items on the project site.

Mobilization shall also include the cost, time and labor to move the necessary construction equipment to and from the job site, supervisory time on the job by the Contractor's personnel to keep the construction site in a safe condition and all other related work as required for all non-working days during the course of construction. Contractor is responsible for securing an adequate storage site for equipment and materials.

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 Agency's Representative.

9-3.4.2 Measurement and Payment. Mobilization is eligible for partial payment if the Contract includes a bid item for mobilization. Payment for **Mobilization** shall be per the **Lump-Sum (LS)** price bid and shall include obtaining and paying for all permits and business licenses as required from the City of Irvine, State of California and other agencies. The City of Irvine will waive its permit fee. The Contractor shall comply with the requirements specified by each license or permit. No payment for Mobilization will be made until the Contractor's Construction Schedule has been submitted, reviewed and accepted and is current. Progress payments for this item shall be paid in accordance with the percentage completion of the project, and shall include the costs of such mobilization and administration for the entire contract period including construction schedule as specified in these specifications. Payments shall be made upon the basis of the following:

- a) When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 5 percent or more of the original contract amount, 50 percent of the contract item price for mobilization or 5 percent of the original contract amount, whichever is the lesser, will be included in the estimate for payment.
- b) When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 10 percent or more of the original contract amount, the total amount earned for mobilization shall be 75 percent of the contract item price for mobilization or 7.5 percent of the original contract amount, whichever is the lesser, and that amount will be included in the estimate for payment.
- c) When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 20 percent or more of the original contract amount, the total amount earned for mobilization shall be 95 percent of the contract item price for mobilization or 9.5 percent of the original contract amount, whichever is the lesser, and that amount will be included in the estimate for payment.
- d) When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 50 percent or more of the original contract amount, the total amount earned for mobilization shall be 100 percent of the contract item price for mobilization or 10 percent of the original contract amount, whichever is the lesser, and that amount will be included in the estimate for payment.
- e) Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10 percent of the original contract amount shall be paid.

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.

PART 2 - CONSTRUCTION MATERIALS

SECTION 201 – CONCRETE, MORTAR, AND RELATED MATERIALS

REVISE as follows:

201-1.1.2 Concrete Specified by Class and Alternate Class. *ADD the following to Table 201-1.1.2:*

Headwall, Concrete Class 560-C-3250

SECTION 214 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS AND PAVEMENT MARKERS

REVISE as follows:

214-4 PAINT FOR STRIPING AND MARKINGS.

214-4.1 General. *MODIFY to ADD the following:*

All paint, beads, and other materials used in painting traffic stripes and markings shall conform to the requirements of the State Standard Specifications, Section 84 and all other applicable sections. Certificates of Compliance for each material shall be submitted prior to use on this Contract.

214-6 PAVEMENT MARKERS. *MODIFY to ADD the following:*

All pavement markers, and other materials used in painting traffic stripes and markings shall conform to the requirements of the State Standard Specifications, Section 81, Section 84 and all other applicable sections. Certificates of Compliance for each material shall be submitted prior to use on this Contract.

214-6.1 Types of Markers. *MODIFY to 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.

PART 3 - CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

REVISE as follows:

300-4.1 General. *MODIFY to ADD the following:*

Fill should consist of approved earth materials free of trash debris, roots, vegetation, or other deleterious material.

300-4.2 Preparation of Placement Areas.

DELETE the last part of the 2nd sentence and SUBSTITUTE with the following:

. . . to a relative compaction of at least 90 percent.

SECTION 314 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

REVISE as follows:

314-2 REMOVAL OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS.

314-2.1 General. *MODIFY to ADD the following:*

All conflicting striping, pavement markings, and curb paint shall be removed by wet sandblasting or other approved method prior to installation of new striping. All conflicting raised pavement markers shall be removed.

Pavement that is damaged due to removal of markers or striping shall be repaired to the satisfaction of the Agency Representative.

314-4 APPLICATION OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS.

314-4.1 General. *MODIFY to ADD the following:*

The Contractor shall furnish and apply traffic stripes and pavement markings as shown on the Plans and as directed by the Agency's Representative. Placement of striping and markings shall conform to the requirements of Section 84 of the State Standard Specifications, latest edition, the City of Irvine Standard Plans and these Special Provisions.

Signing and striping shall conform to part 2 signs & part 3 markings of the (MUTCD), latest edition, these Plans and Special Provisions.

Detail 9 lane line striping pattern in part 3 markings shall be used on all multilane streets regardless of street design speed.

Pavement legends shall match the City stencils (Hawkins stencils or equivalent).

All striping and pavement markings shall be reflectorized and applied in two coats. A minimum of seven days shall be provided between first and second coats.

The Contractor shall contact the City of Irvine inspection services for inspection 48 hours prior to beginning of construction.

Contractor shall verify all existing conditions and dimensions before starting work. If conditions exist which are contrary to those shown on these Plans, the City of Irvine inspection services shall be notified before proceeding with work.

Striping shall be cat tracked and approved by the Agency Representative prior to final installation.

Crosswalk shall conform to the City of Irvine Standard Plan No. 203.

314-4.3.6 Measurement and 314-4.3.7 Payment. *DELETE and SUBSTITUTE with the following:*

314-4.3.6 Measurement and Payment. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in painting pavement markings, complete in place, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer is included in the contract **LUMP SUM** price paid for **STRIPING, MARKINGS AND MARKERS**, and no additional compensation will be allowed therefor.

314-5 PAVEMENT MARKERS.

314-5.4 Placement. *MODIFY to ADD the following:*

All pavement markers shall comply with Sections 81 and 84 of the State Standard Specifications. Non-reflective markers shall be ceramic. All new markers shall have glass faces or be 3M series 290.

Blue raised reflective pavement marker shall be installed adjacent to all existing fire hydrants in accordance with the latest MUTCD.

314-5.6 Measurement and 314-5.7 Payment. *DELETE and SUBSTITUTE with the following:*

314-5.6 Measurement and Payment. Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing pavement marker, complete in place, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer is included in the contract **LUMP SUM** price paid for **STRIPING, MARKINGS AND MARKERS**, and no additional compensation will be allowed therefor.

Full compensation for removal of existing pavement markers and placing temporary pavement markers is included in the contract **LUMP SUM** price paid for **TRAFFIC CONTROL**, and no additional compensation will be allowed therefor.

PART 6 – TEMPORARY TRAFFIC CONTROL

REVISE as follows:

SECTION 600 – ACCESS

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 24 hours of the damage. The Contractor shall replace existing loop detectors, shown on the plans to be replaced, within 24 hours from when they are removed from service.

Should the Contractor fail to replace the vehicle loop detectors within 24 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

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 (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 per 602 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.

No work that interferes with public traffic shall be performed except during the hours specified for lane closures 601-6.6.

Existing traffic loop detector replacement shall be required as necessary such that no traffic signal loop is out of operation at the end of the workday. The cost for providing all temporary traffic signal loop detectors shall be included into the various related items of work and no additional compensation will be allowed; this includes traffic signal loop detectors damaged by the Contractor's operations not designated for replacement in the contract plans.

Areas requiring edge cold mill shall be cold milled not more than three (3) Calendar Days prior to AC paving. Areas requiring digouts shall be repaved and open for traffic at the end of the same day.

The Contractor shall maintain access to all driveways at all times.

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, no street closure shall 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/flagging_handbook.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. 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.

- a) 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.

- b) 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.
- c) 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.
- d) On roads open to public travel, temporary lane closures are limited between the hours of 9:00 a.m. and 3:00 p.m. Closures of roads on Sundays, holidays, or between the hours of 3:00 p.m. and 9:00 a.m. are prohibited unless otherwise approved by the Engineer.

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 Lane Requirements/Working Hours.

Working Hours:

Monday through Friday: 7:00 a.m. to 7:00 p.m.

Saturday: 9:00 a.m. to 6:00 p.m.

Sunday: No work permitted

Legal holidays: No work permitted

Work requiring lane closures may be in progress during the following hours:

Monday through Friday: 9:00 a.m. to 3:00 p.m.

Saturday: 9:00 a.m. to 3:00 p.m.

Sunday: No work permitted

Legal holidays: No work permitted

Lane closures are permitted and will only occur in accordance with the lane closure chart below, unless otherwise approved by the Engineer.

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 by email the City of Irvine 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 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.

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.

CITY OF IRVINE

PROJECT SPECIFICATIONS

FOR CONSTRUCTION OF THE

**SAN CARLO & VALENCIA PARK PLAYGROUND
REHABILITATIONS**

CIP 371506 & 371507

IN THE CITY OF IRVINE

PREPARED BY:

**RJM Design Group, Inc.
31591 Camino Capistrano
San Juan Capistrano, California 92675
(949) 493-2600**

CONTENTS

The Standard Specifications set forth in this document will control the general provisions, construction materials, and construction methods for this contract except as amended by the Plans, Special Provisions, or other Contract Documents.

The section numbers of the following General and Special Provisions coincide with those of the Standard Specifications for Public Works Construction. Only those sections requiring amendment or elaboration, or specifying options, are called out.

In case of conflict between the Standard Specifications and these specifications, these specifications shall take precedence over and be used in lieu of such conflicting portions.

Where the Plans or Specifications describe portions of the work in general terms, but not in complete detail, it is understood that the item is to be furnished and installed complete and in place and that only the best general practice is to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the contract.

Part I Amendments to “Greenbook” – Standard Specifications for Public Works Construction – 2015 Edition for all Site Construction.

PART I – AMENDMENTS
TO “GREENBOOK” –
STANDARD SPECIFICATIONS
FOR PUBLIC WORKS
CONSTRUCTION – 2015
EDITION FOR:

- ALL SITE CONSTRUCTION

CITY OF IRVINE
INDEX TO GENERAL PROVISIONS AND TECHNICAL SPECIFICATIONS
SAN CARLO & VALENCIA PLAYGROUNDS

These Technical Specifications shall apply to site construction only.

CONSTRUCTION MATERIALS

SECTION 201	CONCRETE MORTAR AND RELATED MATERIALS
SECTION 202	MASONRY MATERIALS

CONSTRUCTION METHODS

SECTION 303	CONCRETE AND MASONRY CONSTRUCTION
SECTION 313	PLAYGROUND EQUIPMENT INSTALLATION

**CITY OF IRVINE
SPECIAL PROVISIONS
SAN CARLO & VALENCIA PLAYGROUNDS**

CONSTRUCTION MATERIALS

SECTION 201 - CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 Requirements

201-1.1.1 General. The following paragraph shall be added following paragraph 4:

The cement utilized shall be Type V or approved equal. The Contractor shall furnish the City's Representative with a copy of the mix design to be used and with a legible certified weight-master's certificate for each load of P.C.C. delivered to the project. Portland Cement Concrete delivered to the project site having a water content and/or slump greater than that specified in the mix design shall be rejected and removed from the project site.

201-1.1.2 Concrete specified by class: The class of concrete shall be 520-C-4500 for all concrete not otherwise specified with a maximum slump of four inches (4") for all concrete flatwork, including walks.

201-1.1.4 Test for Portland Cement Concrete:

1. All material shall comply with the latest editions of the American Concrete Institute (ACI) and Uniform Building Code. Testing of Portland cement concrete shall apply to all site concrete including but not limited to: concrete paving, walls, footing, etc.
2. Product Data:
 - a) Submit complete materials list of items proposed for the work. Identify material source.
 - b) Submit admixture, curing compound, retarder, and accessory item product data.
 - c) Submit material certificates for aggregates, reinforcing, and join fillers.
3. Submit concrete delivery tickets to Quality Control Manager. Show the following:
 - a) Batch number
 - b) Mix by class or sack content with maximum size aggregate

- c) Admixture
 - d) Air content
 - e) Slump
 - f) Time of loading
- 4. City may provide field quality control testing and inspection during concrete operations.
 - 5. Contractor shall provide adequate notice, cooperate with, provide access to the work, obtain samples, and assist test agency and their representatives in execution of their function.
 - 6. Strength Verification

Contractor should present mix design to City Inspector for approval prior to pour. Contractor shall provide copies of concrete tickets verifying the strength requirements for every truck load of concrete (see also item 3 above).

201-1.1.5 Test for Portland Cement Concrete
Concrete Installer:

Contractor shall provide evidence to indicate successful experience in concrete placement and finishing work similar to that specified herein and who can demonstrate such successful experience through past project documentation and references.

- 1. Experience Period: Minimum five (5) years' experience.
- 2. Demonstration of Experience: Ten (10) projects which have been completed within the past twenty-four (24) months utilizing similar products, scope, and complexity.
- 3. Supervision: Placement and finishing of concrete work shall be performed under the supervision of a person having a minimum of five (5) years' experience in the placement and finishing of products specified herein.
- 4. Previous projects shall be located in Los Angeles, Orange, Riverside, Ventura or San Bernardino Counties. **A listing of projects and addresses shall be provided with the bid and shall be reviewed and approved by the City prior to award of the bid.** Installer qualifications shall be submitted to construction manager with copies to the Architect for information purposes. Three (3) copies of previous experience shall be provided with the Bid Documents, at time of bid. Failure to provide this information will deem the Bid Submittal unresponsive.

5. **The above prequalifications refer to any and all site / exterior concrete work identified on plans.**

201-1.2 Materials

201-1.2.1 Portland Cement:

1. Lime: ASTM C207, Type S, containing 85% by weight of calcium oxide.
2. Lime Putty: Make from hydrated lime conforming to ASTM C207, pulverized to such fineness that 100% will pass a 50 mesh sieve. Mix lime in water, run through screen into box and age 48 hours.
3. Cement shall be Type V Portland Cement

201-1.4 Mixing

201-1.4.3 Transit Mixer:

Mixes

- a. Provide ASTM C94 ready-mixed concrete. Batch mixing at site not acceptable.
 1. Strength: 3,000 psi minimum at 28 days for all concrete flatwork, curbs, seating, ramps, plaza area, etc.
 2. Slump Range: 2" to 4" maximum
- b. Coarse aggregate shall consist of 3/4" aggregate - 3/8" aggregate for pump mix.
- c. Provide an approved water-reducing admixture in all concrete.
- d. Provide an air-entraining admixture in all concrete. Air content 5% to 7%.
- e. Indicate water added to mix at job site on each delivery ticket. Show quantity of water added. Site water tempered mixes exceeding specified slump range will be rejected as not complying with specifications requirements.

201-2 STEEL REINFORCEMENT FOR CONCRETE

201-2.2 Reinforcing Steel:

#4 reinforcing steel shall be 40 grade

#5 reinforcing steel shall be 60 grade

Payment for steel reinforcement shall be included in the lump sum contract price for all related items, i.e., concrete ramps, walks, walls, structures, footings.

201-3.1 Expansion Joint Filler and Joint Sealants

201-3.2 Premolded Joint Filler:

Expansion joint material shall be Deck-O-Foam by W.R. Meadows Corporation or approved equal – 1/4" in dimension. Install per manufacturers specifications (909) 469-2606.

201-4 CONCRETE CURING MATERIALS

Curing compound shall be ASTM 309 or better. Concrete cure and seal shall be "clear" by Davis Colors, or approved equal.

SECTION 202 - MASONRY MATERIALS

202.2.2 Mortar, Grout, and Water

1. Mortar:

Mortar. Mortar for laying masonry units shall consist, by volume, of 1 part Portland cement, ½ part lime putty, 3 parts sand, and shall conform to ASTM C270. If plastic type cement is used, the lime putty shall be omitted. Each batch of mortar shall be freshly prepared and uniformly mixed. Mortar for split face concrete block construction shall be integral color, color to be selected. Mortar for rock cobble construction shall be natural grey.

Mortar shall be colored to match integral color masonry block units. Coloring shall be chemically inert, fade resistant mineral oxide, or synthetic type.

2. Grout:

Grout for filling masonry units shall consist, by volume, of 1 part Portland cement and 3 parts sand. Sufficient water shall be added to create grout of fluid consistency. Grout shall be natural in color.

3. Pea Gravel. Clean, hard, containing not more than 5% by weight of flat, thin, elongated, friable, or laminated pieces; uniformly graded with not over 5% passing a no. 8 sieve to 100% passing a 3/8" sieve.
4. Lime. ASTM C207, Type S, containing 85% by weight of calcium oxide.
5. Lime Putty. Make from hydrated lime conforming to ASTM C207, pulverized to such fineness that 100% will pass a 50 mesh sieve. Mix lime in water, run through screen in to box, and age 48 hours.
Mortar and grout not used within 30 minutes after leaving mixer will not be permitted on the work. Retempering of mix will not be allowed.

202-2.2.2 Masonry, Sealants, and Waterproofing

1. Waterproofing:
 - a. Waterproofing membrane (Miradri 140NC) or approved equal. Available from HD Supply (Formerly White Cap) (800) 422-4557. Apply per manufacturer's specifications.
 - b. All drainage incorporated into waterproofing system, as indicated on drawings, shall be tied into storm drain lines indicated on civil engineer's drawings. Drainlines shall be Sch. 40 PVC and slope at 0.5% min.
 - c. Contractor shall identify and provide for drainline alignment in field. Alignment shall consider and avoid conflict with all other site work. Drainline alignment shall be reviewed and approved by Owner prior to installation and be indicated on as-builts as prepared by Contractor. Installation of drainline behind all walls, at edge of paving, etc. shall be included in cost of construction.

CONSTRUCTION METHODS

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-1 CONCRETE STRUCTURES

303-1.1 General:

Concrete structures shall conform to the provisions of the Standard Specifications and herein.

Reinforcing steel shall be Grade 60 billet steel conforming to ASTM A615.

The surfaces of all concrete structures shall receive a smooth trowel finish, unless otherwise specified on plans.

The Contractor shall furnish all labor, tools and materials to construct reinforced Portland Cement Concrete structures and appurtenant work to grades and dimensions shown on the Plans or staked in the field. The Contractor shall submit method and sequencing for placement of P.C.C. for the City's Representative approval at least ten (10) working days prior to commencement of work.

Unless otherwise specified, transverse construction joints shall be placed in all reinforced sections at intervals of not less than ten (10) feet or more than fifty (50) feet. The joints shall be in the same plane for the entire structure and, for concrete thickness greater than 6-inches, shall be keyed as directed by the City's Representative.

303-1.3 Forms:

Forms shall be braced to withstand the pressures developed and shall be tight to prevent the loss of mortar. Formed wall surface shall be free of any unevenness greater than 1/4-inch when checked with a 10-foot straight edge.

Concrete in walls with side slopes flatter than 3/4:1 shall be placed on suitable material which has been overfilled, compacted, and trimmed to true grade. Backforms shall be used where the side slope is 3/4:1 or steeper.

A clear non-staining form release agent which will not discolor nor affect the surface texture of the concrete and does not react with any ingredients of the concrete shall be used. The cost of Furnishing and Placing Form Release agent shall be included in the cost of Portland Cement Concrete.

All form work for concrete construction (mow curbs, paving, concrete curbs, gutters, walls, etc) shall be reviewed and approved by Owner prior to pouring of concrete.

303-1.7 Placing Reinforcement.

303-1.7.1 General:

Aluminum and plastic supports for reinforcement shall not be used.

Bars shall be accurately spaced as shown on the Plans and spacing of first bar immediately adjacent to transverse construction joint shall be one-half the required spacing shown on the Plans. In no case shall the clear distance between parallel bars be less than 2-1/2 diameters of the bar, or a minimum of 2-inches. Unless otherwise shown on Plans, embedment of reinforcing steel (other than stirrups and spacers) shall be 1-1/2 inches clear depth for #8 bars or smaller, and shall be 2-inches clear for #9 bars and larger. Where placement of reinforcing steel requires alternate bars of different size embedment, requirements shall be governed by the larger bar. Stirrups and spacers shall be embedded not less than 1-inch clear depth.

Measurement of embedment shall be from the outside of the bar to the nearest concrete face. Tack welding or butt welding of reinforcing bars will not be permitted.

303-1.7.2 Splicing:

Reinforcing bars may be continuous at locations where splices are shown on the plans, at the option of the Contractor. The location of splices, except where shown on the Plans, shall be determined by the Contractor, based upon using available commercial lengths where applicable.

Splices shall consist of placing the reinforcing bars in contact and wiring them together in such a manner as to maintain the alignment of the bars and to provide minimum clearances.

No lapped splices will be permitted at locations where the concrete section is not sufficient to provide a minimum clear distance of 2-inches between the splice and the nearest adjacent bar. The clearances to the surface of the concrete shall not be reduced. Length of lapped splices shall be as noted on drawings.

Splices of tensile reinforcement at points of maximum stress shall be avoided; however, any deviation from splices shown on the Plans shall be approved by the City's Representative.

303-1.8 Placing Concrete

303-1.8.1 General:

The Contractor shall exercise caution in placement of concrete in walls and congested areas to ensure proper consolidation and that there are no voids, and protection of waterstops in position. Adequate provisions shall be made for visual inspection of concrete placement, consolidation and waterstop protection. Pouring of walls in lifts, use of smaller maximum aggregate sizes, or other methods as necessary may be proposed by the Contractor and will be permitted only after evaluation by the City Representative.

303-1.9.2 Ordinary Surface Finish:

Ordinary Surface Finish shall not apply to rock pockets which, in the opinion of the City Representative, are of such extent or character as to affect the strength of the structure materially or to endanger the life of the steel reinforcement. In such cases, the City Representative may declare the concrete defective and require the removal and replacement of the structure affected.

303-1.10 Curing:

Exposed concrete surfaces shall be sprayed with Type 2 curing compound at a uniform rate of one gallon per 150 square feet.

303-1.11 Payment:

Portland Cement Concrete structures shall be included in the square foot contract price and shall include full compensation for furnishing all labor, materials, tools and equipment and doing all work required to construct the structure in conformity with the plans and specifications.

Should the Contractor request and obtain permission to use admixtures for his own benefit, he shall furnish such admixtures and incorporate them in the concrete mixture at his expense, and no additional compensation will be allowed therefore.

Should the City Representative direct the Contractor to incorporate any admixtures in the concrete when their use is not required by these specifications, furnishing the admixtures and adding them to the concrete will be paid for as Extra Work as provided in Subsection 3-3, as amended by these Special Provisions.

303-5 CONCRETE SEATING, WALKS, AND ACCESS RAMPS.

303-5.1 Requirements

303-5.1.1 General:

1. Concrete ramps, and walks shall conform to the Standard Specifications and supplied herein in conjunction with Construction Document Plans and Details.

303-5.2 Forms

303-5.2.1 Standard Form:

1. Use flexible metal, 1" lumber or plywood forms to form radius bends.
2. Install, align and level forms, stake, and brace forms in place. Maintain following grade and alignment tolerances except where accessibility concerns would bring non-compliance if tolerances were allowed.

- a. Top of Form: Maximum 1/8" in 10'0".
- b. Vertical Face: Maximum 1/8" in 10'0".
- 3. The Contractor shall include all fine grading and compaction with regard to setting forms during concrete placement.
- 4. The Contractor shall notify City Representative a minimum of 36 hours in advance of scheduled form board review. All form work for hardscape construction (concrete paving, walls, etc.) shall be reviewed and approved by City Representative prior to pouring of concrete. Modifications in formwork necessary for alignments to be straight, true to line with well transitioned radial, curved sections shall be provided by the contractor at no additional cost to the contractor.

303-5.4 Joints

303-5.4.1 General:

- 1. Provide expansion joints using pre-molded joint filler at concrete work abutting curbs, walks, and other fixed objects.
 - a. Locate expansion joints as indicated. When not indicated, provide joints at maximum 10'-0" on center for curbs and walks per city standard plans 201. Align expansion joints in abutting curbs and walks. Expansion joint material shall be as noted on drawings and shall extend to full depth of concrete section.
 - b. Install expansion joint fillers full-width and depth of joint. Recess top edge below finish to receive sealants as indicated on the details.
 - c. Provide joint fillers in single lengths for the full slab width, whenever possible. Fasten joint filler sections together when multiple lengths are required.
 - d. Where intersecting joints occur join top edge and continue any spliced joints without deviation of form line or direction.
 - e. Protect the top edge of the joint filler during concrete placement.
 - f. Control joints shall be provided to a depth equal to 1/3 the thickness of the concrete pour.

303-5.9 Measurement and Payment [Add the following to this section]:

Payment for concrete work will be made as per shown on Bid Schedule and no additional compensation will be allowed.

SECTION 313 – PLAYGROUND EQUIPMENT INSTALLATION

The Contractor shall install the following equipment per the manufacturer's recommendation and per the plan. Play equipment shall be as manufactured by Landscape Structures, Inc. (No Substitutions) and as provided by Coast Recreation, contact: Tim Hodges (714) 619-0100. The Contractor will supply to the City, State, and Federal installation guidelines, standards, and recommendations. The letter will be submitted prior to release of final payment. Minimum guarantees and terms of the guarantee shall be reviewed and approved by City staff prior to modifications and new installations occurring. The Contractor will also supply to the City a letter from the playground manufacturer stating that all installed equipment complies with ADA and CPSC Guidelines and Standards. Playground manufacturer to provide insurance certificate naming the "City of Irvine", its agents and employees as additionally insured with respect to the manufacturing and installation of San Carlo & Valencia Parks play equipment."

Play Equipment as specified on the plans.

313-1 RESILIENT PLAYGROUND SURFACING

1. The Contractor shall provide all services and products to ensure a complete installation of resilient playground surfacing.
2. The resilient surfacing shall conform to ASTM-F-1292-91, ASTM-F-35586 Class A Flame spread, ASTM E108.
3. Thickness of resilient surfacing must match fall heights of proposed play equipment per Consumer Product Safety Commission.
4. Sub-base preparation, concrete base, thickened edges, and drainage including any necessary excavation will be the sole responsibility of the Contractor and shall be included in the square footage cost for resilient surfacing.
5. Concrete curbing must be installed below grade to confine the resilient surfacing and will be installed per plans.
6. Concrete sub-base shall be installed under all resilient surfacing as specified on plans and details.
7. Compaction of sub-grade material shall be at 90% minimum.
8. Compacted sub-grade shall be graded as noted on civil plans.
9. Resilient surfacing will be poured in place and its intended use will be for a shock absorbing surface under and around playground equipment.
10. The resilient surfacing will be porous, seamless, and capable of installing at various thicknesses.
11. Resilient surfacing is a two layer system consisting of a cushion layer covered by a weather resistant wearing layer.

12. Cushion Course: The resilient surfacing shall be a minimum installed thickness as specified below: Finish surface of wearing course shall be level.

Overall Thickness

Critical Fill Height

3"

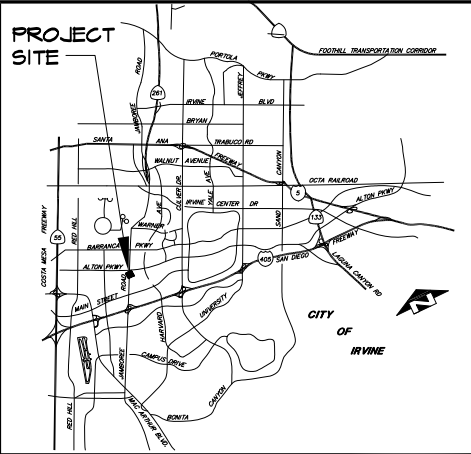
7"

13. Wearing course: The wearing course shall be an installed thickness of 3/8". The binder for rubber particles shall be aliphatic.
14. Wearing course shall be hand troweled to produce an even, uniform surface. All edges to be transitioned to a beveled or flush condition.
15. A five-year guarantee against defects in materials and workmanship must be provided in writing, by the Contractor, to the City prior to project completion for rubberized surfacing.
16. Install "Tot Turf." Resilient surfacing available from:

Playcore

Contact: Vince Brantley, (714) 904-8219.

Submit 2' x 2' sample and specifications for consideration a minimum of ten (10) days prior to bid opening.



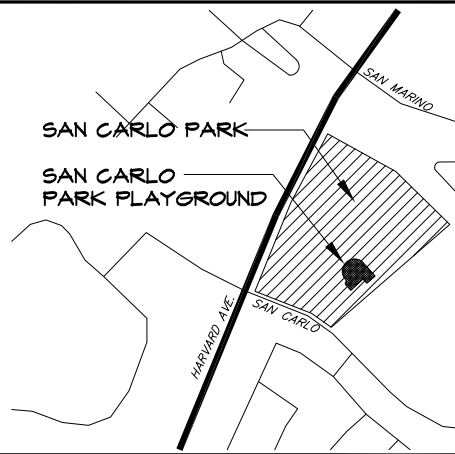
VICINITY MAP

THE CITY OF IRVINE



BUILDING PLANS

CIP #371506



LOCATION MAP

SAN CARLO PLAYGROUND REHABILITATION

PROJECT INFORMATION REQUIREMENTS

PROJECT LOCATION: 15 SAN CARLO, IRVINE, CA 92614 (X-STREETS: HARVARD AVE. & SAN MARINO)

PROJECT DESCRIPTION

SAN CARLO PLAYGROUND REHABILITATION LOCATED IN SAN CARLO PARK, IRVINE, CA.

TYPE OF CONSTRUCTION

PLAYGROUND REHABILITATION

APPLICABLE STATE CODES (WITH CITY OF IRVINE AMENDMENTS)

CALIFORNIA BUILDING CODE	2013
CALIFORNIA RESIDENTIAL CODE	2013
CALIFORNIA GREEN BUILDING STANDARDS CODE	2013
CALIFORNIA MECHANICAL CODE	2013
CALIFORNIA ELECTRICAL CODE	2013
CALIFORNIA PLUMBING CODE	2013
CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS	2013

CITY OF IRVINE MUNICIPAL CODE

[NOTE: COMPLETE IMC TEXT IS AVAILABLE ON THE INTERNET AT WWW.MUNICODE.COM] THE DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH ALL APPLICABLE IRVINE MUNICIPAL CODE PROVISIONS INCLUDING BUT NOT LIMITED TO:

CONSTRUCTION WORK HOURS [IMC SECT. 6-8-205]
MON-FRI 7 AM TO 7 PM
SAT 9 AM TO 6 PM
NO WORK ON SUNDAYS OR FEDERAL HOLIDAYS

OFF-SITE FABRICATION

ALL OFF-SITE FABRICATION OF STRUCTURAL STEEL COMPONENTS INCLUDING STEEL STAIRS AND PRE-CAST CONCRETE SHALL BE DONE IN AN APPROVED FABRICATOR SHOP AS REQUIRED BY CITY OF IRVINE INFORMATION BULLETIN NO. 311. SEE BULLETIN FOR DETAILS AND REQUIRED DOCUMENTATION REQUIRED AT THE RECEIPT OF ANY SHIPMENT OF OFF-SITE FABRICATED ITEMS.

CONDITIONS OF APPROVAL

THE FOLLOWING CONDITION SHALL BE APPLICABLE:

STANDARD CONDITION 4.2 PLAYGROUND INSPECTION PRIOR TO AUTHORIZATION TO USE, OCCUPY, AND/OR OPERATE THE PLAYGROUND, THE APPLICANT SHALL SUBMIT TO THE CHIEF BUILDING OFFICIAL A LETTER STATING THAT THE PLAY EQUIPMENT INSTALLATION HAS BEEN INSPECTED BY A PERSON AUTHORIZED BY THE MANUFACTURER, THAT THE EQUIPMENT HAS BEEN INSTALLED PER MANUFACTURER'S SPECIFICATIONS, AND THAT IS COMPLIES WITH MINIMUM PLAYGROUND SAFETY REGULATIONS, ADOPTED BY THE STATE OF CALIFORNIA (CALIFORNIA HEALTH AND SAFETY CODE SECTION 115125-115135.

FIRE RESISTIVE CONSTRUCTION

THE DESIGN, CONSTRUCTION AND INSPECTION OF FIRE RESISTIVE CONSTRUCTION (TYPE VA, TYPE IIIA AND B, TYPE 11A, TYPE 1A AND B) SHALL CONFORM TO CITY OF IRVINE INFORMATION BULLETIN NO. 323 SEE BULLETIN FOR DETAILS.

PRE-CONSTRUCTION MEETING REQUIREMENT [IMC 5-9-209A.1]

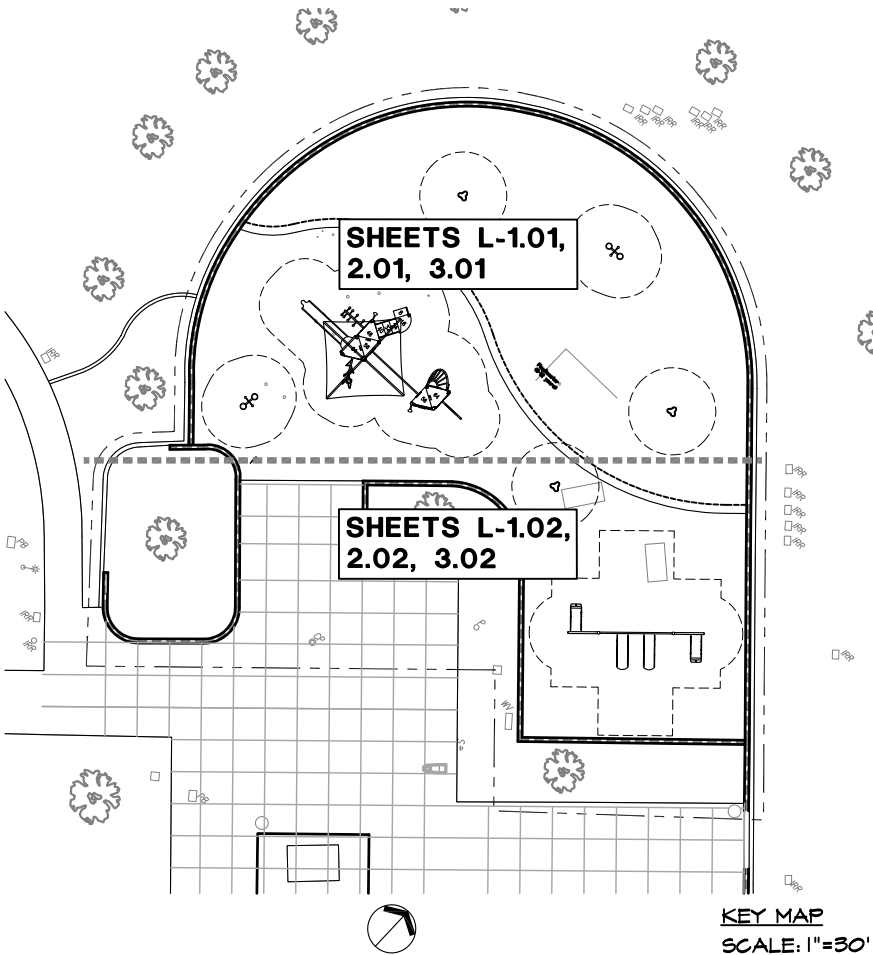
ALL CONSTRUCTION PROJECTS INVOLVING NEW STRUCTURES AND THOSE INVOLVING ADDITIONS TO NON-RESIDENTIAL STRUCTURES OR TENANT IMPROVEMENTS EXCEEDING 5,000 SQUARE FEET OR INVOLVING A NEW RESTAURANT ESTABLISHMENT SHALL NOT COMMENCE UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD. TO SCHEDULE A PRE-CONSTRUCTION MEETING CONTACT EITHER ROGER CARTON, NON-RESIDENTIAL INSPECTIONS SUPERVISOR AT (949)724-6331 OR RESIDENTIAL INSPECTION SUPERVISOR GINA MAURO AT (949)724-6546

BASIS OF BEARINGS:

THE CENTERLINE OF SAN CARLO AS SHOWN ON TRACT NO. 12355, M.M. 556 / 15-36, BEING N 67° 14' 40" W.

BENCHMARK:

COUNTY OF ORANGE BENCH MARK NO. 3F-117-89
ELEVATION=45.931, NGVD29, YEAR LEVELED 2003.
NOTE: THIS BENCHMARK WAS USED IN A PREVIOUS JOB NO. Cs 2067 001 SURVEY DATE 4-19-2006 AND DESTROYED 3-13-2010 PER D.C.S. RECORDS.



PROJECT ADDRESS:

SAN CARLO PARK
15 SAN CARLO
IRVINE, CA 92614

SHEET INDEX:

1.	T-0.01	TITLESHEET
2.	T-0.02	GENERAL NOTES
3.	T-0.03	GENERAL SPECIFICATIONS
4.	T-0.04	GENERAL SPECIFICATIONS
5.	L-1.01	DEMOLITION PLAN
6.	L-1.02	DEMOLITION PLAN
7.	L-1.03	DEMOLITION LEGEND/NOTES
8.	L-2.01	GRADING/DRAINAGE PLAN
9.	L-2.02	GRADING/DRAINAGE PLAN
10.	L-2.03	GRADING/DRAINAGE LEGEND/NOTES
11.	L-3.01	CONSTRUCTION PLAN
12.	L-3.02	CONSTRUCTION PLAN
13.	L-3.03	CONSTRUCTION LEGEND/NOTES
14.	L-4.01	CONSTRUCTION DETAILS
15.	L-4.02	CONSTRUCTION DETAILS
16.	L-4.03	CONSTRUCTION DETAILS
17.	L-4.04	CONSTRUCTION DETAILS
18.	L-4.05	CONSTRUCTION DETAILS
19.	L-4.06	CONSTRUCTION DETAILS
20.	L-5.01	ACCESSIBILITY PLAN
21.	L-5.02	ACCESSIBILITY PLAN MATRIX/NOTES

PROJECT DIRECTORY:

OWNER:
CITY OF IRVINE
1 CIVIC CENTER PLAZA
IRVINE, CA 92623-9575
PHONE: (949) 724-6689
CONTACT: ERIC GRUBER

LANDSCAPE ARCHITECT:
RJM DESIGN GROUP, INC.
31591 CAMINO CAPISTRANO
SAN JUAN CAPISTRANO, CA 92675
PHONE: (949) 493-2600
CONTACT: LARRY P. RYAN

NOTICE TO CONTRACTOR:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE SITE PRIOR TO MOBILIZATION AND THE BEGINNING OF CONSTRUCTION. ANY EXISTING ELEMENTS TO BE PROTECTED IN PLACE, WHICH SHOW ANY TYPE OF DAMAGE (E.G. CRACKED CONCRETE, DAMAGE TO TREES, ETC.) SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER. OTHERWISE, CONTRACTOR MAY BE HELD RESPONSIBLE FOR REPAIRING OR REPLACING ANY DAMAGED EXISTING ELEMENTS-TO-REMAIN AT THEIR EXPENSE.
- A DIGITAL FILE OF THE HARDSCAPE IMPROVEMENTS, SITE FURNISHINGS, ETC. WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR USE BY THE CONTRACTOR'S SURVEYOR IN THE LAYOUT OF THESE AREAS AND THE PREPARATION OF THE STAKING PLAN.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE AND NOTIFY THE ENGINEER OF ANY DIMENSIONAL ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE BEGINNING OR FABRICATING ANY WORK.
- DO NOT SCALE THESE DRAWINGS.



31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMdesigngroup.com
(949) 493-2690 fax
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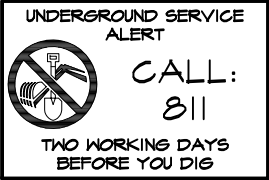
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DEVELOPER:		SOILS ENGINEER:		REPORT #				
PLANS PREPARED BY:	SIGNATURE: LARRY P. RYAN	ARCHITECT: 2502	DATE: 04/30/2017	EXP. DATE: 12/10/2015				
TITLESHEET	SAN CARLO PARK - PLAYGROUND REHABILITATION	CITY OF IRVINE	COMMUNITY DEVELOPMENT DEPARTMENT					
PLAN CHECK: CASE NO. 00650354-PPA	PERMIT:	SHEET 1	OF 21					

GENERAL NOTES:

- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF APWA, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND STATE STANDARD SPECIFICATIONS, UNIFORM BUILDING CODE, 1994 EDITION, UNIFORM PLUMBING CODE, NATIONAL ELECTRICAL CODE, ALL SAFETY ORDERS OF THE STATE INDUSTRIAL COMMISSION, TITLE 3, RULES AND REGULATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITING, STATE OF CALIFORNIA TITLE 24, SECTION T-20-1401 THROUGH T-20-1406, AND TITLE 20, SECTION 1401-1406 ENERGY REGULATIONS.
- B. THE DESIGN ADEQUACY AND SAFETY OF EXCAVATION, ERECTION, BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE LANDSCAPE ARCHITECT OR STRUCTURAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE NECESSARY SAFETY PRECAUTIONS AND MEASURE NECESSARY TO EXECUTE THE WORK. OBSERVATION VISITS TO THE SITE BY THE LANDSCAPE ARCHITECT OR ANY OF HIS CONSULTANTS SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- C. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN AND / OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY'S REPRESENTATIVE.
- D. THE CONTRACTOR SHALL NOTIFY THE CITY'S ENGINEER TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION.
- E. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OPERATIONS IN SUCH A MANNER SO AS TO PREVENT DAMAGE TO EXISTING SUBSTRUCTURES. IN THE EVENT OF SUBSTRUCTURE DAMAGE, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY AND TOTAL EXPENSE FOR REPAIR AND / OR REPLACEMENT OF SAID SUBSTRUCTURE.
- F. THE CONTRACTOR SHALL PROVIDE 72-HOUR NOTICE TO AFFECTED UTILITIES WHEN RELOCATION IS REQUIRED.
- G. THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR PERFORM ANY WORK PERTAINING TO THE PROJECT BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. ON ANY DAY NOR SATURDAY, FROM 6:00 P.M. TO 9:00 A.M., SUNDAY, OR HOLIDAYS AT ANY TIME EXCEPT AS APPROVED BY THE CITY.
- H. THE CONTRACTOR SHALL NOT BLOCK DRIVEWAYS OR VEHICULAR TRAFFIC DURING THE PROCESS OF CONSTRUCTION.
- I. THE CONTRACTOR WILL COMPLY TO HPWH, APWA WATCH TRAFFIC CONTROL HANDBOOK DURING CONSTRUCTION.
- J. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT BEFORE START OF CONSTRUCTION (800)422-4133 OR 811.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL DURING CONSTRUCTION AND MAINTENANCE PERIOD.
- L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A 6' HIGH TEMPORARY CHAINLINK CONSTRUCTION FENCE WITH LOCKABLE GATES AROUND ALL CONSTRUCTION AREAS. FENCING SHALL BE PROVIDED WITH CONTINUOUS GREEN MESH WINDSCREEN. CONTRACTOR SHALL REVIEW ALIGNMENT / LOCATION OF CONSTRUCTION FENCING WITH CITY'S REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL MAINTAIN FENCING UNTIL CITY'S ACCEPTANCE OF THE WORK.
- M. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS.
- N. MAINTAIN SANITARY TOILET FACILITIES DURING CONSTRUCTION AS REQUIRED BY APPLICABLE REGULATIONS.
- O. THE GENERAL CONTRACTOR WARRANTS TO THE CITY AND THE LANDSCAPE ARCHITECT THAT ALL MATERIALS AND EQUIPMENT FURNISHED WILL BE NEW UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK WILL BE OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS.
- P. PAVING, MASONRY AND CONCRETE SUBCONTRACTORS ARE TO COORDINATE WITH THE ELECTRICIAN, DRAINLINE SUBCONTRACTOR AND IRRIGATION SUBCONTRACTOR FOR SLEEVING, PIPING AND/OR CONDUIT INSTALLATION UNDER OR THROUGH HARDSCAPE ELEMENTS.
- Q. VERIFY ALL PROPERTY LINES OR LIMIT OF WORK LINES PRIOR TO COMMENCING WORK.
- R. IN THE CASE OF DISCREPANCIES IN THE DRAWINGS, SPECIFICATIONS SHALL TAKE PRECEDENCE OVER DETAILS, AND DETAILS SHALL TAKE PRECEDENCE OVER PLANS.
- S. SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE CITY.
- T. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED PROJECT UNLESS OTHERWISE SHOWN; THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT AND HIS ENGINEERS SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES REQUIRED FOR SAME, WHICH ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND HIS ENGINEERS DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES, WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND HIS ENGINEERS, WHETHER OF MATERIALS OR WORK, AND WHETHER PERFORMED PRIOR TO, DURING OR AFTER COMPLETION OF CONSTRUCTION, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS BUT THEY DO NOT GUARANTEE GENERAL CONTRACTOR'S PERFORMANCE, AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.

ABBREVIATIONS:

⊙	AT	GUY	GUY WIRE
A.B.	ANCHOR BOLT	HT.	HEIGHT
A.B.S.	ACRYLONITRILE BUTADIENE	HDR	HEADER
	STYRENE PIPE	HORIZ	HORIZONTAL
A.C.	ASPHALTIC CONCRETE	HP	HIGH POINT
AC	ACRE	I.D.	INSIDE DIAMETER
A.C.P.	ASBESTOS CEMENT PIPE	INV.	INVERT
ALT.	ALTERNATIVE	IRR.	IRRIGATION
ALUM	ALUMINUM	J.B.	JUNCTION BOX
APPROX.	APPROXIMATE	JT.	JOINT
AVE	AVENUE	L.	LENGTH OF ARC
AVG	AVERAGE	L.A.	LANDSCAPE ARCHITECT
B.A.	BEGINNING OF CURVE	LAT.	LATERAL
BC	BOTTOM OF CURB	LF	LINEAR FEET
B.A.P.	BEGINNING OF CURB RETURN	LT	LEFT
BLDG	BUILDING	MAX.	MAXIMUM
BLVD	BOULEVARD	MFG.	MANUFACTURER
B.M.	BENCH MARK	M.H.	MAN HOLE
BS	BOTTOM OF STEP	MIN.	MINIMUM
BW	BACK OF WALK	N	NORTH
C	CENTER	N.I.C.	NOT IN CONTRACT
C., COND.	CONDUIT	NO., #	NUMBER
CB	CATCH BASIN	N.T.S.	NOT TO SCALE
C.F.	CURB FACE	O.C.	ON CENTER
C&G	CURB AND GUTTER	O.D.	OUTSIDE DIAMETER
C.J.	CONTROL JOINT	OPP.	OPPOSITE
CIR	CIRCLE	P.A.	PLANTING AREA
CL	CENTER LINE	P.B.	FULL BOX
C.I.	CAST IRON	P.C. CONC.	PORTLAND CEMENT CONCRETE
C.M.P.	CORRUGATED METAL PIPE	P.C.C.	POINT OF COMPOUND CURVE
C.M.U.	CONCRETE MASONRY UNIT	PL	PROPERTY LINE
C.O.	CLEANOUT	P.P.	POWER POLE
CONC.	CONCRETE	P.S.I.	POUNDS PER SQUARE INCH
CONST.	CONSTRUCT/CONSTRUCTION	PT.	POINT
CONT.	CONTINUOUS	P.T.	POINT OF TANGENCY
C.A.	CONCRETE PIPE	PVC	POLYVINAL CHLORIDE
C.R.	CURB RETURN	R., RAD.	RADIUS
CSK	COUNTERSINK	R.C.P.	REINFORCED CONCRETE PIPE
CU.	CUBIC	RD	ROAD
CU. FT.	CUBIC FEET	R.C.V.	REMOTE CONTROL VALVE
CY	CUBIC YARDS	REF.	REFERENCE
DET.	DETAIL	REQ.	REQUIRED
D.F.	DRINKING FOUNTAIN	RR	RAILROAD
DF	DOUGLAS FIR	RT.	RIGHT
DG	DECOMPOSED GRANITE	RWD	REDWOOD
DIA., ⌀	DIAMETER	R/W, R.O.W.	RIGHT OF WAY
DR.	DRIVE	ROS	ROUGH SAWN
DS	DOWNSPOUT	S	SOUTH
E	EAST	SCH.	SCHEDULE
EA	EACH	SD	STORM DRAIN
E.C.	END OF CURB	SEC.	SECTION
E.C.R.	END OF CURB RETURN	SG	SUBGRADE
E.J.	EXPANSION JOINT	SHT	SHEET
ELEV.	ELEVATION	SF	SQUARE FEET
EQ.	EQUAL	SPEC	SPECIFICATIONS
EST.	ESTIMATE	SQ.	SQUARE
E.W.	EACH WAY	ST.	STREET
EX.	EXISTING	STA.	STATION
EXC.	EXCAVATION	STD.	STANDARD
FFE	FINISH FLOOR ELEVATION	S4S	SURFACE FOUR SIDE
FG	FINISH GRADE	TC	TOP OF CURB
F.H.	FIRE HYDRANT	T.C.B.	TOP OF CATCH BASIN
FL	FLOW LINE	TF	TOP OF FOOTING
F.O.B.	FACE OF BUILDING	TG	TOP OF GRATE
F.O.C.	FACE OF CURB	T&G	TONGUE AND GROOVE
FS	FINISH SURFACE	TS	TOP OF STEP
FT	FEET/FOOT	TW	TOP OF WALL
FTG.	FOOTING	TYP.	TYPICAL
GA.	GAUGE	V.	VOLTAGE
GALV.	GALVANIZED	V.C.	VERTICAL CURVE
GC	GROUND COVER	VERT.	VERTICAL
G.L.B.	GLUE LAMINATED BEAM	W	WITH
G.P.M.	GALLONS PER MINUTE	W	WEST
GR	GRADING	W.P.	WATERPROOFING
GRND	GROUND	WWM	WELDED WIRE MESH



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GENERAL SPECIFICATIONS

1.0 SCOPE

1.01 DEFINITIONS

- A. OWNER: **CITY OF IRVINE - IRVINE, CALIFORNIA**
B. CONTRACTOR: AN INDIVIDUAL OR COMPANY CONTRACTING WITH THE OWNER TO PROVIDE MATERIALS, PERFORM WORK, AND SERVICES FOR THE PROJECT.
C. SUB-CONTRACTOR: AN INDIVIDUAL OR COMPANY CONTRACTING WITH THE CONTRACTOR TO PROVIDE MATERIALS OR PERFORM WORK, OR BOTH, FOR A SPECIFIC PORTION OF THE PROJECT.
D. LANDSCAPE ARCHITECT: **RJM DESIGN GROUP, INC.**
E. CONTRACT DOCUMENTS: THE AGREEMENT, TERMS CONDITIONS, WRITTEN INSTRUCTIONS, DRAWINGS AND SPECIFICATIONS, SHOP DRAWINGS AND CHANGE ORDERS APPROVED BY THE OWNER AND ISSUED BY THE LANDSCAPE ARCHITECT.

1.02 SCOPE OF WORK:

THE WORK TO BE DONE UNDER THE CONTRACT CONSISTS OF FURNISHING ALL MATERIALS, ALL EQUIPMENT AND PERFORMING THE WORK REQUIRED BY THESE SPECIFICATIONS AND THE DRAWINGS NECESSARY FOR THE PROPER COMPLETION OF THE WORK.

1.03 PLANS AND SPECIFICATIONS:

THESE SPECIFICATIONS ARE INTENDED TO COVER ALL LABOR, MATERIAL, AND STANDARD OF LANDSCAPE ARCHITECTURAL AND MECHANICAL WORKMANSHIP TO BE EMPLOYED IN THE WORK SHOWN ON THE PLANS OR CALLED FOR IN THESE SPECIFICATIONS OR REASONABLY IMPLIED BY TERMS OF SAME. THE PLANS AND SPECIFICATIONS ARE INTENDED TO COMPLEMENT ONE ANOTHER AND ANY PART OF THE WORK THAT MAY BE MENTIONED IN ONE AND NOT PRESENTED IN THE OTHER, SHALL BE DONE THE SAME AS IF IT HAD A MINOR NATURE WHICH MAY NOT BE SPECIFICALLY MENTIONED, BUT WHICH MAY BE REASONABLY ASSUMED AS NECESSARY FOR THE CONSTRUCTION OR COMPLETION OF THIS WORK SHALL BE PERFORMED BY THE CONTRACTOR THE SAME AS IF SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS. IN GENERAL, EXCEPT THAT THE LANDSCAPE ARCHITECT'S INTERPRETATION SHALL ALWAYS TAKE PRECEDENCE OVER THE DRAWINGS AND LARGE DETAILS OVER SMALL SCALE DRAWINGS, FIGURES, WHEN GIVEN, SHALL BE FOLLOWED IN PREFERENCE TO SCALE MEASUREMENTS.

1.04 INTERPRETATION OF PLANS AND SPECIFICATIONS:

THE LANDSCAPE ARCHITECT WILL INTERPRET THE MEANING OF ANY PART OF THE PLANS AND SPECIFICATIONS ABOUT WHICH ANY MISUNDERSTANDINGS MAY ARISE, AND HIS DECISION SHALL BE FINAL. SHOULD THERE APPEAR TO BE ANY ERROR OR DISCREPANCY IN OR BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL REFER THE MATTER TO THE LANDSCAPE ARCHITECT FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. SHOULD THE CONTRACTOR PROCEED WITH THE WORK WITHOUT SO REFERRING THE MATTER, HE DOES SO ON HIS OWN RESPONSIBILITY AND ANY WORK THAT REQUIRES REMOVAL AND/OR REPLACEMENT SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

1.05 LANDSCAPE ARCHITECT'S FUNCTION:

THE LANDSCAPE ARCHITECT SHALL PROVIDE PERIODIC, LIMITED ON-SITE OBSERVATION OF THE WORK IN PROGRESS PER THE OWNER'S REQUEST TO REVIEW IN GENERAL THE EXECUTION OF DESIGN INTENT AND INTERPRET THE LANDSCAPE DOCUMENTS. HE IS AGENT OF THE OWNER TO THE EXTENT PROVIDED IN THE SPECIFICATIONS AND WHEN IN SPECIAL INSTANCES HE IS AUTHORIZED BY THE OWNER TO ACT AS INTERPRETER OF THE CONDITIONS OF THE CONTRACT AND AS JUDGE OF ITS PERFORMANCE. HE SHALL SIDE NEITHER WITH OWNER NOR WITH THE CONTRACTOR BUT USE HIS AUTHORITY UNDER THE CONTRACT TO ENFORCE ITS FAITHFUL PERFORMANCE. HE HAS THE RIGHT TO STOP WORK SHOULD THIS BECOME NECESSARY TO ENSURE THE PROPER EXECUTION OF THE CONTRACT.

1.06 OWNER'S RESPONSIBILITY:

BY ENTERING INTO AGREEMENT, OWNER GUARANTEES CONTRACTOR FUNDS ARE AVAILABLE AND SHALL MAKE TIMELY PROGRESS PAYMENTS TO THE CONTRACTOR DURING THE COURSE OF THE WORK. THE OWNER SHALL FURNISH ALL SURVEYS AND ESTABLISH ALL PROPERTY LINES AND RESTRICTIONS. ALL OTHER LINES, GRADES, AND DIMENSIONS ARE TO BE ESTABLISHED BY THE CONTRACTOR. UNLESS OTHERWISE SPECIFIED, THE OWNER SHALL MAKE AVAILABLE TO THE CONTRACTOR ALL UTILITIES REQUIRED TO PERFORM THE WORK.

1.07 CONTRACTOR'S RESPONSIBILITIES:

THE CONTRACTOR SHALL GIVE EFFICIENT SUPERVISION TO THE WORK, USING HIS BEST SKILL AND ATTENTION, WHEN ABSENT FROM THE JOB, HE SHALL APPOINT AN ENGLISH-SPEAKING SUPERVISOR CAPABLE OF DISCUSSING MATTERS WITH THE LANDSCAPE ARCHITECT ON THE SITE AND TO MAKE DECISIONS ON THE CONTRACTOR'S BEHALF. HE SHALL CAREFULLY STUDY AND COMPARE ALL DRAWINGS, SPECIFICATIONS, AND OTHER INSTRUCTIONS FOR THE WORK. ANY WORK INDICATED IN A MANNER WHICH WOULD MAKE IT DIFFICULT TO PRODUCE DRAWINGS AND SPECIFICATIONS, OR BETWEEN SPECIFICATIONS AND LOCAL ORDINANCES OR RESTRICTIONS, SHALL BE REFERRED TO THE LANDSCAPE ARCHITECT FOR INTERPRETATION OR CORRECTION BEFORE PROCEEDING WITH WORK. CONTRACTOR SHALL INSTALL ALL SPECIFIED EQUIPMENT AND PRODUCTS PER MANUFACTURERS' CURRENT DETAILS AND SPECIFICATIONS. CONTRACTOR'S FAILURE TO ADHERE TO MANUFACTURER'S RECOMMENDATIONS SHALL INDEMNIFY **RJM DESIGN GROUP, INC.** OF ALL LIABILITY AS A RESULT OF IMPROPER INSTALLATION TECHNIQUES AND/OR METHODS.

1.08 EXAMINATION OF SITE AND WORK:

- A. THE CONTRACTOR SHALL EXAMINE THE PROJECT SITE, PHYSICAL CONDITIONS, AND SURROUNDING OF THE PROPOSED WORK AND JUDGE FOR HIMSELF THE NATURE OF THE WORK TO BE DONE PRIOR TO SUBMITTING A BID.
B. THE PLANS FOR THE WORK SHOWN CONDITIONS AS THEY ARE SUPPOSED OR BELIEVED BY THE LANDSCAPE ARCHITECT TO EXIST. IT IS CONTRACTOR'S RESPONSIBILITY TO INFORM LANDSCAPE ARCHITECT OF ANY VARIATION BETWEEN PLANS AND ACTUAL SITE CONDITIONS PRIOR TO STARTING ANY WORK. SHOULD CONTRACTOR BEGIN WORK WITHOUT VERIFYING IF PLANS MATCH SITE CONDITIONS, CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY LOSSES HE MIGHT INCUR.

1.04 SAFETY CODES AND REGULATIONS:

THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH AND WILL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS, ORDINANCE, RULES, AND REGULATIONS INCLUDING CALIFORNIA-OSHA SAFETY ORDERS PERTAINING TO THE PERFORMANCE OF THE WORK.

1.10 CONSTRUCTION SAFETY:

THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION, EXCAVATION, BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURES AND EXCAVATIONS AND SHALL PROVIDE THE NECESSARY BRACING TO PROVIDE STABILITY DURING THE ENTIRE CONSTRUCTION PROCESS. OBSERVATION VISITS TO THE SITE BY THE LANDSCAPE ARCHITECT OR HIS CONSULTANTS SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

1.11 PERFORMANCE AND PAYMENT BONDS:

IF REQUIRED, THE CONTRACTOR SHALL DELIVER TO OWNER TWO SURETY BONDS WITH GOOD AND SUFFICIENT SURETIES. THE BONDS SHALL BE MAINTAINED BY THE CONTRACTOR IN FULL FORCE AND EFFECTED UNTIL COMPLETION AND ACCEPTANCE OF THE WORK.

- A. MATERIAL AND LABOR BOND IN THE SUM OF 50% OF THE CONTRACT PRICE.
B. PERFORMANCE BOND IN THE SUM OF 50% OF THE CONTRACT PRICE
CONDITIONED TO COVER ALL GUARANTEES OF THE CONTRACT.

1.12 INSURANCE:

THE CONTRACTOR SHALL DELIVER TO OWNER CERTIFICATES OF INSURANCE AS EVIDENCE OF COVERAGE WITH OWNER AND LANDSCAPE ARCHITECT LISTED AS ADDITIONAL INSURED.

- A. WORKERS' COMPENSATION INSURANCE AND EMPLOYER'S LIABILITY INSURANCE.
B. COMPREHENSIVE LIABILITY INSURANCE WITH LIMITS OF NOT LESS THAN \$500,000 PER ANY ONE PERSON AND \$1,000,000 PER ANY ONE OCCURRENCE AS TO BODILY INJURY OR DEATH AND \$250,000 PER OCCURRENCE AS TO PROPERTY DAMAGE.

1.15 LANDSCAPE ARCHITECT'S LIABILITY:

THE OWNER AND CONTRACTORS, RECOGNIZING THE INHERENT RISKS CONNECTED WITH CONSTRUCTION, AGREE TO LIMIT ANY AND ALL LIABILITY, CLAIM FOR DAMAGES, COST OF DEFENSE, OR EXPENSES TO BE LEVIED AGAINST THE LANDSCAPE ARCHITECT ON ACCOUNT OF ANY DESIGN DEFECT, ERROR, OMISSION, OR PROFESSIONAL NEGLIGENCE TO A SUM NOT TO EXCEED THE AMOUNT OF THE LANDSCAPE ARCHITECT'S FEE.

1.14 SUPERVISION:

THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE EFFICIENT PERFORMANCE OF THE WORK IN ACCORDANCE WITH HIS BEST SKILL, ATTENTION, AND JUDGMENT. HE SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION AND SHALL BE RESPONSIBLE TO SEE THAT THE FINISHED WORK COMPLIES FULLY WITH THE CONTRACT DOCUMENTS. HE SHALL HAVE A REPRESENTATIVE IN CHARGE WHO SHALL BE A COMPETENT SUPERINTENDENT AND DIRECT THE PROGRESS OF THE WORK AND WHO SHALL BE AUTHORIZED TO RECEIVE INSTRUCTIONS AND TO ACT FOR THE CONTRACTOR ON ALL MATTERS RELATING TO THE WORK.

1.15 QUALITY OF LABOR AND WORKMANSHIP:

- A. AT ALL TIME AFTER COMMENCEMENT OF THE WORK, CONTRACTOR SHALL PROVIDE AN ADEQUATE WORK FORCE OF COMPETENT, SUITABLY QUALIFIED AND TRAINED PERSONNEL TO SURVEY AND LAY OUT THE WORK AND CONSTRUCT THE PROJECT AND SHALL CAUSE SUCH WORK FORCE TO EXECUTE THE WORK IN CONFORMANCE WITH THE BEST TRADE PRACTICES, FREE FROM FAULTS AND DEFECTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
B. ANY SUBCONTRACTOR OR LABORER EMPLOYED UPON THE WORK WHO, IN THE OPINION OF THE LANDSCAPE ARCHITECT AND/OR OWNER, IS NON-COOPERATIVE, OR WHO SHALL PROVE CARELESS OR INCOMPETENT, SHALL BE IMMEDIATELY REMOVED FROM THE WORK BY THE CONTRACTOR, WHEN NOTIFIED TO DO SO, AND SHALL NOT BE RE-EMPLOYED ON THIS PROJECT.

1.16 QUALITY OF MATERIALS AND EQUIPMENT:

ALL MATERIALS AND EQUIPMENT INCORPORATED INTO THE WORK SHALL BE NEW UNLESS OTHERWISE SPECIFICALLY PROVIDED IN THE CONTRACT DOCUMENTS. MATERIALS AND EQUIPMENT NOT OTHERWISE DESIGNATED BY DETAILED SPECIFICATIONS SHALL BE OF THE BEST COMMERCIAL QUALITY AND SHALL BE SUITABLE FOR THE PURPOSE INTENDED. IF REQUIRED BY OWNER, CONTRACTOR SHALL FURNISH EVIDENCE SATISFACTORY TO OWNER AS TO THE KIND AND QUALITY OF MATERIALS AND EQUIPMENT. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

1.17 SUBSTITUTIONS:

- A. SUBMIT SUBSTITUTIONS OF MATERIALS OR METHODS PROPOSED TO LANDSCAPE ARCHITECT IN WRITING FOR APPROVAL OR DENIAL ONE WEEK PRIOR TO SUBMITTAL OF BID. SUBSTITUTIONS WILL BE APPROVED ONLY IF MATERIALS OR METHODS ARE DEMONSTRABLY SUPERIOR IN QUALITY. MANUFACTURER'S LITERATURE ALONE MAY NOT BE SUFFICIENT EVIDENCE OF PROOF OF SUPERIORITY. A REQUEST FOR A SUBSTITUTION CONSTITUTES A REPRESENTATION THAT WORKERS AND CONTRACTORS WAIVE ALL CLAIMS FOR ADDITIONAL LABOR OR MATERIAL COSTS WHICH MAY BECOME SUBSEQUENTLY APPARENT BY THE USE OF SUCH SUBSTITUTED MATERIALS OR PRODUCTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVE THAT THE REQUESTED SUBSTITUTION IS IN FACT "EQUAL."
B. IF MORE THAN ONE MANUFACTURER IS SPECIFIED IN THESE SPECIFICATIONS, IT IS THE CONTRACTOR'S OPTION TO SELECT THE ONE WHICH HE MAY DESIRE TO USE. IF MORE THAN ONE FINISH OR STYLE IS AVAILABLE IN THE ITEM SPECIFIED, THE CONTRACTOR IS OBLIGATED TO ALLOW THE OWNER TO MAKE THE SELECTION.

1.18 LIST OF SUBCONTRACTORS AND SUBLETTING WORK:

- A. NO PART OF THE CONSTRUCTION WORK SHALL BE DONE AS PIECEWORK NOR SHALL IT BE LEFT TO A SUBCONTRACTOR AFTER THE EXECUTION OF THE ORIGINAL CONTRACT EXCEPT AS AUTHORIZED IN WRITING. IN CASE PART OF THE WORK SHOULD BE SUBLET, THESE GENERAL CONDITIONS SHALL GOVERN EACH TRADE INsofar AS THEY MAY APPLY TO THE WORK OF THAT TRADE.
B. NO SUBCONTRACT MAY BE ASSIGNED OR TRANSFERRED EXCEPT AS AUTHORIZED IN WRITING BY THE CONTRACTOR.
C. THE CONTRACTOR SHALL, AT ALL TIMES, BE RESPONSIBLE FOR THE ASSIGNED OR TRANSFERRED WORK TO THE SAME EXTENT AS IF THE ASSIGNED OR TRANSFERRED WORK TO THE SAME EXTENT AS IF HE WERE DOING, OR HAD DONE, THE WORK.
D. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A LIST OF THE SUBCONTRACTORS WITH DETAILS OF THE PORTIONS OF THE WORK TO BE PERFORMED BY EACH. SUBCONTRACTORS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER AND LANDSCAPE ARCHITECT.

1.14 PATENTS:

IN THE EVENT THAT ANY PATENTED ARTICLE, MATERIAL, OR PROCESS IS TO BE INSTALLED OR USED IN THE PERFORMANCE OF THE WORK AS SHOWN ON THE PLANS OR PARTICULAR SPECIFICATIONS THEREFOR, THE CONTRACTOR SHALL PAY THE ROYALTY CHARGEABLE AND SHALL SAVE, KEEP, AND BEAR THE OWNER AND LANDSCAPE ARCHITECT HARMLESS FROM ALL DAMAGE, COSTS, AND EXPENSES BY REASON OF THE FAILURE TO PAY THE ROYALTY CHARGEABLE FOR THE USE THEREOF, AND ANY LOSS TO THE OWNER IN THE EVENT THAT THE OWNER IS ENJOINED FROM USING SUCH PATENTED ARTICLE OR MATERIALS AND THE INCIDENTAL DAMAGE CAUSED BY THE LOSS OF USE AND DAMAGE TO OWNER'S PROPERTY IN REMOVING SAME, THE COST OF REPLACING THE ARTICLE OR MATERIALS THE USE OF WHICH IS ENJOINED. PROVIDED FURTHER, THE BOND FOR FAITHFUL PERFORMANCE SHALL BE DEEMED TO EXPRESSLY APPLY TO THIS PROVISION OF THE SPECIFICATIONS.

1.20 PERMITS, LICENSES, AND INSPECTIONS:

- A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS TOGETHER WITH ALL INSPECTIONS REQUIRED IN CONNECTION WITH THE WORK TO BE DONE UNDER THE CONTRACT, UNLESS OTHERWISE SPECIFIED BELOW.
B. THE CONTRACTOR WILL PROVIDE AND PAY FOR ANY SPECIAL OR CONTINUOUS INSPECTION OF THE WORK DONE UNDER THE CONTRACT, WHEN SPECIAL OR CONTINUOUS INSPECTION IS NOTED BELOW.

1.21 LAWS, ORDINANCES, RULES, AND REGULATIONS:

THE CONTRACTOR SHALL GIVE ALL NOTICES REQUIRED BY AND SHALL OTHERWISE FULLY COMPLY WITH ALL LAWS, ORDINANCES, RULES, AND REGULATIONS APPLICABLE TO THE COMMENCEMENT, PROSECUTIONS, AND COMPLETION OF THE WORK. IN THE EVENT CONTRACTOR OBSERVES OR DISCOVERS THAT THE CONTRACT DOCUMENTS OR ANY PORTION THEREOF ARE IN ANY WAY AT VARIANCE WITH ANY SUCH LAWS, ORDINANCES, RULES, OR REGULATIONS, CONTRACTOR SHALL PROMPTLY GIVE LANDSCAPE ARCHITECT WRITTEN NOTICE THEREOF. SHOULD CONTRACTOR PERFORM ANY WORK KNOWING THAT IT IS CONTRARY TO ANY SUCH LAWS, ORDINANCES, RULES OR REGULATIONS, AND WITHOUT SUCH NOTICE TO LANDSCAPE ARCHITECT, CONTRACTOR SHALL BEAR ALL COSTS AND EXPENSES ARISING THEREFROM AND ASSOCIATED THEREWITH AND INDEMNIFY AND HOLD HARMLESS OWNER AND ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY OWNER INCLUDING THE LANDSCAPE ARCHITECT FROM AND AGAINST ALL CLAIMS, LIABILITY, DAMAGE, LOSSES AND EXPENSES, INCLUDING, WITHOUT LIMITATION, ATTORNEYS' FEES ARISING IN CONNECTION THEREWITH.

1.22 SAFETY AND PROTECTION:

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ALL GOVERNMENTAL AGENCIES AND AUTHORITIES HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY FROM DAMAGE, LOSS, OR INJURY AND SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY FOR THE SAFETY OF AND SHALL PROVIDE ALL PROTECTION NECESSARY TO PREVENT DAMAGE, LOSS, OR INJURY TO:
A. ALL WORKMEN AND OTHER PERSONS ON OR ABOUT THE SITE AND ALL OTHER PERSONS WHO MAY BE AFFECTED BY THE WORK;
B. THE WORK ITSELF AND ALL MATERIALS AND EQUIPMENT INCORPORATED OR TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE;
C. ALL OTHER PROPERTY AT, ADJACENT TO AND ABOUT THE SITE, INCLUDING, WITHOUT LIMITATION, TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES, AND UTILITIES WHICH ARE NOT DESIGNATED FOR REMOVAL, RELOCATION, OR REPLACEMENT AS PART OF THE WORK.

1.25 EXISTING UTILITY LINES:

EXCEPT AS INDICATED BY THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR WILL NOT BE LIABLE FOR THE RE-ROUTING OF EXISTING ACTIVE UNDERGROUND LINES WHICH MAY BE DISCOVERED DURING THE PROGRESS OF WORK. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES WITH APPROPRIATE UTILITY COMPANIES PRIOR TO STARTING WORK. CONTRACTOR SHALL BE LIABLE FOR DAMAGE DONE TO EXISTING UTILITIES. CONTRACTOR SHALL CONTACT 1-800 DIG ALERT AND HAVE ALL EXISTING UTILITIES LOCATED PRIOR TO COMMENCEMENT OF CONSTRUCTION.

1.24 REPAIRING INJURED WORK:

- A. ALL PORTIONS OF THE WORK THAT MAY BE BROKEN OR INJURED BY ACCIDENT OR IN THE COURSE OF OR ON ACCOUNT OF BUILDING OPERATIONS OR BY REASON OF ANY OTHER CAUSE WHATSOEVER DURING THE PROGRESS OF THE WORK, SHALL BE CAREFULLY AND NEATLY REPAIRED OR RECONSTRUCTED AND THE WHOLE LEFT IN FIRST GLASS CONDITION AND TURNED OVER TO THE OWNER READY FOR USE.
B. SHOULD ANY PART OF THE WORK OF THIS CONTRACT BE CUT INTO OR DAMAGED BY OTHER CONTRACTORS, THE OWNER AND PARTY CAUSING SUCH DAMAGE SHALL MAKE ADJUSTMENTS BETWEEN THEMSELVES RELATIVE TO RECONSTRUCTION, REPAIRS AND PAYMENT.

1.25 MUTUAL RESPONSIBILITY OF SUBCONTRACTORS:

EACH SUBCONTRACTOR SHALL PERFORM THE WORK OF THE CONTRACT SO THAT IT WILL PROPERLY COORDINATE WITH AND FIT THE WORK PERFORMED BY OTHER SUBCONTRACTORS. HE SHALL GIVE EACH OTHER SUBCONTRACTOR EVERY REASONABLE OPPORTUNITY TO PERFORM THEIR WORK, STORE MATERIALS, AND PLACE EQUIPMENT THEREFOR, AND FIT THEIR WORK TO THE WORK OF OTHER SUBCONTRACTORS.

1.26 COOPERATION WITH OTHERS:

- A. EACH SUBCONTRACTOR SHALL COOPERATE WITH OTHERS IN THE EXECUTION OF ALL WORK AND SHALL NOT INTERFERE WITH MATERIAL, APPLIANCES, OR WORKMEN OF OTHER SUBCONTRACTORS.
B. ALL SUBCONTRACTORS ENGAGED IN WORK AT THE SITE SHALL HAVE, INsofar AS PRACTICABLE, EQUAL USE OF THE PREMISES AND FACILITIES. IN CASE OF DISAGREEMENT REGARDING SUCH USE, THE MATTER SHALL BE REFERRED TO THE OWNER, WHO DECISION RELATIVE TO SAID USE SHALL GOVERN.

1.21 OWNER'S RIGHT TO DO WORK:

OWNER MAY, AT ITS SOLE OPTION, PERFORM, OR CONTRACT DIRECTLY WITH OTHER CONTRACTORS FOR THE PERFORMANCE OF OTHER WORK RELATED TO THE PROJECT ON SUCH TERMS AND CONDITIONS AS OWNER SHALL, IN ITS SOLE DISCRETION, CHOOSE.

1.26 PROVISIONS FOR EXTRAS:

NO NEW WORK OF ANY KIND SHALL BE CONSIDERED AN EXTRA UNLESS A SEPARATE ESTIMATE IS GIVEN FOR SAID WORK BEFORE IT IS COMMENCED AND UNTIL SAME IS APPROVED BY THE OWNER EXCEPT FOR EXTRA WORK ORDERED BY THE OWNER ACCORDING TO UNIT PRICES WHICH HAVE BEEN BID. ANY EXTRA WORK PERFORMED, NOT AUTHORIZED AS PROVIDED ABOVE, SHALL NOT BE PAID FOR BY THE OWNER.

1.24 TESTS AND INSPECTIONS:

- A. THE OWNER SHALL HAVE THE RIGHT TO TEST, INSPECT, AND APPROVE OR REQUIRE THE TESTING, INSPECTION, AND APPROVAL OF ALL MATERIALS AND EQUIPMENT FURNISHED AND ALL WORK PERFORMED UNDER THE CONTRACT DOCUMENTS. IN ADDITION, IF THE CONTRACT DOCUMENTS OR THE LAWS, ORDINANCES, RULES, REGULATIONS, OR ANY OTHER OF THE PUBLIC AUTHORITY HAVING JURISDICTION REQUIRE THE WORK OR ANY PORTION THEREOF TO BE SPECIFICALLY INSPECTED, THE CONTRACTOR SHALL ARRANGE PAY FOR, AND DELIVER CERTIFICATES OF INSPECTION, TESTING, AND APPROVAL TO OWNER.
B. THE CONTRACTOR SHALL NOT COVER UP ANY WORK REQUIRING INSPECTION UNTIL THE SAME HAS BEEN APPROVED BY THE APPROPRIATE AUTHORITY. IF WORK SHOULD BE COVERED UP BEFORE BEING INSPECTED, THE CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH PORTIONS OF THE WORK AS MAY BE NECESSARY TO DISCLOSE THE PART IN QUESTION.

1.30 SHOP DRAWINGS:

CONTRACTOR SHALL PROVIDE COMPLETE SHOP DRAWINGS FOR ALL ITEMS SPECIFIED FOR SHOP DRAWING SUBMITTAL. SHOP DRAWINGS SHALL INDICATE ALL MATERIAL METHODS OF ATTACHMENT AND FINISH. SHOP DRAWINGS SHALL BE APPROVED PRIOR TO FABRICATION.

1.31 SAMPLES:

CONTRACTOR SHALL PROVIDE SAMPLES FOR ALL MATERIALS SPECIFIED TO INCLUDE SAMPLES. ALL SAMPLES SHALL BE APPROVED BY OWNER'S REPRESENTATIVE IN WRITING PRIOR TO DELIVERY TO THE PROJECT SITE.

1.32 TEMPORARY FACILITIES

- A. ERECT AND PROPERLY MAINTAIN AT ALL TIMES AS REQUIRED BY CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY AND REQUIRED PROTECTIVE BARRICADES, INCLUDING A 6' HEIGHT CHAIN LINK, TEMPORARY CONSTRUCTION FENCE WITH ACCESS GATE, FENCES, AND OTHER SAFEGUARDS FOR THE PROTECTION OF WORKERS AND THE PUBLIC. VERIFY LIMITS OF AREA WITH OWNER PRIOR TO INSTALLATION. WHERE THESE BARRICADES AND FENCES ARE VISIBLE TO THE PUBLIC, PAINT, OR OTHERWISE FINISH THEM IN A MANNER ACCEPTABLE TO THE LANDSCAPE ARCHITECT.
B. AT ALL TIMES DURING CONSTRUCTION OR ERECTION OF PROJECT OR ITS COMPONENT PARTS, PRIOR TO COMPLETION OF THE STRUCTURAL FRAME OR PLACEMENT AND PERMANENT CONNECTION OF COMPONENT MEMBERS TO THE STRUCTURAL FRAME, PROVIDE, INSTALL, AND MAINTAIN PROPERLY DESIGNED AND CONSTRUCTED TEMPORARY BRACING OF ADEQUATE STRENGTH TO PREVENT DISLOCATION, DISTORTION, CRACKING, FALLING-OFF, OR ANY OTHER DAMAGE TO THE WORK OR ANY OF ITS COMPONENT PARTS DUE TO FORESEEABLE NORMAL EXCESSIVE WINDS AND EARTHQUAKE FORCES, WITHOUT ADDITIONAL COST TO OWNER. REPAIR OR REPLACE AT NO ADDED COST, DAMAGE PORTIONS OF WORK OF COMPONENT PARTS.
C. PROVIDE 6' HT. CHAIN LINK BARRICADE AROUND DRIPLENE OF EXISTING TREES TO BE PROTECTED. MAINTAIN BARRICADE, AND PREVENT ANY MATERIALS STORAGE OR VEHICULAR ACCESS WITHIN PROTECTED AREA.

1.33 APPLICATION FOR PROGRESS PAYMENTS:

AS OF THE END OF EACH CALENDAR MONTH DURING CONSTRUCTION, BUT IN NO EVENT MORE OFTEN THAN ONCE MONTHLY, CONTRACTOR SHALL SUBMIT TO OWNER FOR REVIEW AND APPROVAL A COMPLETELY FILLED OUT AND SIGNED APPLICATION FOR PAYMENT COVERING THE WORK COMPLETED AS OF THE DATE OF SUCH APPLICATION. EACH SUCH APPLICATION FOR PAYMENT SHALL BE ACCOMPANIED BY FULLY-EXECUTED UNCONDITIONAL RELEASES AND WAIVERS WHEREBY ALL PERSONS AND PARTIES WHO PERFORMED LABOR, SUBCONTRACT WORK OR OTHER SERVICES UPON THE PROJECT, OR WHO SOLD, LEASED, FURNISHED, OR OTHERWISE SUPPLIED TO OR FOR THE USE OF OR TO BE CONSUMED IN THE PROJECT EQUIPMENT, MATERIALS, APPLIANCES, OR OTHER GOODS, RELEASE AND WAIVE TO AND INCLUDING THE DATE OF SUCH APPLICATION, ALL MECHANIC'S LIEN, STOP NOTICE, EQUITABLE LIEN AND LABOR AND MATERIAL BOND RIGHTS ON THE PROJECT.

1.34 OWNER'S RIGHT TO SUSPEND OR CANCEL WORK:

- A. THE CONTRACT ENTERED INTO UNDER THESE SPECIFICATIONS MAY BE TERMINATED BY THE OWNER WITHOUT LIABILITY FOR DAMAGES, WHENEVER THE OWNER IS PREVENTED BY OPERATION OF LAW, AN ACT OF GOD, OR BY THE OFFICIAL ACTION OF THE PUBLIC, FEDERAL, STATE, OR MUNICIPAL AUTHORITIES FROM COMPLETING THE WORK CONTEMPLATED HEREUNDER.
B. IN THE EVENT OF SUCH CANCELLATION, THE CONTRACTOR SHALL BE PAID FOR THE WORK ACTUALLY DONE BEFORE NOTICE OF CANCELLATION IS GIVEN TO THE CONTRACTOR. IF THE CONTRACT PROVIDES FOR PAYMENTS TO THE CONTRACTOR ON THE BASIS OF UNIT PRICES SET FORTH THEREIN, THE AMOUNT DUE THE CONTRACTOR UPON CANCELLATION SHALL BE COMPUTED ON THE BASIS OF SUCH UNIT PRICES. IF THE CONTRACT PROVIDES FOR THE PAYMENT OF A FIXED SUM FOR THE ENTIRE WORK, OR ANY DEFINITE PORTION THEREOF OTHER THAN A UNIT OF MEASUREMENT, THE CONTRACTOR SHALL BE PAID THE SAME PROPORTION OF SUCH SUM UPON CANCELLATION THAT THE WORK DONE BEARS TO THE TOTAL WORK, OR DEFINITE PORTION THEREOF, TO BE PERFORMED UNDER THE CONTRACT.
C. NOTICE OF SUCH CANCELLATION SHALL BE GIVEN IN WRITING AND SHALL BE DEPOSITED IN THE UNITED STATES MAIL IN A SEALED ENVELOPE WITH POSTAGE PREPAID AND DIRECTED TO THE CONTRACTOR AT HIS ADDRESS AS FILED WITH THE OWNER.

1.35 EXTENSION OF TIME:

IN THE EVENT IT IS DEEMED NECESSARY BY THE OWNER TO EXTEND THE TIME OF COMPLETION OF THE WORK TO BE DONE UNDER THESE SPECIFICATIONS, SUCH EXTENSION SHALL, IN NO WAY, RELEASE ANY GUARANTY GIVEN BY THE CONTRACTOR PURSUANT TO THE PROVISIONS OF THESE SPECIFICATIONS, OR THE CONTRACT LET HEREUNDER, OR TO RELIEVE, OR RELEASE THE SURETIES OF THE BONDS EXECUTED PURSUANT TO THE SAID PROVISIONS.

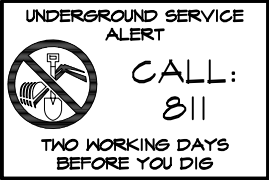
1.36 CLEAN-UP:

AT ALL TIMES DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATIONS OF WASTE MATERIALS, RUBBISH, AND OTHER DEBRIS RESULTING THE WORK AND SHALL TAKE SUCH ACTION AS IS NECESSARY TO PREVENT AND CONTROL DUST. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE ALL TEMPORARY STRUCTURES, TOOLS, CONSTRUCTION EQUIPMENT, AND MACHINERY, SURPLUS MATERIALS, WASTE MATERIALS, RUBBISH, AND DEBRIS FROM AND ABOUT THE SITE AND SHALL LEAVE THE SITE CLEAN AND READY FOR USE BY THE OWNER.

1.37 COMPLETION:

- A. COMPLETION IS DEFINED AS BEING WHEN ALL CONDITIONS OF THE CONTRACT HAVE BEEN ACCOMPLISHED INCLUDING THE SPECIFIED MAINTENANCE PERIOD. SPECIFICALLY WHEN ALL ITEMS ARE INSTALLED, THE AREAS CLEANED AND THE MAINTENANCE PERIOD SATISFACTORYLY COMPLETED, AND WHEN ALL SPECIAL TOOLS AND EQUIPMENT, INSTRUCTIONS, WRITTEN GUARANTEES, AS-BUILT PLANS, LIEN RELEASES AND ANY ITEMS REQUIRED BY THE CONTRACTOR DOCUMENTS HAVE BEEN PROPERLY EXECUTED AND DELIVERED TO THE OWNER.
B. THE LANDSCAPE ARCHITECT SHALL HAVE FULL AUTHORITY TO ACCEPT OR REJECT THE CONTRACT ITEMS AND WILL PROMPTLY NOTIFY THE OWNER OF COMPLETION.

- 1.38 GUARANTEE: IN ADDITION TO SPECIFIED GUARANTEES PROVIDED FOR IN THE SEPARATE SECTIONS OF THE SPECIFICATIONS, THE CONTRACTOR SHALL GUARANTEE IN WRITING ALL WORKMANSHIP AND MATERIALS TO BE FREE FROM DEFECT FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER WITHOUT ADDITIONAL COST TO THE OWNER.



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GENERAL SPECIFICATIONS										REVISIONS	
SAN CARLO PARK - PLAYGROUND REHABILITATION											
CITY OF IRVINE											
COMMUNITY DEVELOPMENT DEPARTMENT											
DESIGNED: 7											
DRAWN: 6											
CHECKED: 5											
DATE: 12/10/2015											
SCALE: 1/8" = 1'-0"											
DEVELOPER											
SIGNATURE: LARRY P. RYAN											
ARCHITECT: 2502											
LICENSE NO. EXP. DATE											
PLAN CHECK: CASE NO. 00650354-PPA											
PERMIT:											
SHEET 3											
OF 21											

EARTHWORK SPECIFICATION

1.0 SCOPE:
ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR AND INCIDENTAL TO PERFORMING ALL OPERATIONS OF THE WORK FOR THIS SECTION, COMPLETE AS SHOWN ON THE PLANS OR SPECIFIED HEREIN. WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING:

- 1.01 FINE GRADING.
- 1.02 EXCAVATING, FILLING, BACKFILLING, AND COMPACTING FOR BUILDING FOOTINGS AND UTILITIES.
- 1.03 ENGINEERED FILL BELOW BUILDING AND ADJACENT SLABS.
- 1.04 PUMPING, DRAINING, SHORING, AND CRIBBING AS REQUIRED.
- 1.05 DUST CONTROL.
- 1.06 DISPOSAL OF ALL UNSUITABLE OR SURPLUS EXCAVATED MATERIALS OFF THE SITE. PROVIDE ALL FILL AND BACKFILL MATERIAL REQUIRED.

2.0 QUALITY ASSURANCE

- 2.01 TESTING -- COMPACTION TESTS SHALL BE PERFORMED THROUGHOUT IN ACCORDANCE WITH THE FOLLOWING:
 - A. MAXIMUM DENSITY AND OPTIMUM MOISTURE CONTENT - ASTM D1557.
 - B. DENSITY OF SOIL IN PLACE - ASTM D1556 AND ASTM D2937.
- 2.02 CONSTRUCTION MONITORING
 - THE ENGINEER SHALL OBSERVE AND DIRECT THE PLACEMENT AND TESTING OF THE EARTHWORK IN ACCORDANCE WITH THESE SPECIFICATIONS. CONDUCT OBSERVATIONS AND TESTS AS DIRECTED BY THE ENGINEER FOR APPROVAL OF IMPORTED MATERIAL AND ON-SITE MATERIAL FOR PROJECT USE DURING THE EXCAVATION, FILLING, AND BACKFILLING OPERATIONS.
- 2.03 CERTIFICATION
 - THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR OR CIVIL ENGINEER TO LAY OUT THE WORK AND UPON COMPLETION OF ALL ROUGH AND FINE GRADING OPERATIONS, SHALL GIVE WRITTEN CERTIFICATION THAT ROUGH GRADES ARE WITHIN TOLERANCES SPECIFIED HEREINAFTER.

3.0 PRODUCT HANDLING

- 3.01 PROTECTION OF EXISTING UNDERGROUND UTILITIES
 - THE LOCATIONS OF ALL KNOWN ACTIVE SUBSURFACE PIPELINES, CONDUITS, ETC., HAVE BEEN INDICATED ON THE PLANS OR ON REFERENCE MATERIAL AVAILABLE TO THE CONTRACTOR. ANY LINES ENCOUNTERED THAT WERE NOT ANTICIPATED SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER, WHO WILL ISSUE INSTRUCTIONS FOR PROCEEDING WITH THE WORK.
- 3.02 MOISTURE CONTROL
 - ANY WATER AND DEBRIS WHICH WOULD INTERFERE WITH CONSTRUCTION SHALL BE REMOVED FROM EXCAVATED AREAS. EXCAVATIONS SHALL BE FREE FROM LOOSE MATERIAL AND WATER WHILE FORMS ARE BEING SET AND CONCRETE DEPOSITED. DURING RAINY WEATHER, MAINTAIN EXCAVATIONS FREE FROM WATER BY PUMPING AND OTHER APPROPRIATE MEANS. PUMPING FROM EXCAVATIONS SHALL BE DONE IN SUCH A MANNER AS TO PRECLUDE THE POSSIBILITY OF ANY PORTION OF THE CONCRETE BEING CARRIED AWAY. ALL WATER RESULTING FROM DE-WATERING OPERATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE DAMAGE TO PUBLIC OR PRIVATE PROPERTY OR CONSTITUTE A NUISANCE OR MENACE TO THE PUBLIC.
- 3.03 DUST CONTROL
 - THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD, MAINTAIN DUST CONTROL AT THE SITE AREA, ON ROADS USED IN THE OPERATIONS AND INVOLVED PORTIONS OF THE WORK SITE BY INTERMITTENT WATERING AND SPRINKLING AS REQUIRED BY OR BY TREATMENT WITH APPROVED DUST CONTROL CHEMICALS. ALL DUST CONTROL SHALL BE AS DIRECTED BY THE ENGINEER.

4.0 PRODUCTS

- 4.01 ALL FILL SHALL BE OF APPROVED LOCAL MATERIALS FROM REQUIRED EXCAVATION, SUPPLEMENTED BY IMPORTED FILL IF NECESSARY. APPROVED LOCAL MATERIALS ARE DEFINED AS LOCAL SOILS FREE FROM RUBBLE, RUBBISH, AND VEGETATION, TESTED AND APPROVED BY THE ENGINEER PRIOR TO USE. CLODS, ROCKS, OR HARD LUMPS EXCEEDING 6 INCHES IN FINAL SIZE SHALL NOT BE ALLOWED IN ANY FILL SUPPORTING PAVEMENTS AND BUILDINGS. EXCAVATED EXPANSIVE CLAYS OR EXPANSIVE SOIL MIXTURES, AS IDENTIFIED BY THE ENGINEER, SHALL NOT BE PLACED WITHIN THE BUILDING PAD AREAS.
- 4.02 IMPORTED FILL MATERIALS SHALL MEET THE ABOVE REQUIREMENTS AND SHALL HAVE A PLASTICITY INDEX NOT EXCEEDING 12.
- 4.03 CAPILLARY BREAK MATERIAL UNDER FLOOR SLABS SHALL BE PROVIDED AS NOTED ON STRUCTURAL DRAWINGS PER SOILS REPORT RECOMMENDATIONS.

5.0 EXECUTION

- 5.01 LAYOUT AND PREPARATION GENERAL:
 - LAY OUT ALL WORK, ESTABLISH GRADES, LOCATE EXISTING UNDERGROUND UTILITIES, SET MARKERS AND STAKES, AND SET UP AND MAINTAIN BARRICADES AND PROTECTION OF UTILITIES PRIOR TO BEGINNING ACTUAL EARTHWORK OPERATIONS.
- 5.02 LOCATION OF STRUCTURE
 - THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR OR CIVIL ENGINEER TO LAY OUT THE WORK AND ESTABLISH THE NECESSARY MARKERS, BENCHMARKS, BATTER BOARDS, AND STAKES.
- 5.03 EXCAVATION:
 - EXCAVATE ALL MATERIAL AS REQUIRED TO COMPLETE THE WORK SHOWN ON THE PLANS.
- 5.04 RE-USE OF EXCAVATED MATERIAL
 - THE MATERIAL OBTAINED FROM THE EXCAVATION SHALL BE USED FOR FILL OR BACKFILL TO THE EXTENT REQUIRED BY THE PLANS AND AS SPECIFIED HEREIN. IN THE EVENT ADDITIONAL MATERIAL IS REQUIRED, IT SHALL BE IMPORTED FILL APPROVED BY THE ENGINEER.
- 5.05 DEPTH OF EXCAVATION
 - A. EXCEPT AS OTHERWISE DIRECTED, EXCAVATION SHALL EXTEND TO DEPTH TO PROVIDE A CLEAN, UNDISTURBED AND LEVEL SUBGRADE FOR ALL FOOTINGS, CONCRETE SLABS, AND SIMILAR CONSTRUCTION.
 - B. IN THE EVENT IT IS NECESSARY TO REMOVE UNSUITABLE MATERIAL TO DEPTHS GREATER THAN THOSE SHOWN, THE ENGINEER SHALL BE NOTIFIED, AND AN EQUIVAILABLE ADJUSTMENT IN THE CONTRACT WILL BE MADE. IF, FOR ANY OTHER CAUSE, EXCAVATIONS ARE CARRIED BELOW THE LINES INDICATED, THE OVER-EXCAVATION SHALL BE BACKFILLED WITH CONCRETE OR COMPACTED FILL AS DIRECTED WITHOUT ADDITIONAL COST TO THE CITY.
 - C. ALL EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE ANY CONCRETE IS POURED.
- 5.06 EXCAVATION
 - FOR WALLS AND FOOTINGS, EXCAVATION SHALL BE SUFFICIENT WIDTH TO ALLOW FOR THE ERECTION, INSPECTION, AND REMOVAL OF FORMS, THE APPLICATION OF REQUIRED CONSTRUCTION AROUND OUTER WALLS, AND FOR NECESSARY SHORING AND BRACING EMBANKMENTS.

- 5.07 UTILITY AND DRAINAGE TRENCHES
 - EXCAVATE TO STRAIGHT LINES AND GRADE AS REQUIRED. PROVIDE ALL NECESSARY SHORING TO KEEP BANKS VERTICAL. TRENCH SHALL BE A MAXIMUM WIDTH OF 20 INCHES PLUS THE OUTSIDE DIAMETER OF THE PIPE. THE BOTTOM OF TRENCHES SHALL BE FORMED TO SUPPORT ITS OUTSIDE DIAMETER UNIFORMLY THROUGHOUT ITS LENGTH EXCEPT THAT MATERIAL SHALL BE EXCAVATED AT BELLS OR OTHER TYPES OF JOINTS TO FACILITATE MAKING THE JOINT. IF ROCK IS ENCOUNTERED AT THE ELEVATION REQUIRED FOR THE UTILITY OR DRAINAGE LINE PIPE, IT SHALL BE REMOVED TO A DEPTH OF 6 INCHES BELOW THE REQUIRED GRADE. OVER-EXCAVATED TRENCHES SHALL BE BACKFILLED WITH SAND COMPACTED TO THE PROPER ELEVATION.
- 5.08 COMPACTION
 - COMPACTION SHALL BE BY SUITABLE COMPACTION EQUIPMENT, WHICH SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED DRY DENSITY. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE AREA AND THE COMPACTION EQUIPMENT SHALL MAKE SUFFICIENT TRIPS TO ENSURE THAT THE REQUIRED DENSITY HAS BEEN OBTAINED. EACH LAYER SHALL BE COMPACTED TO A MOISTURE CONTENT SUFFICIENTLY NEAR OPTIMUM SO AS TO OBTAIN NOT LESS THAN 90 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM C1557-10.
- 5.09 FILL
 - FILL OPERATION SHALL BE CONTINUED IN 6 INCHES COMPACTED LAYERS UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED GRADE. NO FILL MATERIAL SHALL BE PLACED, SPREAD, OR ROLLED DURING UNFAVORABLE WEATHER CONDITIONS. WHEN THE WORK IS INTERRUPTED BY INCLEMENT WEATHER, FILL OPERATIONS SHALL NOT BE RESUMED UNTIL THE ENGINEER INDICATES THAT THE MOISTURE CONTENT AND DENSITY OF THE PREVIOUSLY PLACED FILL ARE AS SPECIFIED.
- 5.10 BACKFILLING
 - MATERIAL FOR BACKFILLING SHALL CONSIST OF APPROVED EXCAVATED MATERIAL OR IMPORTED MATERIAL SPECIFIED ABOVE. IN ANY CASE, THE MATERIAL SHALL BE FREE OF TRASH, LUMBER OR OTHER DEBRIS. BACKFILL SHALL BE PLACED IN 6 INCH LAYERS AND SHALL BE UNIFORMLY MOISTENED SO THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED. EACH LAYER SHALL BE COMPACTED TO DENSITY OF 90 PERCENT OF MAXIMUM AT OPTIMUM MOISTURE CONTENT. BACKFILL EXCAVATIONS AS CONSTRUCTION OPERATIONS PERMIT, BUT NOT BEFORE ALL WORK TO BE COVERED HAS BEEN INSPECTED AND APPROVED, CONCRETE HAS ACHIEVED REQUIRED STRENGTH, AND DEBRIS HAS BEEN REMOVED FROM THE EXCAVATIONS. WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF WALLS, IT SHALL BE PLACED SIMULTANEOUSLY SO THAT THE HEIGHT OF FILL REMAINS APPROXIMATELY EQUAL ON BOTH SIDES AT ALL TIMES. EXCAVATIONS SHALL BE SHORED IN CONFORMANCE TO PLACER COUNTY STANDARD SPECIFICATIONS.
- 5.11 UTILITY TRENCH BACKFILL
 - A. UTILITY TRENCH BACKFILL SHALL BE PLACED WHILE UNDER THE SUPERVISION OF THE ENGINEER.
 - B. TRENCHES PLACED UNDER THE FLOOR SLABS SHALL BE BACKFILLED WITH SAND POSSESSING A SAND EQUIVALENT OF 40 OR MORE. THE SAND SHALL BE FLOODED AND JETTED INTO PLACE WHEN PERMITTED BY ENGINEER.
 - C. THE BACKFILL OF TRENCHES AT THEIR ENTRANCE UNDER EXTERIOR FOOTINGS SHALL CONSIST OF NATIVE SOIL, COMPACTED TO AT LEAST 90 PERCENT MAXIMUM DENSITY.
 - D. BACKFILL AT ALL OTHER TRENCHES PLACED IN AREAS OF IMPROVEMENT SHALL HAVE THE CONDUIT COVERED WITH SAND OR, IF THE EXCAVATED SOIL IS SUITABLE, WITH THE NATURAL SOIL TO A DEPTH OF 6 INCHES ABOVE THE TOP OF THE PIPE. THIS MATERIAL SHALL BE FLOODED TO ENSURE PROPER BEDDING FOR THE PIPE. THE BACKFILL SHALL THEN BE PLACED IN LIFTS AND PROPERLY FLOODED AND JETTED WHEN APPROVED BY ENGINEER. AFTER A SUFFICIENT TIME HAS PASSED TO ALLOW THE EXCESS MOISTURE TO DISSIPATE, THE UPPER 3 FEET OF THE TRENCH SHALL BE COMPACTED TO AT LEAST 40 PERCENT OF MAXIMUM DENSITY. ALL THE BACKFILL OF TRENCHES PLACED IN SLOPES SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY. IN LIEU OF MECHANICAL COMPACTION, THE TRENCHES IN SLOPES MAY BE BACKFILLED WITH SAND SLURRY.
 - E. WHERE IT IS DETERMINED THAT THEY WILL NOT INFLUENCE PERMANENT IMPROVEMENTS, TRENCHES PLACED IN LANDSCAPED AREAS MAY BE FLOODED AND JETTED FOR CONSOLIDATION.
 - F. MAXIMUM DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH ASTM TEST METHOD D1557-10.
- 5.12 GRADING:
 - FINE GRADING SHALL BE PERFORMED OVER ALL AREAS TO RECEIVE PAVING, SHALL BE TO TOLERANCE OF + 1/4 INCHES, AND SHALL BE PERFORMED AT ALL TRANSITION AREAS BETWEEN NEW AND EXISTING GRADES AND UNLESS OTHERWISE SHOWN, SHALL BE SMOOTH, UNIFORM, AND SLOPED TO DRAIN PROPERLY. RESTORE ALL AREAS DAMAGED OR DISTURBED BY CONSTRUCTION TO GRADES SHOWN ON PLANS.
- 5.13 PROTECTION OF COMPLETED WORK:
 - PROTECT ALL FINISHED AREAS FROM WEATHER DAMAGE BY WHATEVER MEANS ARE REQUIRED TO PREVENT EROSION OF GRADED AREAS OR SLOUGHING OF SLOPES. CONTINUED USE OF PREPARED SUBGRADE FOR HAULING WHICH WILL CUT OR DEFORM IT FROM REQUIRED CROSS-SECTION OF ELEVATIONS IS NOT PERMITTED, AND THE CONTRACTOR SHALL REPAIR AND RE-COMPACT ANY DAMAGE TO PREPARED SUBGRADES CAUSED BY SUCH OPERATIONS. PRIOR TO ACCEPTANCE BY THE CITY, ANY DAMAGED AREAS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

END OF SECTION

CONCRETE SPECIFICATION

1.0 SCOPE

- 1.01 PERFORM ALL CONCRETE WORK AS INDICATED AND SPECIFIED.
- 1.02 THE CONDITIONS OF THE CONTRACT AND THE GENERAL SPECIFICATIONS ARE A PART OF THIS SECTION.

2.0 GENERAL CONDITIONS

- 2.01 ALL SCALED DIMENSIONS ARE APPROXIMATELY. CHECK AND VERIFY ALL SITE DIMENSIONS AND RECEIVE OWNER'S REPRESENTATIVE'S APPROVAL PRIOR TO PROCEEDING WITH WORK UNDER THIS SECTION.
- 2.02 COORDINATE INSTALLATION OF ALL CONCRETE WORK TO AVOID INTERFERENCE WITH OTHER CONSTRUCTION.
- 2.03 KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS, AND DEBRIS INCIDENTAL TO WORK.
- 2.04 PROTECT WORK AND WORK OF OTHERS AT ALL TIMES IN PERFORMANCE OF WORK.

3.0 MATERIALS

- 3.01 GENERAL: PROVIDE MATERIALS OF BEST QUALITY OBTAINABLE, WHICH COMPLY STRICTLY WITH DRAWINGS AND SPECIFICATIONS.
- 3.02 PORTLAND CEMENT: ASTM C-150, TYPE V.
- 3.03 FINE AGGREGATE: WASHED NATURAL SAND OF HARD, STRONG PARTICLES, CONTAINING NOT MORE THAN 1% OF DELETERIOUS MATERIAL. FINENESS MODULES 1.25 TO 3.15.
- 3.04 COARSE AGGREGATE: CLEAN WASHED GRAVEL OR SOUND CRUSHED ROCK, CONTAINING NOT MORE THAN 5% FLAT, THIN, ELONGATED OR LAMINATED MATERIAL, NOT MORE THAN 1% DELETERIOUS SUBSTANCES. 1" MAXIMUM SIZE, GRADED FROM NO. 100 SIEVE TO 1"
- 3.07 PORTIONING OF MATERIALS: CONCRETE MIX SHALL BE 3500 P.S.I., THE WATER TO CEMENT RATIO SHALL NOT EXCEED 0.45.
- 3.08 TRANSIT MIX CONCRETE: ALL CONCRETE SHALL BE TRANSIT-MIX TYPE, CONFORMING TO ASTM C-44.
- 3.04 REINFORCING STEEL: ASTM C-165, GRADE 40, DEFORMED.
- 3.10 WATER: CLEAN DOMESTIC SOURCE FREE FROM EXCESSIVE AMOUNTS OF ACIDS, ALKALIS, SALTS, OR ORGANIC MATERIALS.
- 3.11 COLORING ADMIXTURE: MATCH COLOR OF EXISTING SIDEWALK. PROVIDE OWNER OR OWNER'S AGENT WITH PROPOSED COLOR CHIP AND RATIO OF ADMIXTURE PER SACK FOR APPROVAL PRIOR TO ORDERING MATERIALS.

4.0 INSTALLATION PROCEDURES

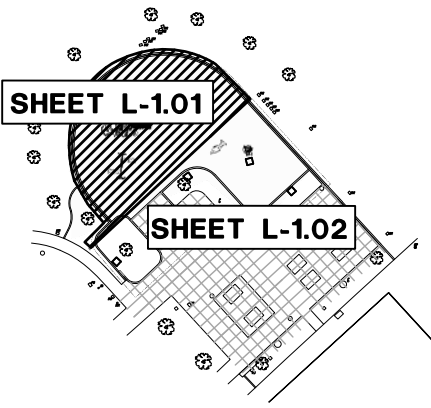
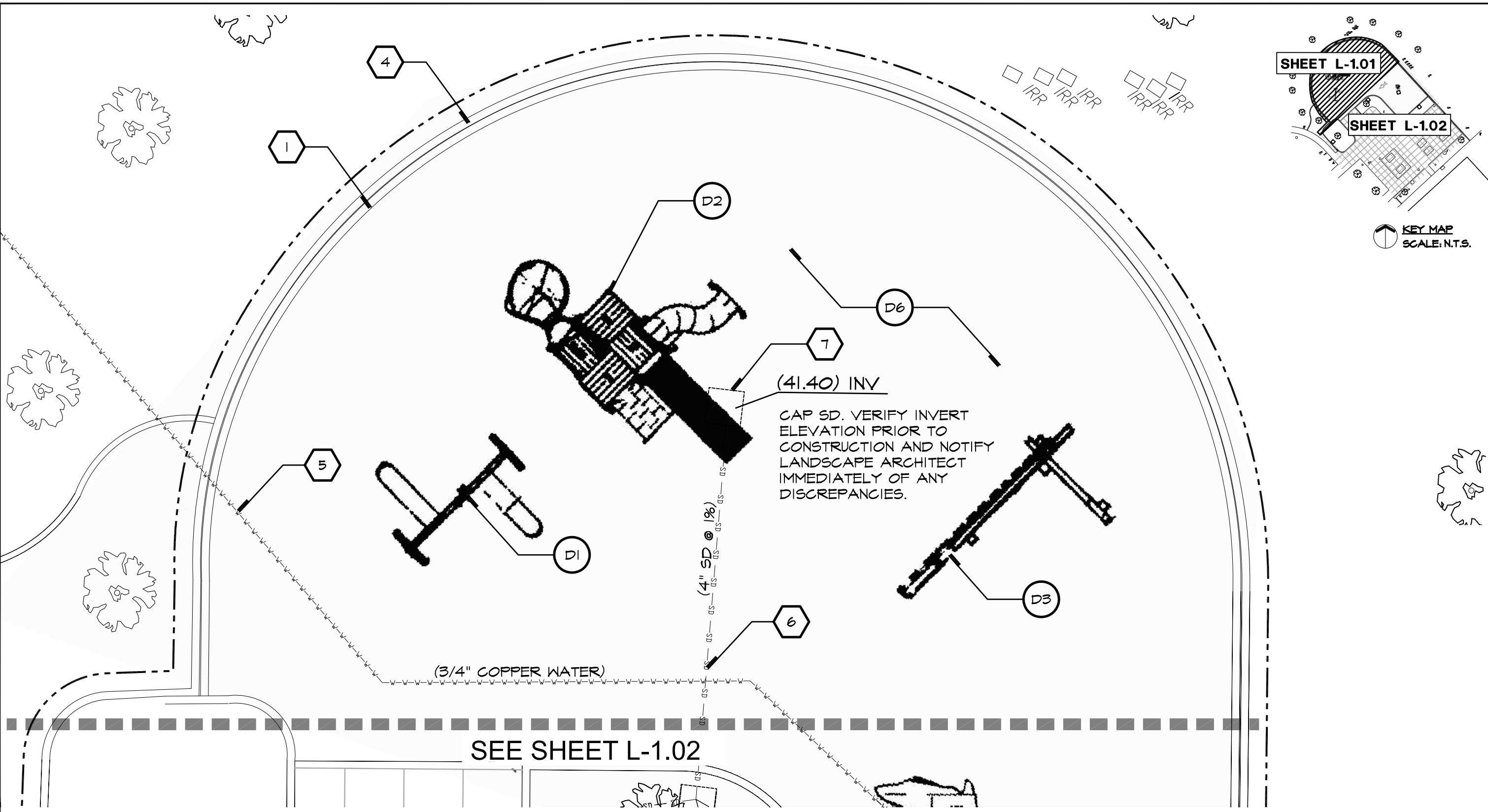
- 4.01 GENERAL: PERFORM ALL WORK IN ACCORDANCE WITH THE BEST STANDARD PRACTICE. DO NOT WILLFULLY INSTALL WORK WHEN THERE IS AN APPARENT CONFLICT.
- 4.02 PREPARATION:
 - A. SUBGRADE: COMPACT SUBGRADE TO A HARD, FIRM UNYIELDING SURFACE, SMOOTH, AND TRUE TO LINE AND GRADE; TEST FOR REQUIRED COMPACTION PRIOR TO PLACING CONCRETE. CONDUCT UNDER THE DIRECT OBSERVATION OF THE SOILS ENGINEER AND SECURE CERTIFICATION PRIOR TO PROCEEDING WITH CONCRETE POUR.
 - B. REINFORCING STEEL: BEFORE PLACING, THOROUGHLY CLEAN REINFORCING OF LOOSE MILL SCALE, RUST, OIL, OR OTHER COATING THAT MIGHT DESTROY OR REDUCE BOND. POSITION AS INDICATED, SECURE STEEL AGAINST DISPLACEMENT. USE CONCRETE BLOCKS TO HOLD REINFORCEMENT IN PROPER POSITION.
 - C. EMBEDDED ITEMS: SET ANY INSERTS ACCURATELY AND SECURE AGAINST DISPLACEMENT.
 - D. FORMWORK: STAKE RIGIDLY AT APPROPRIATE INTERVALS AND SECURE AGAINST DISPLACEMENT. INSTALL STRETCHED WIRES OR OTHER DEVICES TO AVOID DISPLACEMENT. FORMWORK SHALL NOT DEVIATE MORE THAN 1/8" FROM REQUIRED POSITIONS AND LEVELS AFTER CONCRETE POUR. WET FORMS TO TIGHTEN CRACKS.
 - 4.03 PLACING CONCRETE: PLACE CONCRETE WITHIN 60 MINUTES AFTER MIXING. CONSOLIDATE BY VIBRATING AND/OR TAMPING.
 - 4.04 FINISHING AND CURING: FINISH CONCRETE TO MATCH EXISTING FINISH (MEDIUM BROOM). CURE CONCRETE PER COLORING ADMIXTURE MANUFACTURER'S RECOMMENDATIONS.



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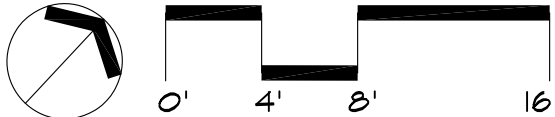
GENERAL SPECIFICATIONS	PLAN CHECKED: CASE NO. 00650354-PPA	SHEET <u>4</u>	OF <u>21</u>	DESIGNED: ZM	7	DRAWN: RM	6	CHECKED: ZM	4	DATE: 12/10/2015	3	2	1	NO.	DATE	REVISIONS
SAN CARLO PARK - PLAYGROUND REHABILITATION		CITY OF IRVINE		PLANS PREPARED BY: LARRY P. RYAN		DEVELOPER: APR		SOILS ENGINEER: APR		REPORT #		DATE				
COMMUNITY DEVELOPMENT DEPARTMENT				ARCHITECT: 2502		DATE: 04/30/2017		EXP. DATE		DATE						



KEY MAP
SCALE: N.T.S.

DESIGNED: ZM	DRAWN: RM	CHECKED: ZM	DATE: 12/10/2015	SCALE: 1/8" = 1'-0"	NO.	DATE
DEVELOPER	PLANS PREPARED BY: Ryan	SIGNATURE: LARRY P. RYAN	ARCHITECT: 2502	DATE: 04/30/2017	EXP. DATE: 12/10/2015	REPORT #
SAN CARLO PARK - PLAYGROUND REHABILITATION						DEMOLITION PLAN
CITY OF IRVINE						COMMUNITY DEVELOPMENT DEPARTMENT
PLAN CHECK: CASE NO. 00650354-PPA						SHEET 5
PERMIT:						OF 21

REFER TO L-1.03/SHEET 7 OF 21 FOR DEMOLITION
LEGEND AND NOTES.

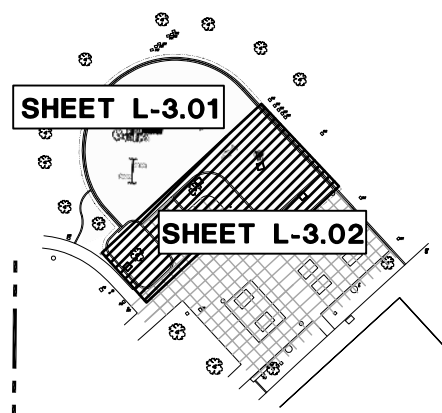


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L-1.01



SHEET L-3.01

SHEET L-3.02

SEE SHEET L-1.01

(41.10) INV

CAP SD. VERIFY INVERT
ELEVATION PRIOR TO
CONSTRUCTION AND NOTIFY
LANDSCAPE ARCHITECT
IMMEDIATELY OF ANY
DISCREPANCIES.

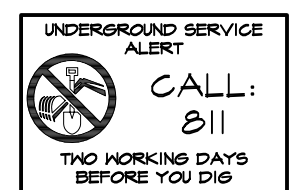
(41.40) INV

CAP SD. VERIFY
INVERT ELEVATION
PRIOR TO
CONSTRUCTION AND
NOTIFY LANDSCAPE
ARCHITECT
IMMEDIATELY OF ANY
DISCREPANCIES.

(3/4" COPPER WATER)



REFER TO L-1.03/SHEET 7 OF 21 FOR DEMOLITION
LEGEND AND NOTES.



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L-1.02

DEMOLITION PLAN SAN CARLO PARK - PLAYGROUND REHABILITATION CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT		PLANS PREPARED BY:  SIGNATURE: LARRY P. RYAN ARCHITECT: 2502 04/30/2017 12/10/2015 LICENSE NO. EXP. DATE	DESIGNED: ZM DRAWN: RM CHECKED: ZM DATE: 12/10/2015 SCALE: 1/8" = 1'-0" REVISIONS
SHEET <u>6</u> OF <u>21</u>		DEVELOPER:	

DEMOLITION NOTES

1. THE CONTRACTOR AND/OR SUBCONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BIDS.
2. ALL DEMOLITION ITEMS NOT REQUIRED FOR FILL SHALL BE REMOVED FROM THE PROJECT SITE, AND BE DISPOSED OF IN ACCORDANCE WITH LOCAL CODES.
3. NO RUBBISH OR DEBRIS SHALL BE BURNED ON SITE.
4. ANY DAMAGE TO EXISTING PLANT MATERIAL OR HARDSCAPE ELEMENTS THAT ARE TO REMAIN, I.E. CURBS, WALKS, WALLS, ADJACENT PROPERTY, ETC., SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL LIST ALL EXISTING TREES THAT HAVE HAD WORK PERFORMED WITHIN 6' OF TRUNK, ON HIS PLANT MATERIAL GUARANTEE.
6. CONTRACTOR SHALL VERIFY LOCATIONS & INVERT ELEVATIONS OF ALL UNDERGROUND UTILITY LINES, PIPES, VAULTS OR BOXES PRIOR TO ANY EXCAVATION. ANY DAMAGE INCURRED TO ANY EXISTING UTILITY ELEMENTS SHALL BE REPAIRED PROPERLY AND IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY SHOULD FIELD CONDITIONS VARY FROM THOSE SHOWN ON PLAN.
8. LOCATIONS OF CONSTRUCTION ELEMENTS: LIGHTS, SIGNS, VENTS, HYDRANTS, TRANSFORMERS, ETC., ARE APPROXIMATE. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY SHOULD THE LOCATION OF THESE ITEMS INTERFERE WITH THE PROPER EXECUTION OF HIS WORK.

DEMOLITION LEGEND:

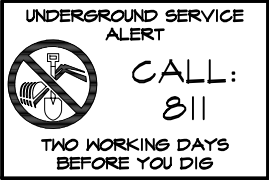
DESCRIPTION:	COMMENTS:
D1 EXISTING BELT SWING-MODEL NO. 20270.	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D2 EXISTING PLAY COMPLEX-MODEL NO. 8640-M	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D3 EXISTING BALANCE BEAM-MODEL NO. 836	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D4 EXISTING PORPOISE-MODEL NO. #7-POR	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D5 EXISTING TURTLE-MODEL NO. #7-T	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D6 EXISTING PLASTER SAND	REMOVE AND DISPOSE OFFSITE

EXISTING CONDITIONS:

DESCRIPTION:	COMMENTS:
1 POURED-IN-PLACE CONCRETE WALL	PROTECT-IN-PLACE
2 LIGHT BOLLARD	PROTECT-IN-PLACE
3 DRINKING FOUNTAIN	PROTECT-IN-PLACE
4 MOW STRIP	PROTECT-IN-PLACE
5 3/4" COPPER WATER LINE	PROTEXT IN PLACE EXISTING POTABLE WATER LINE. CONTRACTOR TO STAKE LOCATIONS OF NEW PLAY EQUIPMENT FOOTINGS AND REPORT TO LANDSCAPE ARCHITECT/CITY REPRESENTATIVE OF ANY CONFLICT. UPON ANY CONFLICT CONTRACTOR TO RE-ROUTE WATER LINE AWAY FROM ANY PLAY STRUCTURE CONFLICT.
6 4" PVC STORM DRAIN LINE	PROTECT-IN-PLACE
7 CATCH BASIN	REMOVE AND DISPOSE OFFSITE. CAP STORM DRAIN LINE.

LINETYPE LEGEND:

DESCRIPTION:	COMMENTS:
-----	LIMIT OF WORK



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DEMOLITION LEGEND/NOTES

SAN CARLO PARK - PLAYGROUND REHABILITATION

CITY OF IRVINE

COMMUNITY DEVELOPMENT DEPARTMENT

PLANS PREPARED BY:

SIGNATURE: LARRY P. RYAN

ARCHITECT: 2502

DATE: 04/30/2017

EXP. DATE: 12/10/2015

DESIGNED: ZM

DRAWN: RM

CHECKED: ZM

DATE: 12/10/2015

SCALE: 1/8" = 1'-0"

DEVELOPER:

SOILS ENGINEER:

REPORT #

DATE

7

6

5

4

3

2

1

NO.

DATE

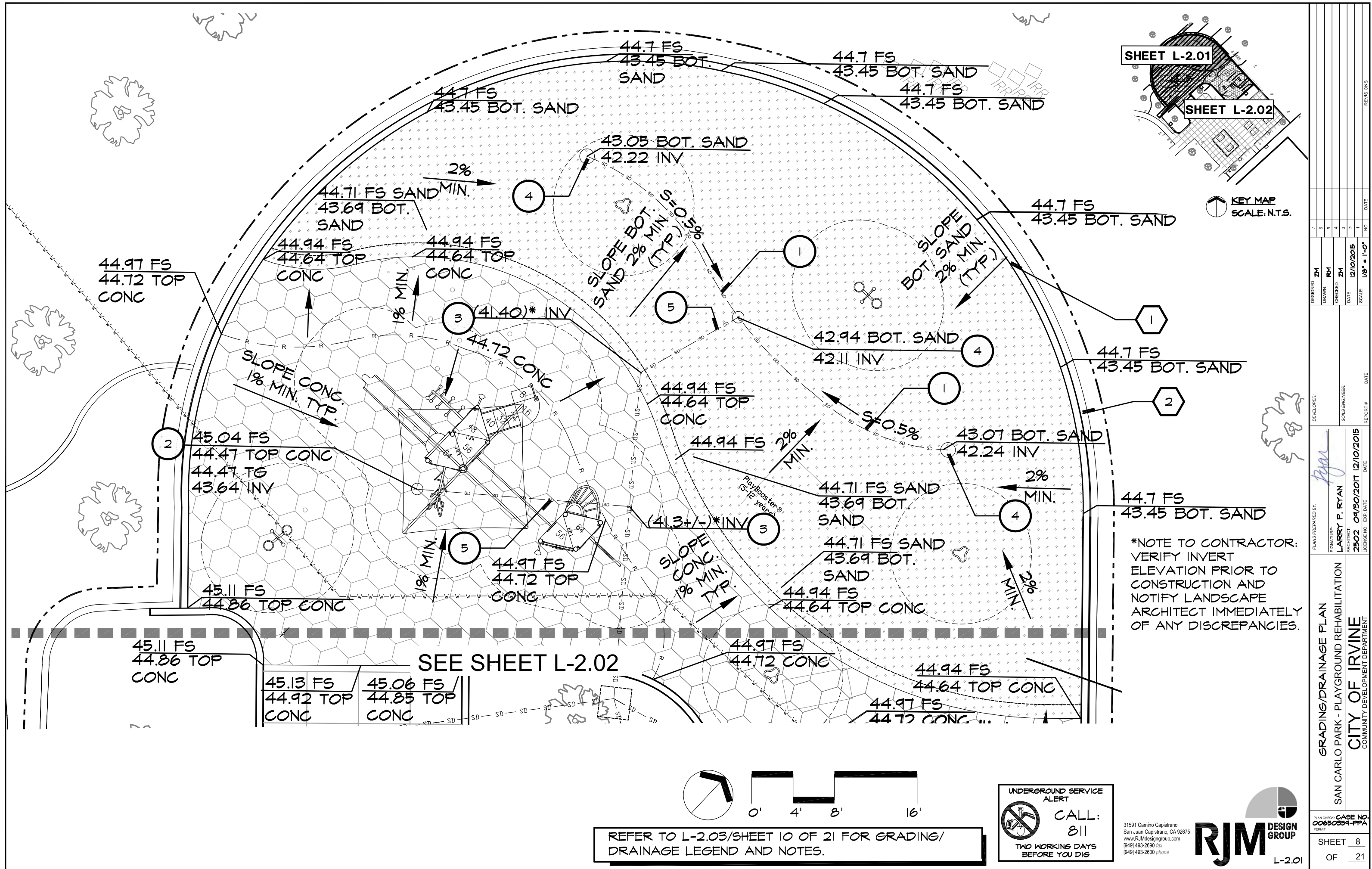
REVISIONS

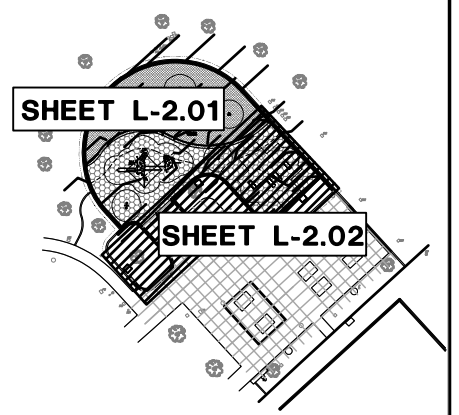
PLAN CHECK: CASE NO. 00650554-PPA

PERMIT:

SHEET 7

OF 21





SHEET L-2.02

44.71 FS SAND
43.69 BOT.
SAND

44.97 FS
44.72 TOP
CONC

***NOTE TO CONTRACTOR:
VERIFY INVERT
ELEVATION PRIOR TO
CONSTRUCTION AND
NOTIFY LANDSCAPE
ARCHITECT IMMEDIATELY
OF ANY DISCREPANCIES.**

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L-2.02

PLAN CHECK: CASE NO. 00650354-PP-A		DATE	
PERMIT:		DATE	
SHEET 9		DATE	
OF 21		NO.	
GRADING/DRAINAGE PLAN		DATE	
SAN CARLO PARK - PLAYGROUND REHABILITATION		REPORT #	
CITY OF IRVINE		1/8" = 1'-0"	
COMMUNITY DEVELOPMENT DEPARTMENT		SCALE:	
PLAN PREPARED BY: <i>[Signature]</i>		DATE: 12/10/2015	
SIGNATURE: LARRY P. RYAN		CHECKED: ZM	
ARCHITECT:		DRAWN: ZM	
2502 09/30/2017		7	
LICENSE NO. EXP. DATE		6	
DATE		5	
DATE		4	
DATE		3	
DATE		2	
DATE		1	
DATE		NO.	
DATE		REVISIONS	

GRADING AND DRAINAGE NOTES

- A

CONTRACTOR SHALL BE RESPONSIBLE FOR POSITIVE DRAINAGE ON SURFACE FLOW AREAS AT 1% (MIN.) ON HARDSCAPE AND 2% (MIN.) ON GRADE UNLESS OTHERWISE INDICATED.
- B

WHERE PAVING AND FINISH GRADE MEET, DEPRESS FINISH GRADE 1" IN TURF AREAS AND 2" IN GROUND COVER AREAS UNLESS OTHERWISE INDICATED.
- C

DO NOT WILLFULLY PROCEED WITH CONSTRUCTION WHEN IT IS OBVIOUS THAT KNOWN OBSTRUCTIONS EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. ASSUME RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- D

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADOPTED EDITIONS OF THE UNIFORM BUILDING CODE, THE AMERICANS WITH DISABILITIES ACT OF 1991, AND ALL OTHER APPLICABLE LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS.
- E

BRING ANY DISCREPANCIES IN PLANS, SITE CONDITIONS, AND PRIOR WORK TO THE LANDSCAPE ARCHIECT'S ATTENTION BEFORE ANY ADDITIONAL WORK IS PERFORMED.
- F

DO NOT SCALE DRAWINGS. CONTRACTOR TO STAKE/SURVEY LAYOUT FOR CITY APPROVAL PRIOR TO BEGINNING ANY WORK.
- G

REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ALL DEBRIS AND EXCAVATED MATERIAL NOT REQUIRED FOR FILL. NO RUBBISH OR DEBRIS SHALL BE BURIED ON THE SITE.
- H

DO NOT EXCEED 3 : 1 SLOPE IN TURF AREAS
- I

DO NOT EXCEED A SLOPE OF 4.9% ON PROJECT WALKS.
- J

ANY DAMAGE TO EXISTING PLANT MATERIAL OR HARDSCAPE ELEMENTS THAT ARE TO REMAIN, I.E. CURBS, WALKS, WALLS, ADJACENT PROPERTY, ETC., SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
- K

ALL GROUND SURFACES SHALL BE BROUGHT TO A CONSISTENT GRADE, HAVING NO IRREGULARITIES, DEPRESSIONS, OR RIDGES TO THE SATISFACTION OF THE CITY REPRESENTATIVE. FINE GRADE ALL AREAS TO PROVIDE POSITIVE DRAINAGE AND SMOOTH, CONSISTENT GRADE TRANSITIONS.
- L

IT IS THE INTENT TO ACHIEVE ALL GRADE RELATIONSHIPS AS SHOWN ON THE GRADING PLAN AND TO BALANCE ON SITE. THE CONTRACTOR SHALL NOTIFY THE CITY IMMEDIATELY OF ANY DIFFICULTY IN ACHIEVING A BALANCED-ON-SITE GRADING OPERATION. THE CITY, AT ITS DISCRETION, MAY DIRECT ADJUSTMENTS IN THE PROPOSED
- M

LOCATIONS OF N.I.C. CONSTRUCTION ELEMENTS SUCH AS LIGHTS, SIGNS, VENTS, HYDRANTS, TRANSFORMERS, ETC., ARE APPROXIMATE. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY SHOULD THE LOCATION OF THESE ITEMS INTERFERE WITH THE PROPER EXECUTION OF WORK.

GRADING/DRAINAGE LEGEND:

CONSTRUCT:

- 1

CONSTRUCT PLAY AREA SUBDRAIN (SAND) PER DETAIL 2, L-4.01/SHEET 19 OF 21
- 2

CONSTRUCT PLAY AREA SUBDRAIN (RESILIENT) PER DETAIL 1, L-4.02
- 3

CONNECT TO EXISTING 4" STORM DRAIN LINE
- 4

CONSTRUCT 4" PVC TEE W/4" CLEANOUT W/ THREADED CAP
- 5

CONSTRUCT 4" PVC (SCH 40) STORM DRAIN PIPE

EXISTING CONDITIONS:

DESCRIPTION:

COMMENTS:

- 1

POURED-IN-PLACE CONCRETE WALL

PROTECT-IN-PLACE
- 2

MOW STRIP

PROTECT-IN-PLACE
- 3


PLANTER AREA


PROTECT-IN-PLACE

LINETYPE/HATCH LEGEND:


DESCRIPTION:

COMMENTS:

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










LIMIT OF WORK
- 

SAND PLAYGROUND SURFACING.

SEE CONSTRUCTION PLAN/DETAILS
- 

POURED-IN-PLACE RESILIENT SURFACING.

SEE CONSTRUCTION PLAN/DETAILS

DRAINAGE & GRADING LEGEND	
	HIGH POINT
	LOW POINT
	FIELD DRAIN LINE
	FINISH SURFACE
	TOP OF CONCRETE
	RIDGE
	INVERT ELEVATION
	TOP OF GRATE
	TOP OF WALL
	CATCH BASIN
	EXISTING SPOT ELEVATION
	PROPOSED SPOT ELEVATION



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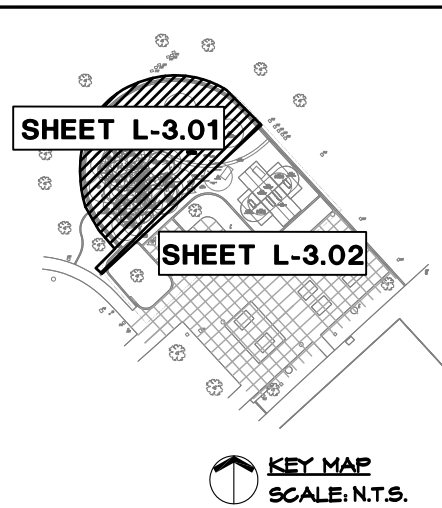
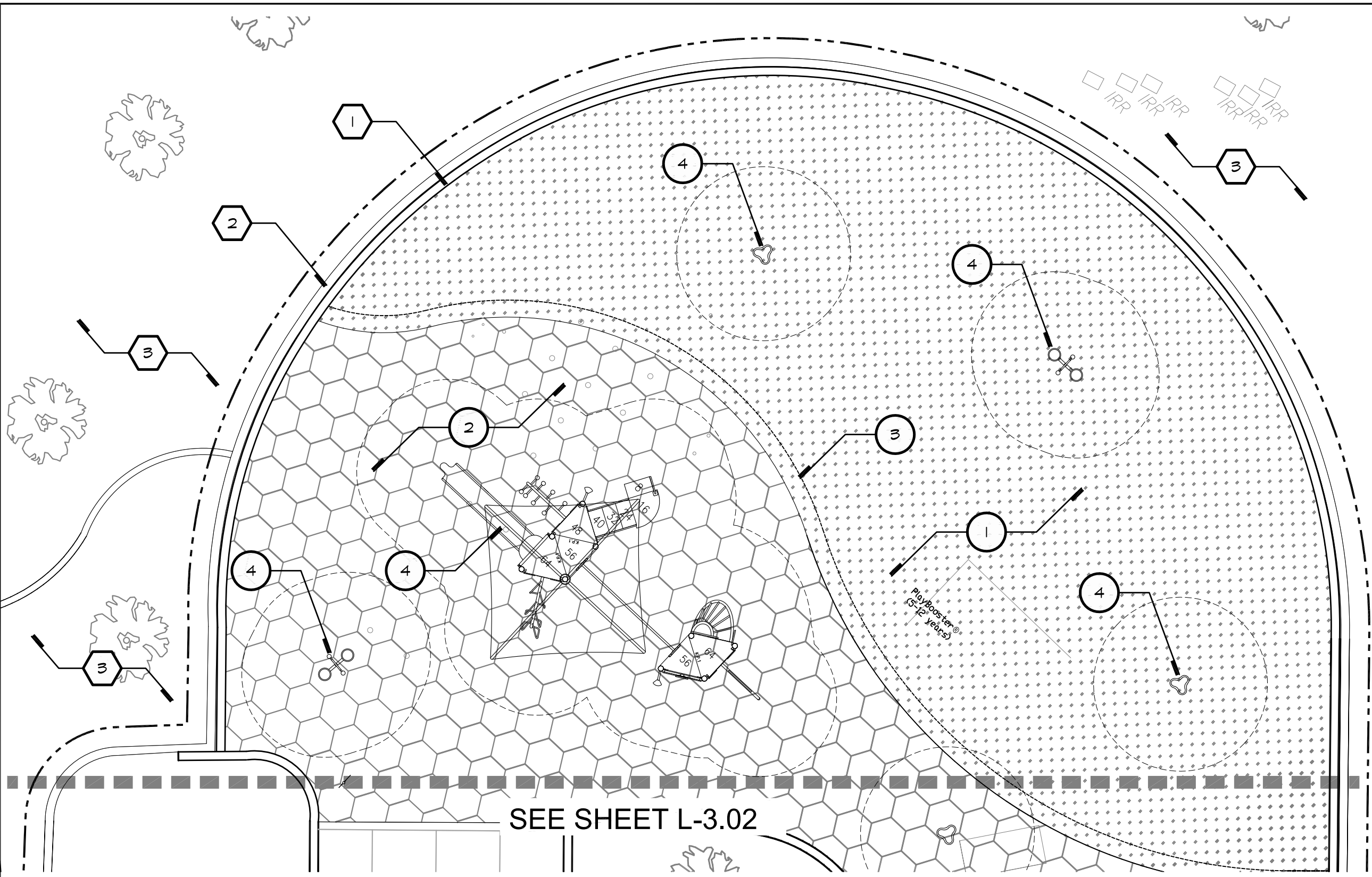


GRADING/DRAINAGE LEGEND NOTES
SAN CARLO PARK - PLAYGROUND REHABILITATION
CITY OF IRVINE
COMMUNITY DEVELOPMENT DEPARTMENT

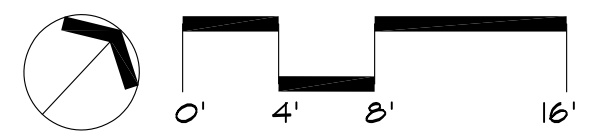
PLAN CHECK: CASE NO. 00650354-PPA
PERMIT:

SHEET 10
OF 21

DESIGNED: ZM	DRAWN: RM	CHECKED: ZM	DATE: 12/10/2015	SCALE: 1/8" = 1'-0"
DEVELOPER:	SOILS ENGINEER:	REPORT #	DATE	REVISIONS
				7
				6
				5
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				1
				NO.
				DATE



SEE SHEET L-3.02



REFER TO L-3.03/SHEET 13 OF 21 FOR CONSTRUCTION LEGEND AND NOTES.

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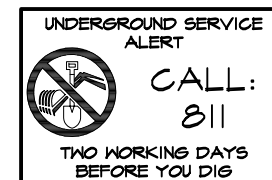


CONSTRUCTION PLAN		SAN CARLO PARK - PLAYGROUND REHABILITATION		CITY OF IRVINE		COMMUNITY DEVELOPMENT DEPARTMENT	
PLANS PREPARED BY:		SIGNATURE: 		ARCHITECT: LARRY P. RYAN		DATE: 12/10/2015	
DESIGNED: ZM		DRAWN: RM		CHECKED: ZM		DATE: 12/10/2015	
DEVELOPER:		SOILS ENGINEER:		REPORT #		NO.	
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- (A) VISIT THE SITE PRIOR TO SUBMITTING BIDS.
- (B) VERIFY ALL PROPERTY LINES OR OTHER LIMIT OF WORK LINES PRIOR TO COMMENCING WORK.
- (C) VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY SHOULD FIELD CONDITIONS VARY FROM THOSE SHOWN ON THE PLANS. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS, SUCH DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT WHO WILL ISSUE CORRECTED DRAWINGS OR INSTRUCTIONS PRIOR TO THE CONTINUATION OF THIS WORK. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY FIELD CORRECTIONS DUE TO FAILURE TO REPORT KNOWN DISCREPANCIES.
- (D) LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND PROTECT THEM FROM DAMAGE. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF DAMAGE OCCURS AND ASSUME FULL RESPONSIBILITY FOR EXPENSE OF REPAIR OR REPLACEMENT.
- (E) COMPLY WITH ALL PROVISIONS OF THE LATEST BUILDING CODE AND WITH OTHER CURRENT RULES, REGULATIONS AND ORDINANCES GOVERNING THE LOCATION WHERE THE WORK IS TO OCCUR. BUILDING CODE REQUIREMENTS TAKE PRECEDENCE OVER THE DRAWINGS AND IT SHALL BE THE RESPONSIBILITY OF ANYONE SUPPLYING LABOR OR MATERIALS OR BOTH TO BRING TO THE ATTENTION OF THE ARCHITECT ANY DISCREPANCIES OR CONFLICTS BETWEEN THE REQUIREMENTS OF THE CODE AND THE DRAWINGS.
- (F) LOCATIONS OF N.I.C. CONSTRUCTION ELEMENTS SUCH AS LIGHTS, SIGNS, VENTS, HYDRANTS, TRANSFORMERS, ETC., ARE APPROXIMATE. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY SHOULD THE LOCATION OF THESE ITEMS INTERFERE WITH THE PROPER EXECUTION OF WORK.
- (G) CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN SUBCONTRACTORS FOR PROPER AND TIMELY PLACEMENT OF SLEEVING, PIPING AND/OR CONDUIT INSTALLATION UNDER OR THROUGH LANDSCAPE ELEMENTS.
- (H) DO NOT SCALE DRAWINGS.
- (I) PROVIDE A REPRESENTATIVE SAMPLE OF EACH PAINTED OR STAINED ELEMENT TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO APPLYING FINISH. REFER TO DETAILS AND SPECIFICATIONS FOR SPECIFIC SUBMITTAL REQUIREMENTS.
- (J) PROVIDE A 4' X 4' SAMPLE OF EACH PAVING TYPE IN LOCATION SPECIFIED BY OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS.
- (K) DO NOT EXCEED A SLOPE OF 20:1 (5%) ON PROJECT WALKS UNLESS OTHERWISE INDICATED.
- (L) CONSTRUCT ALL CURVE TO CURVE AND CURVE TO TANGENT LINES TO BE NEAT, TRIM, SMOOTH AND UNIFORM.
- (M) CONSTRUCT ALL CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI @ 28 DAYS.
- (N) PROVIDE OWNER WITH ALL WARRANTIES, GUARANTEES, AND INSTRUCTION MANUALS FOR EQUIPMENT, APPLIANCES, FIXTURES, ETC.
- (O) CONTRACTOR SHALL OBTAIN CERTIFICATION FROM PLAYGROUND EQUIPMENT MANUFACTURER THAT ALL CURRENT A.D.A. AND CONSUMER PRODUCT SAFETY COMMISSION STANDARDS HAVE BEEN FULLY COMPLIED WITH.
- (P) A COMPLETE PLAYGROUND AND SAFETY AUDIT SHALL BE PERFORMED BY A NPSI CERTIFIED INSPECTOR AND GIVEN TO THE CITY'S AUTHORIZED REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF PLAYGROUND.

A DIGITAL FILE WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION TO ASSIST THE CONTRACTOR / SURVEYOR IN ESTABLISHING CONTROLS NECESSARY TO FIELD STAKE PAVING, WALKS, WALLS, TRAILS, MOW CURBS, ETC. AS SHOWN ON THE CONSTRUCTION PLANS.

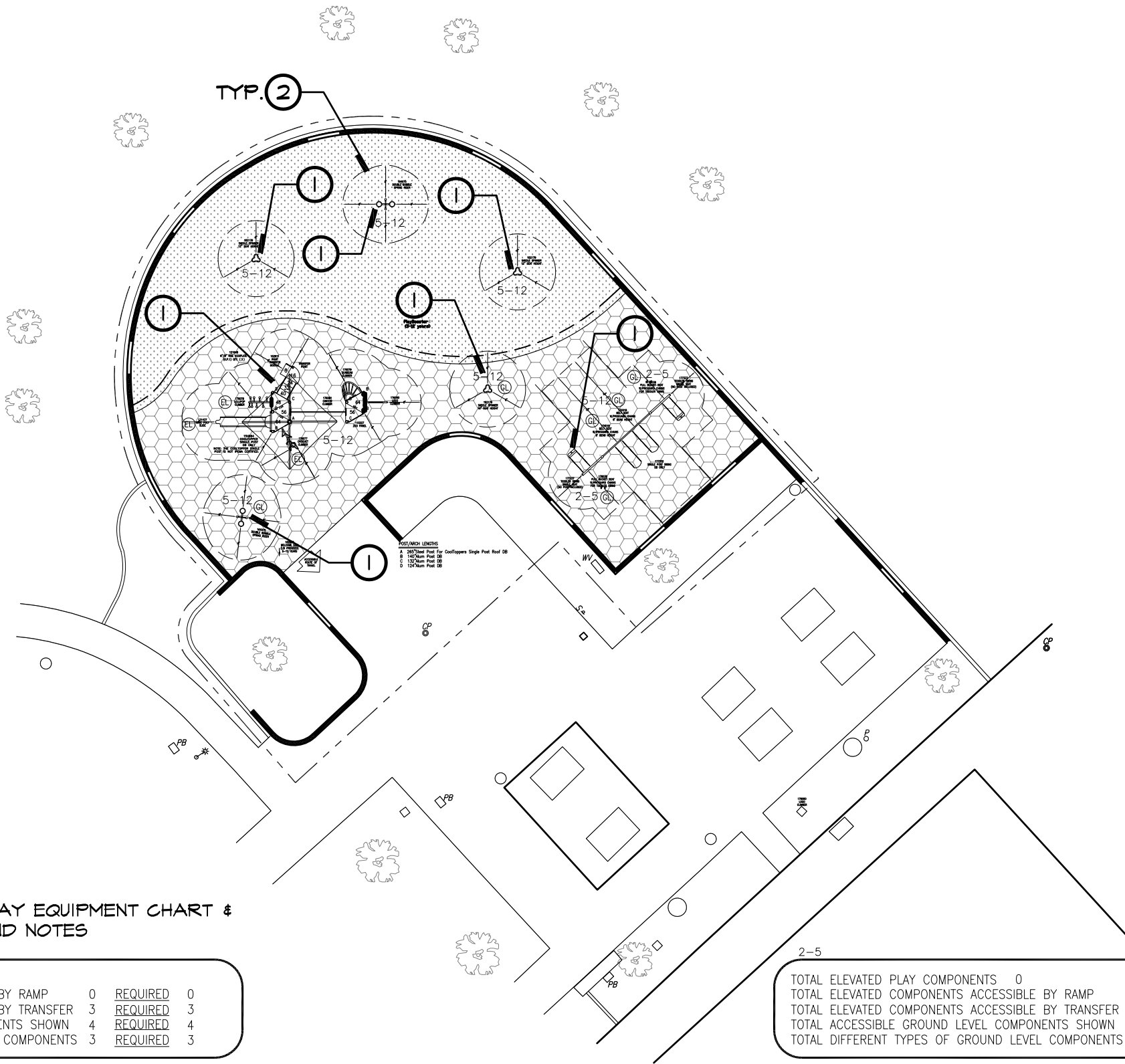
WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ALL ROOTS TWO (2) INCH AND LARGER IN DIAMETER, EXCEPT DIRECTLY IN THE PATH OF PIPE OR CONDUIT, SHALL BE TUNNELED UNDER AND SHALL BE HEAVILY WRAPPED WITH BURLAP, TO PREVENT SCARRING OR EXCESSIVE DRYING. WHERE A DITCHING MACHINE IS RUN CLOSE TO TREES HAVING ROOTS SMALLER THAN TWO (2) INCHES IN DIAMETER, THE WALL OF THE TRENCH ADJACENT TO THE TREE SHALL BE HAND TRIMMED. MAKING CLEAN CUTS THROUGH. TRENCHES ADJACENT TO TREES SHOULD BE CLOSED WITHIN TWENTY-FOUR (24) HOURS; AND WHERE THIS IS NOT POSSIBLE THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.



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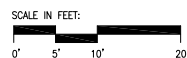
SEE SHEET L-4.04 FOR PLAY EQUIPMENT CHART & CONSTRUCTION LEGEND AND NOTES

5-12

TOTAL ELEVATED PLAY COMPONENTS	6		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	3	REQUIRED	3
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	4	REQUIRED	4
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	3	REQUIRED	3

2-5

TOTAL ELEVATED PLAY COMPONENTS	0		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	0	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	2	REQUIRED	0
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	1	REQUIRED	1



San Carlo Park
Option 1
Irvine, CA

Coast
Recreation, Inc.
Tim Hodges

SYSTEM TYPE:
PlayBooster

DRAWING #:
85324-1-3



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The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 2-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY, EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SUBSURFACE MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

ACCESSIBLE/PROTECTIVE SURFACING TO BE A COMBINATION OF UNITARY AND LOOSE FILL MATERIALS.

IT IS THE MANUFACTURER'S OPINION AND INTENT THAT THE LAYOUT OF THESE COMPONENTS CONFORM WITH THE U.S. CONSUMER PRODUCT SAFETY COMMISSION'S (CPSC) "HANDBOOK FOR PUBLIC PLAYGROUND SAFETY".

DESIGNED BY:
GLG

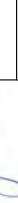
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LANDSCAPE STRUCTURES, INC.
601 7th STREET SOUTH - P.O. BOX 198
DELANO, MINNESOTA 55328
PH: 1-800-328-0035 FAX: 1-763-972-6091

7/15/15	85324-1-2	GLG
6/17/15	85324-1-1	GLG
Date	Previous Drawing #	Initials



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CONSTRUCTION DETAILS		PLANS PREPARED BY: <u></u>		DESIGNED: <u>ZM</u>		7
SAN CARLO PARK - PLAYGROUND REHABILITATION		SIGNATURE: <u>LARRY P. RYAN</u>		DRAWN: <u>RM</u>		6
CITY OF IRVINE		ARCHITECT: <u>2502 09/30/2017 12/10/2015</u>		CHECKED: <u>ZM</u>		5
COMMUNITY DEVELOPMENT DEPARTMENT		LICENSE NO. EXP. DATE		DATE: <u>12/10/2015</u>		4
		REPORT #		SCALE: <u>1/8" = 1'-0"</u>		3
		DATE		NO. <u>1</u>		2
				REVISIONS		1

CONSTRUCTION LEGEND

- 1
- INSTALL PLAYGROUND EQUIPMENT BY: LANDSCAPE STRUCTURES. TO BE PROVIDED BY: COAST RECREATION OR APPROVED EQUAL. CONTACT: TIM HODGES (714) 619-0100. MODEL NUMBER 177332A (AGES 2-5) & MODEL NUMBERS 177337A, 152179A, 164075B, 85324-1-2 (AGES 5-12) SEE SHEETS L-4.02 THRU L-4.05.
- 2
- PLAY EQUIPMENT FALL ZONE DELINEATION, TYP.
- CONSTRUCTION NOTES:
- A
- SEE SHEETS L-2.01 THRU L-2.03 FOR GRADING AND DRAINAGE PLANS.
- B
- PLAY STRUCTURES SHALL BE INSTALLED BY A CERTIFIED "NATIONAL PLAYGROUND SAFETY INSTITUTE" INSTALLER APPROVED BY THE MANUFACTURER AND THE CITY. CONTRACTOR SHALL HAVE A LICENSED SURVEYOR DIGITIZE THE ENTIRE TOT LOT AREA, INCLUDING PERIMETER EDGE, RESILIENT SURFACING AREA, PLAY EQUIPMENT AND PLAY EQUIPMENT FALL ZONES). THIS LAYOUT SHALL BE REVIEWED AND APPROVED BY PLAY EQUIPMENT MANUFACTURER'S REPRESENTATIVE AND CITY'S AUTHORIZED REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE.
- C
- PRIOR TO INSTALLATION, FIELD STAKE LAYOUT OF EACH PLAY STRUCTURE SHALL BE REVIEWED AND APPROVED BY MANUFACTURER'S REPRESENTATIVE.
- D
- CONTRACTOR SHALL VERIFY LOCATION OF SUB-DRAIN IN RELATION TO PLAY STRUCTURE FOOTINGS TO INSURE ADEQUATE CLEARANCE AND DRAINAGE.
- E
- SUB-DRAIN SYSTEM CATCH BASIN AND DRAIN PIPE SIZING PER GRADING AND DRAINAGE PLANS. SEE SHEETS L-2.01, L-2.02, AND L-2.03.
- F
- RESILIENT SURFACING TO BE INSTALLED BY A CERTIFIED INSTALLER. INSTALLER SHALL SUBMIT A 12X12 SAMPLE OF EACH COLOR TO CITY REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.
- G
- CONTRACTOR SHALL OBTAIN CERTIFICATION FROM PLAYGROUND EQUIPMENT MANUFACTURER THAT ALL CURRENT A.D.A. AND CONSUMER PRODUCT SAFETY COMMISSION STANDARDS HAVE BEEN FULLY COMPLIED WITH.
- H
- A COMPLETE PLAYGROUND AUDIT SHALL BE PERFORMED BY A NPSI CERTIFIED INSPECTOR AND GIVEN TO THE CITY'S AUTHORIZED REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF THE PLAYGROUND.
- I
- FURNISH AND INSTALL ALL PLAY EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.
- J
- PRIOR TO FORM WORK AND CONCRETE WORK, CONTRACTOR SHALL LAY OUT PLAY AREA EDGE AND PLAY EQUIPMENT TO ENSURE ALL REQUIREMENTS ARE MET PER A.D.A. AND CSPC GUIDELINES AND STANDARDS.

PLAYGROUND NOTES:

- A
- AT LEAST ONE TURNING SPACE COMPLYING WITH CBC 11B-304 (TURNING SPACE) SHALL BE PROVIDED ON THE SAME LEVEL AS PLAY COMPONENTS. WHERE SWINGS ARE PROVIDED, THE TURNING SPACE SHALL BE LOCATED IMMEDIATELY ADJACENT TO THE SWING.
- B
- ENTRY POINTS AND SEATS PER CBC 11B-1 008. 4. 4.
- C
- TRANSFER SUPPORT PER CBC 11B-1008.2.5.
- D
- GROUND SURFACE AREA SHALL COMPLY WITH CBC 11B-1008.2.6

PLAY EQUIPMENT

(AGES 2-5):
177337 - TODDLER SWING SINGLE SEAT(NO POST INCLUDED)
176038 - FULL BUCKET SEAT W/PROGUARD CHAINS FOR TODDLER SWING

(AGES 5-12):
177332 - SINGLE POST SWING DB ONLY
174018 - BELT SEAT W/PROGUARD CHAINS 8' BEAM HEIGHT
152179 - SADDLE SPINNER 16" SEAT HEIGHT
152179 - SADDLE SPINNER 12" SEAT HEIGHT
164075 - DOUBLE BOBBLE SPRING RIDER
176080 - LOGO CLIMBER
115227 - ZOO PANEL
176079 - SUNBEAM CLIMBER
176081 - CANYON CLIMBER
176077 - CROQUET CLIMBER
176078 - LOLLIPOP CLIMBER
131437 - WAVE POLY SLIDE
152911 - RIGHT TRANSFER MODULE
121948 - 6"/8" RISE KICKPLATE (K.P.I) QTY. (3)
154884 - COOLTOPPER SINGLE POST DB ONLY
(NOTE: THE COOLTOPPER SINGLE POST IS NOT IPEMA CERTIFIED.)
182503 - WELCOME SIGN (LSI PROVIDED) 5-12 YEARS
111363 - TALK TUBE DIRECT BURY
11362 - TALK TUBE 40' TUBING KIT
127439 - NAVIGATOR REACH PANEL AT GRADE

POST/ARCH LENGTHS

- A 265" STEEL POST FOR COOLTOPPERS SINGLE POST ROOF DB
B 140" ALUM POST DB
C 132" ALUM POST DB
D 124" ALUM POST DB



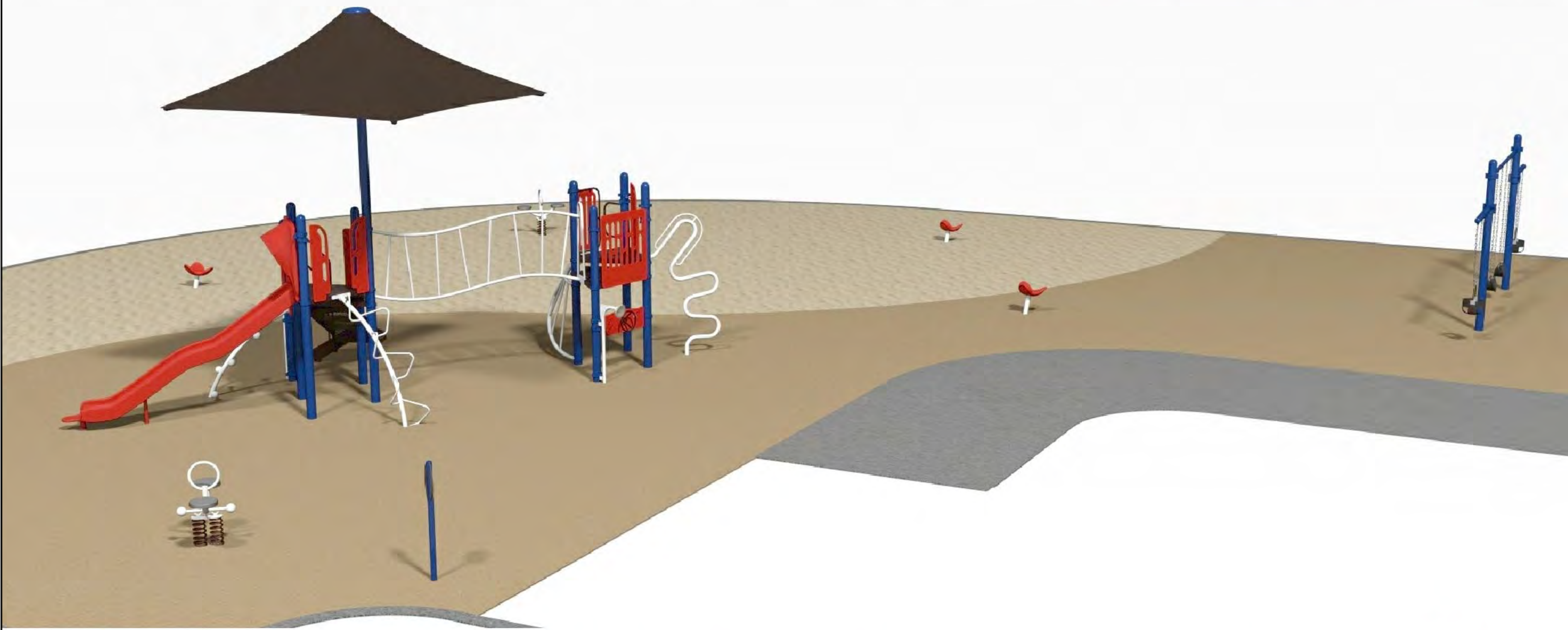
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CONSTRUCTION DETAILS		DESIGNED: ZM	DRAWN: RM	CHECKED: ZM	DATE: 12/10/2015	SCALE: 1/8" = 1'-0"	NO.	DATE
SAN CARLO PARK - PLAYGROUND REHABILITATION		DEVELOPER:		SOILS ENGINEER:		REPORT #		REVISIONS
CITY OF IRVINE		PLANS PREPARED BY: LARRY P. RYAN		ARCHITECT: 2502		EXP. DATE: 04/30/2017		12/10/2015
COMMUNITY DEVELOPMENT DEPARTMENT		LICENSE NO.		DATE		DATE		
PLAN CHECK: CASE NO. 00650354-PPA		PERMIT:		SHEET 17		OF 21		
L-4.04								

San Carlo Park

Irvine CA September 28, 2015 85324-1-6



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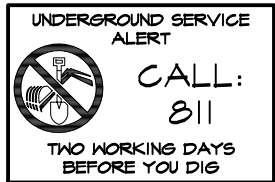


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CONSTRUCTION DETAILS
SAN CARLO PARK - PLAYGROUND REHABILITATION
CITY OF IRVINE
COMMUNITY DEVELOPMENT DEPARTMENT

PLAN CHECK: CASE NO.
00650354-PPA
PERMIT:

SHEET 18
OF 21

PLANS PREPARED BY:
SIGNATURE: *Larry P. Ryan*
LARRY P. RYAN
ARCHITECT:
2502 04/30/2017 12/10/2015
LICENSE NO. EXP. DATE

DEVELOPER:
SOILS ENGINEER:
REPORT #
DATE

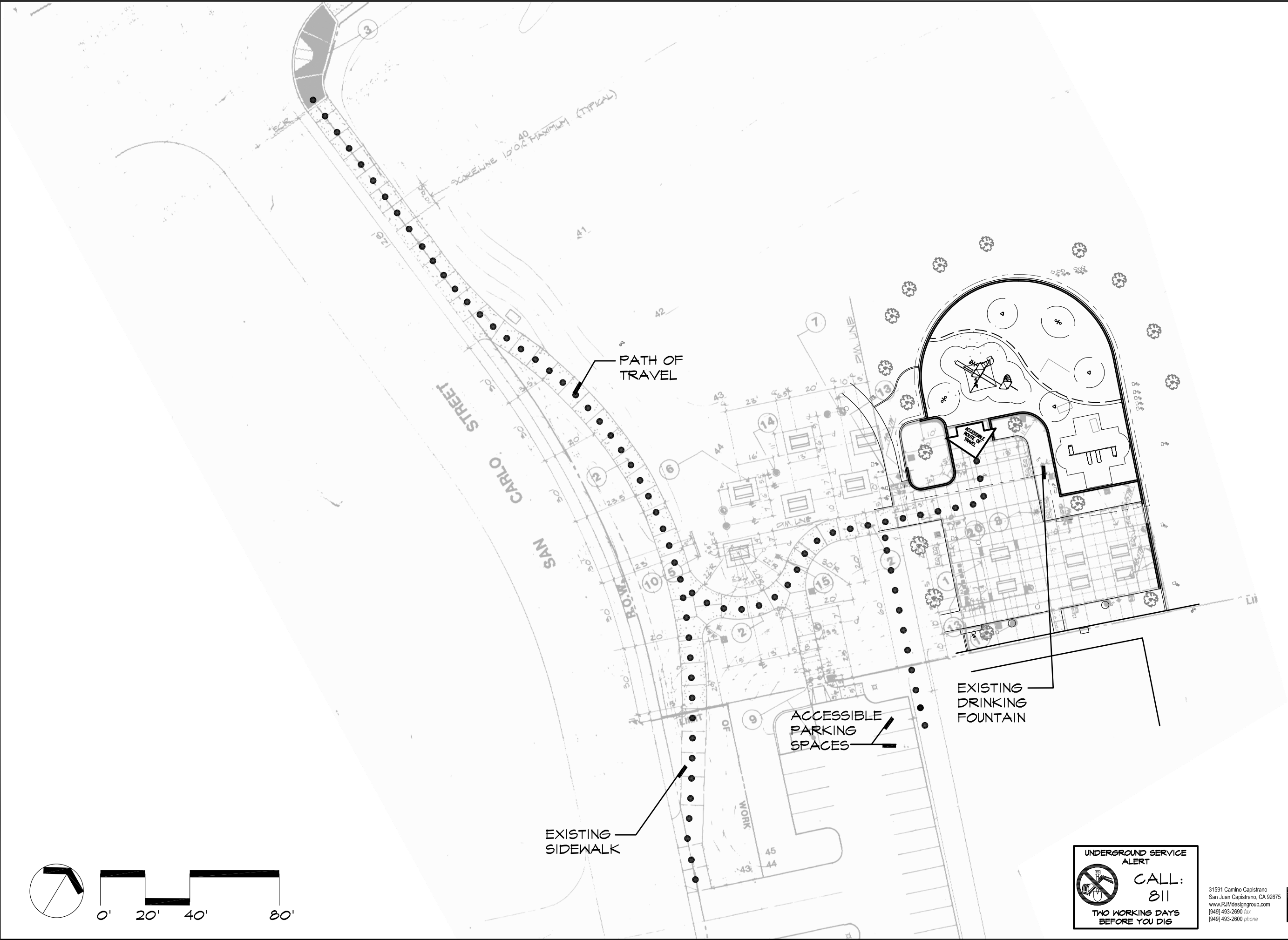
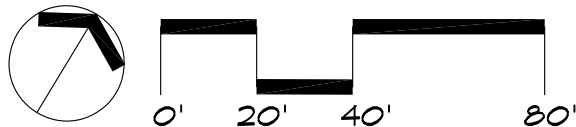
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DRAWN: RM
CHECKED: ZM
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Irvine CA September 28, 2015 85324-1-6R

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ACCESSIBILITY PLAN
SAN CARLO PARK - PLAYGROUND REHABILITATION
CITY OF IRVINE
COMMUNITY DEVELOPMENT DEPARTMENT

PLANS PREPARED BY:
SIGNATURE: *Larry P. Ryan*
LARRY P. RYAN
ARCHITECT:
2502 04/30/2017 12/10/2015
LICENSE NO. EXP. DATE

DATE: 12/10/2015
SCALE: 1/8" = 1'-0"

REPORT #
DATE

SOILS ENGINEER:
DATE

DEVELOPER:
DATE

DESIGNED: ZM
DRAWN: RM
CHECKED: ZM
DATE: 12/10/2015
SCALE: 1/8" = 1'-0"

NO. 1
DATE

REVISIONS

SHEET 20
OF 21

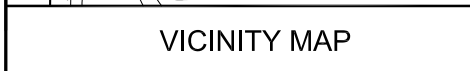
Activities	Vestibular	Climbing	Balance	Upper Body	Push/Pull	Crawling/Bilateral	Fantasy/Social
Saddle Spinner 12" HT. (Spring Riders)	X		X	X			
Saddle Spinner 16" HT. (Spring Riders)	X		X	X			
Double Bobble Spring Rider (Spring Riders)	X		X	X			
Full Bucket Seat Swing (Swings)	X				X		
Belt Seat Swing (Swings)	X				X		
Logo Climber (Ladders)		X	X		X	X	
Sunbeam Climber (Ladders)		X	X		X	X	
Canyon Climber (Ladders)		X	X		X	X	
Croquet Climber (Ladders)		X	X		X	X	
Lollipop Climber (Ladders)		X	X		X	X	
Zoo Panel (Theme Design)							X
Transfer Module (Platforms)		X					X
Wave Poly Slide (Slides)	X						
Cooltopper (Theme Design)							X

- (A) AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE PLAY AREA. THE ACCESSIBLE ROUTE SHALL CONNECT GROUND LEVEL PLAY COMPONENTS REQUIRED TO COMPLY WITH CBC 11B-240.2.1 AND ELEVATED PLAY COMPONENTS REQUIRED TO COMPLY WITH CBC 11B-240.2.2, INCLUDING ENTRY AND EXITS POINTS OF THE PLAY COMPONENTS.
- (B) ACCESSIBLE ROUTES CONNECTING PLAY COMPONENTS SHALL PROVIDE A CLEAR WIDTH COMPLYING WITH CBC 11B-1 008.2.4. AT GROUND LEVEL, THE CLEAR WIDTH OF ACCESSIBLE ROUTES SHALL BE 60 INCHES MINIMUM. CBC 11B-1 008.2.4.
- (C) ACCESSIBLE ROUTES SERVING GROUND LEVEL PLAY COMPONENTS AND ELEVATES PLAY COMPONENTS SHALL BE PERMITTED TO USE THE EXCEPTIONS IN CBC 11B-1008.2.1.
- (D) RAMP RUNS CONNECTING GROUND LEVEL PLAY COMPONENTS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAT 1: 16. THE RUSE FOR ANY RAMP RUN CONNECTING ELEVATED PLAY COMPONENTS SHALL BE 12 INCHES MAXIMUM. CBC 11B.2.5
- (E) IDENTIFY ALL TRANSFER STEPS AND TRANSFER PLATFORMS WHERE REQUIRED.
- (F) ACCESSIBLE ROUTE CANNOT BE INTERRUPTED BY STEPS, CURBS, AND PLANTERS.



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A map showing the location of Valencia Park and Valencia Park Playground. Valencia Park is a large area at the top left. Valencia Park Playground is a smaller area at the bottom right, indicated by a hatched rectangle and a black dot. The playground is located between Jamboree Rd and Trevino Dr.

LOCATION MAP

PROJECT INFORMATION REQUIREMENTS
PROJECT LOCATION: 3081 TREVINO DRIVE, IRVINE, CA 92602

PROJECT DESCRIPTION
VALENCIA PLAYGROUND REHABILITATION LOCATED IN VALENCIA
PARK, IRVINE, CA.

PROJECT DESCRIPTION

VALENCIA PLAYGROUND REHABILITATION LOCATED IN VALENCIA PARK, IRVINE, CA.

TYPE OF CONSTRUCTION

PLAYGROUND REHABILITATION

APPLICABLE STATE CODES (WITH CITY OF IRVINE AMENDMENTS)

CALIFORNIA BUILDING CODE	2013
CALIFORNIA RESIDENTIAL CODE	2013
CALIFORNIA GREEN BUILDING STANDARDS CODE	2013
CALIFORNIA MECHANICAL CODE	2013
CALIFORNIA ELECTRICAL CODE	2013
CALIFORNIA PLUMBING CODE	2013
CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS	2013

CITY OF IRVINE MUNICIPAL CODE

[NOTE: COMPLETE IMC TEXT IS AVAILABLE ON THE INTERNET AT WWW.MUNICODE.COM]
THE DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH ALL APPLICABLE
IRVINE MUNICIPAL CODE PROVISIONS INCLUDING BUT NOT LIMITED TO:

CONSTRUCTION WORK HOURS [IMC SECT. 6-8-205]
MON-FRI 7 AM TO 7 PM
SAT 9 AM TO 6 PM
NO WORK ON SUNDAYS OR FEDERAL HOLIDAYS

OFF-SITE FABRICATION

ALL OFF-SITE FABRICATION OF STRUCTURAL STEEL COMPONENTS INCLUDING STEEL STAIRS AND PRE-CAST CONCRETE SHALL BE DONE IN AN APPROVED FABRICATOR SHOP AS REQUIRED BY CITY OF IRVINE INFORMATION BULLETIN NO. 311. SEE BULLETIN FOR DETAILS AND REQUIRED DOCUMENTATION REQUIRED AT THE RECEIPT OF ANY SHIPMENT OF OFF-SITE FABRICATED ITEMS.

CONDITIONS OF APPROVAL

THE FOLLOWING CONDITION SHALL BE APPLICABLE:
STANDARD CONDITION 4.2 PLAYGROUND INSPECTION
PRIOR TO AUTHORIZATION TO USE, OCCUPY, AND/OR
OPERATE THE PLAYGROUND, THE APPLICANT SHALL SUBMIT
TO THE CHIEF BUILDING OFFICIAL A LETTER STATING THAT
THE PLAY EQUIPMENT INSTALLATION HAS BEEN INSPECTED
BY A PERSON AUTHORIZED BY THE MANUFACTURER, THAT
THE EQUIPMENT HAS BEEN INSTALLED PER MANUFACTURER'S
SPECIFICATIONS, AND THAT IT COMPLIES WITH MINIMUM
PLAYGROUND SAFETY REGULATIONS, ADOPTED BY THE
STATE OF CALIFORNIA (CALIFORNIA HEALTH AND SAFETY
CODE SECTION 115725-115735).

FIRE RESISTIVE CONSTRUCTION

THE DESIGN, CONSTRUCTION AND INSPECTION OF FIRE RESISTIVE CONSTRUCTION (TYPE VA, TYPE IIIA AND B, TYPE 11A, TYPE 1A AND B) SHALL CONFORM TO CITY OF IRVINE INFORMATION BULLETIN NO. 323 SEE BULLETIN FOR DETAILS.

PRE-CONSTRUCTION MEETING REQUIREMENT [MC
5-9-209A.]

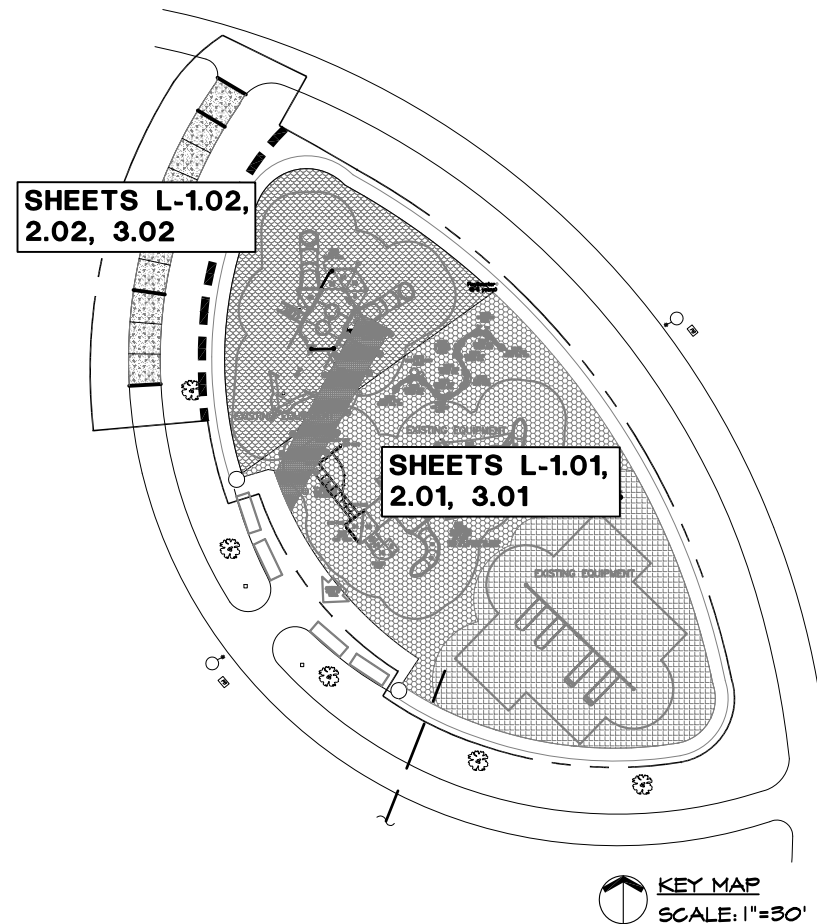
ALL CONSTRUCTION PROJECTS INVOLVING NEW STRUCTURES AND THOSE INVOLVING ADDITIONS TO NON-RESIDENTIAL STRUCTURES OR TENANT IMPROVEMENTS EXCEEDING 5,000 SQUARE FEET OR INVOLVING A NEW RESTAURANT ESTABLISHMENT SHALL NOT COMMENCE UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD, TO SCHEDULE A PRE-CONSTRUCTION MEETING CONTACT EITHER ROGER CARTON, NON-RESIDENTIAL INSPECTIONS SUPERVISOR AT (949)724-6331 OR RESIDENTIAL INSPECTION SUPERVISOR GINA MAURO AT (949)724-6546

BASIS OF BEARINGS:

THE CENTERLINE OF TREVINO DRIVE AS SHOWN ON
TRACT NO. 15431 M.M. 750 / 39-42,
BEING N 49° 21' 21" W.

BENCHMARK:

COUNTY OF ORANGE BENCHMARK NO. 3G-39-91
ELEVATION=166.099, NAVD88, YEAR LEVELED 1991.



PROJECT ADDRESS:

VALENCIA PARK
3081 TREVINO DRIVE
IRVINE, CA 92602

SHEET INDEX:

1.	T-0.01	TITLE SHEET
2.	T-0.02	GENERAL NOTES
3.	T-0.03	GENERAL SPECIFICATIONS
4.	T-0.04	GENERAL SPECIFICATIONS
5.	L-1.01	DEMOLITION PLAN
6.	L-1.02	DEMOLITION PLAN/LEGEND/NOTES
7.	L-2.01	GRADING/DRAINAGE PLAN
8.	L-2.02	GRADING/DRAINAGE PLAN
9.	L-2.03	GRADING/DRAINAGE LEGEND/NOTES
10.	L-3.01	CONSTRUCTION PLAN
11.	L-3.02	CONSTRUCTION PLAN
12.	L-3.03	CONSTRUCTION PLAN/LEGEND/NOTES
13.	L-4.01	CONSTRUCTION DETAILS
14.	L-4.02	CONSTRUCTION DETAILS
15.	L-4.03	CONSTRUCTION DETAILS
16.	L-4.04	CONSTRUCTION DETAILS
17.	L-4.05	CONSTRUCTION DETAILS
18.	L-5.01	ACCESSIBILITY PLAN
19.	L-5.02	ACCESSIBILITY MATRIX/NOTES

PROJECT DIRECTORY:

OWNER:
CITY OF IRVINE
1 CIVIC CENTER PLAZA
IRVINE, CA 92623-9575
PHONE: (949) 724-6689
CONTACT: ERIC GRUBER

LANDSCAPE ARCHITECT:
RJM DESIGN GROUP, INC.
31591 CAMINO CAPISTRANO
SAN JUAN CAPISTRANO, CA 92675
PHONE: (949) 493-2600
CONTACT: LARRY P. RYAN

NOTICE TO CONTRACTOR:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE SITE PRIOR TO MOBILIZATION AND THE BEGINNING OF CONSTRUCTION. ANY EXISTING ELEMENTS TO BE PROTECTED IN PLACE, WHICH SHOW ANY TYPE OF DAMAGE (E.G. CRACKED CONCRETE, DAMAGE TO TREES, ETC.), SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER. OTHERWISE, CONTRACTOR MAY BE HELD RESPONSIBLE FOR REPAIRING OR REPLACING ANY DAMAGED EXISTING ELEMENTS-TO-REMAIN AT THEIR EXPENSE.
- B. A DIGITAL FILE OF THE HARDSCAPE IMPROVEMENTS, SITE FURNISHINGS, ETC. WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR USE BY THE CONTRACTOR'S SURVEYOR IN THE LAYOUT OF THESE AREAS AND THE PREPARATION OF THE STAKING PLAN.
- C. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE AND NOTIFY THE ENGINEER OF ANY DIMENSIONAL ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE BEGINNING OR FABRICATING ANY WORK.
- D. DO NOT SCALE THESE DRAWINGS.



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[illegible]

GENERAL NOTES:

- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF APWA, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND STATE STANDARD SPECIFICATIONS, UNIFORM BUILDING CODE, 1994 EDITION, UNIFORM PLUMBING CODE, NATIONAL ELECTRICAL CODE, ALL SAFETY ORDERS OF THE STATE INDUSTRIAL COMMISSION, TITLE 3, RULES AND REGULATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITING, STATE OF CALIFORNIA TITLE 24, SECTION T-20-1401 THROUGH T-20-1406, AND TITLE 20, SECTION 1401-1406 ENERGY REGULATIONS.
- B. THE DESIGN ADEQUACY AND SAFETY OF EXCAVATION, ERECTION, BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE LANDSCAPE ARCHITECT OR STRUCTURAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE NECESSARY SAFETY PRECAUTIONS AND MEASURE NECESSARY TO EXECUTE THE WORK. OBSERVATION VISITS TO THE SITE BY THE LANDSCAPE ARCHITECT OR ANY OF HIS CONSULTANTS SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- C. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN AND / OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY'S REPRESENTATIVE.
- D. THE CONTRACTOR SHALL NOTIFY THE CITY'S ENGINEER TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION.
- E. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OPERATIONS IN SUCH A MANNER SO AS TO PREVENT DAMAGE TO EXISTING SUBSTRUCTURES. IN THE EVENT OF SUBSTRUCTURE DAMAGE, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY AND TOTAL EXPENSE FOR REPAIR AND / OR REPLACEMENT OF SAID SUBSTRUCTURE.
- F. THE CONTRACTOR SHALL PROVIDE 72-HOUR NOTICE TO AFFECTED UTILITIES WHEN RELOCATION IS REQUIRED.
- G. THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR PERFORM ANY WORK PERTAINING TO THE PROJECT BETWEEN THE HOURS OF 4:30 P.M. AND 7:30 A.M. ON ANY DAY NOR SATURDAY, SUNDAY, OR HOLIDAYS AT ANY TIME EXCEPT AS APPROVED BY THE CITY.
- H. THE CONTRACTOR SHALL NOT BLOCK DRIVEWAYS OR VEHICULAR TRAFFIC DURING THE PROCESS OF CONSTRUCTION.
- I. THE CONTRACTOR WILL COMPLY TO HPWH, APWA WATCH TRAFFIC CONTROL HANDBOOK DURING CONSTRUCTION.
- J. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT BEFORE START OF CONSTRUCTION (800)422-4133.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL DURING CONSTRUCTION AND MAINTENANCE PERIOD.
- L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A 6' HIGH TEMPORARY CHAINLINK CONSTRUCTION FENCE WITH LOCKABLE GATES AROUND ALL CONSTRUCTION AREAS. FENCING SHALL BE PROVIDED WITH CONTINUOUS GREEN MESH WINDSCREEN. CONTRACTOR SHALL REVIEW ALIGNMENT / LOCATION OF CONSTRUCTION FENCING WITH CITY'S REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL MAINTAIN FENCING UNTIL CITY'S ACCEPTANCE OF THE WORK.
- M. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS.
- N. MAINTAIN SANITARY TOILET FACILITIES DURING CONSTRUCTION AS REQUIRED BY APPLICABLE REGULATIONS.
- O. THE GENERAL CONTRACTOR WARRANTS TO THE CITY AND THE LANDSCAPE ARCHITECT THAT ALL MATERIALS AND EQUIPMENT FURNISHED WILL BE NEW UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK WILL BE OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS.
- P. PAVING, MASONRY AND CONCRETE SUBCONTRACTORS ARE TO COORDINATE WITH THE ELECTRICIAN, DRAINLINE SUBCONTRACTOR AND IRRIGATION SUBCONTRACTOR FOR SLEEVING, PIPING AND/OR CONDUIT INSTALLATION UNDER OR THROUGH HARDSCAPE ELEMENTS.
- Q. VERIFY ALL PROPERTY LINES OR LIMIT OF WORK LINES PRIOR TO COMMENCING WORK.
- R. IN THE CASE OF DISCREPANCIES IN THE DRAWINGS, SPECIFICATIONS SHALL TAKE PRECEDENCE OVER DETAILS, AND DETAILS SHALL TAKE PRECEDENCE OVER PLANS.
- S. SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE CITY.
- T. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED PROJECT UNLESS OTHERWISE SHOWN; THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT AND HIS ENGINEERS SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES REQUIRED FOR SAME, WHICH ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND HIS ENGINEERS DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES, WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND HIS ENGINEERS, WHETHER OF MATERIALS OR WORK, AND WHETHER PERFORMED PRIOR TO, DURING OR AFTER COMPLETION OF CONSTRUCTION, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS BUT THEY DO NOT GUARANTEE GENERAL CONTRACTOR'S PERFORMANCE, AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.

ABBREVIATIONS:

Ⓢ	AT	GUY	GUY WIRE
A.B.	ANCHOR BOLT	HT.	HEIGHT
A.B.S	ACRYLONITRILE BUTADIENE	HDR	HEADER
	STYRENE PIPE	HORIZ	HORIZONTAL
A.C.	ASPHALTIC CONCRETE	HP	HIGH POINT
AC	ACRE	I.D.	INSIDE DIAMETER
A.C.P.	ASBESTOS CEMENT PIPE	INV.	INVERT
ALT.	ALTERNATIVE	IRR.	IRRIGATION
ALUM	ALUMINUM	J.B.	JUNCTION BOX
APPROX.	APPROXIMATE	JT.	JOINT
AVE	AVENUE	L.	LENGTH OF ARC
AVG	AVERAGE	L.A.	LANDSCAPE ARCHITECT
B.A.	BEGINNING OF CURVE	LAT.	LATERAL
BC	BOTTOM OF CURB	LF	LINEAR FEET
B.A.P.	BEGINNING OF CURB RETURN	LT	LEFT
BLDG	BUILDING	MAX.	MAXIMUM
BLVD	BOULEVARD	MFG.	MANUFACTURER
B.M.	BENCH MARK	M.H.	MAN HOLE
BS	BOTTOM OF STEP	MIN.	MINIMUM
BW	BACK OF WALK	N	NORTH
C	CENTER	N.I.C.	NOT IN CONTRACT
C., COND.	CONDUIT	NO., #	NUMBER
CB	CATCH BASIN	N.T.S.	NOT TO SCALE
C.F.	CURB FACE	O.C.	ON CENTER
C&G	CURB AND GUTTER	O.D.	OUTSIDE DIAMETER
C.J.	CONTROL JOINT	OPP.	OPPOSITE
CIR	CIRCLE	P.A.	PLANTING AREA
CL	CENTER LINE	P.B.	PULL BOX
C.I.	CAST IRON	P.C. CONC.	PORTLAND CEMENT CONCRETE
C.M.P.	CORREGATED METAL PIPE	P.C.C.	POINT OF COMPOUND CURVE
C.M.U.	CONCRETE MASONRY UNIT	PL	PROPERTY LINE
C.O.	CLEANOUT	P.P.	POWER POLE
CONC.	CONCRETE	P.S.I.	POUNDS PER SQUARE INCH
CONST.	CONSTRUCT/CONSTRUCTION	PT.	POINT
CONT.	CONTINUOUS	P.T.	POINT OF TANGENCY
C.A.	CONCRETE PIPE	PVC	POLYVINYL CHLORIDE
C.R.	CURB RETURN	R., RAD.	RADIUS
CSK	COUNTERSINK	R.C.P.	REINFORCED CONCRETE PIPE
CU.	CUBIC	RD	ROAD
CU. FT.	CUBIC FEET	R.C.V.	REMOTE CONTROL VALVE
CY	CUBIC YARDS	REF.	REFERENCE
DET.	DETAIL	REQ.	REQUIRED
D.F.	DRINKING FOUNTAIN	RR	RAILROAD
DF	DOUGLAS FIR	RT.	RIGHT
DG	DECOMPOSED GRANITE	RWD	REDWOOD
DIA., ⌀	DIAMETER	R/W, R.O.W.	RIGHT OF WAY
DR.	DRIVE	ROS	ROUGH SAWN
DS	DOWNSPOUT	S	SOUTH
E	EAST	SCH.	SCHEDULE
EA	EACH	SD	STORM DRAIN
E.C.	END OF CURB	SEC.	SECTION
E.C.R.	END OF CURB RETURN	SG	SUBGRADE
E.J.	EXPANSION JOINT	SHT	SHEET
ELEV.	ELEVATION	SF	SQUARE FEET
EQ.	EQUAL	SPEC	SPECIFICATIONS
EST.	ESTIMATE	SQ.	SQUARE
E.W.	EACH WAY	ST.	STREET
EX.	EXISTING	STA.	STATION
EXC.	EXCAVATION	STD.	STANDARD
FFE	FINISH FLOOR ELEVATION	S4S	SURFACE FOUR SIDE
FG	FINISH GRADE	TC	TOP OF CURB
F.H.	FIRE HYDRANT	T.C.B.	TOP OF CATCH BASIN
FL	FLOW LINE	TF	TOP OF FOOTING
F.O.B.	FACE OF BUILDING	TG	TOP OF GRATE
F.O.C.	FACE OF CURB	T&G	TONGUE AND GROOVE
FS	FINISH SURFACE	TS	TOP OF STEP
FT	FEET/FOOT	TW	TOP OF WALL
FTG.	FOOTING	TYP.	TYPICAL
GA.	GAUGE	V.	VOLTAGE
GALV.	GALVANIZED	V.C.	VERTICAL CURVE
GC	GROUND COVER	VERT.	VERTICAL
G.L.B.	GLUE LAMINATED BEAM	W	WITH
G.P.M.	GALLONS PER MINUTE	W	WEST
GR	GRADING	W.P.	WATERPROOFING
GRND	GROUND	WWM	WELDED WIRE MESH



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DESIGNED: ZM		DRAWN: RM		CHECKED: ZM		DATE: 12/10/2015		SCALE: 1/8" = 1'-0"	
DEVELOPER:		SOILS ENGINEER:		REPORT #		DATE		NO.	
PLANS PREPARED BY: Ryan		SIGNATURE: LARRY P. RYAN		ARCHITECT: 2502		DATE: 04/30/2017		DATE: 12/10/2015	
GENERAL NOTES		VALENCIA PARK - PLAYGROUND REHABILITATION		CITY OF IRVINE		COMMUNITY DEVELOPMENT DEPARTMENT		REVISIONS	
PERMIT:		CASE NO: 00650360-PPA		SHEET 2		OF 19			

EARTHWORK SPECIFICATION

1.0 SCOPE:
ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR AND INCIDENTAL TO PERFORMING ALL OPERATIONS OF THE WORK FOR THIS SECTION, COMPLETE AS SHOWN ON THE PLANS OR SPECIFIED HEREIN. WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING:

- 1.01 FINE GRADING.
- 1.02 EXCAVATING, FILLING, BACKFILLING, AND COMPACTING FOR BUILDING FOOTINGS AND UTILITIES.
- 1.03 ENGINEERED FILL BELOW BUILDING AND ADJACENT SLABS.
- 1.04 PUMPING, DRAINING, SHORING, AND CRIBBING AS REQUIRED.
- 1.05 DUST CONTROL.
- 1.06 DISPOSAL OF ALL UNSUITABLE OR SURPLUS EXCAVATED MATERIALS OFF THE SITE. PROVIDE ALL FILL AND BACKFILL MATERIAL REQUIRED.

2.0 QUALITY ASSURANCE

- 2.01 TESTING -- COMPACTION TESTS SHALL BE PERFORMED THROUGHOUT IN ACCORDANCE WITH THE FOLLOWING:
 - A. MAXIMUM DENSITY AND OPTIMUM MOISTURE CONTENT - ASTM D1557.
 - B. DENSITY OF SOIL IN PLACE - ASTM D1556 AND ASTM D2937.
- 2.02 CONSTRUCTION MONITORING
THE ENGINEER SHALL OBSERVE AND DIRECT THE PLACEMENT AND TESTING OF THE EARTHWORK IN ACCORDANCE WITH THESE SPECIFICATIONS. CONDUCT OBSERVATIONS AND TESTS AS DIRECTED BY THE ENGINEER FOR APPROVAL OF IMPORTED MATERIAL AND ON-SITE MATERIAL FOR PROJECT USE DURING THE EXCAVATION, FILLING, AND BACKFILLING OPERATIONS.
- 2.03 CERTIFICATION
THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR OR CIVIL ENGINEER TO LAY OUT THE WORK AND UPON COMPLETION OF ALL ROUGH AND FINE GRADING OPERATIONS, SHALL GIVE WRITTEN CERTIFICATION THAT ROUGH GRADES ARE WITHIN TOLERANCES SPECIFIED HEREINAFTER.

3.0 PRODUCT HANDLING

- 3.01 PROTECTION OF EXISTING UNDERGROUND UTILITIES
THE LOCATIONS OF ALL KNOWN ACTIVE SUBSURFACE PIPELINES, CONDUITS, ETC. HAVE BEEN INDICATED ON THE PLANS OR ON REFERENCE MATERIAL AVAILABLE TO THE CONTRACTOR. ANY LINES ENCOUNTERED THAT WERE NOT ANTICIPATED SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER, WHO WILL ISSUE INSTRUCTIONS FOR PROCEEDING WITH THE WORK.
- 3.02 MOISTURE CONTROL
ANY WATER AND DEBRIS WHICH WOULD INTERFERE WITH CONSTRUCTION SHALL BE REMOVED FROM EXCAVATED AREAS. EXCAVATIONS SHALL BE FREE FROM LOOSE MATERIAL AND WATER WHILE FORMS ARE BEING SET AND CONCRETE DEPOSITED. DURING RAINY WEATHER, MAINTAIN EXCAVATIONS FREE FROM WATER BY PUMPING AND OTHER APPROPRIATE MEANS. PUMPING FROM EXCAVATIONS SHALL BE DONE IN SUCH A MANNER AS TO PRECLUDE THE POSSIBILITY OF ANY PORTION OF THE CONCRETE BEING CARRIED AWAY. ALL WATER RESULTING FROM DE-WATERING OPERATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE DAMAGE TO PUBLIC OR PRIVATE PROPERTY OR CONSTITUTE A NUISANCE OR MENACE TO THE PUBLIC.
- 3.03 DUST CONTROL
THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD, MAINTAIN DUST CONTROL AT THE SITE AREA, ON ROADS USED IN THE OPERATIONS AND INVOLVED PORTIONS OF THE WORK SITE BY INTERMITTENT WATERING AND SPRINKLING AS REQUIRED BY OR BY TREATMENT WITH APPROVED DUST CONTROL CHEMICALS. ALL DUST CONTROL SHALL BE AS DIRECTED BY THE ENGINEER.

4.0 PRODUCTS

- 4.01 ALL FILL SHALL BE OF APPROVED LOCAL MATERIALS FROM REQUIRED EXCAVATION, SUPPLEMENTED BY IMPORTED FILL IF NECESSARY. APPROVED LOCAL MATERIALS ARE DEFINED AS LOCAL SOILS FREE FROM RUBBLE, RUBBISH, AND VEGETATION, TESTED AND APPROVED BY THE ENGINEER PRIOR TO USE. CLODS, ROCKS, OR HARD LUMPS EXCEEDING 6 INCHES IN FINAL SIZE SHALL NOT BE ALLOWED IN ANY FILL SUPPORTING PAVEMENTS AND BUILDINGS. EXCAVATED EXPANSIVE CLAYS OR EXPANSIVE SOIL MIXTURES, AS IDENTIFIED BY THE ENGINEER, SHALL NOT BE PLACED WITHIN THE BUILDING PAD AREAS.
- 4.02 IMPORTED FILL MATERIALS SHALL MEET THE ABOVE REQUIREMENTS AND SHALL HAVE A PLASTICITY INDEX NOT EXCEEDING 12.
- 4.03 CAPILLARY BREAK MATERIAL UNDER FLOOR SLABS SHALL BE PROVIDED AS NOTED ON STRUCTURAL DRAWINGS PER SOILS REPORT RECOMMENDATIONS.

5.0 EXECUTION

- 5.01 LAYOUT AND PREPARATION GENERAL:
LAY OUT ALL WORK, ESTABLISH GRADES, LOCATE EXISTING UNDERGROUND UTILITIES, SET MARKERS AND STAKES, AND SET UP AND MAINTAIN BARRICADES AND PROTECTION OF UTILITIES PRIOR TO BEGINNING ACTUAL EARTHWORK OPERATIONS.
- 5.02 LOCATION OF STRUCTURE
THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR OR CIVIL ENGINEER TO LAY OUT THE WORK AND ESTABLISH THE NECESSARY MARKERS, BENCHMARKS, BATTER BOARDS, AND STAKES.
- 5.03 EXCAVATION:
EXCAVATE ALL MATERIAL AS REQUIRED TO COMPLETE THE WORK SHOWN ON THE PLANS.
- 5.04 RE-USE OF EXCAVATED MATERIAL
THE MATERIAL OBTAINED FROM THE EXCAVATION SHALL BE USED FOR FILL OR BACKFILL TO THE EXTENT REQUIRED BY THE PLANS AND AS SPECIFIED HEREIN. IN THE EVENT ADDITIONAL MATERIAL IS REQUIRED, IT SHALL BE IMPORTED FILL APPROVED BY THE ENGINEER.
- 5.05 DEPTH OF EXCAVATION
A. EXCEPT AS OTHERWISE DIRECTED, EXCAVATION SHALL EXTEND TO DEPTH TO PROVIDE A CLEAN, UNDISTURBED AND LEVEL SUBGRADE FOR ALL FOOTINGS, CONCRETE SLABS, AND SIMILAR CONSTRUCTION.
B. IN THE EVENT IT IS NECESSARY TO REMOVE UNSUITABLE MATERIAL TO DEPTHS GREATER THAN THOSE SHOWN, THE ENGINEER SHALL BE NOTIFIED, AND AN EQUITABLE ADJUSTMENT IN THE CONTRACT WILL BE MADE. IF, FOR ANY OTHER CAUSE, EXCAVATIONS ARE CARRIED BELOW THE LINES INDICATED, THE OVER-EXCAVATION SHALL BE BACKFILLED WITH CONCRETE OR COMPACTED FILL AS DIRECTED, WITHOUT ADDITIONAL COST TO THE CITY.
C. ALL EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE ANY CONCRETE IS POURED.
- 5.06 EXCAVATION
FOR WALLS AND FOOTINGS, EXCAVATION SHALL BE SUFFICIENT WIDTH TO ALLOW FOR THE ERECTION, INSPECTION, AND REMOVAL OF FORMS, THE APPLICATION OF REQUIRED CONSTRUCTION AROUND OUTER WALLS, AND FOR NECESSARY SHORING AND BRACING EMBANKMENTS.

- 5.07 UTILITY AND DRAINAGE TRENCHES
EXCAVATE TO STRAIGHT LINES AND GRADE AS REQUIRED. PROVIDE ALL NECESSARY SHORING TO KEEP BANKS VERTICAL. TRENCH SHALL BE A MAXIMUM WIDTH OF 20 INCHES PLUS THE OUTSIDE DIAMETER OF THE PIPE. THE BOTTOM OF TRENCHES SHALL BE FORMED TO SUPPORT ITS OUTSIDE DIAMETER UNIFORMLY THROUGHOUT ITS LENGTH EXCEPT THAT MATERIAL SHALL BE EXCAVATED AT BELLS OR OTHER TYPES OF JOINTS TO FACILITATE MAKING THE JOINT. IF ROCK IS ENCOUNTERED AT THE ELEVATION REQUIRED FOR THE UTILITY OR DRAINAGE LINE PIPE, IT SHALL BE REMOVED TO A DEPTH OF 6 INCHES BELOW THE REQUIRED GRADE. OVER-EXCAVATED TRENCHES SHALL BE BACKFILLED WITH SAND COMPACTED TO THE PROPER ELEVATION.
- 5.08 COMPACTION
COMPACTION SHALL BE BY SUITABLE COMPACTION EQUIPMENT, WHICH SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED DRY DENSITY. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE AREA AND THE COMPACTION EQUIPMENT SHALL MAKE SUFFICIENT TRIPS TO ENSURE THAT THE REQUIRED DENSITY HAS BEEN OBTAINED. EACH LAYER SHALL BE COMPACTED TO A MOISTURE CONTENT SUFFICIENTLY NEAR OPTIMUM SO AS TO OBTAIN NOT LESS THAN 90 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557-70.
- 5.09 FILL
FILL OPERATION SHALL BE CONTINUED IN 6 INCHES COMPACTED LAYERS UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED GRADE. NO FILL MATERIAL SHALL BE PLACED, SPREAD, OR ROLLED DURING UNFAVORABLE WEATHER CONDITIONS. WHEN THE WORK IS INTERRUPTED BY INCLEMENT WEATHER, FILL OPERATIONS SHALL NOT BE RESUMED UNTIL THE ENGINEER INDICATES THAT THE MOISTURE CONTENT AND DENSITY OF THE PREVIOUSLY PLACED FILL ARE AS SPECIFIED.
- 5.10 BACKFILLING
MATERIAL FOR BACKFILLING SHALL CONSIST OF APPROVED EXCAVATED MATERIAL OR IMPORTED MATERIAL SPECIFIED ABOVE. IN ANY CASE, THE MATERIAL SHALL BE FREE OF TRASH, LUMBER OR OTHER DEBRIS. BACKFILL SHALL BE PLACED IN 6 INCH LAYERS AND SHALL BE UNIFORMLY MOISTENED SO THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED. EACH LAYER SHALL BE COMPACTED TO DENSITY OF 90 PERCENT OF MAXIMUM AT OPTIMUM MOISTURE CONTENT. BACKFILL EXCAVATIONS AS CONSTRUCTION OPERATIONS PERMIT, BUT NOT BEFORE ALL WORK TO BE COVERED HAS BEEN INSPECTED AND APPROVED, CONCRETE HAS ACHIEVED REQUIRED STRENGTH, AND DEBRIS HAS BEEN REMOVED FROM THE EXCAVATIONS. WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF WALLS, IT SHALL BE PLACED SIMULTANEOUSLY SO THAT THE HEIGHT OF FILL REMAINS APPROXIMATELY EQUAL ON BOTH SIDES AT ALL TIMES. EXCAVATIONS SHALL BE SHORED IN CONFORMANCE TO PLACER COUNTY STANDARD SPECIFICATIONS.
- 5.11 UTILITY TRENCH BACKFILL
A. UTILITY TRENCH BACKFILL SHALL BE PLACED WHILE UNDER THE SUPERVISION OF THE ENGINEER.
B. TRENCHES PLACED UNDER THE FLOOR SLABS SHALL BE BACKFILLED WITH SAND POSSESSING A SAND EQUIVALENT OF 40 OR MORE. THE SAND SHALL BE FLOODED AND JETTED INTO PLACE WHEN PERMITTED BY ENGINEER.
C. THE BACKFILL OF TRENCHES AT THEIR ENTRANCE UNDER EXTERIOR FOOTINGS SHALL CONSIST OF NATIVE SOIL, COMPACTED TO AT LEAST 90 PERCENT MAXIMUM DENSITY.
D. BACKFILL AT ALL OTHER TRENCHES PLACED IN AREAS OF IMPROVEMENT SHALL HAVE THE CONDUIT COVERED WITH SAND OR, IF THE EXCAVATED SOIL IS SUITABLE, WITH THE NATURAL SOIL TO A DEPTH OF 6 INCHES ABOVE THE TOP OF THE PIPE. THIS MATERIAL SHALL BE FLOODED TO ENSURE PROPER BEDDING FOR THE PIPE. THE BACKFILL SHALL THEN BE PLACED IN LIFTS AND PROPERLY FLOODED AND JETTED WHEN APPROVED BY ENGINEER. AFTER A SUFFICIENT TIME HAS PASSED TO ALLOW THE EXCESS MOISTURE TO DISSIPATE, THE UPPER 3 FEET OF THE TRENCH SHALL BE COMPACTED TO AT LEAST 90 PERCENT OF MAXIMUM DENSITY. ALL THE BACKFILL OF TRENCHES PLACED IN SLOPES SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY. IN LIEU OF MECHANICAL COMPACTION, THE TRENCHES IN SLOPES MAY BE BACKFILLED WITH SAND SLURRY.
E. WHERE IT IS DETERMINED THAT THEY WILL NOT INFLUENCE PERMANENT IMPROVEMENTS, TRENCHES PLACED IN LANDSCAPED AREAS MAY BE FLOODED AND JETTED FOR CONSOLIDATION.
F. MAXIMUM DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH ASTM TEST METHOD D1557-70.
- 5.12 GRADING
FINE GRADING SHALL BE PERFORMED OVER ALL AREAS TO RECEIVE PAVING, SHALL BE TO TOLERANCE OF + 1/4 INCHES, AND SHALL BE PERFORMED AT ALL TRANSITION AREAS BETWEEN NEW AND EXISTING GRADES AND UNLESS OTHERWISE SHOWN, SHALL BE SMOOTH, UNIFORM, AND SLOPED TO DRAIN PROPERLY. RESTORE ALL AREAS DAMAGED OR DISTURBED BY CONSTRUCTION TO GRADES SHOWN ON PLANS.
- 5.13. PROTECTION OF COMPLETED WORK:
PROTECT ALL FINISHED AREAS FROM WEATHER DAMAGE BY WHATEVER MEANS ARE REQUIRED TO PREVENT EROSION OF GRADED AREAS OR SLOUGHING OF SLOPES. CONTINUED USE OF PREPARED SUBGRADE FOR HAULING WHICH WILL CUT OR DEFORM IT FROM REQUIRED CROSS-SECTION OF ELEVATIONS IS NOT PERMITTED, AND THE CONTRACTOR SHALL REPAIR AND RE-COMPACT ANY DAMAGE TO PREPARED SUBGRADES CAUSED BY SUCH OPERATIONS. PRIOR TO ACCEPTANCE BY THE CITY, ANY DAMAGED AREAS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

END OF SECTION

CONCRETE SPECIFICATION

1.0 SCOPE

- 1.01 PERFORM ALL CONCRETE WORK AS INDICATED AND SPECIFIED.
- 1.02 THE CONDITIONS OF THE CONTRACT AND THE GENERAL SPECIFICATIONS ARE A PART OF THIS SECTION.

2.0 GENERAL CONDITIONS

- 2.01 ALL SCALED DIMENSIONS ARE APPROXIMATELY. CHECK AND VERIFY ALL SITE DIMENSIONS AND RECEIVE OWNER'S REPRESENTATIVE'S APPROVAL PRIOR TO PROCEEDING WITH WORK UNDER THIS SECTION.
- 2.02 COORDINATE INSTALLATION OF ALL CONCRETE WORK TO AVOID INTERFERENCE WITH OTHER CONSTRUCTION.
- 2.03 KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS, AND DEBRIS INCIDENTAL TO WORK.
- 2.04 PROTECT WORK AND WORK OF OTHERS AT ALL TIMES IN PERFORMANCE OF WORK.

3.0 MATERIALS

- 3.01 GENERAL: PROVIDE MATERIALS OF BEST QUALITY OBTAINABLE, WHICH COMPLY STRICTLY WITH DRAWINGS AND SPECIFICATIONS.
- 3.02 PORTLAND CEMENT: ASTM C-150, TYPE V.
- 3.03 FINE AGGREGATE: WASHED NATURAL SAND OF HARD, STRONG PARTICLES, CONTAINING NOT MORE THAN 1% OF DELETERIOUS MATERIAL. FINENESS MODULES 1.85 TO 3.15.
- 3.04 COARSE AGGREGATE: CLEAN WASHED GRAVEL OR SOUND CRUSHED ROCK, CONTAINING NOT MORE THAN 5% FLAT, THIN, ELONGATED OR LAMINATED MATERIAL, NOT MORE THAN 1% DELETERIOUS SUBSTANCES. 1" MAXIMUM SIZE, GRADED FROM NO. 100 SIEVE TO 1 1/2".
- 3.07 PORTIONING OF MATERIALS: CONCRETE MIX SHALL BE 2500 P.S.I., THE WATER TO CEMENT RATIO SHALL NOT EXCEED 0.45.
- 3.08 TRANSIT MIX CONCRETE: ALL CONCRETE SHALL BE TRANSIT-MIX TYPE, CONFORMING TO ASTM C-94.
- 3.09 REINFORCING STEEL: ASTM C-165, GRADE 40, DEFORMED.
- 3.10 WATER: CLEAN DOMESTIC SOURCE FREE FROM EXCESSIVE AMOUNTS OF ACIDS, ALKALIS, SALTS, OR ORGANIC MATERIALS.
- 3.11 COLORING ADMIXTURE: MATCH COLOR OF EXISTING SIDEWALK. PROVIDE OWNER OR OWNER'S AGENT WITH PROPOSED COLOR CHIP, AND RATIO OF ADMIXTURE PER SACK FOR APPROVAL PRIOR TO ORDERING MATERIALS.

4.0 INSTALLATION PROCEDURES

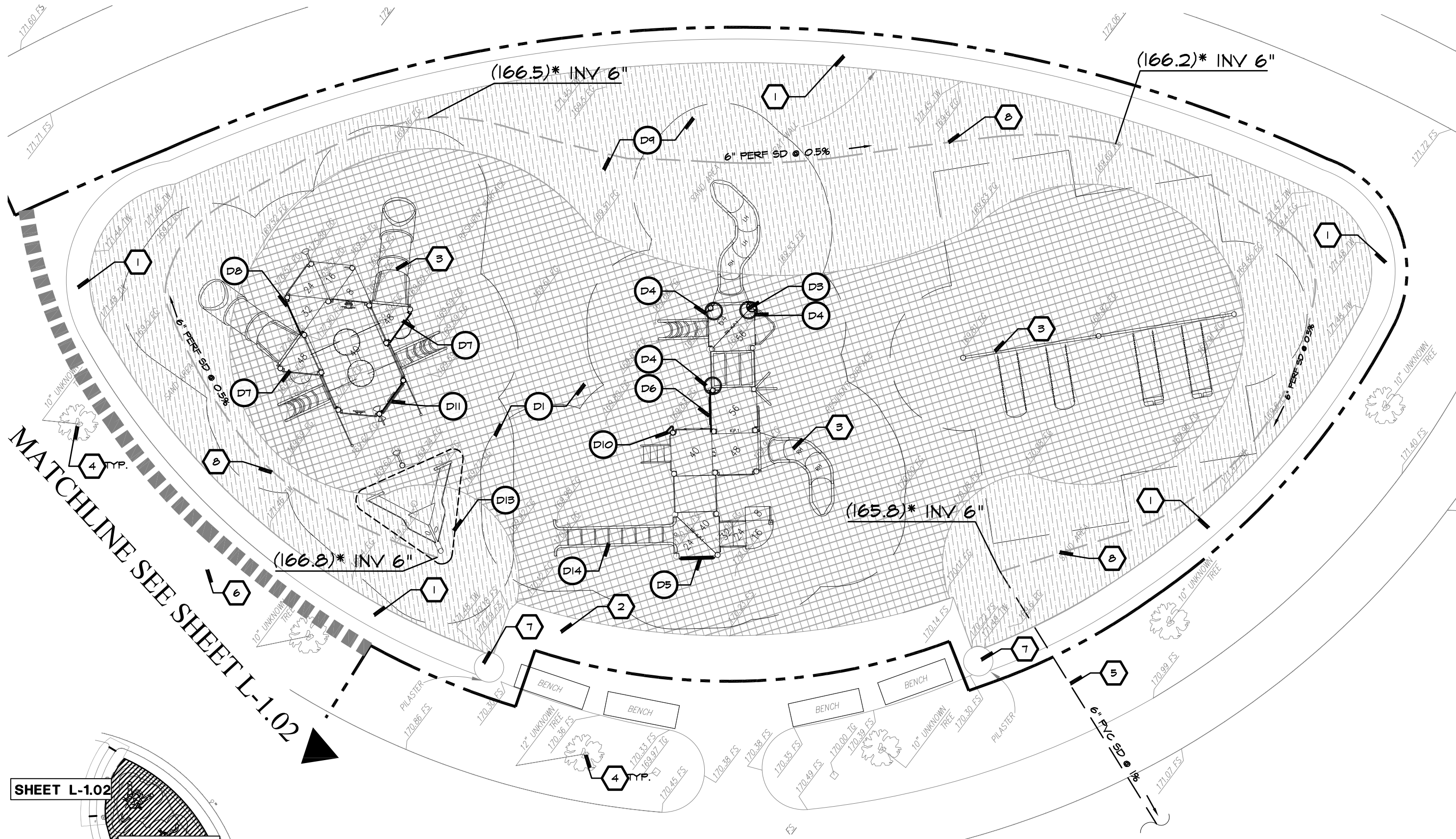
- 4.01 GENERAL: PERFORM ALL WORK IN ACCORDANCE WITH THE BEST STANDARD PRACTICE. DO NOT WILLFULLY INSTALL WORK WHEN THERE IS AN APPARENT CONFLICT.
- 4.02 PREPARATION:
 - A. SUBGRADE: COMPACT SUBGRADE TO A HARD, FIRM UNYIELDING SURFACE, SMOOTH, AND TRUE TO LINE AND GRADE; TEST FOR REQUIRED COMPACTION PRIOR TO PLACING CONCRETE. CONDUCT UNDER THE DIRECT OBSERVATION OF THE SOILS ENGINEER AND SECURE CERTIFICATION PRIOR TO PROCEEDING WITH CONCRETE POUR.
 - B. REINFORCING STEEL: BEFORE PLACING, THOROUGHLY CLEAN REINFORCING OF LOOSE MILL SCALE, RUST, OIL, OR OTHER COATING THAT MIGHT DESTROY OR REDUCE BOND. POSITION AS INDICATED, SECURE STEEL AGAINST DISPLACEMENT. USE CONCRETE BLOCKS TO HOLD REINFORCEMENT IN PROPER POSITION.
 - C. EMBEDDED ITEMS: SET ANY INSERTS ACCURATELY AND SECURE AGAINST DISPLACEMENT.
 - D. FORMWORK: STAKE RIGIDLY AT APPROPRIATE INTERVALS AND SECURE AGAINST DISPLACEMENT. INSTALL STRETCHED WIRES OR OTHER DEVICES TO AVOID DISPLACEMENT. FORMWORK SHALL NOT DEVIATE MORE THAN 1/8" FROM REQUIRED POSITIONS AND LEVELS AFTER CONCRETE POUR. NET FORMS TO TIGHTEN CRACKS.
 - 4.03 PLACING CONCRETE: PLACE CONCRETE WITHIN 60 MINUTES AFTER MIXING. CONSOLIDATE BY VIBRATING AND/OR TAMPING.
 - 4.04 FINISHING AND CURING: FINISH CONCRETE TO MATCH EXISTING FINISH (MEDIUM BROOM). CURE CONCRETE PER COLORING ADMIXTURE MANUFACTURER'S RECOMMENDATIONS.



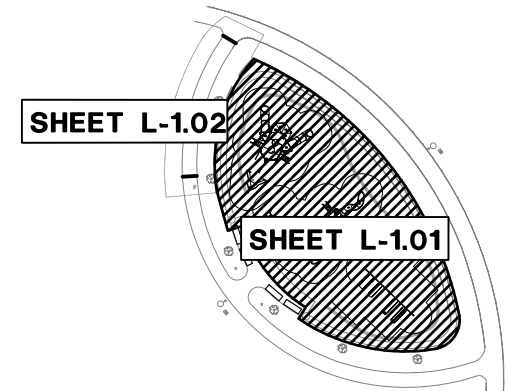
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GENERAL SPECIFICATIONS		VALENCIA PARK - PLAYGROUND REHABILITATION		CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT		PLANS PREPARED BY:  SIGNATURE: LARRY P. RYAN ARCHITECT: 2502 04/30/2017 12/10/2015 LICENSE NO. EXP. DATE		DESIGNED: ZM DRAWN: RM CHECKED: ZM DATE: 12/10/2015 SCALE: 1/8" = 1'-0"		DEVELOPER: 		7 6 5 4 3 2 1 NO.		DATE		REVISIONS	
SHEET 4		OF 19															

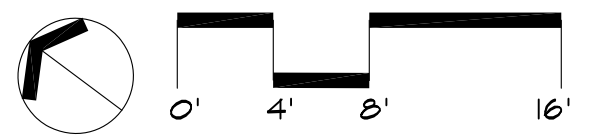


MATCHLINE SEE SHEET L-1.02



*NOTE TO CONTRACTOR:
VERIFY INVERT ELEVATION
PRIOR TO CONSTRUCTION
AND NOTIFY LANDSCAPE
ARCHITECT IMMEDIATELY OF
ANY DISCREPANCIES.

REFER TO L-1.02/SHEET 6 OF 18 FOR DEMOLITION
LEGEND AND NOTES.

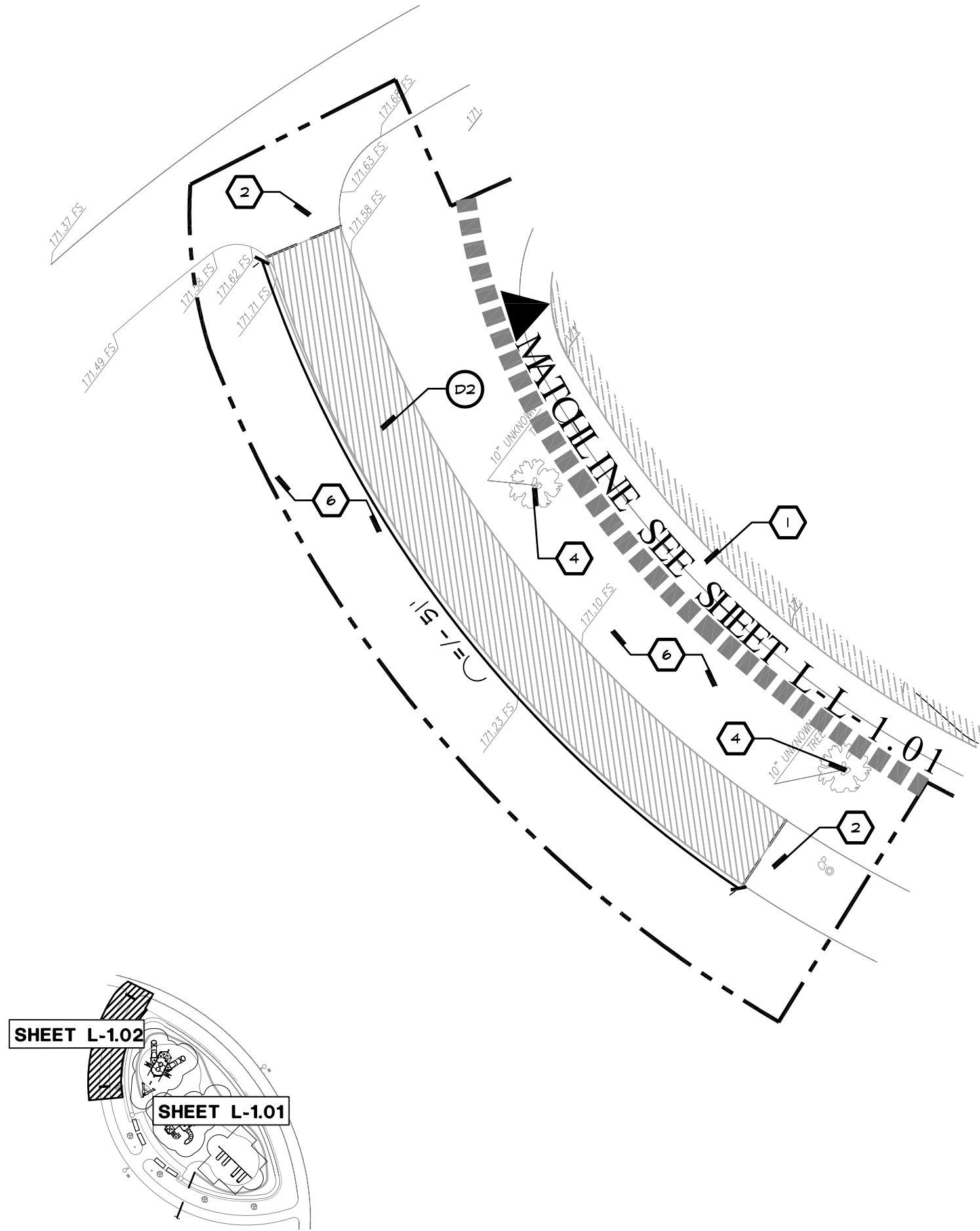


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L-1.01

PLAN CHECK: CASE NO. 00650360-PFA		PERMIT:		SHEET 5		OF 19	
DEMOLITION PLAN				VALENCIA PARK - PLAYGROUND REHABILITATION			
CITY OF IRVINE				COMMUNITY DEVELOPMENT DEPARTMENT			
PLANS PREPARED BY:				SIGNATURE: 			
ARCHITECT: LARRY P. RYAN				DATE: 12/10/2015			
LICENSE NO. EXP. DATE				DATE			
2502 04/30/2017				12/10/2015			
REPORT #				DATE			
1/8" = 1'-0"				NO. DATE			
REVISIONS				1			
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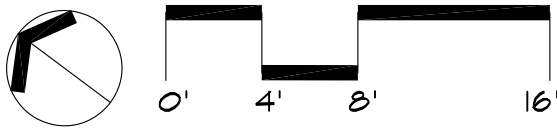
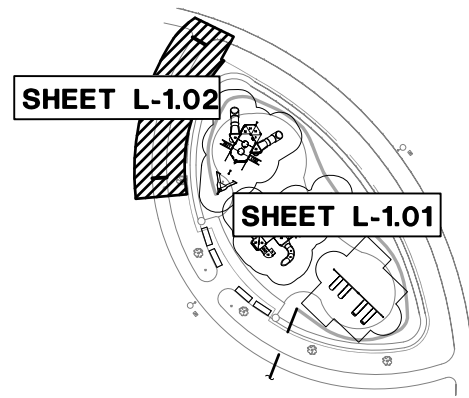
DEMOLITION NOTES

1. THE CONTRACTOR AND/OR SUBCONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BIDS.
2. ALL DEMOLITION ITEMS NOT REQUIRED FOR FILL SHALL BE REMOVED FROM THE PROJECT SITE, AND BE DISPOSED OF IN ACCORDANCE WITH LOCAL CODES.
3. NO RUBBISH OR DEBRIS SHALL BE BURNED ON SITE.
4. ANY DAMAGE TO EXISTING PLANT MATERIAL OR HARDSCAPE ELEMENTS THAT ARE TO REMAIN, I.E. CURBS, WALKS, WALLS, ADJACENT PROPERTY, ETC., SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL LIST ALL EXISTING TREES THAT HAVE HAD WORK PERFORMED WITHIN 6' OF TRUNK, ON HIS PLANT MATERIAL GUARANTEE.
6. CONTRACTOR SHALL VERIFY LOCATIONS AND INVERT ELEVATIONS OF ALL UNDERGROUND UTILITY LINES, PIPES, VAULTS OR BOXES PRIOR TO ANY EXCAVATION. ANY DAMAGE INCURRED TO ANY EXISTING UTILITY ELEMENTS SHALL BE REPAIRED PROPERLY AND IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY SHOULD FIELD CONDITIONS VARY FROM THOSE SHOWN ON PLAN.
8. LOCATIONS OF CONSTRUCTION ELEMENTS: LIGHTS, SIGNS, VENTS, HYDRANTS, TRANSFORMERS, ETC., ARE APPROXIMATE. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY SHOULD THE LOCATION OF THESE ITEMS INTERFERE WITH THE PROPER EXECUTION OF HIS WORK.

DEMOLITION LEGEND:		
DESCRIPTION:		COMMENTS:
D1	PLAYGROUND RUBBERIZED SURFACING	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D2	EXISTING CONCRETE PAVING	SANICUT, DEMOLISH, REMOVE AND DISPOSE OFFSITE
D3	EXISTING PLAYGROUND CORNER POLE AND FOOTING	DEMOLISH, REMOVE AND DISPOSE OFFSITE
D4	EXISTING E-POD SEAT, LANDSCAPE STRUCTURES, MODEL 166804A	REMOVE AND DISPOSE OFFSITE
D5	EXISTING GEAR PANEL, LANDSCAPE STRUCTURES MODEL 117146A	REMOVE AND DISPOSE OFFSITE
D6	EXISTING BALL MAZE PANEL, LANDSCAPE STRUCTURES, MODEL 115236A	REMOVE AND DISPOSE OFFSITE
D7	EXISTING BUBBLE PANEL, LANDSCAPE STRUCTURES MODEL 115223A	REMOVE AND DISPOSE OFFSITE
D8	EXISTING WINDOW PANEL, LANDSCAPE STRUCTURES MODEL 115224A	REMOVE AND DISPOSE OFFSITE
D9	PLAYGROUND SAND	REMOVE AND DISPOSE OFFSITE
D10	EXISTING HANDHOLD LEG LIFT, LANDSCAPE STRUCTURES MODEL 120902A	REMOVE AND DISPOSE OFFSITE
D11	EXISTING ADVENTURE SHIP PUPPET PANEL, LANDSCAPE STRUCTURES MODEL 1526034	REMOVE AND DISPOSE OFFSITE
D12	EXISTING ADVENTURE SHIP PUPPET PANEL, LANDSCAPE STRUCTURES MODEL 1526034	REMOVE AND DISPOSE OFFSITE
D13	EXISTING ADVENTURE SHIP EQUIPMENT	TO BE RELOCATED PER CONSTRUCTION PLANS. REMOVE AND RELOCATE WITH MINIMAL DAMAGE.
D14	EXISTING MONKEY BAR CLIMBER	TO BE REMOVED AND RELOCATED OFFSITE PER CITY'S DIRECTION.

EXISTING CONDITIONS:		
DESCRIPTION:		COMMENTS:
E1	CONCRETE SEAT WALL	PROTECT-IN-PLACE
E2	CONCRETE PAVING	PROTECT-IN-PLACE
E3	PLAYGROUND EQUIPMENT	PROTECT-IN-PLACE
E4	TREE	PROTECT-IN-PLACE
E5	DRAINLINE	PROTECT-IN-PLACE
E6	EXISTING TURF	PROTECT IN PLACE. RESOD TURF AREAS DAMAGED BY OPERATIONS AND BY CONSTRUCTION.
E7	EXISTING PILASTER	PROTECT IN PLACE.
E8	EXISTING 6" PERFORATED STORM DRAIN PIPE	REMOVE AND DISPOSE OF OFFSITE

LINETYPE LEGEND:		
DESCRIPTION:		COMMENTS:
---		LIMIT OF WORK



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DEMOLITION PLAN/LEGEND/NOTES		PLANS PREPARED BY: <u>PRY</u>		DESIGNED: <u>ZM</u>		7	
VALENCIA PARK - PLAYGROUND REHABILITATION		SIGNATURE: <u>LARRY P. RYAN</u>		DRAWN: <u>RM</u>		6	
		ARCHITECT: <u>2502</u>		CHECKED: <u>ZM</u>		5	
		LICENSE NO. <u>09/30/2017</u>		DATE: <u>12/10/2015</u>		4	
		EXP. DATE <u>12/10/2015</u>		SCALE: <u>1/8" = 1'-0"</u>		3	
						2	
						1	
						NO.	
						DATE	
						REVISIONS	

GRADING AND DRAINAGE NOTES

- (A) CONTRACTOR SHALL BE RESPONSIBLE FOR POSITIVE DRAINAGE ON SURFACE FLOW AREAS AT 1% (MIN.) ON HARDSCAPE AND 2% (MIN.) ON GRADE UNLESS OTHERWISE INDICATED.
- (B) WHERE PAVING AND FINISH GRADE MEET, DEPRESS FINISH GRADE 1" IN TURF AREAS AND 2" IN GROUND COVER AREAS UNLESS OTHERWISE INDICATED.
- (C) DO NOT WILLFULLY PROCEED WITH CONSTRUCTION WHEN IT IS OBVIOUS THAT KNOWN OBSTRUCTIONS EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. ASSUME RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- (D) ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADOPTED EDITIONS OF THE UNIFORM BUILDING CODE, THE AMERICANS WITH DISABILITIES ACT OF 1991, AND ALL OTHER APPLICABLE LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS.
- (E) BRING ANY DISCREPANCIES IN PLANS, SITE CONDITIONS, AND PRIOR WORK TO THE LANDSCAPE ARCHIECT'S ATTENTION BEFORE ANY ADDITIONAL WORK IS PERFORMED.
- (F) DO NOT SCALE DRAWINGS. CONTRACTOR TO STAKE/SURVEY LAYOUT FOR CITY APPROVAL PRIOR TO BEGINNING ANY WORK.
- (G) REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ALL DEBRIS AND EXCAVATED MATERIAL NOT REQUIRED FOR FILL. NO RUBBISH OR DEBRIS SHALL BE BURIED ON THE SITE.
- (H) DO NOT EXCEED 3 : 1 SLOPE IN TURF AREAS
- (I) DO NOT EXCEED A SLOPE OF 4.9% ON PROJECT WALKS.
- (J) ANY DAMAGE TO EXISTING PLANT MATERIAL OR HARDSCAPE ELEMENTS THAT ARE TO REMAIN, I.E. CURBS, WALKS, WALLS, ADJACENT PROPERTY, ETC., SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
- (K) ALL GROUND SURFACES SHALL BE BROUGHT TO A CONSISTENT GRADE, HAVING NO IRREGULARITIES, DEPRESSIONS, OR RIDGES TO THE SATISFACTION OF THE CITY REPRESENTATIVE. FINE GRADE ALL AREAS TO PROVIDE POSITIVE DRAINAGE AND SMOOTH, CONSISTENT GRADE TRANSITIONS.
- (L) IT IS THE INTENT TO ACHIEVE ALL GRADE RELATIONSHIPS AS SHOWN ON THE GRADING PLAN AND TO BALANCE ON SITE. THE CONTRACTOR SHALL NOTIFY THE CITY IMMEDIATELY OF ANY DIFFICULTY IN ACHIEVING A BALANCED-ON-SITE GRADING OPERATION. THE CITY, AT ITS DISCRETION, MAY DIRECT ADJUSTMENTS IN THE PROPOSED

GRADING/DRAINAGE LEGEND:

CONSTRUCT:

- 1 CONSTRUCT DRAINLINE. SEE DETAIL 2, SHEET L-4.OI.
- 2 CONSTRUCT 4" PVC (SCH 40) STORM DRAIN.
- 3 CONNECT TO 6" SD LINE PIPE
- 4 CONNECT DRAINLINE TO 4" PVC SD
- 5 CONSTRUCT 6" PVC (SCH 40) STORM DRAIN PIPE IN SAME TRENCH AS EXIST. 6" PERF. SD PIPE

EXISTING CONDITIONS:

DESCRIPTION:

COMMENTS:

- 1 CONCRETE SEAT WALL PROTECT-IN-PLACE
- 2 CONCRETE PAVING PROTECT-IN-PLACE
- 3 PLAYGROUND EQUIPMENT PROTECT-IN-PLACE
- 4 TREE PROTECT-IN-PLACE
- 5 EXISTING TURF PROTECT IN PLACE. RESOD TURF AREAS DAMAGED BY OPERATIONS AND BY CONSTRUCTION. SEE SPECS.

LINETYPE LEGEND:

DESCRIPTION:

COMMENTS:

- — — — — LIMIT OF WORK
- - - - - DRAINLINE

DRAINAGE & GRADING LEGEND

- HP + HIGH POINT
- LP + LOW POINT
- < < DIRECTION OF FLOW
- BW BOTTOM OF WALL
- FG FINISH GRADE
- GB GRADE BREAK
- SD STORM DRAIN
- IE/INV INVERT ELEVATION
- TG TOP OF GRATE
- TW TOP OF WALL
- ☒ CATCH BASIN
- (48.20) EXISTING SPOT ELEVATION
- 48.20 PROPOSED SPOT ELEVATION



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GRADING/DRAINAGE LEGEND/NOTES

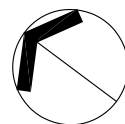
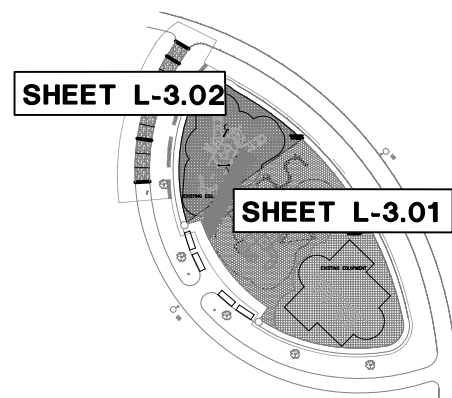
VALENCIA PARK - PLAYGROUND REHABILITATION

CITY OF IRVINE
COMMUNITY DEVELOPMENT DEPARTMENT

PLAN CHECK: CASE NO. 00650360-PPA
PERMIT:

SHEET 9
OF 19

L-2.03



REFER TO L-3.03/SHEET 12 OF 18 FOR CONSTRUCTION
LEGEND AND NOTES.



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SHEET 11 OF 19	PLAN CHECK: CASE NO. 006050360-PPA	CONSTRUCTION PLAN VALENCIA PARK - PLAYGROUND REHABILITATION CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT	PLANS PREPARED BY: SIGNATURE: LARRY P. RYAN ARCHITECT: 2502 09/30/2017 12/10/2015 LICENSE NO. EXP. DATE	DEVELOPER: 	DESIGNED: 24	7	
						DRAWN: RM	6
	CHECKED: 24	5					
	DATE: 12/10/2015	3					
	SCALE: 1/8" = 1'-0"	2					
	REPORT #	1					
	DATE	NO.	REVISIONS				

CONSTRUCTION NOTES:

- A

VISIT THE SITE PRIOR TO SUBMITTING BIDS.
- B

VERIFY ALL PROPERTY LINES OR OTHER LIMIT OF WORK LINES PRIOR TO COMMENCING WORK.
- C

VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY SHOULD FIELD CONDITIONS VARY FROM THOSE SHOWN ON THE PLANS. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS, SUCH DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT WHO WILL ISSUE CORRECTED DRAWINGS OR INSTRUCTIONS PRIOR TO THE CONTINUATION OF THIS WORK. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY FIELD CORRECTIONS DUE TO FAILURE TO REPORT KNOWN DISCREPANCIES.
- D

LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND PROTECT THEM FROM DAMAGE. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF DAMAGE OCCURS AND ASSUME FULL RESPONSIBILITY FOR EXPENSE OF REPAIR OR REPLACEMENT.
- E

COMPLY WITH ALL PROVISIONS OF THE LATEST BUILDING CODE AND WITH OTHER CURRENT RULES, REGULATIONS AND ORDINANCES GOVERNING THE LOCATION WHERE THE WORK IS TO OCCUR. BUILDING CODE REQUIREMENTS TAKE PRECEDENCE OVER THE DRAWINGS AND IT SHALL BE THE RESPONSIBILITY OF ANYONE SUPPLYING LABOR OR MATERIALS OR BOTH TO BRING TO THE ATTENTION OF THE ARCHITECT ANY DISCREPANCIES OR CONFLICTS BETWEEN THE REQUIREMENTS OF THE CODE AND THE DRAWINGS.
- F

LOCATIONS OF N.I.C. CONSTRUCTION ELEMENTS SUCH AS LIGHTS, SIGNS, VENTS, HYDRANTS, TRANSFORMERS, ETC., ARE APPROXIMATE. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY SHOULD THE LOCATION OF THESE ITEMS INTERFERE WITH THE PROPER EXECUTION OF WORK.
- G

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN SUBCONTRACTORS FOR PROPER AND TIMELY PLACEMENT OF SLEEVING, PIPING AND/OR CONDUIT INSTALLATION UNDER OR THROUGH LANDSCAPE ELEMENTS.
- H

DO NOT SCALE DRAWINGS.
- I

PROVIDE A REPRESENTATIVE SAMPLE OF EACH PAINTED OR STAINED ELEMENT TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO APPLYING FINISH. REFER TO DETAILS AND SPECIFICATIONS FOR SPECIFIC SUBMITTAL REQUIREMENTS.
- J

PROVIDE A 4' X 4' SAMPLE OF EACH PAVING TYPE IN LOCATION SPECIFIED BY OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS.
- K

DO NOT EXCEED A SLOPE OF 20:1 (5%) ON PROJECT WALKS UNLESS OTHERWISE INDICATED.
- L

CONSTRUCT ALL CURVE TO CURVE AND CURVE TO TANGENT LINES TO BE NEAT, TRIM, SMOOTH AND UNIFORM.
- M

CONSTRUCT ALL CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI @ 28 DAYS.
- N

PROVIDE OWNER WITH ALL WARRANTIES, GUARANTEES, AND INSTRUCTION MANUALS FOR EQUIPMENT, APPLIANCES, FIXTURES, ETC.
- O

CONTRACTOR SHALL OBTAIN CERTIFICATION FROM PLAYGROUND EQUIPMENT MANUFACTURER THAT ALL CURRENT A.D.A. AND CONSUMER PRODUCT SAFETY COMMISSION STANDARDS HAVE BEEN FULLY COMPLIED WITH.
- P

A COMPLETE PLAYGROUND AND SAFETY AUDIT SHALL BE PERFORMED BY A NPSI CERTIFIED INSPECTOR AND GIVEN TO THE CITY'S AUTHORIZED REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF PLAYGROUND.

NOTE

WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ALL ROOTS TWO (2) INCH AND LARGER IN DIAMETER, EXCEPT DIRECTLY IN THE PATH OF PIPE OR CONDUIT, SHALL BE TUNNELED UNDER AND SHALL BE HEAVILY WRAPPED WITH BURLAP, TO PREVENT SCARRING OR EXCESSIVE DRYING. WHERE A DITCHING MACHINE IS RUN CLOSE TO TREES HAVING ROOTS SMALLER THAN TWO (2) INCHES IN DIAMETER, THE WALL OF THE TRENCH ADJACENT TO THE TREE SHALL BE HAND TRIMMED, MAKING CLEAN CUTS THROUGH. TRENCHES ADJACENT TO TREES SHOULD BE CLOSED WITHIN TWENTY-FOUR (24) HOURS; AND WHERE THIS IS NOT POSSIBLE THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.

CONSTRUCTION LEGEND:

CONSTRUCT:DETAIL REFERENCE/COMMENTS:

- 1

INSTALL POURED-IN-PLACE RESILIENT SURFACING PER DETAIL 2, SHEET L-4.01. RESILIENT SURFACING SHALL BE POURED-IN-PLACE 'TOT TURF SUPREME' BY: TOT TURF OR APPROVED EQUAL. AVAILABLE FROM: PLAYCORE (714-904-8219). CONTACT: VINCE BRANTLEY. AND INSTALLED BY CERTIFIED INSTALLER. INSTALLER SHALL SUBMIT 12"X12" SAMPLE OF EACH COLOR TO THE CITY PRIOR TO INSTALLATION.
- 2

PEDESTRIAN CONCRETE

DETAIL: 1 SHEET: L-4.01
- 3

CONTROL JOINT

DETAIL: 1 SHEET: L-4.02
- 4

EXPANSION JOINT

DETAIL: 1 SHEET: L-4.02
- 5

COLD JOINT

DETAIL: 1 SHEET: L-4.02
- 6

PLAYGROUND EQUIPMENT

REFER TO SHEET L-4.03

EXISTING CONDITIONS:

DESCRIPTION:COMMENTS:

- 1

CONCRETE SEAT WALL

PROTECT-IN-PLACE
- 2

CONCRETE PAVING

PROTECT-IN-PLACE
- 3

PLAYGROUND EQUIPMENT

PROTECT-IN-PLACE
- 4

TREE

PROTECT-IN-PLACE
- 5

NOT USED

PROTECT IN PLACE.
- 6

EXISTING TURF

PROTECT IN PLACE. RESOD TURF AREAS DAMAGED BY OPERATIONS AND BY CONSTRUCTION. SEE SPECS.
- 7

EXISTING PILASTER

PROTECT IN PLACE.

RESILIENT SURFACING COLOR SCHEDULE:

DESCRIPTION / COLOR:COMMENTS

- A

BLUE - 75%/BEIGE 25%

FINAL COLOR TO BE SELECTED BY CITY.
- B

BEIGE - 75%/TERRA COTTA - 25%

FINAL COLOR TO BE SELECTED BY CITY.
- C

GREEN - 50%/TERRA COTTA - 25%/ BEIGE- 25%

FINAL COLOR TO BE SELECTED BY CITY.
- D

TERRA COTTA- 75%/BEIGE - 25%

FINAL COLOR TO BE SELECTED BY CITY.

LINETYPE LEGEND:

DESCRIPTION:COMMENTS:

- LIMIT OF WORK
- EXPANSION JOINT
- COLD JOINT

GENERAL NOTE

A DIGITAL FILE WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION TO ASSIST THE CONTRACTOR / SURVEYOR IN ESTABLISHING HORIZONTAL CONTROLS NECESSARY TO FIELD STAKE PAVING, WALKS, WALLS, TRAILS, MOW CURBS, ETC. AS SHOWN ON THE CONSTRUCTION PLANS.

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PLAN CHECK:CASE NO: 00650360-PPA
PERMIT:

SHEET 12
OF 19

CONSTRUCTION PLAN/LEGEND/NOTES
VALENCIA PARK - PLAYGROUND REHABILITATION
CITY OF IRVINE
COMMUNITY DEVELOPMENT DEPARTMENT

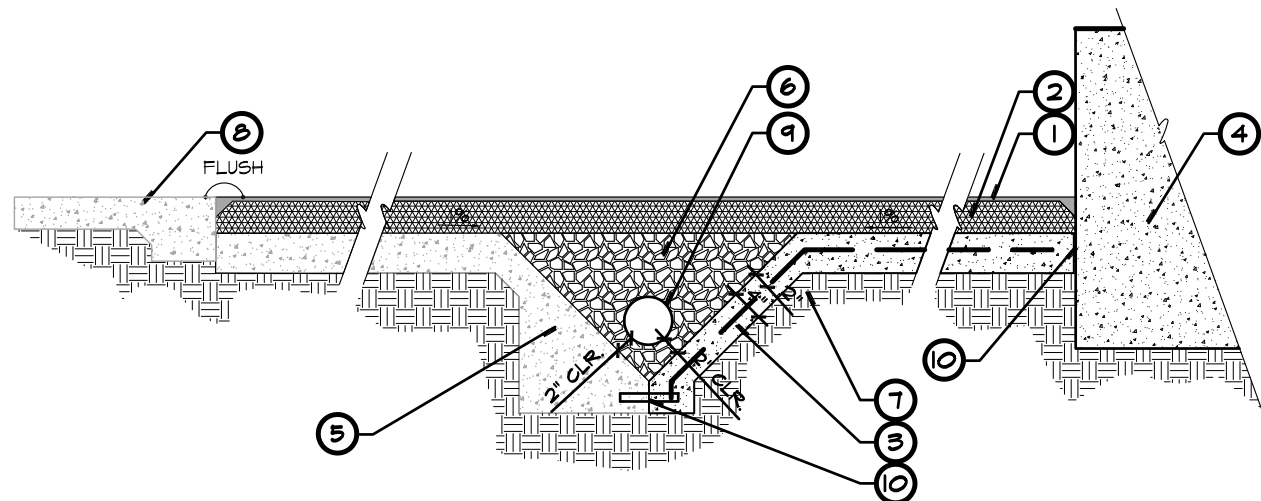
PLANS PREPARED BY:
SIGNATURE: LARRY P. RYAN
ARCHITECT: 2502
LICENSE NO. 04/30/2017
DATE 12/10/2015

DEVELOPER:
DESIGNED: ZM
DRAWN: RM
CHECKED: ZM
DATE: 12/10/2015
SCALE: 1/8" = 1'-0"
REPORT #
DATE

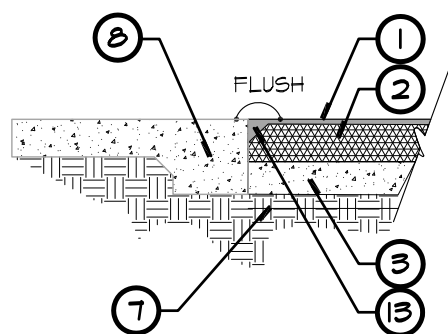
DESIGNED: ZM
DRAWN: RM
CHECKED: ZM
DATE: 12/10/2015
SCALE: 1/8" = 1'-0"
REPORT #
DATE

7	6	5	4	3	2	1	NO.	DATE

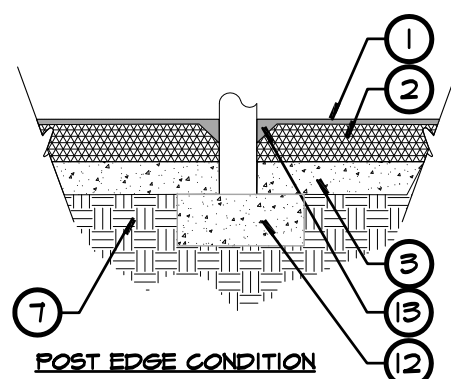
REVISIONS



SECTION
SCALE: 1/2" = 1'-0"



EDGE CONDITION
SCALE: N.T.S.



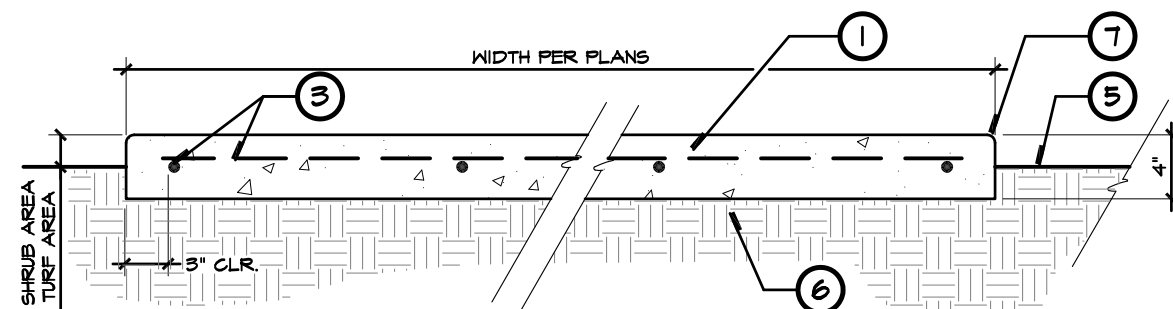
POST EDGE CONDITION
SCALE: N.T.S.

LEGEND:

- ① 1/2" MIN. RESILIENT SURFACING WEARING COURSE.
- ② POURED-IN-PLACE SHREDDED CUSHION LAYER. CUSHION DEPTH PER MANUFACTURERS SPECIFICATIONS AND ELEVATIONS PER GRADING AND DRAINAGE PLANS. DIMENSION WILL VARY BASED UPON FALL ZONE AROUND EACH PLAY STRUCTURE COMPONENT.
- ③ 4" CONCRETE BASE W/ #3 REBAR @12" O.C. SLOPE CONCRETE 1-2% TO DRAINS. MAINTAIN POSITIVE DRAINAGE TO DRAIN INLETS. SEE SHEETS L-2.01 AD L-2.02 FOR ELEVATIONS/DRAINAGE.
- ④ EXISTING CONCRETE WALL.
- ⑤ EXISTING PLAYGROUND CONCRETE BASE.
- ⑥ CRUSHED AGGREGATE BASE, COMPACTED TO 95%.
- ⑦ MOISTURE-CONDITIONED SUB-GRADE, COMPACTED TO 95%.
- ⑧ EXISTING ADJACENT CONCRETE EDGE OF SIDEWALK.
- ⑨ DRAINLINE. 4" PERFORATED SCH. 40 PIPE W/ HOLES ON BOTTOM.
- ⑩ COLD JOINT PER DETAIL 2, SHEET L-4.02.
- ⑪ EXISTING CONCRETE WALL.
- ⑫ EQUIPMENT FOOTING
- ⑬ TAPER EDGE OF CUSHION LAYER, AND PROVIDE THICKENED EDGE OF WEARING COURSE. 2" MIN.

NOTES:

- (A) RESILIENT SURFACING SHALL BE INSTALLED WITH UV ALIPHATIC BINDER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- (B) RESILIENT SURFACING SHALL BE INSTALLED BY A PRE-QUALIFIED INSTALLER N.P.S.I. CERTIFIED AND SHALL MEET THE REQUIREMENTS BY THE MANUFACTURER. THE INSTALLER SHALL HAVE COMPLETED AT LEAST 10 PROJECTS SIMILAR IN SIZE AND SCOPE IN THE LAST (5) YEARS.
- (C) CONTRACTOR SHALL SUBMIT 12"X12" COLOR SAMPLE OF EACH COLOR SPECIFIED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- (D) RESILIENT SURFACING SHALL BE POURED-IN-PLACE **TOT TURF SUPREME** BY: **TOT TURF** OR APPROVED EQUAL. AVAILABLE FROM: **PLAYCORE** (714-904-8219). CONTACT: VINCE BRANTLEY.
- (E) ALL CONCRETE SHALL BE TYPE V, 2500 PSI.



SECTION
SCALE: 1" = 1'-0"

LEGEND:

- ① CONCRETE PAVING - NATURAL GRAY, MEDIUM BROOM FINISH.
- ② CRUSHED MISCELLANEOUS BASE.
- ③ #3 REBAR AT 18" O.C. EACH WAY.
- ④ #4 REBAR AT 18" O.C. EACH WAY
- ⑤ FINISH GRADE.
- ⑥ COMPACTED, MOISTURE-CONDITIONED SUBGRADE, COMPACTED TO 95%.
- ⑦ 1/2" TOOLED RADIUS.
- ⑧ #3 REBAR, CONTINUOUS.

NOTES:

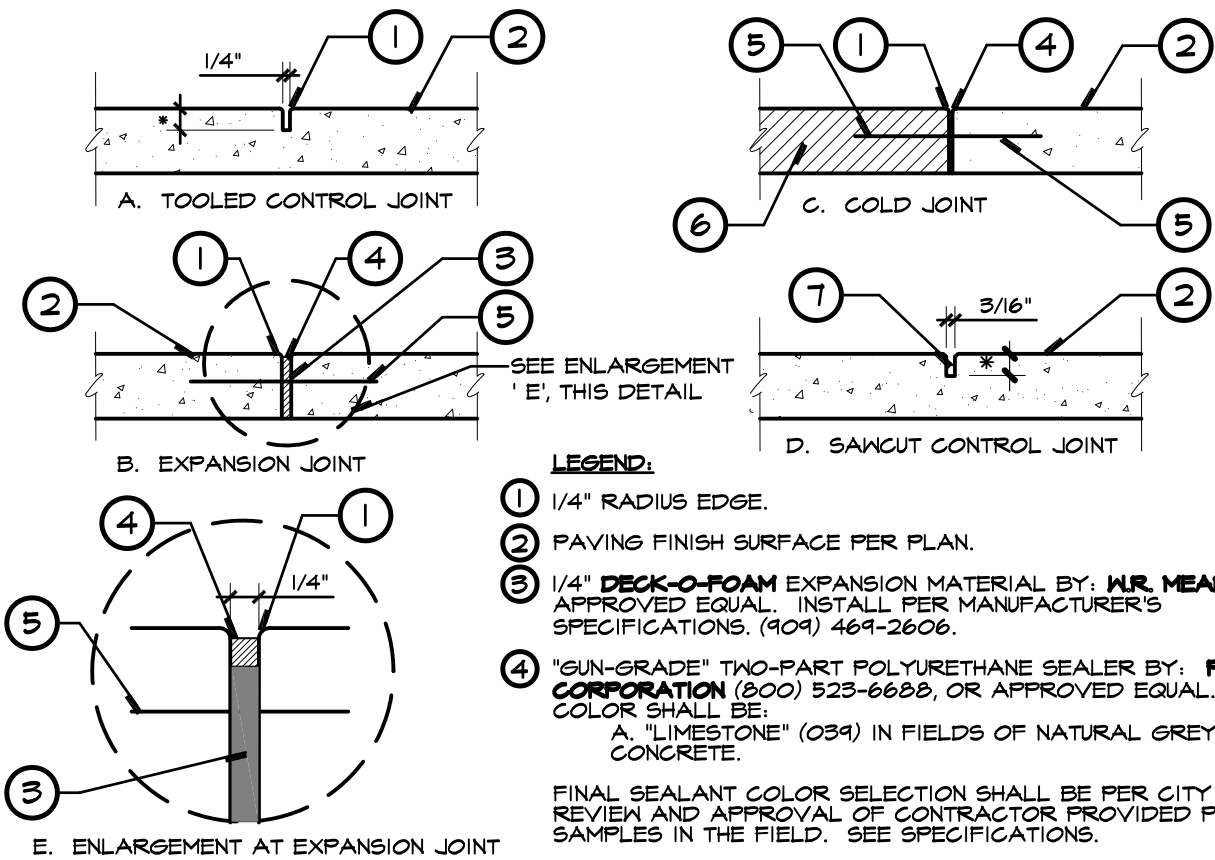
- (A) PROVIDE FINISH SAMPLE PER PLANS AND SPECIFICATIONS.
- (B) ALL CONCRETE TO BE TYPE V, MINIMUM COMPRESSION STRENGTH OF 3,500 PSI. SEE SOILS REPORT (PAVEMENT RECOMMENDATIONS).
- (C) AT CONCLUSION OF ROUGH GRADING OF SITE, CONTRACTOR TO SCHEDULE SITE SOIL TESTING BY: **LOC GEOTECHNICAL, INC.** TO TEST SITE SOIL EXPANSION INDEX. HARDSCAPE CONSTRUCTION SHALL NOT COMMENCE UNTIL TEST RESULTS HAVE BEEN REVIEWED BY **DENNIS BORATYNEC**.
- (D) PROVIDE 1/4" FALL PER 12" RUN ON ALL PAVING - MINIMUM. SEE CIVIL PLANS.
- (E) SEE DETAIL 1, SHEET L-4.03 FOR CONCRETE JOINTS.
- (F) MISC. CRUSHED AGGREGATE BASE SHALL COMPLY/BE INSTALLED PER THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2009 EDITION.



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DESIGNED: ZM	DRAWN: RM	CHECKED: ZM	DATE: 12/10/2015	SCALE: 1/8" = 1'-0"	NO.	DATE
DEVELOPER:	SOILS ENGINEER:	REPORT #	DATE			



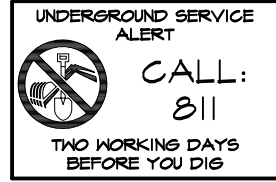
- LEGEND:**
- ① 1/4" RADIUS EDGE.
 - ② PAVING FINISH SURFACE PER PLAN.
 - ③ 1/4" **DECK-O-FOAM** EXPANSION MATERIAL BY: **W.R. MEADOWS** OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS. (909) 469-2606.
 - ④ "GUN-GRADE" TWO-PART POLYURETHANE SEALER BY: **PECORA CORPORATION** (800) 523-6688, OR APPROVED EQUAL. COLOR SHALL BE:
A. "LIMESTONE" (039) IN FIELDS OF NATURAL GREY CONCRETE.
 - ⑤ **SPEED-DOWEL** AT 18" O.C. AT ALL JOINTS W/#4 REBAR, MODEL NO. PSD09/#4TX SPEED DOWEL SLEEVE WITH PSD/#4BX BASE AS PROVIDED BY **GREENSTREAK GROUP** OR APPROVED EQUAL. (800) 325-9504.
 - ⑥ EXISTING CONCRETE PAVING.
 - ⑦ SAWCUT JOINT. SINGLE BLADE WITH 1/16" BEVEL AND CONTINUOUS CRACK CHASER.

* 3/4" IF PAVING LESS THAN 4" THICK. 1" IF PAVING 4" THICK OR GREATER.

- NOTES:**
- Ⓐ LOCATE JOINTS PER SPECIFICATIONS UNLESS OTHERWISE INDICATED ON PLAN.
 - Ⓑ SEALANT COLOR TO MATCH ADJACENT PAVING.
 - Ⓒ ALL EXPANSION JOINT SEALANT TO BE SEEDED WITH SILICA SAND.
 - Ⓓ PROVIDE DOUBLE BLADE SAWCUT JOINTS AT POSTS AND CENTERED BETWEEN POSTS, TYP. ALONG ALL BALLFIELD FENCING. SEE PLANS.


I CONCRETE JOINTS

SCALE: N.T.S.



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CONSTRUCTION DETAILS		PLANS PREPARED BY: 		DESIGNED: ZM		7
VALENCIA PARK - PLAYGROUND REHABILITATION		SIGNATURE: LARRY P. RYAN		DRAWN: RM		6
CITY OF IRVINE		ARCHITECT: 2502		CHECKED: ZM		5
COMMUNITY DEVELOPMENT DEPARTMENT		LICENSE NO. EXP. DATE 04/30/2017 12/10/2015		DATE: 12/10/2015		4
				SCALE: 1/8" = 1'-0"		3
				REPORT #		2
				DATE		1
				NO.		
				REVISIONS		

PLAN CHECK: CASE NO. 00650360-PPA
PERMIT:

SHEET 14
OF 19

L-4.02

1 | PLAYGROUND EQUIPMENT LAYOUT

SCALE: AS SHOWN



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GROUP

L-4.03

2-5			
TOTAL ELEVATED PLAY COMPONENTS	10		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	10	REQUIRED	5
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	8	REQUIRED	3
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	8	REQUIRED	8

5-12			
TOTAL ELEVATED PLAY COMPONENTS	12		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	10	REQUIRED	6
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	6	REQUIRED	4
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	3	REQUIRED	3

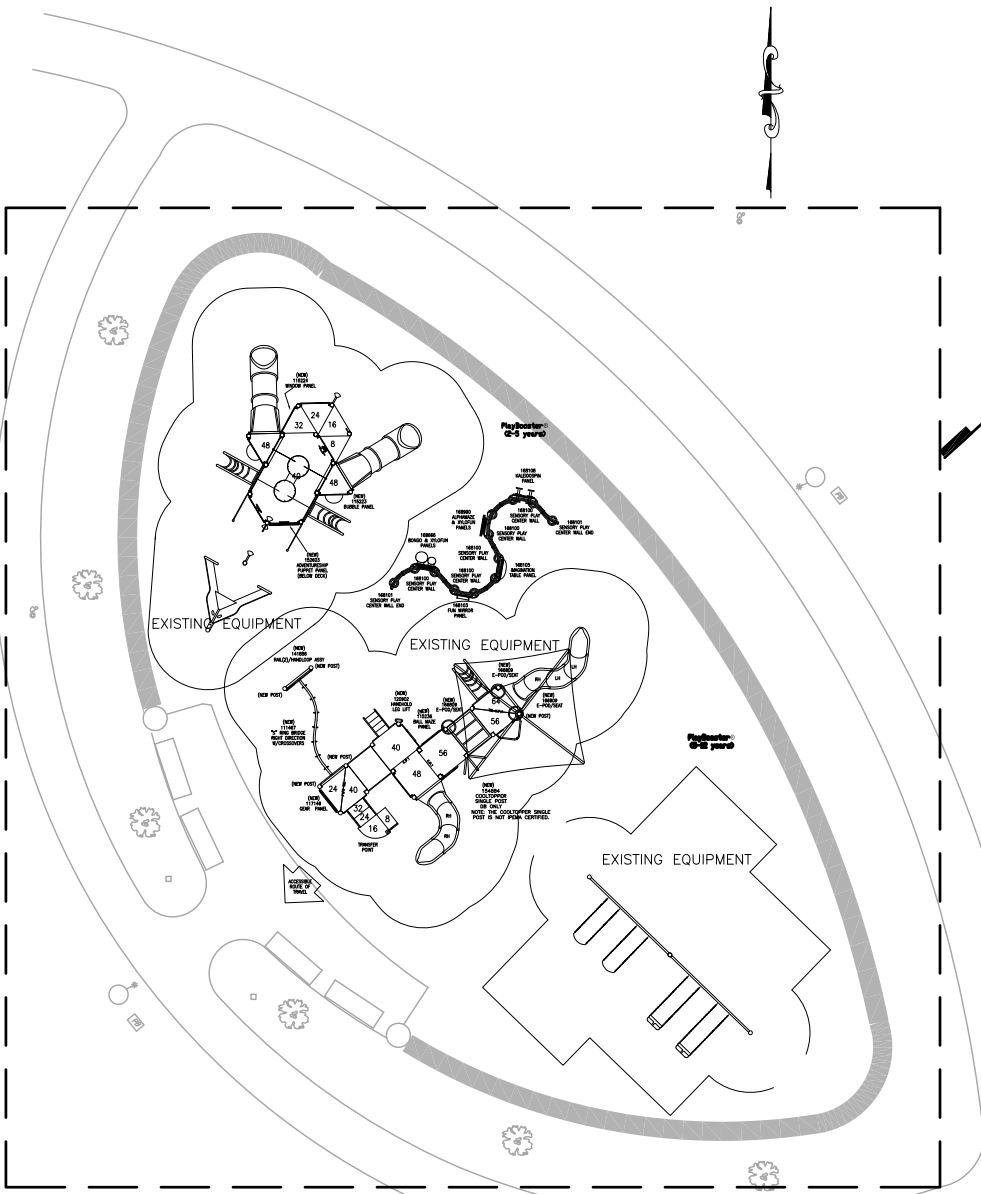


Valencia
Park
Irvine, CA

Coast
Recreation, Inc.
Tim Hodges

SYSTEM TYPE:
PlayBooster

DRAWING #:
88174-1-3



SEE ENLARGEMENT
SHEET L-4.04



The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 2-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

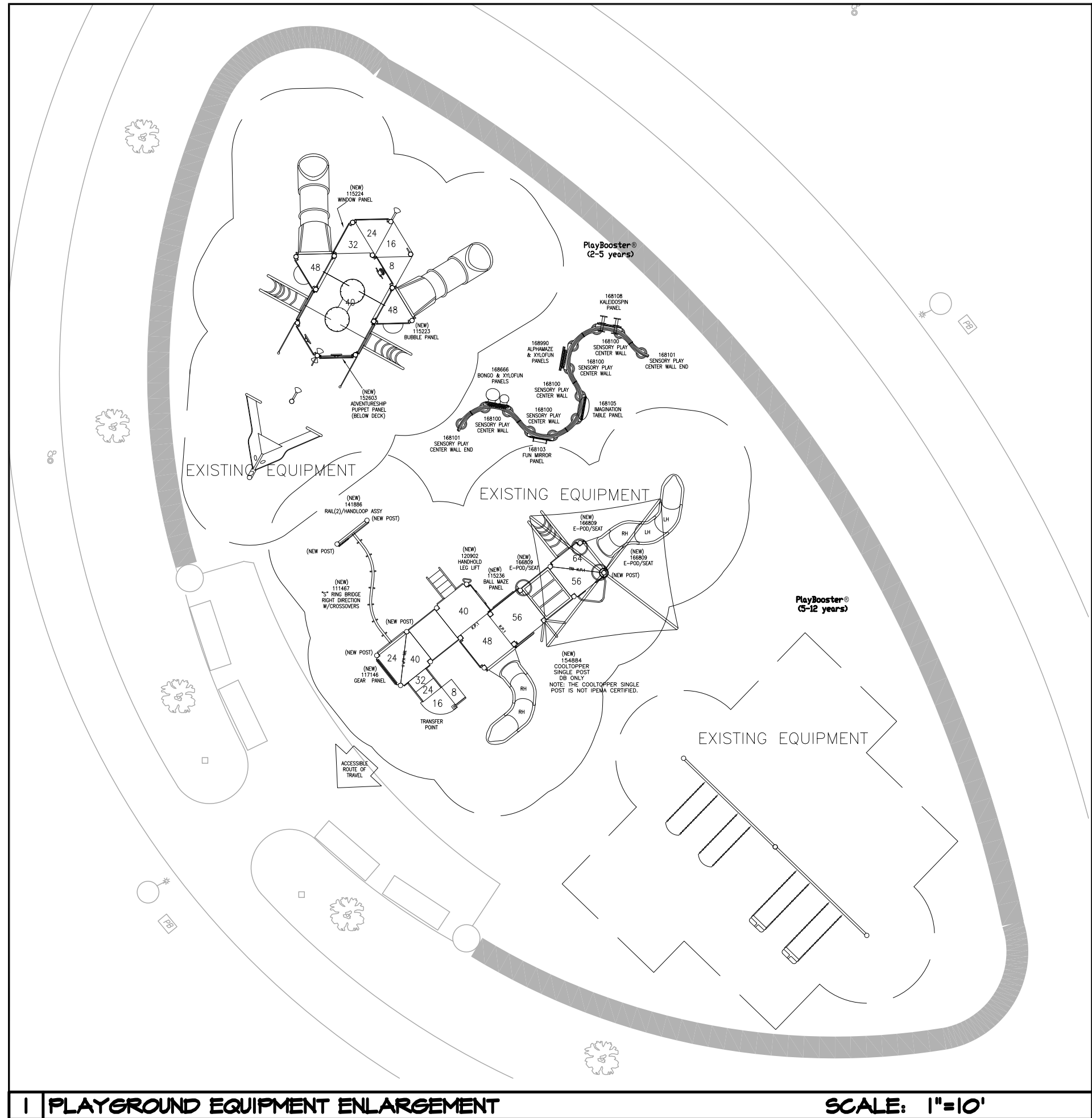
THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY, EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SUBSURFACE MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "TRENCH DRAIN".

DESIGNED BY:
GLG

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LANDSCAPE STRUCTURES, INC.
601 7th STREET SOUTH - P.O. BOX 198
DELANO, MINNESOTA 55328
PH: 1-800-328-0035 FAX: 1-763-972-6091

9/4/15	88174-1-1	GLG
Date	Previous Drawing #	Initials



1 | PLAYGROUND EQUIPMENT ENLARGEMENT

SCALE: 1"=10'

PLAY EQUIPMENT

(AGES 2-5):		
QTY	MODEL NO.	NAME
1	115223A	BUBBLE PANEL ABOVE DECK
1	152603A	ADVENTURESHIP PUPPET PANEL GROUND LEVEL
1	115224A	ADVENTURESHIP WINDOW PANEL ABOVE DECK
1	88174-1-1	SENSORY WALL
(AGES 5-12):		
1	115236A	BALL MAZE PANEL ABOVE DECK
1	117146A	GEAR PANEL ABOVE DECK
3	166809A	E-POD SEAT
1	120902A	HANDHOLD LEG LIFT
1	154884A	COOLTOPPERS SINGLE POST DB ONLY
1	154883A	265' STEEL POST FOR COOLTOPPERS SINGLE POST ROOF
2	111404C	132" ALUMINUM POST
1	141886A	ACCESS/LANDING ASSY RAILS 24" DECK
1	111467A	S RING BRIDGE
1	115231A	TIC TAC TOE PANEL ABOVE DECK (BID ALTERNATE #1 IN LIEU OF #141886A AND 111467A)

CONTACT: TIM HODGES AT COAST RECREATION, INC. (714) 619-0100

GROUND LEVEL COMPONENTS NOTE: MODEL 152603A AND 88174-1-1 ARE GROUND LEVEL COMPONENTS. THE SENSORY WALL, MODEL 88174-1-1 IS A COMBINATION OF TWELVE GROUND ELEMENTS.

PLAYGROUND NOTES:

- A AT LEAST ONE TURNING SPACE COMPLYING WITH CBC 11B-304 (TURNING SPACE) SHALL BE PROVIDED ON THE SAME LEVEL AS PLAY COMPONENTS. WHERE SWINGS ARE PROVIDED, THE TURNING SPACE SHALL BE LOCATED IMMEDIATELY ADJACENT TO THE SWING.
- B ENTRY POINTS AND SEATS PER CBC 11B-1 008. 4. 4.
- C TRANSFER SUPPORT PER CBC 11B-1008.2.5.
- D GROUND SURFACE AREA SHALL COMPLY WITH CBC 11B-1008.2.6



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DESIGNED: ZM	DRAWN: RM	CHECKED: ZM	DATE: 12/10/2015	SCALE: 1/8" = 1'-0"	NO.	DATE
DEVELOPER				REPORT #	DATE	
PLANS PREPARED BY: LARRY P. RYAN				ARCHITECT: 2502	DATE: 04/30/2017	DATE: 12/10/2015
CONSTRUCTION DETAILS				CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT		
VALENCIA PARK - PLAYGROUND REHABILITATION				SHEET 16 OF 19		
PLAN CHECK: CASE NO. 00650360-PPA				PERMIT:		

Irvine CA September 8, 2015 88174-1-2



playlsi.com



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SHEET <u>17</u> OF <u>19</u>	PLAN CHECK: <u>CASE NO. 00650360-PPA</u> PERMIT:	CONSTRUCTION DETAILS		PLANS PREPARED BY:	DEVELOPER:	DESIGNED: <u>ZM</u>	7
	VALENCIA PARK - PLAYGROUND REHABILITATION		SIGNATURE: <u>LARRY P. RYAN</u>			DRAWN: <u>RM</u>	6
CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT		ARCHITECT: <u>2502 04/30/2017 12/10/2015</u>				CHECKED: <u>ZM</u>	5
		LICENSE NO. EXP. DATE					4
							3
						DATE: <u>12/10/2015</u>	2
						SCALE: <u>1/8" = 1'-0"</u>	1
						REPORT #	NO.
						DATE	REVISIONS

Body Movement Opportunities Matrix							
Activities	Vestibular	Climbing	Balance	Upper Body	Push/Pull	Crawling/Bilateral	Fantasy/Social
Bubble Panel Above Deck							X
Adventureship Puppet Panel Ground Level							X
Adventureship Puppet Panel Above Deck							X
Sensory Wall					X		X
Ball Maze Panel Above Deck					X		X
Gear Panel Above Deck					X		X
E-Pod Seat		X					
Handhold Leg Lift		X					
S Ring Bridge		X	X				
Tic Tac Toe Panel (3rd Alternate)					X		

ACCESSIBILITY NOTES:

- A

AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE PLAY AREA. THE ACCESSIBLE ROUTE SHALL CONNECT GROUND LEVEL PLAY COMPONENTS REQUIRED TO COMPLY WITH CBC 11B-240.2.1 AND ELEVATED PLAY COMPONENTS REQUIRED TO COMPLY WITH CBC 11B-240.2.2, INCLUDING ENTRY AND EXITS POINTS OF THE PLAY COMPONENTS.
- B

ACCESSIBLE ROUTES CONNECTING PLAY COMPONENTS SHALL PROVIDE A CLEAR WIDTH COMPLYING WITH CBC 11B-1 008.2.4. AT GROUND LEVEL, THE CLEAR WIDTH OF ACCESSIBLE ROUTES SHALL BE 60 INCHES MINIMUM. CBC 11B-1 008.2.4.
- C

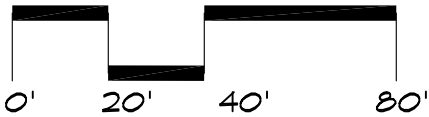
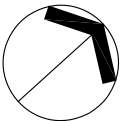
ACCESSIBLE ROUTES SERVING GROUND LEVEL PLAY COMPONENTS AND ELEVATES PLAY COMPONENTS SHALL BE PERMITTED TO USE THE EXCEPTIONS IN CBC 11B-1008.2.1.
- D

RAMP RUNS CONNECTING GROUND LEVEL PLAY COMPONENTS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAT 1: 16. THE RUSE FOR ANY RAMP RUN CONNECTING ELEVATED PLAY COMPONENTS SHALL BE 12 INCHES MAXIMUM. CBC 11B.2.5
- E

IDENTIFY ALL TRANSFER STEPS AND TRANSFER PLATFORMS WHERE REQUIRED.
- F

ACCESSIBLE ROUTE CANNOT BE INTERRUPTED BY STEPS, CURBS, AND PLANTERS.
- G

PATH OF TRAVEL SHALL HAVE A RUNNING SLOPE NOT TO EXCEED 1:20 AND CROSS SLOPE NOT TO EXCEED 1:48.



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ACCESSIBILITY PLAN
VALENCIA PARK - PLAYGROUND REHABILITATION
CITY OF IRVINE
COMMUNITY DEVELOPMENT DEPARTMENT

PLANS PREPARED BY:
SIGNATURE: *[Signature]*
LARRY P. RYAN
ARCHITECT:
2502 04/30/2017 12/10/2015
LICENSE NO. EXP. DATE

DESIGNED: ZM
DRAWN: RM
CHECKED: ZM
DATE: 12/10/2015
SCALE: 1/8" = 1'-0"

7	6	5	4	3	2	1	NO.	DATE

3.8

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CITY OF IRVINE
CITY CLERK'S OFFICE


2017 JUN 15 PM 4: 04

Memo

RECEIVED

JUN 15 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

To: Sean Joyce, City Manager
From: Councilmember Melissa Fox 
Date: June 15, 2017
Re: **Request for Agenda Items 3.2 and 3.3 from the May 23, 2017 Orange County Great Park Board Meeting to be Placed on the June 27, 2017 Orange County Great Park Meeting Agenda**

At the Great Park Board meeting on May 23, 2017, we requested that a financial analysis be conducted on the feasibility of botanical gardens versus a golf course.

It has come to my attention from Orange County Great Park Director, Pete Carmichael that the financial consultant can be available on June 27, 2017 for questions and answers about the financial feasibilities of both potential uses. I would like to request that items 3.2 and 3.3 from the May 23, 2017 Great Park Board meeting are placed back on the Orange County Great Park agenda for June 27, 2017.

cc: City Council
Molly McLaughlin, City Clerk



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: MAY 23, 2017

TITLE: MODIFICATIONS TO GREAT PARK CONCEPTUAL DESIGN AND SPACE PLANNING

Director, Orange County Great Park

City Manager

RECOMMENDED ACTION

Approve a modification to the Boundary of the Great Park Improvement Area and direct staff to return to the Great Park Board and City Council with a budget and Letter Agreement making any modifications necessary to implement the City Council's direction.

EXECUTIVE SUMMARY

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) sets forth the programmatic and conceptual design for the development of 688 acres within the Orange County Great Park (Great Park). The ALA II recognized that the conceptual level design for these areas would be further developed through design refinements and amplifications to inform Heritage Fields' development of construction plans for improvements. Over the last six months, Heritage Fields, through its development manager, Five Point Communities (Five Point), has worked with City staff to refine the design for three of the primary undeveloped sub-areas: Bosque, Agriculture, and Golf Course. The design refinements are focused on improving connectivity and shifting the layout and location of several amenities. A brief summary of the proposed modifications is outlined below and shown in Attachments 1, 2, and 3.

1. Addition of two new pedestrian bridges over Great Park Boulevard.
2. Improved vehicular access into the Bosque, Agriculture area and Golf Course, including the addition of new parking lots close to visitor amenities.
3. Relocation of the Golf Course main entry drive, clubhouse, and driving range from the north part of the course, adjacent to the ARDA Transfer Site to the south side of the Course off of Great Park Boulevard.
4. Relocation of the Farm + Food Lab and dog park.

To accommodate the proposed design modifications outlined above, including the space necessary to land two pedestrian bridges and relocate several visitor amenities, a modification to the 688-acre boundary is recommended. An illustration of the recommended

modification to the 688-acre boundary is recommended. An illustration of the recommended modification is provided in Attachment 4. This shift in the boundary would add approximately 25 acres to the Great Park Improvement Area, enlarging it from 688 acres to 713 acres. The incremental cost for grading and improvement of these 25 acres is estimated to be approximately \$1,000,000. This work would be the City's responsibility as part of the Cultural Terrace development if not for the proposed boundary shift pulling it into the Great Park Improvement Area covered by the ALA II. Staff is recommending that this additional cost be funded from the ALA II Additional Allowance Funds provided by Five Point and set aside for the Bosque Sub-area. If the recommended actions are approved by the Board and City Council, staff will work with Five Point to finalize the budget and return to the City Council for further direction on the expenditure and consideration of a Letter Agreement making any modifications necessary to the ALA II to implement the City Council's direction.

In addition to the design modifications outlined above, Five Point is proposing an extension of Great Park Boulevard from its current point of termination at the traffic circle in the center of the Park, across the northern portion of the Cultural Terrace to O Street in District 5 of the Great Park Neighborhoods. An illustration of the extension is provided in Attachment 3. The proposed extension would ultimately connect traffic from State Route 133, across the Great Park to Bake Parkway near Interstate 5. Any potential regional transportation impacts will require further evaluation, including a Modification to the Great Park Master Plan, and a General Plan Amendment.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not applicable.

ANALYSIS

On November 26, 2013, the City Council approved the ALA II between the City of Irvine and Heritage Fields. Exhibit B of the ALA II includes the "Orange County Great Park Improvement Area Concept Plans and Programming" (Design Package) that sets forth the concept plans and programming for the development of 688 acres within the Great Park. The ALA II subdivided the 688-acre Orange County Great Park Improvement Area into a number of sub-areas, including: Upper Bee, Bosque, Sports Park, Agriculture, Golf Course, and Wildlife Corridor.

The ALA II recognized that the Design Package concept plans would be further developed through design refinements and amplifications to inform Heritage Fields' development of the construction plans for improvements. Such refinement or amplification was defined as a "Logical Evolution" per Section 2c of the ALA II. Over the last three years, Heritage Fields through Five Point, has been working with City staff on design refinements for the various 688-acre sub-areas. In March 2015, the refined design for the Upper Bee and upper portion of the Bosque sub-areas was presented to the City Council and the expenditure of Additional Allowance Funds was approved for specific enhancements. In September 2015, the refined design for the Sports Park was presented to the City Council and Additional Allowance Funds and Quimby Park-in-Lieu Funds were approved for enhancements to the Sports Park, such as upgraded spectator seating, batting cages, and additional restroom facilities.

The remaining 688-acre sub-areas for which design has yet to be finalized include the lower portion of the Bosque, the Agriculture Area, and the Golf Course. These three areas have been reconfigured as Great Park Boulevard was changed from a dead end turn-around at the entrance to the Great Park, as shown in the Design Package, to a continuous loop road circumnavigating the Sports Park. These roadway changes created a new set of challenges and opportunities for park design. Five Point has since worked with staff to address these changes through a series of proposed modifications to conceptual design and space planning presented in this report. The proposed modifications or Logical Evolutions fall into two primary categories: Connectivity, and Location and Layout of Amenities. These two categories are explained in more detail below and illustrated in Attachments 1, 2, and 3.

Connectivity

The 2015 modification to Great Park Boulevard, extending the street around the northeast corner of the Sports Park and connecting with Marine Way, improves vehicular circulation and access to the Park. That said, the road also creates a potential barrier to the off-street pedestrian and bicycle trail system and risks segmenting the Great Park. To address these challenges, Five Point has worked with staff to develop a set of solutions to improve connectivity:

- Pedestrian Bridges: The modified plan includes two new bridges spanning Great Park Boulevard. One bridge would connect the Upper and Lower Bosque areas near the Great Park entry, completing an uninterrupted trail from Irvine Boulevard to the Sports Park. The other bridge would extend the Timeline, linking the Sports Park to the Golf Course and the broader Great Park Trail network. The new bridges would greatly improve connectivity and accessibility to portions of the park separated by a roadway. It would also provide an opportunity to create distinctive architectural features. Staff will work with the Five Point design team to further define the bridge designs and return with options for Board consideration. The bridges would be funded through the Great Park-area Community Facilities District (CFD), which funds the construction of the associated roadway, Great Park Boulevard and Park-area trail network.
- Trails: The modified plan includes an expansion of the trail system within the Great Park. Development areas have been set back further from the road to allow room for off-street trails to connect the Bosque to the Agriculture and Golf areas and on to the eastern edge of the Great Park. This expanded trail area provides a pedestrian-friendly green belt buffer from the roadway enhancing the aesthetics along the edge of Great Park Boulevard and improving trail linkages across the park.
- Vehicular Access and Parking: The plan includes improved access to the lower portion of the Bosque, Farm + Food Lab, and Agricultural Area with the addition of two new roadways and parking lots. A roadway in the Bosque area would allow for access from Great Park Boulevard near the park entryway and provide parking close to the dog park, trails and other amenities where previously none existed. A new roadway stemming from the primary traffic circle in the center of the Park provides access to an additional parking lot, the new Golf clubhouse location, and the new location for the Farm + Food Lab and Agriculture Area.

Location and Layout of Amenities

- Bosque: The expansion of Great Park Boulevard, the building restrictions around the Federal Aviation Administration (FAA) beacon and the required footprint for landing a new pedestrian bridge combine to create a significant space challenge in the Bosque area. The design package calls for several amenities in this area, including a dog park and the Farm + Food Lab, which are difficult to fit and function well within the constrained space.

To address these space constraints, the proposed plan calls for the relocation of the Farm + Food Lab to the east side of the Agriculture area. The new location sites the facility in close proximity to the Golf clubhouse, provides for a dedicated parking lot, and would be adjacent to the new bridge, trail system, and the Agriculture area. These adjacencies improve access and provide opportunity for integrated programming between the Farm + Food Lab, the Agriculture area, and create a direct connection to the activities in the Sports Park.

The dog park would shift to the east to provide additional space. The new location is adjacent to parking and trails for improved accessibility by both roadway and walking trails. The golf course maintenance facility is proposed for relocation to the west end of the golf course next to the Bosque allowing for shared use for the maintenance of the Bosque and Upper Bee out of one end of the facility and the golf course out of the other end. The relocation of these amenities creates additional open space in the Bosque, which is contemplated as passive, un-programmed green space to be used for pick-up games or quiet enjoyment. A viewing platform at the south end of the pedestrian bridge has been introduced to take advantage of the natural high point in the topography, overlooking the Sports Park.

The lower portion of the Bosque at Great Park Boulevard will be a primary entry point for visitors to the Great Park. The traffic circle at the intersection of Great Park Boulevard and Bosque Street and the proposed pedestrian bridge create a highly visible opportunity for public art or distinctive entry monumentation. Staff will work with Five Point to further develop the design for entry features in this area and will return to the Board and City Council with options for consideration.

- Agriculture Area: The Agriculture area, as contemplated in the design package, includes 70 acres of farming and agricultural uses, as well as trails linked to other parts of the park. In the proposed plan, the Agriculture Area remains at 70 acres but the shape of the area changes, pushing closer to the pedestrian bridge, parking, and the new location for the Farm + Food Lab.
- Golf Course: The Design Package includes a 188-acre, 18-hole golf course. The course was reduced to about 170 acres when the 688-acre boundary was modified in September 2015 to accommodate changes in roadway alignment. The proposed plan would increase the size of the golf course back to 188 acres and include three primary refinements.
 - Clubhouse: In March 2014, the Board directed staff to evaluate alternate locations for the golf clubhouse. The modified plan proposes relocation of the

golf clubhouse from the north end of the course, adjacent to the ARDA Transfer site, to the south end of the course near Great Park Boulevard. This puts the clubhouse closer to the heart of the park and its primary arterial.

- o Driving Range: The driving range is also shifted to the south to maintain its connection to the clubhouse, parking and other proximate amenities.
- o Course Design: The design of the course itself has been refined to create a three, six, and nine-hole loop starting and ending at the new clubhouse location.

Extension of Great Park Boulevard

Five Point has proposed an extension of Great Park Boulevard from the traffic circle at the center of the Great Park to O Street (temporary street name) in the District 5 section of the Great Park Neighborhoods east of the park. The proposed street extension is shown in Attachment 3. The street would be four lanes with bicycle lanes to match the existing profile on Great Park Boulevard and would eventually link to Marine Way at the south end of the park. The proposed extension is bordered by the Cultural Terrace on the south, which will be further defined through the Joint Studies effort. The proposed extension completes a new linkage in the City's arterial roadway network with potentially significant regional impacts, eventually connecting circulation from State Route 133, across the Great Park to Bake Parkway near Interstate 5. As such, the change would require further evaluation, including a Modification to the Great Park Master Plan, as well as a General Plan Amendment to address changes to the Circulation Element.

688-acre Boundary Modification

The boundary of the 688-acre Great Park Improvement Area separating the Golf Course from the Cultural Terrace was originally approved with the Design Package in 2013. As the plans for the park, including the road network were refined, the boundary was adjusted and a modified boundary was approved by the City Council in September 2015.

The approved boundary line between the Cultural Terrace and the Golf Course in this area, as shown in Attachment 4, is somewhat arbitrary in that it is not tied to a roadway or landform like most of the other areas of the Park. The proposed plan shifts the boundary in this area (as illustrated in Attachment 4) creating the space to accommodate the other design modifications outlined earlier in the report, including the footprint necessary for landing the pedestrian bridges, relocation of the Farm + Food Lab and dog park, and relocation of the golf course entry road, clubhouse, and driving range. The proposed shift would add 25 acres from the Cultural Terrace to the Great Park Improvement Area as outlined in the table below

Area	Current Acreage	Proposed Acreage
Great Park Improvement Area	688	713
Cultural Terrace	248	223

Based on the preliminary Joint Studies planning work on the Cultural Terrace, the Gensler and AECOM design team feels that the reduction from 248 to 223 acres still leaves more than enough room for the full complement of uses being studied for that area.

The cost associated with the grading and improvement of 25 additional acres is estimated at \$1,000,000. This work would be the City's responsibility as part of the Cultural Terrace development if not for the proposed boundary shift pulling it into the Great Park Improvement Area covered by the ALA II. Staff is recommending that the \$1,000,000 be funded through the Additional Allowance Funds provided by Five Point through the ALA II for the Bosque Sub-area, which has more than \$3,000,000 available. Should the Great Park Board and City Council approve the recommended actions, staff will work with Five Point and its design team to finalize the estimated budget number and draft a Letter Agreement making any modifications necessary to the ALA II to implement the City Council's direction. Staff will return to the Board for further direction regarding bridge design and park entry features, as well as opportunities for the expenditure of further Additional Allowance Funds for other design enhancements in the Bosque, Agricultural, and Golf Sub-areas.

ALTERNATIVES CONSIDERED

The City Council could choose not to approve the boundary modification. This would leave the Great Park Improvement Area and Cultural Terrace at their respective approved sizes. This would restrict the extra space allocation recommended for the features and space planning modifications outlined above, but would preserve the 248 acres for the Cultural Terrace, allowing for additional features to be developed there.

The City Council could also direct staff to work with Five Point on any additional modifications or changes to the recommended design as it deems appropriate.

FINANCIAL IMPACT

The growth in the Great Park Improvement Area from 688 to 713 acres has an estimated cost of \$1,000,000 for the associated earthwork and site improvement. This work would be the City's responsibility as part of the Cultural Terrace development if not for the proposed boundary shift pulling the additional acreage into the Great Park Improvement Area covered by the ALA II. Staff is recommending that the \$1,000,000 be funded through the Additional Allowance Funds provided by Five Point through the ALA II for the Bosque Sub-area, which currently has over \$3,000,000 available. This would not require the expenditure of any additional City funds. Staff will return to the Great Park Board and City Council for consideration of a final budget number for this work once it is known.

There is also a cost associated with the two additional pedestrian bridges. If the recommended actions are approved, staff will work with Five Point to establish the cost for these bridges as engineering and design proceeds. Similar to the road under-crossings that have been built along the other portions of the Bosque and Upper Bee, allowing off-street trails to safely cross intersecting roadways, the proposed bridges would be funded through the CFD, which is targeted for funding the associated construction of Great Park Boulevard.

REPORT PREPARED BY

Pete Carmichael, Director, Orange County Great Park

ATTACHMENTS

1. Map of Orange County Great Park, Highlighted Area of Proposed Changes
2. Map of Bosque, Agricultural, and golf Sub-areas as Currently Approved
3. Map of Bosque, Agricultural, and golf Sub-areas with Proposed Modifications
4. Illustration of Proposed Boundary adjustment



ORANGE COUNTY GREAT PARK SITE MAP

August 2016



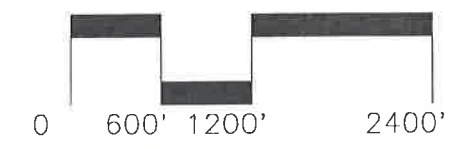
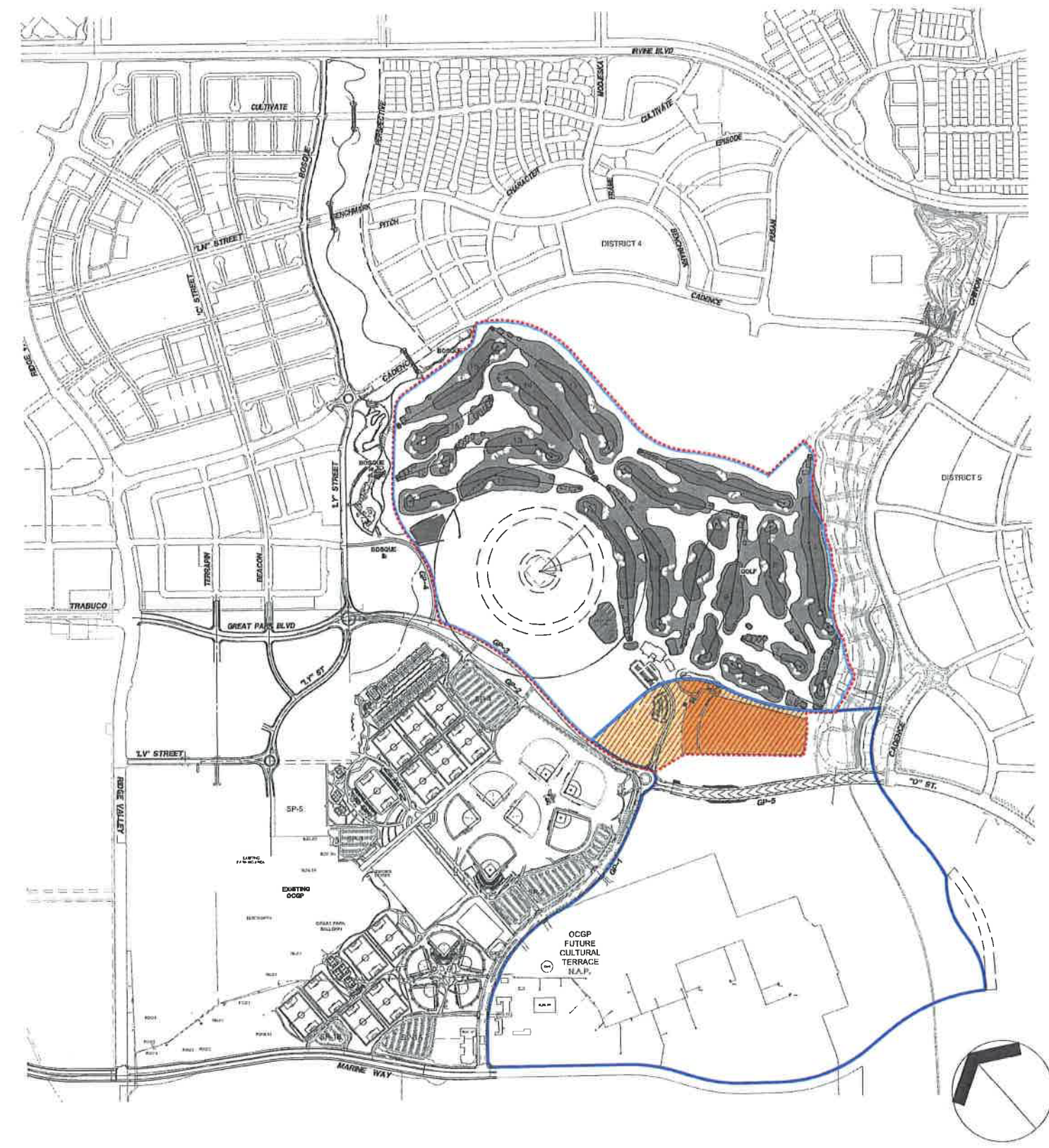
Map of Bosque, Agricultural, and Golf Sub-areas as Currently Approved



Map of Bosque, Agricultural, and Golf Sub-areas with Proposed Modifications

LEGEND

- EXISTING CULTURAL TERRACE BOUNDARY 264± AC.
- EXISTING GOLF/AGRICULTURE IMPROVEMENT BOUNDARY 241± AC.
- REVISED GOLF/AGRICULTURE IMPROVEMENT BOUNDARY 266± AC.
- EXPAND 19.5 + 1.2 + 10.5 = 25.2± AC.



REVIEWED & APPROVED BY				PREPARED BY		PREPARED FOR		ORANGE COUNTY GREAT PARK BOUNDARY ADJUSTMENT		SHEET 1
NAME	DATE	NAME	DATE	 HUNSAKER & ASSOCIATES PLANNING • ENGINEERING • SURVEYING Three Hughes • Irvine, CA 92618 • (949) 583-1010 • (949) 583-4239		 Heritage Fields El Toro, LLC Great Park NEIGHBORHOODS.		 FIVE POINT COMMUNITIES		
NAME	DATE	NAME	DATE							

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JUN 13 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

Memo

To: Sean Joyce, City Manager
From: Lynn Schott, Mayor Pro Tem 
Date: June 20, 2017
Re: **Community Partnership Fund Grant Nominations**

In accordance with City Council Resolution No. 08-42, I am requesting the City Council approve the following community partnership grant awards:

1. Irvine Adult Day Health Services - \$1,000

Irvine Adult Day Health Services is dedicated to working in partnership with families and the community to promote health, dignity and well-being of seniors, disabled adults and caregivers.

2. Mariners Church – BEYOND Initiative - \$1,000

Mariners Church BEYOND Initiative is a fundraising effort to expand the Mariners Community Resource Center and the services it provides. The Resource Center serves 23,000 community members per year and provides services such as ESL classes, tutoring, and personal/family crisis assistance.

The above organizations are qualified 501(c)(3) tax-exempt organizations. Funds will be used to support program costs.

Should the City Council approve this request, the above organizations will enter into Funding Agreements with the City that specify the grants use of funds, reporting requirements and regulatory compliance.

I would like to place this item on the June 27 City Council agenda to approve these community partnership grant awards and authorize the City Manager to prepare and execute Funding Agreements.

cc: Irvine City Council
 Molly McLaughlin, City Clerk

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JUN 16 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

2017 JUN 16 PM 2:48

Memo

To: Sean Joyce, City Manager
From: Donald P. Wagner, Mayor 
Date: June 16, 2017
Re: **Community Partnership Fund Grant Nominations**

In accordance with City Council Resolution No. 08-42, I am requesting the City Council approve the following community partnership grant awards:

\$500	Alzheimer's Association Orange County
\$500	Boys & Girls Club of Irvine
\$500	Children's Hospital of Orange County Foundation
\$250	Crime Survivors
\$1,000	Irvine 2/11 Marine Adoption Committee
\$250	Irvine Barclay Theatre
\$250	Irvine Pony Baseball
\$250	Northwood High School Athletic Boosters
\$500	Orangewood Children's Foundation
\$500	Ryan Lemmon Foundation
\$500	Second Harvest Food Bank
\$500	Special Olympics Orange County

The above organizations are qualified 501(c)(3) tax-exempt organizations. Funds will be used to support program costs.

Should the City Council approve this request, the organizations listed above will enter into Funding Agreements with the City that specifies the grants use of funds, reporting requirements and regulatory compliance.

I would like to place this item on the June 27 City Council agenda to approve these community partnership grant awards and authorize the City Manager to prepare and execute Funding Agreements.

cc: Irvine City Council
Molly McLaughlin, City Clerk

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JUN 20 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

Memo

To: Sean Joyce, City Manager
From: Jeffrey Lalloway, Councilmember
Date: June 20, 2017
Re: **Community Partnership Fund Grant Nomination**



In accordance with City Council Resolution No. 08-42, I am requesting the City Council approve a \$500 community partnership grant award to Operation Warm Wishes in support of program costs.

Operation Warm Wishes is a qualified 501(c)(3) tax-exempt organization that is dedicated to helping and serving the homeless, troubled youths, struggling families, Veterans and senior citizens in need throughout Orange County.

Should the City Council approve this request, Operation Warm Wishes will enter into a Funding Agreement with the City that specifies the use of grant funds, reporting requirements and regulatory compliance.

I would like to place this item on the June 27 City Council agenda to approve this community partnership grant award and authorize the City Manager to prepare and execute a Funding Agreement.

cc: Irvine City Council
Molly McLaughlin, City Clerk

4.1



REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: JUNE 27, 2017

TITLE: IRVINE BUSINESS COMPLEX TRANSPORTATION MITIGATION
FEE PROGRAM UPDATE


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 — A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING THE UPDATED IRVINE BUSINESS COMPLEX (PA 36) TRANSPORTATION MITIGATION PROGRAM, INCLUDING THE UPDATE TO THE DEVELOPMENT IMPACT FEE PROGRAM FOR THE IRVINE BUSINESS COMPLEX, PURSUANT TO SECTION 9-36-14 OF THE ZONING ORDINANCE

EXECUTIVE SUMMARY

The Irvine Business Complex (IBC) Transportation Mitigation Fee Program ensures development in the IBC pays its fair-share toward mitigation of transportation impacts. The 2015 IBC Vision Plan Traffic Study Update (Attachment 1) identified specific improvements necessary to mitigate buildout of the IBC. To impose the development fees necessary to mitigate impacts of development in the 2015 traffic study, a nexus study has been prepared pursuant to state law (AB 1600, State Mitigation Fee Act)(Attachment 2).

The purpose of the IBC Transportation Mitigation Fee update is to revise the list of traffic mitigation improvements resulting from the 2015 IBC Vision Plan Traffic Study update, and to update the current fees to fund the cost of the traffic mitigation improvements. The IBC Transportation Mitigation Fee is applicable to both non-residential and residential development.

Staff recommends the City Council adopt the updated IBC Transportation Mitigation Fee Program, including the updated IBC Transportation Mitigation Fee.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

The Transportation Commission was presented with an overview of IBC fees at its June 6, 2017 meeting. The item was informational only and no action was taken.

ANALYSIS

Traffic improvements needed to mitigate transportation impacts from build-out of land uses in the IBC were identified in the Environmental Impact Report (EIR) in 2010. Section 9-36-14 of the Zoning Ordinance, adopted as a component of the IBC Vision Plan, required that the transportation impacts and mitigation measures be re-evaluated every five years. The first five-year traffic study update was completed in 2015. On November 15, 2015, the City Council amended the timing of the updates from five years to two by a 4-1 vote (Councilmembers Choi, Lalloway, Schott and Shea in favor; Councilmember Krom against). Funds for the next update have been budgeted in the coming fiscal year.

The IBC Traffic Fee Nexus Update is consistent with the principles of the IBC Vision Plan and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to mitigate that development. The objective of this study is to update development fees to financially support the implementation of identified mitigation improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the IBC Vision Plan. The fee will be updated every two years, consistent with the updated traffic study. During interim years, the fee will be updated based on the Construction Cost index, as stipulated in Section 9-36-14 of the Zoning Ordinance.

Table 1 (below) summarizes the costs included in the IBC Traffic Fee Nexus Update. These costs are based on a combination of 1) detailed cost estimates for specific fair-share improvements identified in the 2015 IBC Traffic Study Update (Attachment 1); 2) obligations to fund specific improvements within adjacent jurisdictions determined necessary to mitigate the impacts of the buildout of the IBC; and, 3) a continuing obligation to fund certain improvements identified in a prior fee program for the IBC adopted in 1992. Additionally, the costs include specific tasks required to implement and maintain the fee program consistent with the requirements of the IBC Vision Plan Element of the General Plan and requirements of the Zoning Ordinance.

The proposed IBC Transportation Mitigation Fee program update assumes that development fees will fund up to 90 percent of identified improvement costs. Per City practice, it is assumed that the remaining 10 percent of the project costs will be covered by outside funding sources including federal, state and county programs.

Table 1: 2015 Updated IBC Vision Plan Traffic Fee Program Breakdown		
Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
Irvine (90% of estimate assumed)	\$18,006,327	
Caltrans District 12*	\$6,585,299	
2015 IBC Traffic Study Update Improvements	\$24,591,626	\$24,591,626
Remaining Existing General Plan Improvements		
Irvine (90% of estimate assumed)	\$16,577,451	
Improvements in Santa Ana	\$52,670,912	
Improvements in Costa Mesa	\$28,970	
2015 Update - Remaining Existing General Plan Improvements	\$69,227,334	\$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		\$93,868,960
Existing IBC Traffic Funds Available		
Current IBC Traffic Fund Balance**	\$46,838,863	
Capital Improvement Program funds that are currently appropriated for IBC Improvements ***	(\$27,354,385)	
Existing IBC Funds to be applied to the 2015 Fee Program	\$19,484,478	(\$19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		\$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
Transportation Management Systems (10% of total fee)	\$7,438,448	
IBC Program Administration (5% of total fee)	\$3,719,224	
Contingency (15% of total fee)	\$11,157,672	
Subtotal: Other Costs to the IBC Fee Program	\$22,315,345	\$22,315,345
Development Agreements (subject to fees identified in their agreements)		
Park Place DA	(\$2,769,591)	
Central Park West DA	(\$1,233,998)	
Subtotal: Existing Development Agreements	(\$4,003,589)	(\$4,003,589)
Total IBC Fees Required		\$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances

* Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund

*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive

Table 2 summarizes a fee comparison between 1992 fees (initial IBC Fee Program), 2009 fees (compounded annual adjustments to the 1992 fee), 2010 fees (developed as part of the IBC Vision Plan), 2016 fees (compounded annual adjustments to the 2010 fee) and proposed fees. If approved, the proposed fees would be effective for FY 2017-18.

Table 2: IBC Fee Comparison							
Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential*	DU	\$3,734	\$7,175	\$1,862	\$2,254	\$4,697	2.08
Extended Stay	Rooms	\$3,016	\$5,795	\$1,503	\$1,820	\$3,796	2.09
Hotel	Rooms	\$4,883	\$9,383	\$2,435	\$2,947	\$6,140	2.08
Retail Mix	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Office	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Industrial Mix **	Sq. Ft.	\$3.30	\$5.85	\$1.50	\$1.82	\$3.79	2.08
Mini Warehouse	Sq. Ft.	\$1.85	\$3.55	\$0.97	\$1.17	\$2.44	2.09

Source: HDR 2015, City of Irvine

* Includes Density Bonus Units charged fees consistent with Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018

As indicated in Table 2 above, the proposed fees would be roughly double the 2010 fee amounts. Even with this increase, the proposed fees would be approximately 35 percent lower than the fees in place in 2009. Factors contributing to the increase since 2010 include:

- Additional mitigation improvements were identified in the 2015 IBC Traffic Study Update that had not been identified as impacts in 2010 including:
 - Von Karman/Tustin Ranch Road at Barranca Parkway and Von Karman Avenue at Alton Parkway
 - Loop Road/Park Avenue at Warner Avenue
 - Jamboree northbound ramps at Warner Avenue
 - Culver Drive at Alton Parkway
- Increases in costs were identified for several improvements previously identified in 2010. These are briefly discussed below:
 - Alton Overcrossing at SR-55: An approximate two-fold increase from the 2010 cost is attributable to the project's updated 2014 final design costs.

- Widening of Dyer Road between SR-55 NB on-ramp and Red Hill Avenue: More than two-fold increase from the 2010 cost is attributable to an updated cost estimate for ultimate improvements.
- Widening of Red Hill Avenue between Main Street and MacArthur Boulevard: More than two-fold increase from the 2010 cost is attributable to an updated cost estimate for ultimate improvements.
- Increase of right of way (ROW) support costs from 5 percent to 10 percent of construction costs, based on current trends in ROW acquisitions, have significantly increased the costs for improvements that require ROW acquisitions.
- Fewer number of remaining development units (residential and non-residential) subject to fee.
- The fund balance was further reduced by settlement payments to the cities of Newport Beach and Tustin (per 2009 and 2010 agreements, respectively) and earmarked funds for improvements and payment to Caltrans (per 2011 agreement).

PUBLIC OUTREACH

City staff met with IBC stakeholders on three occasions in May 2017 to present and discuss the proposed fee program update. Stakeholders expressed concerns regarding the overall increase in fees. The Building Industry Association of Orange County submitted a letter to this effect (Attachment 3).

ENVIRONMENTAL REVIEW

The project is within the general scope of the project described by previously certified Final EIR (SCH No. 2007011024). The State California Environmental Quality Act (CEQA) Guidelines, Section 15164, provides that an addendum may be prepared to a previously approved EIR when there are minor changes made to the project that do not trigger the conditions for a supplemental EIR as provided in Section 15162. Staff determined that the changes proposed in this action do not involve new significant environmental effects or increase the severity of previously identified impacts (Section 15162). The Final EIR as amended by the addendum is determined to be adequate to serve as the CEQA compliance document for the project. The addendum is attached for review and consideration (Attachment 4).

ALTERNATIVES CONSIDERED

The City Council could choose not to adopt the updated fees, reduce the fees proposed, or to delay adoption of the fee. However, the IBC Transportation Mitigation Fee program was developed to ensure development in the IBC pays its fair-share toward mitigation of transportation impacts caused by said development. The 2015 IBC Vision Plan Traffic

Study Update has identified specific improvements necessary to mitigate buildout of the IBC. To impose the development fees necessary to mitigate impacts of development, a nexus study has been prepared pursuant to state law (AB 1600, State Mitigation Fee Act). Should the City Council determine not to adopt the proposed fee update or reduce the fees proposed, the City would be responsible for funding the difference between the fees collected and the costs of improvements.

FINANCIAL IMPACT

As proposed, the IBC Transportation Mitigation Fee program will cover fair-share obligations for improvements located in adjacent jurisdictions and 90 percent of costs for improvements within the City of Irvine. The City will pursue funding from outside funding sources, such as federal, state and county grants, for the remaining 10 percent of costs. Based on a longstanding record of successfully securing outside funding, it is expected that the City will not bear a financial responsibility for construction of these improvements.

REPORT PREPARED BY Bill Jacobs, AICP, Principal Planner

ATTACHMENTS

- Attachment 1: 2015 IBC Traffic Study Update (Executive Summary)
- Attachment 2: Update to the Irvine Business Complex Vision Plan Traffic Fee Nexus Study
- Attachment 3: Letter from Building Industry Association of Orange County, dated May 31, 2017
- Attachment 4: Addendum to the Irvine Business Complex Residential and Mixed-Use Vision Plan Draft Environmental Impact Report (SCH NO. 2007011024)
- Attachment 5: CC Resolution 17-XX Adopting Updated IBC Transportation Mitigation and Fee program

ec: Scott Smith, Deputy Director of Public Works
Jim Houlihan, City Engineer
Kerwin Lau, Project Development Administrator
Sun-Sun Murillo, Supervising Transportation Analyst
David Law, Principal Planner, Development Assistance Center
Stephen Higa, Principal Planner, Project Entitlement
Joel Belding, Principal Planner, Project Entitlement
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ES EXECUTIVE SUMMARY

ES.1.1 Introduction

This 2015 IBC Vision Plan Five-Year Traffic Study Update fulfills requirements of the City of Irvine Zoning Ordinance, which was updated as part of the 2010 IBC Vision Plan approval to require the City to re-evaluate traffic conditions (and traffic impact locations) by way of a five-year traffic study update (amended to every two years in October 2015). This five-year update evaluates potential traffic impact locations and documents how development actually occurred over the past five years to determine how close the Vision Plan assumptions were to forecasting this condition. The update takes a “snapshot” of the development activity today and considers ambient regional growth to compare with the 2010 assumptions. If as a result of actual development the original traffic impacts are altered or changed, the City has the ability to revise the list of traffic mitigations and IBC fees accordingly within the umbrella of the adopted Vision Plan.

This IBC Vision Plan Five-Year Traffic Study Update analyzes the potential impacts on the circulation system based on updated conditions to the 2010 amendment to the City of Irvine General Plan that placed a 15,000 dwelling unit limit (plus a maximum of 2,038 density bonus units pursuant to state law) on the residential development in the IBC area. Based on approvals since 2010, the total number of density bonus units assumed for this update is reduced to 1,794 from 2,038. This reduction represents 2,038 assumed theoretical density bonus units in 2010 less 244 theoretical units removed due to reduction in units not associated with any planned project.

The analysis presents areas of deficiency in the existing circulation system and future circulation systems and offers recommended mitigations to allow for a return to acceptable levels of service (LOS) or to the pre-Vision Plan condition within the study area. The analysis focuses on the identification of updated potential traffic impacts on the current circulation system as it is transformed into a mixed-use community from its previous offerings of office, commercial, and industrial uses within the IBC area. This traffic study provides an assessment of the existing conditions in 2015, existing conditions with the updated Vision Plan assumptions, as well as future Interim Year (2020) and Buildout Year (post-2035) scenarios with and without the updated Vision Plan assumptions. A comparison of the impacted locations versus the impacted locations identified in the 2010 IBC Vision Plan Traffic Study is also performed.

To assess the impact of the land use changes since the implementation of the 2010 Vision Plan, a total of six scenarios were analyzed:

- Existing Conditions (using current traffic counts)
- Existing Conditions with updated assumptions of Vision Plan Buildout
- 2020 Cumulative Baseline (existing land uses on the ground within IBC area; cumulative growth outside the IBC area)
- 2020 Cumulative Baseline plus updated Vision Plan assumptions anticipated to be constructed by 2020
- Post-2035 Cumulative Baseline (existing land uses on the ground within IBC area; cumulative growth outside the IBC area)
- Post-2035 Cumulative Baseline with updated assumptions of Vision Plan Buildout

Table ES-1 shows the land use assumptions for each scenario



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Table ES.1.1 – Land Use Assumptions

SCENARIO	MULTI-FAMILY RESIDENTIAL (DU)	RETAIL MIX (TSF)	HOTEL (ROOM)	OFFICE MIX (TSF)	INDUSTRIAL MIX (TSF)	MINI-WAREHOUSE (TSF)	EXTENDED STAY HOTEL (ROOM)
2015 Existing	7,060	1,384	2,322	26,639	13,934	379	474
2015 With Update	16,795	1,690	2,653	34,286	12,339	549	1049
2020 Cumulative Baseline	7,060	1,384	2,322	26,639	13,934	379	474
2020 Cumulative With Update	16,671	1,405	2,535	27,750	13,240	883	1049
Post-2035 Cumulative Baseline	7,060	1,384	2,322	26,639	13,934	379	474
Post-2035 Cumulative Baseline With Update	16,795	1,690	2,653	34,286	12,339	549	1049

ES.1.2 Traffic Impacts & Fair Share

A number of agreements were signed between the City of Irvine and adjacent jurisdictions during the 2010 IBC Vision Plan effort which required the City of Irvine to provide specific dollar amounts of infrastructure funding to each adjacent jurisdiction. These agreements were premised on the understanding that the Vision Plan had no additional responsibilities toward improvements identified, provided the residential unit cap within the IBC is not exceeded. These agreements are included in **Appendix A**.

The residential unit intensity cap has not increased since the 2010 study. This traffic study update is intended only to analyze the change in traffic conditions since the 2010 approval. Except as otherwise specified in those existing agreements with adjacent jurisdictions, the Vision Plan is not responsible for mitigating the improvements identified in this study update within the cities of Tustin, Newport Beach, Santa Ana, or for improvements on Caltrans facilities.

For the sole purpose of providing a reference point for comparison with the 2010 study, a fair-share methodology was used to evaluate what the financial participation of mitigating IBC Vision impacts would be in the absence of the above-mentioned agreements. The following methodology is applied:

- For plan update impacts within the City of Irvine, the IBC Vision Plan is fully responsible.
- For plan update impacts outside the City of Irvine, the IBC Vision Plan would participate on a fair-share basis.

All impacts referenced in this study update represent impacts as defined in the City of Irvine's Traffic Impact Analysis (TIA) Guidelines, adopted August 2004, or for locations outside Irvine, per the performance criteria for each affected agency.

The cost of improvements will be presented in a supplemental nexus report. Under future forecast conditions there are a number of deficient intersections. **Table ES 1.2** demonstrates the deficiencies, impacts, and fair-shares under each future scenario.



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Table ES 1.2 – Intersection/Arterial Segment Impacts/Cumulative Deficiencies

ID	INTERSECTION	JURISDICTION	IBC VISION WITH UPDATE (2020)		IBC VISION WITH UPDATE (POST-2035)		FAIR-SHARE		
			CUMULATIVE DEFICIENCY	IMPACT	CUMULATIVE DEFICIENCY	IMPACT	2020 WITH UPDATE*	POST-2035 WITH UPDATE*	EXPECTED SHARE (VISION PLAN)
85	MacArthur Boulevard at Birch Street	Newport Beach				X		5.6%	No Share
723	Main Street at Segerstrom Avenue	Santa Ana				X		40.3%	No Share
728	Halliday East at Alton Parkway	Santa Ana				X		7.2%	No Share
36	Red Hill Avenue at El Camino Real	Tustin		X			10.7%		No Share
445	Tustin Ranch Rd at Warner Ave N	Tustin				X		15.7%	No Share
93	Tustin Ranch Road at Bryan Avenue	Tustin	X		X		0.3%	9.9%	No Share
111	Franklin Avenue at Walnut Avenue	Tustin	X		X		3.9%	3.5%	No Share
749	Park Ave at A Street	Tustin			X			1.5%	No Share
98	Von Karman Avenue at Alton Pkwy	Irvine				X			100.0%
144	Jamboree Road at I-405 SB Ramps	Irvine				X			100.0%
145	Jamboree Road at Michelson Drive	Irvine				X			100.0%
188	Harvard Avenue at Michelson Drive	Irvine				X			100.0%
229	Culver Drive at Alton Parkway	Irvine				X			100.0%
97	Von Karman Ave/Tustin Ranch Rd at Barranca Pkwy	Irvine				X			100.0%
234	Culver Drive at Michelson Drive	Irvine	X						No Share
135	Jamboree NB Ramps/Warner Ave	Irvine			X				100.0%
134	Loop Rd/Park Ave at Warner Ave	Irvine/Tustin	X		X				100.0%
ID	ARTERIAL SEGMENT	JURISDICTION	IBC VISION WITH UPDATE (2020)		IBC VISION WITH UPDATE (POST-2035)		FAIR-SHARE		
			CUMULATIVE DEFICIENCY	IMPACT	CUMULATIVE DEFICIENCY	IMPACT	2020 WITH UPDATE*	POST-2035 WITH UPDATE*	EXPECTED SHARE (VISION PLAN)
1326	Dyer Rd between SR-55 SB and SR-55 NB	Santa Ana		X		X	15.9%	21.3%	No Share

*Fair-share percentage is shown for informational and comparison purposes only

ES.1.3 Improvement Strategies

The IBC Vision Plan Traffic Study Update proposes improvements for all intersections (and one impacted arterial segment) within the study area that are identified as impacts as well as all forecast cumulative deficiencies. Due to the above-mentioned agreements with adjacent cities and Caltrans (other than in the City of Costa Mesa), contribution towards improvements identified at locations where the update has an impact outside the City of Irvine are provided for reference only. Improvement strategies have utilized other studies in adjacent jurisdictions and have been vetted through site analyses to propose improvements that are feasible and reasonable. **Table ES 1.3** displays the mitigation strategies for each deficient intersection within the IBC study area.

Table ES.1.3– Improvement Strategies

INTERSECTION ID #	INTERSECTION NAME	JURISDICTION	IMPROVEMENT STRATEGY
2020 Impacts and Cumulative Deficiencies			
234	Culver Drive at Michelson Drive (cumulative deficiency)	Irvine	Improve EB to 2,2,0
134	Loop Road/Park Ave at Warner Avenue (cumulative deficiency)	Irvine/Tustin	Add 3rd EBT and NBR overlap
36	Red Hill Avenue at El Camino Real (update impact)	Tustin	Reconfigure SB to 1.5,2.5,0**
93	Tustin Ranch Road at Bryan Avenue (cumulative deficiency)	Tustin	Add 4th SBT**



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INTERSECTION ID #	INTERSECTION NAME	JURISDICTION	IMPROVEMENT STRATEGY
111	Franklin Avenue at Walnut Avenue (cumulative deficiency)	Tustin	Add 3rd WBT**
1326*	Dyer Road between SR-55 SB and SR-55 NB (impact)	Santa Ana	Add 4 th EBT**
P-2035 Impacts and Cumulative Deficiencies			
98	Von Karman Avenue at Alton Parkway (impact)	Irvine	Add 3rd NBT
135	Jamboree NB Ramps/Warner Avenue (cumulative deficiency)	Irvine	Restripe EB to 2,2,0
144	Jamboree Road at I-405 SB Ramps (impact)	Irvine	Improve EB to 2.5,0,2.5
145	Jamboree Road at Michelson Drive (impact)	Irvine	Add 3rd EBL, 3rd SBL, and WBT***
188	Harvard Avenue at Michelson Drive (impact)	Irvine	Improve SB to 2,2,0
229	Culver Drive at Alton Parkway (impact)	Irvine	Improve EB to 2,3,0
97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway (impact)	Irvine	Add 3rd NBT and convert De Facto to Standard NBR
134	Loop Road/Park Ave at Warner Avenue (cumulative deficiency)	Irvine/Tustin	Add 3rd EBT and NBR overlap
85	MacArthur Boulevard at Birch Street (impact)	Newport Beach	Improve EB to 2 EBL and 2 EBT**
723	Main Street at Segerstrom Avenue (impact)	Santa Ana	Add 3rd NBT, De Facto NBR**
728	Halladay East at Alton Parkway (impact)	Santa Ana	Add 2nd EBT and 2nd WBT**
1326*	Dyer Road between SR-55 SB and SR-55 NB (impact)	Santa Ana	Add 4 th WBT**
93	Tustin Ranch Road at Bryan Avenue (cumulative deficiency)	Tustin	Add 4th SBT**
111	Franklin Avenue at Walnut Avenue (cumulative deficiency)	Tustin	Add 3rd WBT**
445	Tustin Ranch Road at Warner Avenue North (impact)	Tustin	Improve NB to 0,2.5,1.5**
749	Park Ave at A Street (cumulative deficiency)	Tustin	Add 2nd SBL and 2nd WBL**

* Arterial Segment

** Improvement strategy provided for information and planning purposes only.

*** Alternative improvement strategy is implementation of the Jamboree/Michelson pedestrian bridge across Jamboree.

ES 1.4 Comparison of Impacts to 2010 Traffic Study

Table ES 1.4 shows the net overall result of fewer future impacts compared to the 2010 Vision Plan Study. The number of interim year forecast impacts reduce from 13 to 10. The number of Buildout year forecast impacts reduces from 41 to 22. Additional details are provided in **Chapter 8**.

Table ES 1.4 - Comparison of Number of Impacted Locations between 2010 IBC Traffic Study and 2015 Update

Facility Type	Interim Year		Buildout Year	
	2010 Study	2015 Update	2010 Study	2015 Update
Arterial Segments	0	1	1	1
Intersections	4	1	15	10
Freeway Mainline	4	6	14	5
Freeway Ramps	5	2	11	6
Total	13	10	41	22

In the 2010 Traffic Study the Interim year was 2015 and Buildout year was Post-2030 whereas in the current update study, the Interim year is 2020 and the Buildout year is Post-2035.

ES 1.5 Arterial System Deficiencies

Individual arterial segments that operate at a deficient LOS under daily conditions within the City of Irvine are candidates for peak hour analysis to determine performance during the AM and PM peak hour. The peak hour analysis conducted for each of the forecast future scenarios revealed no arterial segments operating at a deficient level in either peak hour within the City of Irvine. For arterial segments within the Cities of Newport Beach, Costa Mesa, and Tustin, daily arterial segment LOS analysis is valuable for long-range planning purposes.



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but the Cities do not assess segment deficiencies under daily conditions. Deficiencies are assessed at intersections at either end of the arterial segment. Intersection deficiencies for the IBC Vision have been assessed and conclusions discussed in the next section. Hence, there are no deficiencies or impacts expected in future forecast scenarios for arterial segments within Newport Beach, Costa Mesa, and Tustin.

In the City of Santa Ana, daily arterial volume-to-capacity ratio (V/C) analysis is used to assess deficiencies in the arterial network. An increase of 0.01 or more of the daily V/C ratio constitutes an impact when compared with the Baseline conditions. There were no impacted arterial segments in the interim year in the 2010 Traffic Study within the City of Santa Ana while one arterial segment is impacted in the 2015 Update in the Interim year:

- Dyer Road between SR-55 NB ramps and SR-55 SB ramps

In the Buildout year in the 2010 Study one arterial location was impacted:

- MacArthur Boulevard between Main Street and SR-55 SB in the City of Santa Ana

This MacArthur Boulevard widening no longer appears to be needed as forecast volumes drop from 51,000 ADT to 39,000 ADT in the 2015 update. In the Buildout conditions of the 2015 update one arterial location was impacted (also impacted in 2020):

- Dyer Road between SR-55 NB ramps and SR-55 SB ramps

ES 1.6 Intersection Deficiencies and Impacts

Analysis of the intersections was conducted for all intersections within the defined IBC Vision study area. For each jurisdiction, the established and published criteria for evaluating impacts have been employed in this study. Plan update impacts are identified for the study area using the methodology for each respective jurisdiction.

Table ES-1.5 compares the impacted intersections in both traffic studies for the Interim year. In the 2010 study four intersections were impacted whereas in the 2015 Update only one intersection is impacted.

Table ES-1-5 – Intersection Impacts - Interim Year (2010 Study vs. 2015 Update)

ID	LOCATION	JURISDICTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
145	Jamboree Rd at Michelson Dr	Irvine	PM	x		
234	Culver Drive at Michelson Drive	Irvine	PM			x*
62	Campus Dr at Bristol Street NB	Newport Beach	PM	x		
93	Tustin Ranch Rd at El Camino Real	Tustin	AM	x		
134	Loop Rd/Park Ave at Warner Ave	Irvine/Tustin	PM	x		x*
36	Red Hill Ave at El Camino Real	Tustin	PM			x
* Irvine cumulative deficiency			Sum	4	0	1
			Total Impacts (2010 Study)	4	Total Impacts (2015 Update)	1



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Table ES-1.6 shows that while 15 intersections were impacted in Buildout in the 2010 Study only 10 are impacted in the 2015 Update build-out condition. The following three locations were impacted in both studies:

- # 85 - MacArthur Boulevard at Birch Street in Newport Beach
- #145 - Jamboree Road at Michelson Drive in Irvine
- #723 - Main Street at Segerstrom Avenue in Santa Ana

Two of the 2010 Study impacted locations #135 Jamboree Road at Barranca Parkway and #141 Jamboree Road at Main Street have programmed improvements that are expected to be completed by 2020. As noted previously these improvements have been incorporated into analysis which results in a satisfactory level of service and no impacts under all scenarios studied in the 2015 Update.

Table ES-1.6 – Intersection Impacts - Buildout Year (2010 Study vs. 2015 Update)

INT ID	LOCATION	JURISDICTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
12	SR-55 Frontage Road SB at Baker Street	Costa Mesa	AM	x		
13	SR-55 Frontage Road NB at Baker Street	Costa Mesa	AM	x		
62	Campus Drive at Bristol Street NB	Newport Beach	PM	x		
85	MacArthur Boulevard at Birch Street	Newport Beach	PM(both)		x	
543	Bristol at Segerstrom	Santa Ana	PM	x		
723	Main Street at Segerstrom Avenue	Santa Ana	PM(both)		x	
728	Halladay East at Alton Parkway	Santa Ana	AM&PM			x
730	Grand Avenue at Warner Avenue	Santa Ana	PM	x		
754	Red Hill Avenue at Carnegie Avenue	Tustin/Santa Ana	PM	x		
24	Newport Avenue at Walnut Avenue	Tustin	AM	x		
93	Tustin Ranch Road at El Camino Real	Tustin	AM	x		
445	Tustin Ranch Road at Warner Avenue N	Tustin	PM			x
97	Von Karman Ave/Tustin Ranch Rd at Barranca Pkwy	Irvine/Tustin	PM			x
98	Von Karman Avenue at Alton Parkway	Irvine	PM			x
134	Loop Road/Park Ave at Warner Avenue	Irvine/Tustin	PM	x		x**
135	Jamboree NB Ramps/Warner	Irvine	PM			x**
136	Jamboree Road at Barranca Parkway*	Irvine/Tustin	PM	x		
141	Jamboree Road at Main Street*	Irvine	PM	x		
144	Jamboree Road at I-405 SB Ramps	Irvine	AM			x
145	Jamboree Road at Michelson Drive	Irvine	PM(both)		x	
188	Harvard Avenue at Michelson Drive	Irvine	PM	x **		x
229	Culver Drive at Alton Parkway	Irvine	PM			x
232	Culver Drive at I-405 NB Ramps	Irvine	PM	x		
* Improvement currently programmed			Sum	12	3	7
** Irvine cumulative deficiency			Total Impacts (2010 Study)	15	Total Impacts (2015 Update)	10

The completion of the Tustin Ranch Road extension seems to have had an effect on the location of impacted intersections. Compared to the 2010 Study, traffic is drawn away from Red Hill Avenue and Jamboree Road onto Von Karman Avenue/Tustin Ranch Road. A noticeable progression of impacted and deficient intersections can be seen in the PM peak period as traffic heads north from the heart of the IBC using Von Karman Avenue that becomes Tustin Ranch Road and eventually accesses the Jamboree Road Expressway at the Warner Avenue Ramp. The progression of impacted/deficient intersections is:

- Von Karman Avenue at Alton Parkway (Irvine)
- Von Karman Avenue at Barranca Parkway (Irvine)



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- Tustin Ranch Road at Warner Avenue North (Tustin)
- Loop Road/Park Avenue at Warner Avenue (Irvine/Tustin-Deficiency only)
- Jamboree Northbound Ramps at Warner Avenue (Irvine-Deficiency only)

ES.1.7 Freeway Mainline and Ramps

Table ES-1.7 compares the Interim Year impacted freeway mainline segments in both traffic studies. In the 2010 study four segments were impacted whereas in the 2015 Update six locations are impacted. Three of these locations all on I-405 between Jamboree Road and SR-55 are common in both studies.

Table ES-1.7 – Freeway Mainline Impacts - Interim Year (2010 Study vs. 2015 Update)

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road to MacArthur Boulevard	SB	PM	x		
I-405	Jamboree Road to MacArthur Boulevard	NB	AM		x	
I-405	MacArthur Boulevard to SR-55	NB	AM		x	
I-405	MacArthur Boulevard to SR-55	SB	PM		x	
I-5	North of SR-55	NB	AM			x
SR-55	Dyer Road to Edinger Avenue	NB	AM			x
SR-73	Campus Drive to SR-55	NB	AM			x
Sum				1	3	3
Total Impacts (2010 study)				4	Total Impacts (2015 Update)	6

Table ES-1.8 compares the Buildout year impacted freeway mainline segments in both traffic studies. In the 2010 study fourteen segments were impacted whereas in the 2015 Update only five locations are impacted. Two of these locations are common in both studies.

Table ES-1.8 – Freeway Mainline Impacts - Buildout Year (2010 Study vs. 2015 Update)

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road to MacArthur Boulevard	SB	PM	x		
I-5	Jamboree Road to Tustin Ranch Road	NB	AM	x		
I-5	Jamboree Road to Tustin Ranch Road	SB	AM&PM	x		
I-5	Newport Avenue to SR-55	NB	AM	x		
I-5	North of SR-55	SB	AM	x		
I-5	Red Hill Avenue to Newport Avenue	NB	AM	x		
I-5	Tustin Ranch Road to Red Hill Avenue	NB	AM	x		
I-5	Tustin Ranch Road to Red Hill Avenue	SB	AM&PM	x		
SR-55	I-405 to MacArthur Boulevard	NB	AM&PM	x		
SR-55	I-405 to MacArthur Boulevard	SB	AM&PM	x		
SR-55	MacArthur Boulevard to Dyer Road	NB	PM	x		
SR-55	MacArthur Boulevard to Dyer Road	SB	AM	x		
I-405	Jamboree Road to MacArthur Boulevard	NB	AM		x	
SR-55	Dyer Road to Edinger Avenue	NB	PM		x	
I-405	MacArthur Boulevard to SR-55	NB	AM&PM			x
I-405	MacArthur Boulevard to SR-55	SB	AM&PM			x
SR-55	McFadden St/Sycamore Ave to I-5	NB	PM			x
Sum				12	2	3
Total Impacts (2010 Study)				14	Total Impacts (2015 Update)	5



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Table ES-1.9 compares the Interim year impacted freeway ramps in both traffic studies. In the 2010 study five ramps were impacted whereas in the 2015 Update only two locations are impacted. Both the 2015 Update ramps are on I-405 and were also impacts in the 2010 study.

Table ES-1.9 – Freeway Ramp Impacts - Interim Year (2010 Study vs. 2015 Update)

FREEWAY	LOCATION	RAMP	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road	NB Off	AM	x		
SR-55	Victoria Street	NB Direct On	AM	x		
SR-73	MacArthur Boulevard	NB On	AM	x		
I-405	Jamboree Road	SB Off	PM		x	
I-405	Bristol Street	SB Loop On	PM		x	
Sum				3	2	0
Total Impacts (2010 Study)				5	Total Impacts (2015 Update)	2

Table ES-1.10 compares the Buildout year impacted freeway ramps in both traffic studies. In the 2010 study eleven ramps were impacted whereas in the 2015 Update only six ramps are impacted. Three of the ramps impacted in the 2015 Update ramps are on I-405 and were also impacts in the 2010 study.

Table ES-1.10 – Freeway Ramp Impacts - Buildout Year (2010 Study vs. 2015 Update)

FREEWAY	LOCATION	RAMP	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Culver Drive	NB Off	AM	X		
I-405	MacArthur Boulevard	NB On	PM	X		
I-405	Jamboree Road	SB Off	AM/PM	X		
SR-55	Baker Street	NB Off	AM/PM	X		
SR-55	Baker Street	SB On	PM	X		
SR-55	MacArthur Boulevard	SB On Loop	PM	X		
SR-73	Campus Drive	NB On	PM	X		
SR-73	Jamboree Road	SB Off	AM/PM	X		
I-405	MacArthur Boulevard	NB Off	AM		X	
I-405	Bristol Street	SB Loop On	PM		X	
SR-55	Dyer Road	NB On Direct	PM		X	
I-405	Jamboree Road	NB Off	AM			X
SR-55	Dyer Road	NB Off	AM			X
SR-73	Campus Drive	SB Off	AM			X
Sum				8	3	3
Total Impacts (2010 Study)				11	Total Impacts (2015 Update)	6



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ES.1.8 MPAH and General Plan Amendment

The results of this Five-Year Update study indicate that no additional proposed changes are required to the City of Irvine General Plan or Countywide Master Plan of Arterial Highways (MPAH). Since the adoption of the 2010 Vision Plan, the City of Irvine General Plan has been amended with the following downgrades, per the 2010 Vision Plan:

- Barranca Pkwy between Red Hill Avenue and Jamboree Road (downgraded from 8-lane divided roadway to 7-lane divided roadway)
- Jamboree Road between Barranca Pkwy and McGaw Avenue (downgraded from a 10-lane divided roadway to a 8-lane divided roadway)
- Main Street between Red Hill and Harvard (downgraded from 6-lane divided arterial with 2 auxiliary lanes to 6-lane divided roadway)
- MacArthur Boulevard between Fitch and Main Street (downgraded from 8-lane divided roadway to 7-lane divided roadway)
- Red Hill Avenue between Barranca Pkwy and Main Street (downgraded from an 8-lane divided roadway to a 6-lane roadway)
- Alton Avenue between Red Hill Avenue and Jamboree Road (downgraded from a 6-lane divided roadway to 4-lane divided roadway)*
- Von Karman Avenue between Barranca Pkwy and Michelson (downgraded from 6-lane roadway to 4-lane roadway)*

The arterial segments of Alton Pkwy between Red Hill Avenue and Jamboree Road and Von Karman Avenue between Barranca Pkwy and Michelson Drive as identified with an asterisk in the list above, were also programmed into the County's Master Plan of Arterial Highways (MPAH) since the 2010 Vision Plan approval.

Although the 2010 Vision Plan Traffic Study stated that it was the City's intention to remove the Von Karman Avenue at the I-405 freeway HOV drop ramps, it was determined that the improvement was of regional significance and therefore remains part of the Post-2035 build-out baseline assumptions.

Consistent with the 2010 Vision Plan, the widening of Red Hill Avenue from four lanes to six lanes between MacArthur Boulevard and Main Street is assumed in the Post-2035 Build-out Baseline since it is the one missing roadway widening in IBC that is needed to fulfill the County's Master Plan of Arterial Highways (MPAH).

2015 Update to:

Irvine Business Complex Vision Plan Traffic Fee Nexus Study



June 07, 2017

Prepared for:



J17-0530 | Prepared by **HDR** Inc. in association with **iteris** Inc.



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Executive Summary

This five-year update (2015 IBC Traffic Fee Nexus Update) is consistent with the principles of the Irvine Business Complex (IBC) Vision Plan and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. The objective of this study is to update development fees to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

Pursuant to the requirements of AB 1600, this update ensures that it complies with the nexus determination requirement to:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:
 - The use of the fee and the type of development paying the fee;
 - The need for the traffic improvements and the types of development on which the fee is imposed; and
 - The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

The 2015 IBC Traffic Fee Nexus Study complies with all State legislative nexus requirements.

Table ES.1 summarizes the costs included in the 2015 IBC Traffic Fee Nexus Update. These costs are based on a combination of detailed cost estimates for specific fair-share improvements identified in the accompanying 2015 traffic study¹ (2015 IBC Traffic Study Update), obligations to fund specific improvements within adjacent jurisdictions as necessary to mitigate the impacts of the buildout of the IBC Vision Plan, and a continuing obligation to fund certain improvements identified in a prior fee program for the IBC adopted in 1992. Additionally, the costs include specific tasks required to implement and maintain the fee program consistent with the requirements of the IBC Vision Plan General Plan Amendment/Zoning Ordinance.

The proposed fee program assumes that development fees will fund up to 90% of identified improvement costs. It is assumed that the remaining 10% of the project costs will be covered by outside funding sources including federal, state, and county programs.

Table ES.2 summarizes a fee comparison between 1992 (at the onset of the IBC Fee Program), 2009 fees (developed through annual adjustments of the 1992 fee), 2010 fees (developed as part of the Vision Plan), 2016 fees (currently what the City charges developers – this is developed by applying annual adjustments to the 2010 fee) and proposed fees, effective beginning in the next FY 2017-18. Although the fees are significantly higher than the current 2016 fees, they still remain 31%-35% lower than 2009 fees.

¹ Irvine Business Complex Vision Plan, 2015 Five Year Traffic Study Update, Iteris with HDR, 2016



Table ES.1: 2015 Updated IBC Vision Plan Traffic Fee Program Breakdown

Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
<i>Irvine (90% of estimate assumed)</i>	\$18,006,327	
<i>Caltrans District 12</i>	\$6,585,299	
2015 IBC Traffic Study Update Improvements	\$24,591,626	\$24,591,626
Remaining Existing General Plan Improvements		
<i>Irvine (90% of estimate assumed)</i>	\$16,577,451	
<i>Improvements in Santa Ana</i>	\$52,670,912	
<i>Improvements in Costa Mesa</i>	\$28,970	
2015 Update - Remaining Existing General Plan Improvements	\$69,227,334	\$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		\$93,868,960
Existing IBC Traffic Funds Available		
<i>Current IBC Traffic Fund Balance**</i>	\$46,838,863	
<i>Capital Improvement Program funds that are currently appropriated for IBC Improvements ***</i>	(\$27,354,385)	
Subtotal: Existing IBC Funds to be applied to the 2015 Fee Program	(\$19,484,478)	(\$19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		\$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
<i>Transportation Management Systems (10% of total fee)</i>	\$7,438,448	
<i>IBC Program Administration (5% of total fee)</i>	\$3,719,224	
<i>Contingency (15% of total fee)</i>	\$11,157,672	
Subtotal: Additional Costs to the IBC Fee Program	\$22,315,345	\$22,315,345
Development Agreements (subject to fees identified in their agreements)		
<i>Park Place DA</i>	(\$2,769,591)	
<i>Central Park West DA</i>	(\$1,233,998)	
Subtotal: Existing Development Agreements	(\$4,003,589)	(\$4,003,589)
Subtotal: Total IBC Fees Required		\$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances

* Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund

*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive



Table ES.2: IBC Fee Comparison

Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential	DU	\$3,734	\$7,175	\$1,862	\$2,254	\$4,697	2.08
Extended Stay	Rooms	\$3,016	\$5,795	\$1,503	\$1,820	\$3,796	2.09
Hotel	Rooms	\$4,883	\$9,383	\$2,435	\$2,947	\$6,140	2.08
Retail Mix	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Office	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Industrial Mix **	Sq. Ft.	\$3.30	\$5.85	\$1.50	\$1.82	\$3.79	2.08
Mini Warehouse	Sq. Ft.	\$1.85	\$3.55	\$0.97	\$1.17	\$2.44	2.09

Source: HDR 2015, City of Irvine

* Includes Density Bonus Units charged fees consistent with Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018

The proposed fee is significantly higher than the 2010 fees and is attributable to the following factors:

- New improvement locations
- Significant increase in improvement costs between 2010 and 2015
- Fewer number of remaining development units (residential and non-residential) subject to fee
- Lesser remaining funds available from the IBC Traffic Fee Fund Balance, due to large payout to Cities of Newport Beach and Tustin (per 2009 and 2010 agreements respectively) and earmarked funds for improvements and payment to Caltrans (per 2011 agreement)



1 Introduction

1.1 Background

The City of Irvine established an Irvine Business Complex (IBC) Nexus Fee Program in 1992 (henceforth to be referred to as the 1992 Fee Program) to support the City's adoption of the more traffic intensive 1990 IBC Rezone General Plan Amendment (GPA) and Zone Code. The intent of the 1992 Fee Program was to support the implementation of specific improvements identified in a subsequent Environmental Impact Report (henceforth to be referred to as the 1992 EIR) prepared in conjunction with the 1992 rezoning actions. This approach is consistent with the City's General Plan Roadway Development Objective B-1 to "Plan, provide and maintain an integrated vehicular circulation system to accommodate projected local and regional needs."

In 2010, the City prepared the IBC Vision Plan (henceforth to be referred to as the Vision Plan), a GPA and Zone Change project to accommodate the ongoing shift in development patterns to improve the jobs-housing balance, and reduce vehicle miles travelled. In recent years, as development patterns within the IBC showed an increased demand for residential uses and a decreased demand for manufacturing and warehouse uses, The Vision Plan project, together with its accompanying EIR (Vision Plan EIR) were approved/certified by the Irvine City Council on July 13, 2010.

As part of the Vision Plan approval, the Zoning Ordinance was updated to require the City to re-evaluate traffic conditions (and traffic impact locations) and its impact on improvement needs, by way of a five-year traffic study update (amended to every two years in October 2015). In 2015, a five-year traffic study² (henceforth to be referred to as 2015 IBC Traffic Study Update) was completed to fulfil the requirements of the Zoning Ordinance. Based on the findings of the 2015 IBC Traffic Study Update, a new set of transportation improvements were identified. In this 2015 five-year fee/nexus update (henceforth to be referred to as 2015 IBC Traffic Fee Nexus Update), the fee structure and the nexus associated with the findings of the 2015 IBC Traffic Study Update, is being revised to accommodate the identified set of transportation improvements.

Subsequent to the completion of the Vision Plan, the City of Irvine entered into contractual agreements with the potentially affected jurisdictions/agencies (Caltrans District 12 and cities of Newport Beach, Santa Ana, Costa Mesa, and Tustin). Thus for this 2015 IBC Traffic Fee Nexus Update, only the fee associated with the findings of the 2015 IBC Traffic Study Update, were updated. The associated fair-shares and the nexus remained consistent with the 2010 Vision Plan Traffic Fee Nexus Study³ (henceforth to be referred as Vision Plan Traffic Fee Nexus Study). This 2015 five-year update takes a "snapshot" of the development activity from the inception of the Vision Plan in 2010 to July 31, 2015, to evaluate the changes in land uses and traffic patterns, and subsequent improvement needs, resulting in the development of a proposed fee to be imposed effective fiscal year (FY) 2017-2018.

In 2010, the Vision Plan established two overlay zoning districts:

- Urban Neighborhood, in which residential mixed use was encouraged; and
- Business Complex, in which the existing allowable mix of non-residential uses was maintained.

The Vision Plan allowed for the buildout of 15,000 residential base dwelling units (DU) within the Urban Neighborhood Overlay Zone District, with a potential maximum of 2,038 additional density bonus units, pursuant to state law. In order to achieve the maximum residential development intensity contemplated under the Vision Plan, the Plan adopted a "flexible zoning" mechanism under which non-residential development intensity could be exchanged for residential development

² *Irvine Business Complex Vision Plan, 2015 Five Year Traffic Study Update, Iteris with HDR, 2016*

³ *Irvine Business Complex Vision Plan Traffic Fee Nexus Study, Parsons Brinckerhoff, 2011*



intensity, thus achieving the maximum 15,000 DU (plus 2,038 DU pursuant to state law), by “offsetting” reduction of non-residential development intensity.

Based on approvals since 2010, the total number of density bonus units pursuant to state law assumed for this five-year update is reduced to 1,794 DU, down from the theoretical assumption of 2,038 DU in 2010. The accompanying 2015 IBC Traffic Study Update provided an assessment of existing, interim-year 2020 and buildout year Post-2035 with and without the updated land use conditions.

1.2 Purpose of the 2015 Update to the Vision Plan Nexus Study

Pursuant to requirements of the California Environmental Quality Act (CEQA), the City Council, as part of their approval of the Vision Plan in 2010, determined to make the City responsible to mitigate, where feasible, the impacts to the transportation system attributable to buildout of the Vision Plan. This 2015 IBC Traffic Fee Nexus Update is consistent with the principles of the Vision Plan Traffic Fee Nexus Study and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. Through equitable developer fees, the objective of this update is to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

California's Mitigation Fee Act (AB 1600, Cal. Gov. Code §§ 66000-66009) creates the legal framework for local governments to assess new fees toward future development. Such fees require new development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must take the following steps to establish a nexus between a proposed fee and project impacts:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:
 - The use of the fee and the type of development paying the fee;
 - The need for the traffic improvements and the types of development on which the fee is imposed; and
 - The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

These principles closely emulate two landmark US Supreme Court rulings that provide guidance on the application of impact fees. The first case, *Nollan v. California Coastal Commission* (1987) 107 S.Ct. 3141, established that local governments are not prohibited from imposing impact fees or dedications as conditions of project approval provided the local government establishes the existence of a "nexus" or link between the exaction and the interest being advanced by that exaction. The *Nollan* ruling clarifies that once the adverse impacts of development have been quantified, the local government must then document the relationship between the project and the need for the conditions that mitigate those impacts. The ruling further clarifies that an exaction may be imposed on a development even if the development project itself will not benefit provided the exaction is necessitated by the project's impacts on identifiable public resources.

The second case, *Dolan v. City of Tigard* (1994) 114 S.Ct. 2309, held that in addition to the *Nollan* standard of an essential nexus, there must be a "rough proportionality" between proposed exactions and the project impacts that the exactions are intended to provide benefit. As part of the *Dolan* ruling, the US Supreme Court advised that "a term such as "rough proportionality" best encapsulates what we hold to be the requirements of the Fifth Amendment. No precise mathematical calculation is required, but the city (or other local government) must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."



The combined effect of both rulings resulted in the requirement that public exactions must be carefully documented and supported. This requirement was reiterated by the provisions of the State of California Mitigation Fee Act and subsequent rulings in the California Supreme Court (*Ehrlich v. City of Culver City* (1996) 12 C4th 854) and the California Court of Appeal (*Loyola Marymount University v. Los Angeles Unified School District* (1996) 45 Cal.App.4th 1256).

The Vision Plan Traffic Fee Nexus Study satisfied the requirements of the State of California Mitigation Fee Act. Thus this update is not intended to re-analyze the nexus or the purpose, but is to review and revise the fee program based on the needs determined by the 2015 IBC Traffic Study Update.

The 2015 IBC Traffic Study Update analyzed the project study area presented in Figure 1.1. All improvements identified under the interim year 2020 and buildout Post-2035 conditions are located within this defined project study area. Consistent with the methodology used in the 2010 IBC Vision Plan Traffic Study (henceforth referred to as Vision Plan Traffic Study), the 2015 IBC Traffic Study Update identified specific mitigation measure improvements that mitigate unacceptable level of service (LOS) E and F to acceptable LOS of A-D, per the City's Traffic Impact Analysis (TIA) Guidelines (adopted August 2004) and per the performance criteria for each affected agency (Caltrans District 12 and cities of Newport Beach, Costa Mesa, Santa Ana, and Tustin).

For locations within the City of Irvine, 90% of the improvement costs are included in the fee program. For locations not under the City of Irvine's jurisdiction, a fair-share methodology is applied that considers fair-shares of improvement costs. The proportionate fair-shares of improvement costs in the City of Costa Mesa and Santa Ana, associated with remaining improvements from the City of Irvine's General Plan, are included in the Fee Program. A 2011 amended agreement with the City of Santa Ana, replacing the 1992 agreement between the two cities, identified specific improvements for which the City of Irvine is either partially or fully responsible for certain improvement and those associated improvement costs were included in this update. In 2009 and 2010, respectively, the City of Newport Beach and the City of Tustin entered into settlement agreements with the City of Irvine, where City of Irvine made a one-time lump-sum payment to each of the cities, as its fair-share contribution towards transportation improvements and absolved itself from any future financial or implementation obligation related to the Vision Plan buildout.

Based on the findings from the 2015 IBC Traffic Study Update and existing agreements between the City of Irvine and the affected jurisdictions and agencies, Figure 1.1 identifies the improvement locations and provides a brief description of each improvement.

Costs of improvements included in the fee program are based on 2016 dollars developed from Construction Cost Index (CCI), and recent relevant projects unit cost estimates for construction materials and labor, and right-of-way cost estimates. This is further discussed in Section 2, IBC Vision Plan – 2015 Update Traffic Fee Program Cost. Section 3, Fee Methodology, walks the reader through a step by step process of developing the proposed fee effective FY 2017-2018. Section 4, Establishing Nexus discusses in details of the nexus between a proposed fee and project impacts, and Section 5, Conclusion summarizes the findings of this update and provides recommendations.

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2 IBC Vision Plan – 2015 Update to Traffic Fee Program Cost

The 2015 IBC Traffic Fee Nexus Update includes costs required to implement physical improvements that achieve the following:

- Mitigate impacts identified through the 2015 IBC Traffic Study Update;
- Satisfy agreements with adjacent jurisdictions that require the construction of specific roadway improvements to diminish the impacts of the Vision Plan development on the roadway system; and
- Upgrade the roadway network to be consistent with the buildout of the City's General Plan Circulation Element.

All costs included as part of the 2015 IBC Traffic Fee Nexus Update comply with the City's policies and estimates based on the most recent aerial photography available, field reviews for determination of feasibility, recent unit costs from local projects, and CCI updates. For all improvements located within the City of Irvine, 90% of total costs are included in this update. It is assumed that the remaining 10% will come from outside funding sources, such as federal, state and county grants.

Consistent with the Vision Plan Traffic Fee Nexus Study, this update includes costs related to the management and implementation of the IBC Vision Plan Traffic Fee Program. These costs include implementing Transportation Management Strategies (TMS) to reduce vehicle volumes and associated impacts, IBC Vision Plan Traffic Fee Program administration and construction contingency costs. Incorporated into the mix are the fund amounts that are currently available in the fee program, which includes specific amounts that are earmarked for projects identified in the City's Capital Improvement Program (CIP) and Development Agreements (DAs) that are not subject to any fee update.

Table 2.1 presents the fees required by the traffic fee program to implement the IBC Vision Plan.

2.1 Agreement with the City of Newport Beach

Following the development of the Vision Plan, the City of Irvine entered a settlement agreement with the City of Newport Beach. Based on this agreement, executed on November 24, 2009, the City of Irvine paid a one-time sum of \$3,650,000 to the City of Newport Beach to be used exclusively for the engineering, design, and construction of Jamboree Corridor improvements and other traffic improvements located within the Vision Plan study area. Details of this agreement are presented in **Appendix A**. At the time of the agreement, the Cities of Irvine and Newport Beach agreed that the amount of \$3,650,000 constituted a fair-share obligation for the City of Irvine toward improvements in Newport Beach necessitated by the development of the Vision Plan. The agreement was drawn up on the premise that the City of Irvine will not be financially responsible for any mitigation caused by the buildout of the Vision Plan, provided the residential unit cap of 15,000 DUs (plus 2,038 DUs pursuant to state law) is not exceeded. Therefore no mitigation improvement costs were identified within the City of Newport Beach for inclusion in this fee update.



Table 2.1: 2015 Updated IBC Vision Plan Traffic Fee Program Breakdown

Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
Irvine (90% of estimate assumed)	\$18,006,327	
Caltrans District 12	\$6,585,299	
2015 IBC Traffic Study Update Improvements	\$24,591,626	\$24,591,626
Remaining Existing General Plan Improvements		
Irvine (90% of estimate assumed)	\$16,577,451	
Improvements in Santa Ana	\$52,670,912	
Improvements in Costa Mesa	\$28,970	
2015 Update - Remaining Existing General Plan Improvements	\$69,227,334	\$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		\$93,868,960
Existing IBC Traffic Funds Available		
Current IBC Traffic Fund Balance**	\$46,838,863	
Capital Improvement Program funds that are currently appropriated for IBC Improvements ***	(\$27,354,385)	
Subtotal: Existing IBC Funds to be applied to the 2015 Fee Program	(\$19,484,478)	(\$19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		\$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
Transportation Management Systems (10% of total fee)	\$7,438,448	
IBC Program Administration (5% of total fee)	\$3,719,224	
Contingency (15% of total fee)	\$11,157,672	
Subtotal: Additional Costs to the IBC Fee Program	\$22,315,345	\$22,315,345
Development Agreements (subject to fees identified in their agreements)		
Park Place DA	(\$2,769,591)	
Central Park West DA	(\$1,233,996)	
Subtotal: Existing Development Agreements	(\$4,003,589)	(\$4,003,589)
Subtotal: Total IBC Fees Required		\$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances

* Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund

*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive

2.2 Agreement with the City of Tustin

On July 13, 2010, following the development of the Vision Plan and through consultation with the City of Tustin, an agreement was executed between the Cities of Tustin and Irvine. The agreement stipulated that in lieu of City of



Irvine's fair-share of the estimated costs of traffic improvements located within the City of Tustin and identified as mitigation measures required for buildout of the Vision Plan, the City of Irvine would contribute 12% of the construction contract award amount or \$4,500,000, whichever was greater, and up to a maximum of \$6,500,000, for the Tustin Ranch Road extension roadway improvement between Walnut Avenue and Warner Avenue, including the grade separation and loop at Edinger Avenue. The improvements at Tustin Ranch Road, including the grade separation, were completed at the time of this update, however, the loop at Edinger Avenue is pending completion. Irvine's final contribution towards improvements in Tustin was \$4.5 million. **Appendix B** presents the 2010 Settlement Agreement between the City of Irvine and the City of Tustin. The agreement was drawn up on the premise that the City of Irvine will not be financially responsible for any mitigation caused by the buildout of the Vision Plan, provided the residential unit cap of 15,000 DUs (plus 2,038 DUs pursuant to state law) is not exceeded. Therefore no mitigation improvement costs other than costs for specific improvement locations shared with Irvine, were identified within the City of Tustin for inclusion in this fee update.

2.3 Agreement with City of Santa Ana

A 1992 agreement between the City of Irvine and the City of Santa Ana resulted from the 1992 EIR approval that identified Irvine as the responsible party for the following improvements:

- Full financial responsibility for the costs to widen Dyer Road from a six-lane divided arterial to an eight-lane divided arterial between Red Hill Avenue and the SR-55 northbound on-ramp, including the intersection of Red Hill Avenue at Dyer Road/Barranca Parkway. Consistent with all improvements for which the City of Irvine has sole financial responsibility, 90% of total costs for this improvement is included in the 2015 IBC Traffic Fee Nexus Update.
- 50% of the costs to build the Alton Parkway Overcrossing at SR-55 in the City of Santa Ana.

The need for these improvements, and the allocation of responsibility to fund the improvements, was created in part by the development contemplated in the 1992 IBC Zoning, and as such the improvements were included in the 1992 Fee Program. An amendment to the 1992 agreement was negotiated and signed between the cities on March 21, 2011 following the approval of the IBC Vision Plan. The agreement redefined the Alton Parkway Interchange at SR-55 as Alton Parkway Overcrossing at SR-55, and maintained the financial responsibility of the City of Irvine on the two above mentioned projects, consistent with the 1992 agreement. **Appendix C** presents detail of the 1992 Settlement Agreement and the subsequent amendment.

Preliminary engineering cost estimates indicate that the Dyer Road widening is expected to cost \$25,011,301. This cost includes estimates for Class II bikes lanes through the length of the project extent, consistent with the findings from the Project Report⁴. The total cost of the redefined Alton Parkway Overcrossing at SR-55 is estimated at \$60,184,755. This cost includes the following list of additional improvements identified as mitigation in an updated traffic study⁵ completed in 2010:

- Intersection #44: Red Hill Avenue at Alton Parkway;
- Signalization of the intersection of Halladay Street at Alton Parkway; and
- Signalization of the intersection of Daimler Street at Alton Parkway

For this update 90% of the cost of Dyer Road widening (\$22,510,171) is included in the fee update. Pursuant to the City of Irvine and City of Santa Ana agreement, 50% of the Alton Parkway Overcrossing at SR-55 project (\$30,092,378) is included in this update. Other than these two improvements, the only remaining Existing General Plan improvement per the cities' agreement included in this update is Intersection #719: Flower Street at Segerstrom Avenue that identifies a fair-share contribution of 9.6%, consistent with the Vision Plan Traffic Fee Nexus Study. City

⁴ Project Report for the Dyer Road/Barranca Parkway Improvements (State Route-55 to Aston Street), RBF Consulting, 2004

⁵ Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, KOA, 2010



of Irvine's fair-share for implementing improvements at the intersection of Flower Street at Segerstrom Avenue is \$68,364 (9.6% of \$712,124).

Hence, the 2015 IBC Traffic Fee Nexus Update includes a total of \$52,670,912 as funds that would be required to implement improvements within the City of Santa Ana.

Appendix D presents detailed layout and cost estimate worksheets for each improvement.

2.4 Agreement with City of Costa Mesa

Based on the existing agreement between the Cities of Irvine and Costa Mesa, executed in 1993 and presented in Appendix E, the fair-share contribution towards one remaining Existing General Plan improvement included in this update is SR-55 Frontage Road SB Ramps at Paularino Avenue that identifies a fair-share contribution of 2.4%, consistent with the Vision Plan Traffic Fee Nexus Study. City of Irvine's fair-share for implementing improvements at this location is \$28,970 (2.4% of \$1.2 Million).

Appendix D presents a layout and cost estimate worksheet for this location.

2.5 Agreement with Caltrans District 12

Following the development of the Vision Plan and through consultation with Caltrans District 12 (Caltrans), on January 25, 2011, the City of Irvine and Caltrans entered into an agreement that identified feasible strategies that Caltrans would employ as mitigation for traffic impacts caused by the project on Caltrans facilities. Based on the findings from the Vision Plan Traffic Fee Nexus Study, it was determined that the fair-share cost of implementing these improvements would be \$7,025,962 and it would constitute the City of Irvine's fair-share obligation as identified in the agreement. Appendix F presents the 2011 Traffic Mitigation Agreement between City of Irvine and Caltrans. Since the completion of the Vision Plan, the City of Irvine has collected and earmarked \$440,663 as payment towards Caltrans agreement. Hence, this 2015 IBC Traffic Fee Nexus Update rolls over \$6,585,299 (\$7,025,962 less \$440,663) from the Vision Plan Traffic Fee Nexus Study, as part of the funding need for implementing improvements associated with the buildout of the Vision Plan.

2.6 Transportation Improvements within the City of Irvine

2.6.1 Based on the 2015 IBC Traffic Study Update

The 2015 IBC Traffic Study Update identified the following eight deficient locations for which improvements were identified (refer to Table ES1.2 in the 2015 IBC Traffic Study Update).

- Intersection #97: Von Karman Avenue/Tustin Ranch Road at Barranca Parkway;
- Intersection #98: Von Karman Avenue at Alton Parkway;
- Intersection #134: Loop Road/Park Avenue at Warner Avenue;
- Intersection #135: Jamboree NB Ramps at Warner Avenue;
- Intersection #144: Jamboree Road at I-405 SB Ramps;
- Intersection #145: Jamboree Road at Michelson Drive;
- Intersection #188: Harvard Avenue at Michelson Drive;
- Intersection #229: Culver Drive at Alton Parkway;



For the purpose of the fee update, cost estimates were developed at six of these locations. Cost estimates were not necessary for intersections #144 (Jamboree Road at I-405 SB Ramps) and #145 (Jamboree Road at Michelson Drive).

- Intersection #144 (Jamboree Road at I-405 SB Ramps) improvement costs were not included in the updated fee because this location is a Caltrans facility and is part of the \$7 million agreement with Caltrans. The specific improvement identified for #144 in the Vision Plan Traffic Fee Nexus Study called for widening of this off-ramp to add an approach lane resulting in two-left turn lanes and three-right turn lanes for an approach length of 500 feet, with the City's responsibility identified as 21.6% of a \$1.5 million project. The 2015 IBC Traffic Study Update recommended a slightly altered improvement that reassigns these approach lanes to provide two-left turn lanes, one-shared left/right turn lane, and two-right turn lanes, all within the previously determined ROW, hence minimally impacting project costs.
- Intersection #145 (Jamboree Road at Michelson Drive) improvement costs were not included in the updated fee as a specific line item cost because \$8,237,407 in CIP funding has been allocated from the IBC Traffic Fee Program Fund Balance to cover a portion of the estimated \$17.7 million total cost to implement the pedestrian bridge. The pedestrian bridge across the north leg of the southbound Jamboree approach was proposed as part of the Vision Plan EIR because lane addition improvements at the intersection were determined to be operationally infeasible.

In addition, the 2015 IBC Traffic Study Update identified the following three locations for signalization.

- Armstrong Avenue at McGaw Avenue;
- Gillette Avenue at Alton Parkway;
- Teller Avenue at Dupont Drive;

At the time this report was being prepared, signalization efforts at Armstrong Avenue at McGaw Avenue and at Teller Avenue at Dupont Drive were underway and therefore were not included in the updated fee calculations.

Consistent with the Vision Plan Traffic Fee Nexus Study, this update also assumes 90% of the total cost of improvements within the City of Irvine (\$20,007,030) or \$18,006,327. It is assumed that the remaining 10% may be funded with outside funding sources such as federal, state and/or county grants.

2.6.2 Existing General Plan Improvements

The remaining Existing General Plan improvement not yet built in the IBC is the widening of Red Hill Avenue between Main Street and MacArthur Boulevard from four lanes to six lanes.

Originally identified in the 1992 EIR and 1992 Fee Program as an improvement that widens the arterial from its existing four lanes to an eight-lane facility, the Vision Plan determined that widening of this segment of Red Hill Avenue from four lanes to six lanes provided adequate traffic circulation to accommodate project buildout. The 2015 IBC Traffic Study Update concurs with that finding and this widening improvement to six lanes is consistent with the City's General Plan Circulation Element updated as part of the Vision Plan effort. The 90% of the cost for this improvement is \$16,577,451 (or 90% of the total cost of \$18,419,390) is included in the fee program.

Appendix D presents detailed concept layouts and cost estimate worksheets for each improvement that is included in the fee update.

2.7 Existing IBC Fund Balance

The current IBC Traffic Fee Program fund balance is the combination of the remaining funds from the 1992 Traffic Fee Program, balance of funds collected through the Vision Plan implementation since 2010, and earmarked funds



(\$440,663 – refer Section 2.5) allocated for Caltrans improvements per the settlement agreement with Caltrans. At the time of this update (i.e., snapshot date of July 31, 2015), the overall combined IBC Vision Plan Traffic Fee Program funds were \$46,838,863.

As discussed in Section 2.6.1, \$8,237,407 from this fund is allocated towards the construction of the pedestrian bridge over Jamboree Road at Michelson Drive. In addition, the City's CIP had allocated \$4,766,978 towards the implementation of improvements at intersection #136 (Jamboree Road at Barranca Parkway) and intersection #141 (Jamboree Road at Main Street) from the IBC Traffic Fee Program fund. Subsequently, CIP funding for intersections #136 and #141 was augmented with an additional allocation of \$14,350,000 (\$5,030,000 for intersection #136 and \$9,320,000 for intersection #141), bringing the total funding earmarked for these two intersections to \$19,116,978. As these two intersection improvements were identified in the Vision Plan Traffic Study and 2010 Traffic Fee Nexus Study, and implementation was underway, these improvements were assumed to be constructed in terms of traffic analysis. Backing out the allocated funds for these committed improvements, the remaining IBC Traffic Fee Program funds available equaled \$19,484,478 and this amount is applied towards this fee update. Table 2.2 summarizes the IBC fund balance applied towards this fee update.

Table 2.2: IBC Traffic Fee Funds applied towards 2015 Update*

Funds / Projects	Amount
IBC Vision Plan Traffic Fee Program funds	\$46,838,863
Allocated funds for Jamboree/Michelson pedestrian bridge (included in CIP)	(\$8,237,407)
Allocated fund balance for Jamboree Road at Barranca Parkway, and Jamboree Road at Main Street improvements (included in CIP)	(\$19,116,978)
TOTAL	\$19,484,478

*as of snapshot date of July 31, 2015

Source: City of Irvine

2.8 Other IBC Vision Plan Traffic Fee Program Costs

Consistent with the Vision Plan Traffic Fee Nexus Study, costs associated with Transportation Management Systems (TMS) are included in this update and will be reevaluated as part of the next two-year update. The TMS costs are estimated at 10% of the effective total costs of improvements (\$74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, or approximately \$7.44 million. As documented in the Vision Plan EIR, Project Design Feature (PDF 13-1) addresses the goals and objectives of the TMS as follows:

- Monitor travel demand at employment sites and provide reports on trip generation to the City;
- Offer employers and property owners assistance with transportation services on a voluntary basis;
- Deliver transportation services to commuters including a) ride-matching, transit/Metrolink information, b) inform commuters of incentives that may be available from public agencies, c) formation of vanpools;
- Represent the IBC in local transportation matters; and
- Oversee and fund the implementation and expansion of the i-Shuttle.

Program Administration costs are assumed in the fees as 5% of the effective total costs of improvements (\$74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, for an amount of approximately \$3.72 million to cover the next two years of staff and consultant time for administering annual fee updates, monitoring/updating the IBC database, inter-departmental and inter-agency coordination, reassessment of land use assumptions and reassessment of the Vision Plan and improvement list as required every two years, starting from this update cycle. Administration costs will also be reevaluated with the next two-year update.



Contingency costs (a standard practice in the industry to cover inflation rates and unforeseen costs) over the 20-year period are estimated at 15% of the effective total costs of improvements (\$74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, for an amount of approximately \$11.16 million.

The summation of these other IBC Vision Plan Traffic Fee Program costs for this update equals \$22,315,345.

2.9 Development Agreement Cost Reduction

Development Agreements (DAs) currently exist between the City and the following five developments located in the IBC:

- Park Place;
- Central Park West;
- Hines;
- Avalon Apartments; and
- Alton Condominiums

The DAs specify the fees that were locked-in at the time of approval of each specific project. Consistent with the Vision Plan Traffic Fee Nexus Study, it is assumed for this update that two of the developers (Park Place and Central Park West) will continue to pay fees identified in their DAs. Therefore their related fees in the amount of approximately \$4 million (\$2,769,591 for Park Place and \$1,233,998 for Central Park West) and the land use intensity associated with these fees were deducted from the calculation of the proposed updated fees. The intensity and related fees for the remaining three DAs (Hines, Avalon Apartments and Alton Condo) were included in the calculation of the updated fee.



3 Fee Methodology

The methodology used for this fee update is consistent with the Vision Plan Traffic Fee Nexus Study and each step for fee calculations is discussed in detail in the following sections.

3.1 Step 1: Identify Traffic Improvements and the IBC Fair-share

The mitigation measure improvements identified in the 2015 IBC Traffic Study Update to be included for the 2015 IBC Traffic Fee Nexus Update, are presented in Table 3.1. The improvements address project-related impacts based on thresholds of significance described in the traffic study. Improvements in Newport Beach and Tustin, with whom the City of Irvine has separate agreements are excluded from Table 3.1. As discussed previously in Section 2.3 and Section 2.4, select improvements in Santa Ana and Costa Mesa are included.

Table 3.1: Updated IBC Vision Plan Improvement List

Int ID	Intersection / Arterial Location	Jurisdiction	Improvement Strategy
97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway *	Irvine	Add 3rd NBT and convert de facto right-turn to standard NBR
98	Von Karman Avenue at Alton Parkway *	Irvine	Add 3rd NBT
134	Loop Road/Park Avenue at Warner Avenue	Irvine	Add 3rd EBT and NBR overlap
135	Jamboree NB Ramps/Warner Avenue	Irvine	Add 2nd EBL
188	Harvard Avenue at Michelson Drive	Irvine	Widen SB to 2,2,1
229	Culver Drive at Alton Parkway	Irvine	Improve EB to 2,3,0 (de facto right)
	Red Hill Avenue between Main Street and Mac Arthur Boulevard	Irvine	Widen from 4 lanes to 6 lanes.
	Gillette Avenue at Alton Parkway	Irvine	New traffic signal (T-intersection)
	Alton Overcrossing at SR-55	Santa Ana**	SR-55/Alton Parkway Overcrossing Project plus the following improvements: <ul style="list-style-type: none"> Intersection #44: Red Hill / Alton (Add 1 NBR, convert de facto SBR to 1 SBR, add 2nd EBL, convert 1 WBR to free WBR) Signalization and widening of Halladay Street / Alton Parkway Signalization at Daimler Street / Alton Parkway
	Dyer Road widening between SR-55 NB on ramp and Red Hill Avenue (Phase 2)	Santa Ana**	Dyer Road widening from SR-55 to Red Hill Avenue (consistent with Barranca-Dyer Project Report)
719	Flower Street and Segerstrom Avenue	Santa Ana	Add eastbound de facto lane
10	SR-55 Frontage Road SB Ramps at Paularino	Costa Mesa	Improve Southbound to 1.5 Left, 1.5 Through, 1 Right.

Source: HDR 2015

* Due to close proximity of improvements, for cost development, these two locations were combined and treated as one contiguous corridor on Von Karman Avenue between Alton Parkway and Barranca Parkway/Tustin Ranch Road.

**Agreement with Santa Ana.



3.2 Step 2: Estimate Total Cost to Implement 2015 IBC Improvement List

In order to implement the improvements identified in the 2015 IBC Traffic Study Update, a total cost of \$92,696,238 (see Table 2.1) must be programmed into this fee update effort. This cost includes the cost of the improvements, roll over from the Caltrans agreement (see Section 2.5), deduction of the available fund balance from the IBC Traffic Fee Program (see Table 2.2), project soft costs (see Section 2.8) and deduction of fees related to the two existing Development Agreements (see Section 2.9).

Based on the preliminary engineering and cost estimates, the cost of the needed improvements is \$93,868,960 and includes the following:

- 90% of costs related to improvements within City of Irvine and Santa Ana (widening of Dyer Road per agreement between City of Santa Ana and Irvine);
- Fair-share obligation to improvements in Santa Ana and Costa Mesa (remaining GP improvements); and
- Roll over of fair-share obligations pursuant to the Caltrans agreement from 2010.

Table 3.2 presents the list of improvement locations, along with project cost for each, City of Irvine's share and cost of improvements included in the 2015 IBC Traffic Fee Nexus Update.

Preliminary engineering layouts and detailed cost estimates were developed for each improvement. All improvement strategies identified to mitigate traffic impacts caused by the buildout of the Vision Plan were vetted through a review process with City of Irvine planning and engineering staff and were determined to be feasible. The following section discusses in detail the methodology for developing cost estimates.

3.2.1 Development of Improvement Costs

For the purpose of developing planning level cost estimates for each of the improvements, unit costs and planning level concept plans were developed. The concept level plans were based off most recent aerial imagery and field reconnaissance.

Unit Cost Development

Unit costs including ROW costs were reviewed and updated based on Caltrans cost data for 2015 and bid data provided by the City between 2013 and 2015. The 2015 unit costs were compared to the 2010 unit costs for reasonability and the following changes were made to the soft cost:

- ROW support costs were increased from 5% to 10% of construction costs
- Minimum Project Development cost was increased from \$200,000 to \$300,000



Table 3.2: Updated IBC Vision Plan Improvement List and Associated Cost for Fee Calculation

Int ID	Intersection / Arterial Location	Jurisdiction	Cost	Fair Share	Cost included for Fee Calculation
97 *	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway ¹	Irvine	\$7,558,713	90%	\$6,802,842
98 *	Von Karman Avenue at Alton Parkway ¹	Irvine		90%	
134	Loop Road/Park Avenue at Warner Avenue ¹	Irvine	\$5,411,023	90%	\$4,869,921
135	Jamboree NB Ramps/Warner Avenue ¹	Irvine	\$2,592,998	90%	\$2,333,698
188	Harvard Avenue at Michelson Drive ¹	Irvine	\$2,752,766	90%	\$2,477,489
229	Culver Drive at Alton Parkway ¹	Irvine	\$1,204,030	90%	\$1,083,627
	Red Hill Avenue between Main Street and Mac Arthur Boulevard ²	Irvine	\$18,419,390	90%	\$16,577,451
	Gillette Avenue at Alton Parkway ¹	Irvine	\$487,500	90%	\$438,750
	Alton Overcrossing at SR-55 ³	Santa Ana	\$60,184,755	50%	\$30,092,378
	Dyer Road widening between SR-55 NB on ramp and Red Hill Avenue (Phase 2) ³	Santa Ana	\$25,011,301	90%	\$22,510,171
719	Flower Street and Segerstrom Avenue ⁴	Santa Ana	\$712,124	9.6%	\$68,364
10	SR-55 Frontage Road SB Ramps at Paularino ⁵	Costa Mesa	\$1,207,101	2.4%	\$28,970
Cost of Improvements					\$87,283,661
Caltrans agreement roll over **					\$6,585,299
2015 Update IBC Vision Plan Improvement Cost					\$93,868,960

Source: HDR 2015

* Due to close proximity of improvements, for cost development, these two locations were combined and treated as one contiguous corridor on Von Karman Avenue between Alton Parkway and Barranca/Tustin Ranch Road

** Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

¹ Irvine improvements - full financial responsibility to be funded at 90% through IBC Traffic Fee Program funds

² Irvine improvements - remaining Irvine General Plan improvement to be funded at 90% through IBC Traffic Fee Program funds

³ Santa Ana improvements – full or financial responsibility per agreement

⁴ Santa Ana improvements - remaining Irvine General Plan improvement for which City of Irvine has a fair share

⁵ Costa Mesa improvements - remaining Irvine General Plan improvement for which City of Irvine has a fair share financial responsibility

Concept Development and Cost Estimates

Planning level concepts were developed based on publicly available “off the shelf” current aerial imagery. Utility identification, including sewer and overhead electrical lines, were determined to the extent possible from publicly available aerial photography. Length of turn pockets where needed was determined based on traffic data where appropriate. Consistent with the Vision Plan Traffic Fee Nexus Study, cost estimates included provisions for the following:

- Preliminary Project Development
- ROW Management
- Design Engineering/Administration Cost
- Construction Engineering Costs/Administration



- Construction Contingency

3.3 Step 3: Identify Remaining IBC Traffic Fund Revenues and Soft Costs to Determine Total Fee for 2015 Update

Based on the discussion in Section 2.7 and data presented in Table 2.2, an amount of \$19,484,478, (effective IBC Traffic funds available to be applied toward the 2015 Fee Program) was subtracted from the total needs cost of \$93,868,960 shown in Table 3.2.

Other IBC Traffic Fee Program costs, estimated at \$22,315,345 and discussed in detail in Section 2.8 were added to the difference between improvement cost needs and the existing available IBC Traffic Fee Program Fund balance (\$74,348,482). Finally, fees paid and those that will be paid by developers pursuant to their Development Agreements (DAs) in the amount of \$4,003,589, were subtracted from the total value. Table 3.3 summarizes the value for each of the items that determine the final amount of \$92,696,238 that must be programmed into this fee update effort.

Table 3.3: Summary of IBC Traffic Fee Update Cost Elements

Items	Cost
2015 Update IBC Vision Plan Improvement Cost*	\$93,868,960
Existing IBC Traffic Fee Program Funds (amount to be subtracted)	(\$19,484,478)
(Effective) 2015 Updated IBC Vision Plan Improvement Cost	\$74,384,482
Other IBC Traffic Fee Program (Transportation Management Systems, IBC Program Administration, Contingency)	\$22,315,345
Development Agreements (amount to be subtracted)	(\$4,003,589)
Total Amount to be programmed for the 2015 Fee Update	\$92,696,238

* includes Caltrans roll over

Source: HDR 2015

3.4 Step 4: Estimate the Remaining Development subject to 2015 Traffic Fee Update

Based on a thorough review of the City of Irvine IBC database records and Development Agreements (DAs), the remaining developable land uses under the Vision Plan buildout condition were quantified to define appropriate land use fees to fund the transportation improvements identified for this update.

Existing land uses as of the July 31, 2015 snapshot and forecast Year 2035 Vision Plan buildout land uses were applied in the determination of the land use specific traffic impact fees. Consistent with the underlying approach behind the development of the Vision Plan, increases in residential density throughout the IBC result in an overall reduction of non-residential uses (i.e., manufacturing, warehouse and mini-warehouse uses). The Vision Plan approved a residential cap of 15,000 base units plus a maximum potential of 2,038 density bonus units pursuant to state legislation. Based on approvals since 2010 and consistent with the 2015 IBC Traffic Study Update, the total number of density bonus units equals 1,794 DU, less than the 2,038 DU maximum, bringing the total number of DUs to 16,794 DUs, instead of 17,038 DUs assumed in 2010. The 2015 Traffic Fee Nexus Update also assumed that all remaining density bonus units will be charged fees consistent with the market-value base units.



In determining the remaining development subject to traffic impact fees, previous DAs and prepaid fees were considered. In 2005, the City of Irvine included an option for developers to prepay fees for projects under consideration to avoid updated fee adjustments that might occur subsequent to the 2005 update. Developers took advantage of this option and fees were paid for DUs and office equivalency square footage (SF). While there may be prepayment for specific projects that did not move forward based on the past fluctuating economic climate, the prepayment remains valid for future development projects for those identified parcels. As a result, these units and office equivalency SF were excluded from this update. In addition, for the following three developments, fees were paid after the “snap-shot” date for this update (July 31, 2015). Hence, the quantities associated with these developments were included for the 2015 update, however, the prepaid fees from these developments will remain valid and these developments will not be subject to new fees developed through this update.

- 16103 Derian Avenue (formerly 17275 Derian Avenue)
- 360 Fusion (formerly Murphy Apartments, 2852 McGaw Avenue, 17321-17351 Murphy Avenue)
- Main and Jamboree Apartments (2699-2719 White Road, 2772 Main Street)

3.4.1 Dwelling Unit Distribution – 2015 Update

This section presents the status of the maximum allowable dwelling units (DUs) within IBC. The land use assumption for the 2015 IBC Traffic Study Update assumes a total of 7,060 DUs (6,676 base DUs plus 384 density bonus DUs) on the ground in 2015, and 16,794 DUs (15,000 base DUs plus 1,794 density bonus DUs) in buildout Year 2035. Table 3.4 presents a status breakdown of the remaining DUs between Year 2035 and Year 2015. At the time of this update, 122 DUs (60 base DUs and 62 density bonus DUs) did not have a status reported, i.e. were not under construction nor approved or pending. The table indicates that for much of the remaining IBC DUs, fees were prepaid, hence only a few developments remain that will be subject to the updated fees developed as part of this update effort.

Table 3.5 presents the breakdown of land use quantities that will be subject to the updated fee, and **Appendix G** presents details of developments by parcel.



Table 3.4: IBC Dwelling Unit Summary

Base Units	Density Bonus Units	Total	Details
15,000	1,794	16,794	Maximum allowable DUs allowed for IBC Vision Plan Traffic Program
6,676	384	7,060	DUs on the ground in 2015
4,065	23	4,088	<i>DUs Existing at time of approval of Vision Plan</i>
2,611	361	2,972	<i>DUs Existing (on the ground) between 2010 and 2015</i>
Breakdown of Remaining Units between Year 2035 and Year 2015			
Base Units	Density Bonus Units	Total	Details
8,324	1,410	9,734	Remaining DUs between Year 2015 and Year 2035
8,264	1,348	9,612	Total DUs: under construction/approved/pending
2,020	323	2,343	<i>Units Under Construction accounted between 2010 and 2015</i>
836	228	1,064	<i>Units Approved – IBC fees paid between 2010 and 2015</i>
600	148	748	<i>Units Approved – IBC fees paid after 07/31/15 snapshot date</i> <i>16103 Derian Avenue</i> <i>360 Fusion</i> <i>Main and Jamboree Apartments</i>
2,887	312	3,199	<i>Units Approved – no IBC fees paid</i>
8	0	8	<i>Units Approved - fees paid prior to 2010</i>
1,913	337	2,250	<i>Units In Process / Pending - no fees paid</i>
60	62	122	DUs not associated with known projects*

*as of the snapshot date of July 31, 2015

Source: City of Irvine



Table 3.5: Future Land Use Intensity Subject to the Updated Traffic Fee

	Base (DU)	Density Bonus (DU) *	TOTAL (DU)	Extended Stay (Rooms)	Hotel (Rooms)	Retail Mix (Sq. ft.)	Office (Sq. ft.)	Industrial Mix (Sq. ft.)	Mini Ware- House (Sq. ft.)
2010 Baseline (for reference)	4,779	232	5,011	174	2,322	1,341,002	174	14,700,922	348,056
2015 Baseline (on the ground conditions) ¹	6,676	384	7,060	474	2,322	1,384,000	26,639,000	13,934,000	379,000
2035 Buildout Cumulative with Project	15,000	1,794	16,794	1,049	2,653	1,690,000	34,286,000	12,339,000	549,000
Remaining Development (2015 to 2035)	8,324	1,410	9,734	575	331	306,000	7,647,000	-1,595,000	170,000
Central Park West and Park Place Development (not subject to updated fee per their individual DAs)	2,277	128	2,405	0	0	149,250	2,674,820	0	0
ADJUSTED Remaining Development between 2015 and 2035 (quantities reflect subtraction of intensity related to Central Park West and Park Place DAs) ²	6,047	1,282	7,329	575	331	156,750	4,972,180	-1,595,000	170,000
Other Developments with prepaid fees prior to 07/31/15 snapshot date	1,987	423	2,410	161	0	3,224	0	0	0
REMAINING DEVELOPMENT SUBJECT TO UPDATED TRAFFIC FEE ³	4,060	859	4,919	414	331	153,526	4,972,180	-1,595,000	170,000
LAND USE BREAKDOWN									
DEVELOPMENT AGREEMENTS									
Central Park West									
Existing (Fees Paid)	646	0	646	0	0	0	0	0	0
Under Construction (Fees Paid)	16	0	16	0	0	0	0	0	0
Approved (Fees not paid)	613	0	613	0	0	26,688	0	0	0
TOTAL	1,275	0	1,275	0	0	26,688	0	0	0
Park Place									
Existing (Fees Paid)	1,442	232	1,674	0	190	0	0	0	0
Under Construction (Fees Paid)	861	128	989	0	0	0	0	0	0
Approved (Fees not paid)	787	0	787	0	0	122,562	2,674,820	0	0
TOTAL	3,090	360	3,450	0	190	122,562	2,674,820	0	0



Table 3.5: Future Land Use Intensity Subject to the Updated Traffic Fee

	Base (DU)	Density Bonus (DU) *	TOTAL (DU)	Extended Stay (Rooms)	Hotel (Rooms)	Retail Mix (Sq. ft.)	Office (Sq. ft.)	Industrial Mix (Sq. ft.)	Mini Ware- House (Sq. ft.)
OTHER DEVELOPMENTS (INCLUDES HINES, AVALON BAY, ALTON CONDOS DAs)									
<i>Approved (Fees Paid prior to 2010)</i>	8		8						
<i>Existing (Fees Paid)</i>	523	129	652	290	0	0	415,696	40,753	257,525
<i>Under Construction (Fees Paid)</i>	1,143	195	1,338	161	0	3,224	0	0	0
<i>Approved (Fees Paid)</i>	836	228	1,064	0	0	0	0	0	0
<i>Demolished/Pending Demo (Fees not paid)</i>	0	0	0	0	0	0	41,609	248,246	0
<i>In Process / Pending (Fees not Paid)</i>	1,913	337	2,250	0	0	0	0	0	0
<i>Approved (Fees Paid after 07/31/15) ⁴</i>	600	148	748	0	0	0	0	0	0
<i>Approved (Fees not paid)</i>	1,487	312	1,799	0	0	15,500	785,000	0	0
TOTAL	6,510	1,349	7,859	451	0	18,724	1,242,305	288,999	257,525

Source: City of Irvine

* Density Bonus Units will be charged fees consistent with the market value

¹ Quantities includes land use that was on the ground prior to 2015² Backing out quantities for CPW and Park West (only "Under Construction" and "Approved")³ Obtained by subtracting quantities that are either "Under Construction" or "Approved" for which fees are already paid⁴ Developments that paid fees after the July 01, 2015 deadline. Hence the fees and associated LU intensity will be included in the fee calc, but these developments will not be subject to new 2017 fees

The remaining quantities of land use subject to the updated fees were determined based on the following procedures, with an example provided in Table 3.6 relating to the residential base units:

- 1: Calculate difference in land use quantities between Year 2015 and Year 2035.
- 2: Calculate land use quantities for Central Park West and Park Place DAs (see Section 2.9 for discussion) to be subtracted from the first procedure above.
- 3: Calculate quantities of land use from other developments where the developer has prepaid IBC fees within the "snap shot" period for this update, for subtraction from the second procedure above. For the three developments where fees were paid after the "snap shot" deadline, the quantities were included for the calculation, but these developments will not be subject to new fees.
 - Any quantities designated as "existing" in Table 3.5 and Table 3.6 were not subtracted because they were included in the quantities that represent Year 2015 on the ground conditions.



Table 3.6: Example Procedures to Determine Land Use Subject to Updated Fee

Procedure	Land Use Description	Quantities	Calculation
1.	Residential Land Use considered for 2015 Baseline	6,676 DU	15,000 – 6,676 = 8,324 DU
	Residential Land Use considered for 2035 Buildout	15,000 DU	
2.	Development Agreements (note: “existing” quantities were not subtracted because these are already included in the 2015 on the ground conditions (Baseline)) <u>Central Park West: 1,275</u> <i>Existing: 646 (not included in this calculation)</i> <i>Under Construction: 16</i> <i>Approved: 613</i> <u>Park Place: 3,090</u> <i>Existing: 1,442 (not included in this calculation)</i> <i>Under Construction: 861</i> <i>Approved: 787</i>	(16+613) + (861+787) = 2,277 DU	8,324 – 2,277 = 6,047 DU
	Other Developments (note: “existing” quantities were not subtracted because these are already included in the 2015 on the ground conditions (Baseline); developments that paid fees after the 07/31/15 snapshot date were not subtracted) <i>Approved (fees paid prior to 2010): 8</i> <i>Existing: 523 (not included in the calculation)</i> <i>Under Construction (Fees Paid): 1,143</i> <i>Approved (Fees Paid): 836</i> <i>Demolished/Pending Demo (Fees not paid): 0</i> <i>In Process / Pending (Fees not Paid): 1,913</i> <i>Approved (Fees Paid after 07/31/15): 600</i> <i>Approved (Fees not paid): 1,487</i>	8+1,143+836 = 1,987 DU	
3.			6,047 – 1,987 = 4,060 DU

Source: City of Irvine, HDR

3.5 Step 5: Estimate of Total Development Intensity Value (DIV)

Since 1992, the IBC study area has had provisions in place to allow for Transfers of Development Rights (TDRs) through the creation of a Development Intensity Value (DIV) budget system in which an allocation of AM, PM and ADT DIVs are assigned to each property in the IBC. These DIVs must be transferred in blocks (AM, PM and ADT) to other properties through a conditional use permit process and accompanying traffic study. The total DIVs associated with the remaining development required for full buildout of the Vision Plan was calculated by applying the IBC trip generation rates to the land use quantities.

Table 3.7 presents the established DIV rates applied in this update and is consistent with those used for the Vision Plan Traffic Fee Nexus Study. Based on the remaining development subject to the updated traffic fee determined in Section 3.4, Step 4, multiplied by the IBC DIV rates, the total DIVs equate to 10,263 (refer to Table 3.8). Consistent with the methodology used for the Vision Plan Traffic Fee Nexus Study and previous IBC fee reports, the PM peak hour DIV rates were applied for all land uses because for a majority of the land uses, the PM peak hour rate is the maximum DIV rate. The PM peak hour rates represent the maximum DIV rate for all IBC land use categories with the exception of industrial and mini-warehouse uses; however for those uses, the DIV rates are significantly less in comparison to the other land uses.



Table 3.7: IBC Land Use DIV Rates

Trip Rate	Residential (per DU)	Extended Stay (per Room)	Hotel (per Room)	Retail Mix (per sq. ft.)	Office (per sq. ft.)	Industrial Mix (per sq. ft.)	Mini Warehouse (per sq. ft.)
PM Peak Hour	0.52	0.42	0.68	0.00696	0.00138	0.00042	0.00027

Source: City of Irvine, ITE, Table 4, IBC Vision Plan Traffic Fee Nexus Study, January 2011

The Vision Plan utilizes a flexible zoning concept, meaning that to account for the planned increase in residential units under the Vision Plan, quantities of planned land uses from other categories such as manufacturing and their associated development intensity would be reduced. This is the reason for the negative quantities (see row "Remaining Development (2015 to 2035)") identified in Table 3.5 and Table 3.8. If the quantities of land uses that were assumed to be developed under the IBC Vision Plan do not develop as planned, the PM peak hour trips associated with those land uses will be available for use for other types of development.

The Vision Plan is an overlay zone that allows for flexibility in land use development. Once the development intensity available in the IBC (identified in Chapter 9-36 of the Zoning Ordinance) is exhausted, no additional development can take place without a General Plan Amendment that intensifies the IBC planning area. The City of Irvine continues to monitor the development patterns in the IBC annually to evaluate how the Vision Plan is taking shape, to ensure that there is sufficient development intensity for the maximum assumed residential and mixed-use development. Subsequent to this update, the reassessment of the IBC Vision Plan Traffic Study will be conducted every two years, with the next update commencing in Fall 2017.

3.6 Step 6: Normalization of Retail and Office Land Uses

In accordance with established precedent in the City and consistent with the mixed-use vision, to encourage additional commercial and retail development in the IBC, the office and retail mix land uses have been normalized in the calculation of remaining developments subject to fee. Because the retail mix land use PM peak hour trip rate is significantly higher (over 5 times higher – 0.00696 for retail mix; 0.00138 for office) than the office land use, the fees for retail mix development are normalized, creating a fee structure in which retail mix and office square footage cost is equivalent. Table 3.8 identifies the normalization of DIVs and land use for office and commercial land uses.

3.7 Step 7: Estimate Cost per DIV

The cost associated per DIV to implement the Vision Plan improvements was calculated by dividing the total program cost by the total number of normalized DIVs that must participate in the funding program. Table 3.9 estimates that the cost per DIV will be \$9,032.09. Table 3.10 presents the maximum development fees for each land use category through application of the cost per DIV to the normalized DIVs associated with each category.



Table 3.8: IBC Total DIVs

Land Use	Unit	Remaining Development Subject to Updated Fee	DIVs (rounded)	Remaining Development Subject to Updated Fee (normalized quantities)	Normalized DIVs (rounded)
Residential *	DU	4,919	2,558	4,919	2,558
Extended Stay	Rooms	414	174	414	174
Hotel	Rooms	331	225	331	225
Retail Mix	Sq. Ft.	153,526	1,069	2,562,853	3,965
Office	Sq. Ft.	4,972,180	6,862	2,562,853	3,965
Industrial Mix **	Sq. Ft.	-1,595,000	-670	-1,595,000	-670
Mini-Warehouse	Sq. Ft.	170,000	46	170,000	46
TOTAL DIVs			10,263		10,263

Source: HDR

* includes Base and Density Bonus Units, since Density Bonus Units will be charged as market (Base) units

** includes manufacturing and warehouse sq. ft.

Table 3.9: Cost Estimate per DIV

Total Traffic Fee Program Cost	\$92,696,238
Total number of DIVs generated	10,263
Cost per DIV	\$9,032.08

Source: HDR

**Table 3.10: Traffic Fee Estimates for each Land Use Category**

Land Use	Unit	Remaining Development Subject to Updated Fee (normalized quantities) *	Cost per DIV (rounded)	Normalized DIVs (rounded)	Development Fees (Maximum)
Residential	DU	4,919	\$9032.08	2,558	\$23,104,061
Extended Stay	Rooms	414	\$9032.08	174	\$1,571,582
Hotel	Rooms	331	\$9032.08	225	\$2,032,218
Retail Mix	Sq. Ft.	2,562,853	\$9032.08	3,965	\$35,812,197
Office	Sq. Ft.	2,562,853	\$9032.08	3,965	\$35,812,197
Industrial Mix ***	Sq. Ft.	-1,595,000	\$9032.08	-670	-\$6,051,494
Mini Warehouse	Sq. Ft.	170,000	\$9032.08	46	\$415,476
TOTAL				10,263	\$92,696,238

Source: HDR

* Obtained from Table 3.8

** includes Base and Density Bonus Units, since Density Bonus Units will be charged as market (Base) units

*** includes manufacturing and warehouse sq. ft.

3.8 Step 8: Estimate Cost per Development Unit

To establish the cost per development unit, the maximum fees associated with each land use determined in Section 3.7, Step 7 are divided by the quantity associated with each land use category. Table 3.11 represents the fee per measurable unit for each land use category.

Table 3.11: Traffic Fee Summary

Land Use	Unit	Remaining Development Subject to Updated Fee	Remaining Development Subject to Updated Fee (normalized quantities)	Development Fees (Maximum)	Updated Fee ***
Residential	DU	4,919	4,919	\$23,104,061	\$4,697
Extended Stay	Room	414	414	\$1,571,582	\$3,796
Hotel	Room	331	331	\$2,032,218	\$6,140
Retail Mix	Sq. Ft.	153,526	2,562,853	\$35,812,197	\$13.97
Office	Sq. Ft.	4,972,180	2,562,853	\$35,812,197	\$13.97
Industrial Mix **	Sq. Ft.	-1,595,000	-1,595,000	-\$6,051,494	\$3.79
Mini-Warehouse	Sq. Ft.	170,000	170,000	\$415,476	\$2.44
				\$92,696,238	

Source: HDR 2015

* Includes Density Bonus Units that will be charged fees at the same rate as Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018



Table 3.12 presents a fee comparison between the 1992 fees (at the onset of the IBC Traffic Fee Program), 2009 fees (developed through annual adjustments of the 1992 fee), 2010 fees (developed as part of the Vision Plan), 2016 fees (currently what the City charges developers – this is developed by applying annual adjustments to the 2010 fee) and proposed updated fees.

Table 3.12: IBC Fee Comparison

Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential	DU	\$3,734	\$7,175	\$1,862	\$2,254	\$4,697	2.08
Extended Stay	Rooms	\$3,016	\$5,795	\$1,503	\$1,820	\$3,796	2.09
Hotel	Rooms	\$4,883	\$9,383	\$2,435	\$2,947	\$6,140	2.08
Retail Mix	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Office	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Industrial Mix **	Sq. Ft.	\$3.30	\$5.85	\$1.50	\$1.82	\$3.79	2.08
Mini Warehouse	Sq. Ft.	\$1.85	\$3.55	\$0.97	\$1.17	\$2.44	2.09

Source: HDR 2015, City of Irvine

* Includes Density Bonus Units charged fees consistent with Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018

As can be seen in Table 3.12, the proposed fee is significantly higher than the 2010 and 2016 fees. There are a few reasons behind this increase: (a) new improvements and increases to cost of improvements, (b) fewer developments remaining that are subject to updated fees, and (3) lower remaining funds in the IBC Traffic Fee Program.

Significant Increase in Improvement Costs between 2010 and 2016

- Unit costs have increased moderately between 2010 and 2016 (when the cost estimates were developed), contributing to increase of project cost.
- Increase of right of way (ROW) support costs from 5% to 10% of construction costs, based on current trends in ROW acquisitions, have significantly increased the costs for improvements that require ROW acquisitions.
- New improvements were identified in the 2015 IBC Traffic Study Update that had not been identified in the Vision Plan Traffic Study including:
 - Von Karman/Tustin Ranch Road at Barranca Parkway and Von Karman Avenue at Alton Parkway: Although identified as two separate deficient intersections, based on the geometrics of improvements, the proximity of these adjacent intersections and the efficiency of traffic flow between them, the cost estimate considered this improvement as a corridor improvements that considered widening of Von Karman Avenue between Barranca Parkway and Alton Parkway.
 - Loop Road/Park Avenue at Warner Avenue
 - Jamboree northbound ramps at Warner Avenue
 - Culver Drive at Alton Parkway



- Increases in costs were identified for a few improvements previously identified in the 2010 IBC Traffic Fee Nexus Study. These are briefly discussed below:
 - Alton Overcrossing at SR-55: The Vision Plan Traffic Fee Nexus Study included an estimate of \$17.5 million (50% of a total \$35 million cost) as the City of Irvine's fair-share contribution pursuant to the agreement with Santa Ana. However, for this update, the total cost has increased to \$60 million, resulting in City of Irvine's fair-share contribution of \$30 million (50% of the total \$60 million cost). This approximate two-fold increase in cost is attributable to the project's current definition which includes additional improvements that must be included as part of the City of Santa Ana's Alton Overcrossing at SR-55 Capital Improvement Program (CIP) project based on an updated traffic study⁶ conducted by the City of Santa Ana in 2010. The cost estimate for this Overcrossing project (without the additional improvement costs) was updated in 2014 and was estimated at \$55.5 million. As part of the 2015 IBC Traffic Fee Nexus Update, the cost estimate at this location was developed considering the \$55.5 million estimated cost plus the cost of the additional improvements resulting from Santa Ana's 2010 traffic study including improvements at intersection #44: Red Hill Avenue at Alton Parkway; signalization and widening of Halladay Street at Alton Parkway; and signalization at Daimler Street at Alton Parkway).
 - Widening of Dyer Road between SR-55 NB on-ramp and Red Hill Avenue: The cost included in the Vision Plan Traffic Fee Nexus Study was \$9 million (90% of a total estimated \$10 million) based on the Barranca Parkway/Dyer Road Project Report⁷ prepared in 2004. With this update, the cost for this improvement increased significantly to \$22.5 million (90% of a total cost of \$25 million). The Project Report was revisited to ensure that the cost estimates reflected the continuation of the Class II bike lanes on either side of Dyer Road/Barranca Parkway between Red Hill Avenue and the SR-55 NB on-ramp. The necessary widening of Barranca Parkway/Dyer Road will result in partial takes of three properties located (1) west of the railroad tracks and south of Dyer Road; (2) west of Pullman Street and south of Dyer Road; and (3) west of Pullman Street and north of Dyer Road. The partial takes of these properties and the cost for Class II bike lanes add significant costs to the project.
 - Widening of Red Hill Avenue between Main Street and MacArthur Boulevard: For this update, the cost estimate for this improvement (90% of cost) is significantly higher (\$18.4 million in 2016, vs. \$8.7 million in 2010) due to higher ROW costs, and is attributable to the inclusion of the bike lanes on either side of Red Hill Avenue.

Fewer number of Remaining Development Units and Square Footage Subject to Fee

- As the Vision Plan gets implemented, the number of developable units remaining decreases, resulting in fewer quantities of land use subject to updated fees.
- Since 2005, developers have been taking advantage of the option of prepayment of fees for projects under consideration (see discussion in Section 3.4), thereby further reducing the developable units (residential and non-residential) subject to fee. A comparison with the Vision Plan Traffic Fee Nexus Study shows that the total number of DIVs in 2010 were 17% higher than in 2015, or in other words, the quantity of remaining

⁶ Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, KOA Corporation, 2010

⁷ Project Report for the Dyer Road/Barranca Parkway Improvements (State Route 55 to Aston Street), RBF Consulting, 2004



developable units and square footage in 2010 was greater than in 2015. The combination of developable units subject to fee and the higher cost of improvements contribute towards higher fees.

Lesser Remaining Available IBC Traffic Fund Balance

- The Vision Plan Traffic Fee Nexus Study recommended removal of several improvements originally identified in 1992 because they were deemed unnecessary. This resulted in a significant reduction of fees as can be seen in Table 3.12 (2009 vs. 2010). Hence between 2010 and 2015, the rate at which fees were imposed was lower than the pre-2010 years.
- Subsequent to the adoption of the Vision Plan, large sums of payouts were made to the Cities of Newport Beach (\$3.65 million) and Tustin (\$4.5 million), per the agreements between the Cities and City of Irvine (see Section 2.1 and Section 2.2).
- In addition, a sizeable amount of IBC Traffic Fee funds (\$27.4 million – see Table 2.2) are allocated to implement CIP projects identified in the Vision Plan Traffic Study (improvements at the intersections of Jamboree Road at Main Street, Jamboree Road at Barranca Parkway, and the pedestrian bridge at the intersection of Jamboree Road at Michelson Drive). Lower collection rates and a higher allocation of funds to the CIP projects have led to a significantly smaller amount (\$19.5 million) of remaining available Vision Plan Traffic Fee Program funds rolled over in this update as compared to 2010. Although the updated fee is higher than 2010, it still remains about 31%-35% lower than what was being charged in 2009.



4 Establishing Nexus

Section 1, Introduction discussed the requirement for a fair-share nexus between the mitigation requirements of the EIR and the traffic fees associated with the necessary mitigation improvements. The introduction further indicated a requirement to substantiate this nexus based on the adopted State legislation to ensure that fees collected are associated with development impacts and the physical improvements. The following statements fulfill the nexus requirements.

4.1 Identify the Purpose of the Impact Fee

The purpose of the 2015 IBC Traffic Fee Nexus Update is to:

- Clearly identify a fee rate to mitigate project related impacts within the IBC study area to an acceptable level of service.
- Mitigate the traffic impacts of new development within the IBC Vision Plan area under the expected buildout commensurate with the EIR Traffic Impact Mitigation Measures under CEQA and other agreements through which a fair-share of improvement costs have been contractually identified in an arms length negotiation.

The 2015 IBC Traffic Study Update evaluated the circulation system of the IBC study area under With and Without Project conditions. The study accounted for approved and pending projects within the IBC study area and forecast regional growth in both interim-year 2020 and Post-2035 buildout conditions. The Without Project conditions for each scenario assumed existing 2015 on-the ground development. The With Project conditions for each scenario included expected development within the IBC area, including the addition of residential DUs through the conversion of non-residential office equivalency square footage as identified in the traffic study.

Utilizing the intersection capacity utilization (ICU) analysis that measures peak hour intersection capacity and performance to assess impacts, the 2015 IBC Traffic Study Update identified project impacts at locations within and outside the City of Irvine, based on the City's TIA guidelines (2004) and those set by each of the affected jurisdiction/agencies (Caltrans and the cities of Newport Beach, Tustin, Santa Ana, Costa Mesa). For details on project-related thresholds, refer to the 2015 IBC Traffic Study Update⁸. As the traffic impacts are the responsibility of the project under CEQA, it is the responsibility of the project to mitigate the project impacts or contribute its fair-share towards each improvement. Thus, the Vision Plan is responsible for mitigating all the project traffic impacts to an acceptable level of service or to existing conditions performance levels. All future development under the Vision Plan will contribute to future circulation system impacts identified in the traffic study and will pay for the necessary improvements to deliver an acceptable level of service.

4.2 Identify the Use of the Impact Fee

The use of the proposed fee is the following:

- To fund the Vision Plan circulation improvements within the City of Irvine.
- To fund improvements to the State Highway System that will contribute to enhanced operations.
- To compensate adjacent jurisdictions for traffic impacts as a result of implementation of the Vision Plan.

The traffic fee will be used to mitigate traffic impacts from the buildout of the Vision Plan both within Irvine and in neighboring jurisdictions/agencies. The fee will be used to pay for improvements that accommodate residential

⁸ Irvine Business Complex Vision Plan – 2015 Five-Year Traffic Study Update, Iteris, HDR, 2016



intensity increases within the IBC. Without the improvements, the project impacts would not be mitigated as necessary.

4.3 Determine Reasonableness Relationships

As discussed in Section 1.2, *Purpose of the 2015 Update to the Vision Plan Nexus Study*, California's Mitigation Fee Act creates the legal framework for local governments to assess new fees toward future development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must establish a "nexus" or reasonable relationship between a proposed fee and the impacts attributable to the developments paying the fee:

4.3.1 Reasonableness Between Use of Fee and the Type of Development on which the Fee is imposed

- IBC fees will be applied directly to the funding needs for each identified improvement within the City of Irvine and towards any pending financial obligation determined through existing agreements with adjacent jurisdictions regarding Vision Plan traffic impacts.
- IBC fees are collected from new development within the IBC that directly increases traffic on IBC study area roadways and impacts the circulation system component identified in the 2015 IBC Traffic Study Update.
- The 2015 IBC Traffic Study Update identifies the additional traffic volumes generated by new IBC development.
- Project-related fair-shares developed as part of the 2015 IBC Traffic Fee Nexus Update document the proportional responsibility of the project to traffic impact funding requirements.

The fees will be used to construct the improvements that will enable the circulation system to function at acceptable levels of service in Irvine and in adjacent jurisdictions.

4.3.2 Reasonableness Between Need for the Improvements and the Type of Development on which Fee is imposed

- As the IBC continues to develop, increasing traffic will necessitate improvements throughout the study area to maintain efficient circulation.
- Without implementation of project-related improvements, the circulation system will continue to deteriorate as new development compounds traffic operations deficiencies on the roadway network.

The fee collected is based on the forecasted number of trips the proposed development will generate at buildout. The need for the improvements is based on the analysis presented in the 2015 IBC Traffic Study Update. The fee is associated directly with new development within the IBC and the number of total peak hour trips that the new development is expected to generate. As the Vision Plan area develops, fees will be collected and improvements constructed to keep pace with new development, providing a circulation system throughout the IBC that operates at an acceptable level of service.

4.3.3 Reasonableness Between Amount of the Fee and Cost of Public Good (IBC Transportation Needs) attributable to the Type of Development

- Development fees have been defined based on funding of the City of Irvine's fair-share responsibility of the Vision Plan improvements outside the City within the Vision Plan study area, and 90% of the City of Irvine's responsibility for improvements within the City of Irvine. It is assumed that outside funding sources, including federal, state and county grants, can supplement the remaining 10% of development fees to implement improvements within the City of Irvine.



- The fee is supported by all new development at a rate that reflects the relative traffic impact of that development.
- The amount of the fee is directly related to the level of development associated with each new IBC project. The calculation of the impact fee is based upon the recognition that differing types of developments generate differing amounts of trips. The fee is based on the forecasted number of peak trips generated by the proposed development projects.

The total fee includes a program administration fee. This administration fee is required to ensure that the program functions properly and the traffic improvements are implemented appropriately.

To further demonstrate reasonableness of the fees, the updated IBC Transportation fees were compared with another major activity center in Orange County, the Platinum Triangle in Anaheim, California. Table 4.1 compares traffic fees imposed on developments within the Platinum Triangle with those proposed for IBC, in this update.

Table 4.1: Traffic Fee Comparison between Platinum Triangle and IBC

Land Use	Unit	Anaheim Citywide Fee *	Platinum Triangle Supplemental Fee *	Platinum Triangle Total Fee	IBC Updated Traffic Fee **
Residential	DU	\$2,029	\$3,702	\$5,731	\$4,697
Extended Stay	Room				\$3,796
Hotel	Room	\$1,474		\$1,474	\$6,140
Retail Mix	Sq. Ft.	\$5.50	\$50.00	\$55.50	\$13.97
Office	Sq. Ft.	\$3.67	\$12.00	\$15.67	\$13.97
Industrial Mix **	Sq. Ft.	\$1.42	\$3.00	\$4.42	\$3.79
Mini-Warehouse	Sq. Ft.				\$2.44

Source: HDR 2015, City of Anaheim

* City of Anaheim Fee Schedule (<http://www.anaheim.net/DocumentCenter/View/202>)

** Effective FY 2017-2018



5 Conclusion

This 2015 IBC Traffic Fee Nexus Update has been prepared to reiterate the “nexus” for the development fees needed to fund necessary improvements to the circulation system. The updated traffic fee rates will be effective in the upcoming FY 2017-18. As noted in the Vision Plan EIR, there are overriding considerations for jurisdictional circulation system improvements outside the City of Irvine. As these improvements are not under the City of Irvine’s jurisdiction, the City cannot guarantee that these improvements are implemented. However, it is the responsibility to contribute fair-share to the improvements through traffic impact fees in order to fund the improvements within these adjacent jurisdictions. During the development of the IBC Vision Plan, the City reached agreements with Newport Beach, Tustin and Caltrans, and amended an existing agreement with Santa Ana regarding its financial responsibilities to mitigate traffic impacts in each jurisdiction due to the buildout of the Vision Plan.

Since 2010, through the agreements with the Cities of Newport Beach and Tustin, the City of Irvine paid Tustin and Newport Beach a combined amount of \$8.15 million as its fair-share, and thereby, has been absolved from any future fair-share contribution provided the City does not exceed its maximum cap on residential units of 15,000 base dwelling units (plus 1,794 density bonus dwelling units pursuant to state law.) For Caltrans, the City of Irvine is obligated to provide, through IBC fee collection, a total amount of \$7,025,962, when the agency proceeds with the implementation of improvements at its impacted facilities. Currently the IBC fund has earmarked \$440,663 towards that payment. Based on the amended agreement with Santa Ana, the City of Irvine is obligated to contribute \$52,670,912 towards three improvements in Santa Ana (widening of Dyer Road, Alton Parkway Overcrossing at SR-55, and Flower Street at Segerstrom Avenue). The agreement with Costa Mesa was not revised and the City of Irvine, through the proposed fee, will collect an amount of \$28,970 to contribute towards the improvement at SR-55 Frontage Road SB Ramps at Paularino Avenue.

Based on this update, the proposed fees are significantly higher than the current 2016 fees due to several factors which include additional improvement locations, significant increases in improvement costs between 2010 and 2015, fewer number of remaining developments that will share the cost of the improvements and a lesser amount of remaining available IBC funds that can be applied towards the improvements. However, even with the increased fees, they remain about 30%-35% lower than the 2009 IBC traffic fees, in-place prior to the adoption of the Vision Plan in 2010.



Appendix A: 2009 Settlement Agreement between City of Irvine and City of Newport Beach

SETTLEMENT AGREEMENT AND MUTUAL RELEASE OF CLAIMS

This Settlement Agreement and Mutual Release of Claims ("Agreement and Release") is made and entered into as of November 24, 2009 (the "Effective Date") by and between the CITY OF NEWPORT BEACH ("Newport Beach"), a California municipal corporation, and the CITY OF IRVINE ("Irvine"), a California municipal corporation. Newport Beach and Irvine are sometimes referred to in this Agreement and Release individually as a "Party" and collectively as the "Parties."

Recitals

A. Newport Beach is a petitioner and plaintiff in the below-described legal actions commenced and pending against Irvine, which are sometimes referred to collectively as the "Actions."

1. On April 26, 2007, Newport Beach and the City of Tustin ("Tustin") filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)*, bearing Case No. 07CC01264. This action challenges Irvine's approval of the 82-unit Martin Street condominium project, situated within the Irvine Business Complex ("IBC"), and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Newport Beach and Tustin and against Irvine, and subsequently awarded attorneys' fees in favor of Newport Beach and Tustin and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040749 and G041113).

2. On April 26, 2007, Newport Beach and Tustin filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, bearing Case No. 07CC01265. This action challenges Irvine's approval of the 170-unit 2851 Alton condominium project, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Newport Beach and Tustin and against Irvine, and subsequently awarded attorneys' fees in favor of Newport Beach and Tustin and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040757 and G041107). Real party in interest Alton Associates has also appealed the judgment (Court of Appeal Case No. G040759) ("Alton Associates Appeal").

3. On December 12, 2008, Newport Beach and Tustin filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC. This action challenges Irvine's approval of a multi-phase project consisting of up to 785,000 square feet of office space and 15,500 square feet of retail/restaurant space, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. This action is still pending in the Superior Court and no final disposition has occurred.

4. On April 29, 2009, Newport Beach and Tustin filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC. This action challenges Irvine's approval of a Zoning Code Technical Update, including a new Accessory Retail Business designation as a permitted use within the IBC, and Irvine's determination that the approval was exempt from review under the California Environmental Quality Act ("CEQA"), codified as Public Resources Code section 21000 *et seq.* This action is still pending in the Superior Court and no final disposition has occurred.

B. The Parties mutually desire to enter into this Agreement and Release to achieve a full and complete resolution of all claims arising from or relating to the disputes between them concerning the Actions and the subject matters raised and implicated by the Actions.

NOW, THEREFORE, in consideration of the facts recited above, and the covenants, conditions and promises set forth below, the Parties agree as follows:

Agreement and Release

1. **Recitals Incorporated.** The Foregoing Recitals are incorporated herein and made a part of this Agreement and Release.

2. **Dismissal of Trial Court Actions.** Within ten (10) business days of the Effective Date of this Agreement and Release, Newport Beach shall personally deliver to Irvine's counsel properly completed and executed Requests for Dismissal with prejudice of the entire action as to Newport Beach only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC, and *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC, as further described in paragraphs A.3 and A.4 above.

3. **Dismissal of Court of Appeal Actions.**

A. **Irvine Appeals.** Within five (5) business days of the Effective Date of this Agreement and Release, Newport Beach and Irvine shall file a Stipulated Request for Dismissal of the appeals as to Newport Beach only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)* and *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, as further described in paragraphs A.1 and A.2 above. Each Stipulated Request for Dismissal shall provide that upon remand of such portion of the Action to the Superior Court following issuance of a remittitur, Newport Beach and Irvine will file a stipulation for the vacation of the judgments and orders that are the subject of the appeal and for the dismissal with prejudice of the entire action as to Newport Beach only. Such stipulation shall also include an agreement that Newport Beach and Irvine shall each bear its own attorneys' fees and costs, and that for purposes of Newport Beach's attorneys' fees and costs, such amount would be fifty percent (50%) of the total amount of fees and costs, whether or not awarded, incurred by Newport Beach and Tustin jointly up to the date of the entry of dismissal.

B. Alton Associates Appeal. If Alton Associates agrees, within five (5) business days of the Effective Date of this Agreement and Release, or as soon thereafter as reasonably practicable, Newport Beach, Alton Associates and Irvine shall file a Stipulated Request for Dismissal of the appeal as to Newport Beach only for the Alton Associates Appeal. The Stipulated Request for Dismissal shall provide that upon remand of such portion of the Alton Associates Appeal to the Superior Court following issuance of a remittitur, Newport Beach, Alton Associates and Irvine will file a stipulation for the vacation of the judgment and orders that are the subject of the Alton Associates Appeal and for the dismissal with prejudice of the entire action as to Newport Beach only. Alton Associates must agree to bear its own attorneys' fees and costs in the action and the appeal. This Agreement and Release is conditioned upon the agreement of Alton Associates to take the action reflected in this paragraph. If Alton Associates does not agree to take this action, this Agreement and Release is void and without force or effect.

C. Forbearance. In addition to the obligations set forth above in this paragraph, Newport Beach shall not take or cause to be taken any actions to enforce or facilitate the enforcement of the judgments and orders issued in any of the Actions.

4. **Agreement Not To Bring Further Challenges; Agreement to Cooperate.** The Parties, and each of them, shall not initiate, join, participate in, provide funding to or assist any third party in the initiation or participation in, any legal or administrative action or proceeding challenging any of the following:

A. The approval of land use and development entitlements (including but not limited to tentative and final subdivision maps, conditional use permits, lot line adjustments, and grading and building plans and permits) for any development project in the other Party's city, so long as the project substantially conforms to the other Party's applicable General Plan, inclusive of any current formally submitted proposed amendments to Newport Beach's General Plan and the currently forecast development in Irvine's draft IBC Vision Plan. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Newport Beach to not challenge the IBC Vision Plan as set out on this paragraph 4 is conditioned upon Irvine's adoption of the IBC Vision Plan alternative that provides for no greater than 15,000 residential dwelling units, excluding those units allowed as a matter of state law mandates (e.g., density bonus requirements), within the IBC.

B. The final approval of Irvine's IBC Vision Plan (including but not limited to the substance, merits, nature, scope, methodology, assumptions, analyses or conclusions) so long as such final plan substantially conforms to Irvine's draft IBC Vision Plan. In this regard, the Parties acknowledge and agree that the draft IBC Vision Plan may be modified as necessary to reflect the land use changes generally described in Exhibit A to that certain Settlement Agreement and Mutual Release between Allergan, Inc. and Irvine and the City Council of the City of Irvine, dated on or about August 18, 2009 ("Allergan Settlement Agreement"), a copy of which is appended as Exhibit "1" to this Agreement and Release and is hereby incorporated by this reference, and further acknowledge and agree that such land use changes are generally consistent with Irvine's draft IBC Vision Plan. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Newport Beach to not challenge the IBC Vision Plan

as set out on this paragraph 4 is conditioned upon Irvine's modification of the IBC Vision Plan in a manner consistent with the Allegan Settlement Agreement.

C. The final approval of any current formally submitted proposed amendments to Newport Beach's General Plan and further including a technical modification of the Newport Beach General Plan for development in the Airport Business District to allow for the park in the Conexant project to be bounded on two sides by a public road.

D. Adjustments to the IBC Transportation Development Fee Program, provided that such adjustments are not in conflict or inconsistent with the provisions of or any obligations under this Agreement and Release.

E. Approval or implementation of any transit and/or transportation improvements supporting development activities in the IBC substantially conforming to the IBC Vision Plan.

F. Any determination under CEQA with respect to any of the foregoing.

The Parties, and each of them, further agree to cooperate in timely seeking and providing comments, both verbal and in writing, to each other on any proposed changes in their respective planning documents prior to any such change being presented to the respective decision-making body.

5. **Payment of Traffic/Transportation Impact Mitigation Fees.** Within twenty (20) business days of the Effective Date of this Agreement and Release, Irvine shall pay Newport Beach, and Newport Beach agrees to accept and expend, the sum of Three Million Six Hundred Fifty Thousand Dollars (\$3,650,000.00) to be used exclusively for the engineering, design and appropriately-timed construction of traffic and transportation improvements situated within the City of Newport Beach portion of the Traffic Study Area that was utilized in the previously circulated Draft Environmental Impact Report for the IBC Vision Plan ("Traffic Study Area"), such expenditures to be as deemed appropriate by Newport Beach in its sole discretion to improve traffic conditions in the Traffic Study Area as necessitated by development in the IBC. A map depicting and describing the Traffic Study Area is appended as Exhibit "2" to this Agreement and Release and is hereby incorporated by this reference. The Parties acknowledge and agree that Irvine's contribution of the sum set forth above shall and does constitute Irvine's fair share obligation toward traffic and transportation improvements within the City of Newport Beach arising from or related to development in the IBC contemplated by and in substantial conformance to the IBC Vision Plan so long as Irvine adopts the alternative that provides for no greater than 15,000 residential dwelling units, excluding those units allowed as a matter of state law mandates (e.g., density bonus requirements), within the IBC. The Parties further acknowledge and agree that Irvine's contribution of the sum set forth above shall and does fully discharge Irvine's obligation to pay a fair share toward all traffic and transportation improvements situated within the City of Newport Beach necessitated by any past project approvals and future project approvals contemplated by and in substantial conformance to the IBC Vision Plan so long as Irvine adopts the alternative that provides for no greater than 15,000 residential dwelling units, excluding those units allowed as a matter of state law mandates (e.g.,

density bonus requirements) within the IBC, and so long the IBC Vision Plan is modified to be consistent with the Allergan Settlement Agreement.

6. **Irvine Support of Newport Beach Park.** Irvine will support the efforts of Newport Beach to obtain and improve a park site on property currently owned by the University of California, Irvine as more specifically described in Exhibit "3" appended hereto and hereby incorporated by this reference. Newport Beach acknowledges and agrees that absent a further agreement to the contrary, Irvine shall have no financial or programmatic responsibility for any such park. Newport Beach, in its sole discretion and upon such terms and conditions as it deems appropriate or necessary, may hereafter consider entering into a joint use agreement with Irvine for any such park. Newport Beach does not and shall not have any obligation to enter into a joint use agreement with Irvine for any such park.

7. **Release of Claims.**

A. Each Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, hereby releases and forever discharges the other Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, from any and all claims, demands, causes of action, obligations, damages, injuries, attorneys' fees, costs, and liabilities of any nature whatsoever, whether or not now known, suspected or claimed, which the Party ever had, now has or may claim to have against the other Party (whether directly or indirectly), by reason of any act or omission concerning any matter, event, incident, encounter, cause, or thing relating to or arising out of the events that underlie and are the subject of the Actions, and any claims asserted or which could be or could have been asserted in the Actions.

B. Each Party acknowledges that it may later discover facts different from or in addition to those it now knows or believes to be true with respect to the claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are the subject of the releases set forth in this Agreement and Release. The Parties expressly agree to assume the risk of the possible discovery of additional or different facts, and agree that this Agreement and Release shall be and remain effective in all respects regardless of such additional or different facts.

C. The releases set forth above are general releases of all claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are described in those releases and are intended to encompass all known and unknown, foreseen and unforeseen claims which Newport Beach and Irvine may have against each other relating to or arising out of the events that underlie and are the subject of the Actions, except for any claims that may arise from the terms of this Agreement and Release.

D. By releasing and forever discharging claims both known and unknown as hereinabove provided, the Parties, and each of them, expressly waive and relinquish all rights and benefits they may have under section 1542 of the Civil Code of the State of California, which reads as follows:

"[General Release -- Claims Extinguished.] A general release does not extend to claims which the creditor does not know or suspect to

exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

E. It is agreed and understood that these releases do not affect the rights or actions available to the City of Tustin, if there are any, to pursue its pending actions or future actions. It is further agreed and understood that Agreement and Release is not intended, nor is it to be construed, to expand the rights of Tustin with regard to the collection of attorneys' fees and costs that have previously been awarded in the Actions in favor of Tustin and any further attorneys' fees and costs incurred but not yet awarded.

8. **Responsibility for Attorneys' Fees, Costs and Litigation Expenses.** Newport Beach and Irvine each shall be wholly responsible for the payment of their respective attorneys' fees, cost and litigation expenses incurred in the Actions.

9. **No Other Pending Actions.** The Parties each warrant and represent that they have not filed any complaints or claims (other than the Actions referenced above) against each other with any local, state or federal agency or court, and that they will not do so at any time hereafter with respect to the event that underlie and are the subject of the Actions, the claims that were asserted or that could be or could have been asserted in the Actions, or any claims arising out of the Actions.

10. **No Assignment of Claims.** The Parties each warrant and represent that they have made no assignment, and will make no assignment, of any claim, cause of action, right of action or any right of any kind whatsoever, embodied in any of the claims and allegations referred to herein, and that no other person or entity of any kind had or has any interest in any of the demands, obligations, actions, causes of action, debts liabilities, rights, contracts, damages, attorneys' fees, costs, expenses, losses or claims referred to herein. Each Party hereby agrees to indemnify, defend and hold harmless the other Party as against any claim based on or arising out of any assignment, transfer or sale in violation of the foregoing warranty.

11. **Non-Admission of Liability.** The Parties acknowledge and agree that this Agreement and Release is a settlement of disputed claims. Neither the fact that the Parties have settled nor the terms of this Agreement and Release shall be construed in any manner as an admission of any liability by Irvine or any affiliated person or entity, all of whom consistently have taken the position that they have no liability whatsoever to Newport Beach.

12. **Successors and Assigns.** This Agreement and Release, and all of the terms and provisions hereof, shall be binding upon and shall inure to the benefit of the Parties and their respective successors, assigns and legal representatives.

13. **Knowing and Voluntary.** The Parties each specifically represent that prior to signing this Agreement and Release, they have been provided a reasonable period of time within which to consider whether to accept this Agreement and Release. The Parties each represent that they have each carefully read and fully understand all of the provisions of this Agreement, and that they are voluntarily, knowingly, and without coercion entering into this Agreement and Release based upon their own judgment.

14. **Assistance of Counsel.** The Parties each specifically represent that they have consulted to their satisfaction with and received independent advice from their respective counsel prior to executing this Agreement and Release concerning the terms and conditions of this Agreement and Release.

15. **Enforcement Costs.** Should any legal action be required to enforce the terms of this Agreement and Release, the prevailing Party shall be entitled to reasonable attorneys' fees and costs in addition to any other relief to which that Party may be entitled.

16. **Severability.** Should any portion, word, clause, phrase, sentence or paragraph of this Agreement and Release be declared void or unenforceable, such portion shall be considered independent and severable from the remainder, the validity of which shall remain unaffected.

17. **Construction.** The Parties acknowledge that this Agreement and Release was jointly prepared by them, by and through their respective legal counsel, and any uncertainty or ambiguity existing herein shall not be interpreted against any of the Parties, but otherwise shall be interpreted according to the application of the rules on interpretation of contracts.

18. **Waiver.** Failure to insist on compliance with any term, covenant or condition contained in this Agreement and Release shall not be deemed a waiver of that term, covenant or condition, nor shall any waiver or relinquishment of any right or power contained in this Agreement and Release at any one time or more times be deemed a waiver or relinquishment of any right or power at any other time or times.

19. **Governing Law and Venue.** This Agreement and Release is made and entered into in the State of California, and shall in all respects be interpreted, enforced and governed under the laws of said State without giving effect to conflicts of laws principles. Venue for any action to enforce this Agreement and Release shall be in the Orange County Superior Court, notwithstanding the provisions of Code of Civil Procedure section 394.

20. **Notices.** All notices and other communications provided or permitted hereunder shall be made personal delivery or pre-paid first class mail, as follows:

If to Newport Beach:

City of Newport Beach
Attention: City Manager
3300 Newport Boulevard
Post Office Box 1768
Newport Beach, CA 92658-8915

with a copy to:

City of Newport Beach
Office of the City Attorney
3300 Newport Boulevard
Post Office Box 1768
Newport Beach, CA 92658-8915

If to Irvine:

City of Irvine
Attention: City Manager
One Civic Center Plaza
Post Office Box 19575
Irvine, CA 92623-9575

With a copy to:

Rutan & Tucker, LLP
Attention: City Attorney, City of Irvine
611 Anton Boulevard, Suite 1400
Costa Mesa, CA 92626

All such notices and communications shall be deemed to have been given when delivered, if personally delivered; and two business days after being deposited in the United States mail, postage prepaid.

21. **Entire Agreement.** This Agreement and Release constitutes the entire agreement between the Parties who have executed it and supersedes any and all other agreements, understandings, negotiations, or discussions, either oral or in writing, express or implied, between the Parties to this Agreement and Release. The Parties to this Agreement and Release each acknowledge that no representations, inducements, promises, agreements or warranties, oral or otherwise, have been made by them, or anyone acting on their behalf, which are not embodied in this Agreement and Release, that they have not executed this Agreement and Release in reliance on any such representation, inducement, promise, agreement or warranty, and that no representation, inducement, promise, agreement or warranty not contained in this Agreement and Release including, but not limited to, any purported supplements, modifications, waivers or terminations of this Agreement and Release shall be valid or binding, unless executed in writing by all of the Parties to this Agreement and Release.

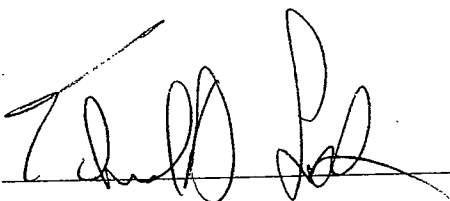
22. **Further Assurances; Mutual Cooperation.** The Parties shall perform such further acts, including execution of documents, as are necessary to effectuate the intent of this Agreement and Release. The Parties shall cooperate to ensure that the steps necessary to implement this Agreement and Release are carried out.

23. **No Third Party Beneficiaries.** The Parties recognize and agree that the real parties in interest in the Actions will receive benefits incidental to this Agreement and Release, including but not limited to the vacation of Superior Court orders concerning the issuance of land use entitlement approvals and the award of attorneys' fees. The Parties intend and agree that no third parties, including such real parties in interest, shall have any rights to enforce any provision of or any obligation created by this Agreement and Release.

24. **Representation of Authority to Execute.** Each of the persons executing this Agreement and Release represents and warrants that he or she is duly and fully authorized and empowered to execute this Agreement and Release on behalf of and to bind the Party so indicated below.

IN WITNESS WHEREOF, the undersigned have executed this Settlement Agreement and Mutual Release of Claims on the dates set forth below.

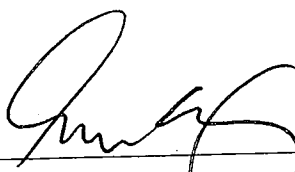
CITY OF NEWPORT BEACH

By: 

Edward D. Selich, Mayor

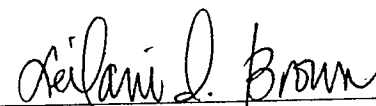
Dated: November 24, 2009

CITY OF IRVINE

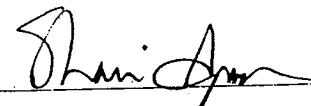
By: 

Sukhee Kang, Mayor

Dated: November 24, 2009

Attest: 

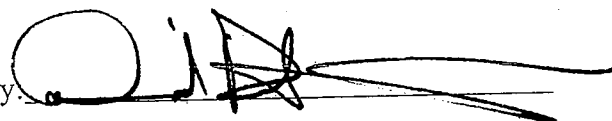
Leilani I. Brown, City Clerk

Attest: 

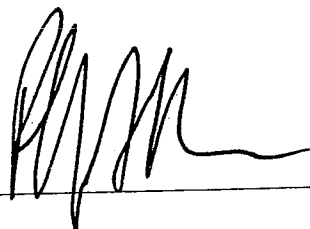
Sharie Apodaca, City Clerk

APPROVED AS TO FORM:



By: 

David R. Hunt
City Attorney, City of Newport Beach

By: 

Philip D. Kohn
City Attorney, City of Irvine



Appendix B: 2010 Settlement Agreement between City of Irvine and City of Tustin

SETTLEMENT AGREEMENT AND MUTUAL RELEASE OF CLAIMS

This Settlement Agreement and Mutual Release of Claims ("Agreement and Release") is made and entered into as of July 13, 2010 (the "Effective Date") by and between the CITY OF TUSTIN ("Newport Beach"), a California municipal corporation, and the CITY OF IRVINE ("Irvine"), a California municipal corporation. Tustin and Irvine are sometimes referred to in this Agreement and Release individually as a "Party" and collectively as the "Parties."

Recitals

A. Tustin is a petitioner and plaintiff in the below-described legal actions commenced and pending against Irvine, which are sometimes referred to collectively as the "Actions."

1. On April 26, 2007, Tustin and the City of Newport Beach ("Newport Beach") filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)*, bearing Case No. 07CC01264. This action challenges Irvine's approval of the 82-unit Martin Street condominium project, situated within the Irvine Business Complex ("IBC"), and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Tustin and Newport Beach and against Irvine, and subsequently awarded attorneys' fees in favor of Tustin and Newport Beach and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040749 and G041113).

2. On April 26, 2007, Tustin and Newport Beach filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, bearing Case No. 07CC01265. This action challenges Irvine's approval of the 170-unit 2851 Alton condominium project, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Tustin and Newport Beach and against Irvine, and subsequently awarded attorneys' fees in favor of Tustin and Newport Beach and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040757 and G041107). Real party in interest Alton Associates has also appealed the judgment (Court of Appeal Case No. G040759) ("Alton Associates Appeal").

3. On December 12, 2008, Tustin and Newport Beach filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC. This action challenges Irvine's approval of a multi-phase project consisting of up to 785,000 square feet of office space and 15,500 square feet of retail/restaurant space, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. This action is still pending in the Superior Court and no final disposition has occurred.

4. On April 29, 2009, Tustin and Newport Beach filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC. This action challenges Irvine's approval of a Zoning Code Technical Update, including a new Accessory Retail Business designation as a permitted use within the IBC, and Irvine's determination that the approval was exempt from review under the California Environmental Quality Act ("CEQA"), codified as Public Resources Code section 21000 *et seq.* This action is still pending in the Superior Court and no final disposition has occurred.

B. The Parties mutually desire to enter into this Agreement and Release to achieve a full and complete resolution of all claims arising from or relating to the disputes between them concerning the Actions and the subject matters raised and implicated by the Actions.

NOW, THEREFORE, in consideration of the facts recited above, and the covenants, conditions and promises set forth below, the Parties agree as follows:

Agreement and Release

1. **Recitals Incorporated.** The Foregoing Recitals are incorporated herein and made a part of this Agreement and Release.

2. **Dismissal of Trial Court Actions.** Within ten (10) business days of the Effective Date of this Agreement and Release, Tustin shall personally deliver to Irvine's counsel properly completed and executed Requests for Dismissal with prejudice of the entire action as to Tustin only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC, and *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC, as further described in paragraphs A.3 and A.4 above. The Parties acknowledge that Newport Beach previously filed Requests for Dismissal of the subject actions as to Newport Beach only, which dismissals were entered, and that the dismissals as to Tustin will result in dismissal of the subject actions in their entirety.

3. **Dismissal of Court of Appeal Actions.**

A. **Irvine Appeals.** Within five (5) business days of the Effective Date of this Agreement and Release, Tustin and Irvine shall file a Stipulated Request for Dismissal of the appeals as to Tustin only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)* and *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, as further described in paragraphs A.1 and A.2 above. Each Stipulated Request for Dismissal shall provide that upon remand of such portion of the Action to the Superior Court following issuance of a remittitur, Tustin and Irvine will file a stipulation for the vacation of the judgments and orders that are the subject of the appeal and for the dismissal with prejudice of the entire action as to Tustin only. Such stipulation shall also include an agreement that Tustin and Irvine shall each bear its own attorneys' fees and costs. The Parties acknowledge that Newport Beach and Irvine previously filed such a Stipulated Request for Dismissal of the appeals as to Newport Beach only and upon remittitur filed a stipulation for the

vacation of the judgments and orders that were the subject of the appeal and for the dismissal with prejudice of the entire action as to Newport Beach, which dismissals were entered, and that the dismissals as to Tustin contemplated by this paragraph 3.A will result in dismissal of the subject actions in their entirety.

B. Alton Associates Appeal. If Alton Associates agrees, within five (5) business days of the Effective Date of this Agreement and Release, or as soon thereafter as reasonably practicable, Tustin, Alton Associates and Irvine shall file a Stipulated Request for Dismissal of the appeal as to Tustin only for the Alton Associates Appeal. The Stipulated Request for Dismissal shall provide that upon remand of such portion of the Alton Associates Appeal to the Superior Court following issuance of a remittitur, Tustin, Alton Associates and Irvine will file a stipulation for the vacation of the judgment and orders that are the subject of the Alton Associates Appeal and for the dismissal with prejudice of the entire action as to Tustin only. Alton Associates must agree to bear its own attorneys' fees and costs in the action and the appeal. This Agreement and Release is conditioned upon the agreement of Alton Associates to take the action reflected in this paragraph. If Alton Associates does not agree to take this action, this Agreement and Release is void and without force or effect. The Parties acknowledge that Newport Beach, Alton Associates and Irvine previously filed such a Stipulated Request for Dismissal of the appeal as to Newport Beach only and upon remittitur filed a stipulation for the vacation of the judgment and orders that were the subject of the appeal and for the dismissal with prejudice of the entire action as to Newport Beach, which dismissal were entered, and that the dismissal as to Tustin contemplated by this paragraph 3.B will result in dismissal of the subject action in its entirety.

C. Forbearance. In addition to the obligations set forth above in this paragraph, Tustin shall not take or cause to be taken any actions to enforce or facilitate the enforcement of the judgments and orders issued in any of the Actions.

4. **Agreement Not To Bring Further Challenges; Agreement to Cooperate.** The Parties, and each of them, shall not initiate, join, participate in, provide funding to or assist any third party in the initiation or participation in, any legal or administrative action or proceeding challenging any of the following:

A. The approval of land use and development entitlements (including but not limited to tentative and final subdivision maps, conditional use permits, lot line adjustments, and grading and building plans, permits, community facilities district and/or assessment district proceedings, including any necessary subsequent environmental documentation for any and all implementation actions) for any development project in the other Party's city, so long as the project substantially conforms to the Average Daily Trip (ADTs) development maximum thresholds in each other Party's current respective General Plan, zoning documents and other applicable planning documents, inclusive of the MCAS Tustin Specific Plan (approved on or about February 3, 2003), any previously adopted amendments and any current formally submitted proposed amendments to Tustin's General Plan, or is exempt from environmental review under state law, and the currently forecast development in Irvine's draft IBC Vision Plan, and inclusive of ADTs for maximum development identified in the applicable planning documents. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Tustin to not challenge the IBC Vision Plan as set out on this paragraph 4 is

conditioned upon Irvine's adoption of the IBC Vision Plan alternative as provided in Section 4.B below.

B. The final approval of Irvine's IBC Vision Plan (including but not limited to the substance, merits, nature, scope, methodology, assumptions, analyses or conclusions) so long as such final plan substantially conforms to Irvine's draft IBC Vision Plan. In this regard, the Parties acknowledge and agree that the draft IBC Vision Plan may be modified as necessary to reflect the land use changes generally described in Exhibit A to that certain Settlement Agreement and Mutual Release between Allergan, Inc. and Irvine and the City Council of the City of Irvine, dated on or about August 18, 2009 ("Allergan Settlement Agreement"), a copy of which is appended as Exhibit "1" to this Agreement and Release and is hereby incorporated by this reference, and further acknowledge and agree that such land use changes are generally consistent with Irvine's draft IBC Vision Plan. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Tustin to not challenge the IBC Vision Plan as set out on this paragraph 4 is conditioned upon Irvine's modification of the IBC Vision Plan in a manner consistent with the Allegan Settlement Agreement.

C. The certified Final Environmental Information Statement/Environmental Impact Report for the Tustin Legacy project, including without limitation the incorporated Supplemental Environmental Information Statement/Environmental Impact report for the Tustin Ranch Road project and the Addendum for Zone Change (Specific Plan Amendment) 05-022 and the Master Developer Disposition and Development Agreement and Development Plan (approved on or about June 5, 2007), together with a possible Addendum to the Final EIS/EIR for the Tustin Legacy project for modification or deletion of transportation/circulation projects and mitigation measures (collectively, "the Final EIS/EIR for Tustin Legacy") in order to implement the terms of this Agreement.

D. Adjustments to the IBC Transportation Development Fee Program or the Tustin Legacy Backbone Infrastructure Program, provided that such adjustments are not in conflict or inconsistent with the provisions of or any obligations under this Agreement and Release.

E. Approval or implementation of any transit and/or transportation improvements supporting development activities in the IBC substantially conforming to the IBC Vision Plan or for the Tustin Legacy project.

F. Any determination under CEQA with respect to any of the foregoing.

The Parties, and each of them, further agree to cooperate in timely seeking and providing comments, both verbal and in writing, to each other on any proposed changes in their respective planning documents prior to any such change being presented to the respective decision-making body.

5. **Prior Agreement Regarding Red Hill Avenue Improvements.** On or about November 16, 1992, Tustin and Irvine entered into that certain Agreement Regarding Implementation, Timing and Funding of Transportation/Circulation Mitigation for the Irvine Business Complex Project ("1992 Agreement"). Tustin and Irvine agree that Irvine hereafter

shall not have, and shall be relieved of and discharged from, any responsibilities or obligations to perform under or pursuant to the 1992 Agreement, and that all of the terms and provisions of the 1992 Agreement shall be and are terminated in their entirety and of no further force or effect. The parties acknowledge and agree that the construction of the Red Hill Avenue Improvements as provided in the 1992 Agreement are unnecessary and not required by the IBC Vision Plan as a mitigation measure.

6. **Prior Agreement Regarding Tustin Legacy Mitigation Measures.** On or about February 22, 2001, Tustin and Irvine entered into that certain Agreement Between the City of Irvine and the City of Tustin Regarding the Implementation, Timing and Funding of Transportation/Circulation Mitigation for the MCAS Tustin Project (“2001 Agreement”). Tustin hereafter shall not have, and shall be relieved of and discharged from, any responsibilities or obligations to perform under or pursuant to the 2001 Agreement, and that all of the terms and provisions of the 2001 Agreement shall be and are terminated in their entirety and of no further force or effect, and no additional mitigation requirements are required within the City of Irvine under the Tustin adopted Final EIS/EIR for the Tustin Legacy project. In 2005, Tustin, Irvine and Lennar Homes of California, Inc. entered into a Joint Community Facilities Agreement as it related to the use by Tustin of net bond proceeds generated by Irvine Community Facilities District 2005-02 (Columbus Grove) for certain of the mitigation measures required in the 2001 Agreement (“2005 Agreement”). Tustin and Irvine agree that Irvine shall be entitled to accept and use the remaining estimated balance of \$1.9 million in the Tustin Account (as defined in the 2005 Agreement) in such manner and for such purposes authorized under CFD 2005-02, as Irvine determines in its sole and absolute discretion.

7. **Payment for Tustin Ranch Road Improvements.** In lieu of Irvine’s fair share of the estimated costs of those traffic and transportation improvements located within Tustin identified as mitigation measures in and arising from the IBC Vision Plan, Irvine shall contribute 12% of the construction contract award amount or \$4.5 million, whichever is greater, up to a maximum of \$6.5 million, for the Tustin Ranch Road Extension roadway improvements from Walnut Avenue to Warner Avenue, including the grade separation and loop at Edinger Avenue. Irvine shall pay this sum to Tustin within twenty (20) business days of the date Tustin awards a construction contract for all segments of the project. In the event that Tustin has not awarded such a construction contract by July 1, 2015, Tustin may use Irvine’s contribution to jointly fund such interim improvements for Tustin Ranch Road from Walnut Avenue to Warner Avenue as are mutually agreeable and beneficial to both cities. Irvine’s contribution obligation will expire, and Tustin shall reimburse Irvine any contribution made, in the event that Tustin Ranch Road between Walnut Avenue and Warner Avenue is not fully constructed and open to traffic by July 1, 2025. The Parties acknowledge and agree that Irvine’s agreement to contribute funds as set forth above shall and does constitute Irvine’s fair share obligation toward traffic and transportation improvements within the City of Tustin arising from or related to development in the IBC contemplated by and in substantial conformance to the IBC Vision Plan. Further, Tustin and Irvine agree to cooperatively advocate any applications for regional, state, or federal funding for the Tustin Ranch Road Extension roadway improvements.

8. Release of Claims.

A. Each Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, hereby releases and forever discharges the other Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, from any and all claims, demands, causes of action, obligations, damages, injuries, attorneys' fees, costs, and liabilities of any nature whatsoever, whether or not now known, suspected or claimed, which the Party ever had, now has or may claim to have against the other Party (whether directly or indirectly), by reason of any act or omission concerning any matter, event, incident, encounter, cause, or thing relating to or arising out of the events that underlie and are the subject of the Actions, and any claims asserted or which could be or could have been asserted in the Actions.

B. Each Party acknowledges that it may later discover facts different from or in addition to those it now knows or believes to be true with respect to the claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are the subject of the releases set forth in this Agreement and Release. The Parties expressly agree to assume the risk of the possible discovery of additional or different facts, and agree that this Agreement and Release shall be and remain effective in all respects regardless of such additional or different facts.

C. The releases set forth above are general releases of all claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are described in those releases and are intended to encompass all known and unknown, foreseen and unforeseen claims that Tustin and Irvine may have against each other relating to or arising out of the events that underlie and are the subject of the Actions, except for any claims that may arise from the terms of this Agreement and Release.

D. By releasing and forever discharging claims both known and unknown as hereinabove provided, the Parties, and each of them, expressly waive and relinquish all rights and benefits they may have under section 1542 of the Civil Code of the State of California, which reads as follows:

"[General Release -- Claims Extinguished.] A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

9. Responsibility for Attorneys' Fees, Costs and Litigation Expenses. Tustin and Irvine each shall be wholly responsible for the payment of their respective attorneys' fees, cost and litigation expenses incurred in the Actions.

10. No Other Pending Actions. The Parties each warrant and represent that they have not filed any complaints or claims (other than the Actions referenced above) against each other with any local, state or federal agency or court, and that they will not do so at any time hereafter with respect to the event that underlie and are the subject of the Actions, the claims that

were asserted or that could be or could have been asserted in the Actions, or any claims arising out of the Actions.

11. **No Assignment of Claims.** The Parties each warrant and represent that they have made no assignment, and will make no assignment, of any claim, cause of action, right of action or any right of any kind whatsoever, embodied in any of the claims and allegations referred to herein, and that no other person or entity of any kind had or has any interest in any of the demands, obligations, actions, causes of action, debts liabilities, rights, contracts, damages, attorneys' fees, costs, expenses, losses or claims referred to herein. Each Party hereby agrees to indemnify, defend and hold harmless the other Party as against any claim based on or arising out of any assignment, transfer or sale in violation of the foregoing warranty.

12. **Non-Admission of Liability.** The Parties acknowledge and agree that this Agreement and Release is a settlement of disputed claims. Neither the fact that the Parties have settled nor the terms of this Agreement and Release shall be construed in any manner as an admission of any liability by Irvine or any affiliated person or entity, all of whom consistently have taken the position that they have no liability whatsoever to Newport Beach.

13. **Successors and Assigns.** This Agreement and Release, and all of the terms and provisions hereof, shall be binding upon and shall inure to the benefit of the Parties and their respective successors, assigns and legal representatives.

14. **Knowing and Voluntary.** The Parties each specifically represent that prior to signing this Agreement and Release, they have been provided a reasonable period of time within which to consider whether to accept this Agreement and Release. The Parties each represent that they have each carefully read and fully understand all of the provisions of this Agreement, and that they are voluntarily, knowingly, and without coercion entering into this Agreement and Release based upon their own judgment.

15. **Assistance of Counsel.** The Parties each specifically represent that they have consulted to their satisfaction with and received independent advice from their respective counsel prior to executing this Agreement and Release concerning the terms and conditions of this Agreement and Release.

16. **Enforcement Costs.** Should any legal action be required to enforce the terms of this Agreement and Release, the prevailing Party shall be entitled to reasonable attorneys' fees and costs in addition to any other relief to which that Party may be entitled.

17. **Severability.** Should any portion, word, clause, phrase, sentence or paragraph of this Agreement and Release be declared void or unenforceable, such portion shall be considered independent and severable from the remainder, the validity of which shall remain unaffected.

18. **Construction.** The Parties acknowledge that this Agreement and Release was jointly prepared by them, by and through their respective legal counsel, and any uncertainty or ambiguity existing herein shall not be interpreted against any of the Parties, but otherwise shall be interpreted according to the application of the rules on interpretation of contracts.

reliance on any such representation, inducement, promise, agreement or warranty, and that no representation, inducement, promise, agreement or warranty not contained in this Agreement and Release including, but not limited to, any purported supplements, modifications, waivers or terminations of this Agreement and Release shall be valid or binding, unless executed in writing by all of the Parties to this Agreement and Release.

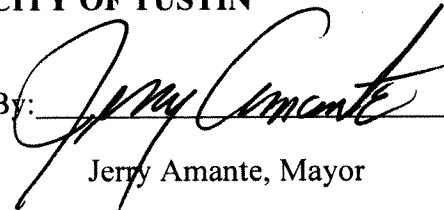
23. **Further Assurances; Mutual Cooperation.** The Parties shall perform such further acts, including execution of documents, as are necessary to effectuate the intent of this Agreement and Release. The Parties shall cooperate to ensure that the steps necessary to implement this Agreement and Release are carried out.

24. **No Third Party Beneficiaries.** The Parties recognize and agree that the real parties in interest in the Actions will receive benefits incidental to this Agreement and Release, including but not limited to the vacation of Superior Court orders concerning the issuance of land use entitlement approvals and the award of attorneys' fees. The Parties intend and agree that no third parties, including such real parties in interest, shall have any rights to enforce any provision of or any obligation created by this Agreement and Release.


25. **Representation of Authority to Execute.** Each of the persons executing this Agreement and Release represents and warrants that he or she is duly and fully authorized and empowered to execute this Agreement and Release on behalf of and to bind the Party so indicated below.

IN WITNESS WHEREOF, the undersigned have executed this Settlement Agreement and Mutual Release of Claims on the dates set forth below.

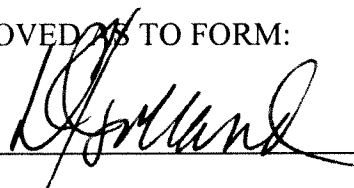
CITY OF TUSTIN

By: 
Jerry Amante, Mayor

Dated: July 12, 2010

Attest: 
Pamela Stoker, City Clerk

APPROVED AS TO FORM:

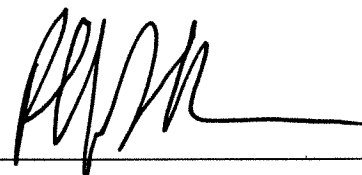
By: 
Douglas C. Holland
City Attorney, City of Tustin

CITY OF IRVINE

By: _____
Sukhee Kang, Mayor

Dated: July __, 2010

Attest: _____
Sharie Apodaca, City Clerk

By: 
Philip D. Kohn
City Attorney, City of Irvine

reliance on any such representation, inducement, promise, agreement or warranty, and that no representation, inducement, promise, agreement or warranty not contained in this Agreement and Release including, but not limited to, any purported supplements, modifications, waivers or terminations of this Agreement and Release shall be valid or binding, unless executed in writing by all of the Parties to this Agreement and Release.

23. **Further Assurances; Mutual Cooperation.** The Parties shall perform such further acts, including execution of documents, as are necessary to effectuate the intent of this Agreement and Release. The Parties shall cooperate to ensure that the steps necessary to implement this Agreement and Release are carried out.

24. **No Third Party Beneficiaries.** The Parties recognize and agree that the real parties in interest in the Actions will receive benefits incidental to this Agreement and Release, including but not limited to the vacation of Superior Court orders concerning the issuance of land use entitlement approvals and the award of attorneys' fees. The Parties intend and agree that no third parties, including such real parties in interest, shall have any rights to enforce any provision of or any obligation created by this Agreement and Release.

25. **Representation of Authority to Execute.** Each of the persons executing this Agreement and Release represents and warrants that he or she is duly and fully authorized and empowered to execute this Agreement and Release on behalf of and to bind the Party so indicated below.

IN WITNESS WHEREOF, the undersigned have executed this Settlement Agreement and Mutual Release of Claims on the dates set forth below.

CITY OF TUSTIN

By: _____

Jerry Amante, Mayor

Dated: July __, 2010

Attest: _____

Pamela Stoker, City Clerk

APPROVED AS TO FORM:

By: _____

Douglas C. Holland
City Attorney, City of Tustin

CITY OF IRVINE

By: _____

Sukhee Kang, Mayor

Dated: July 12, 2010

Attest: _____

Sharie Apodaca, City Clerk

By: _____

Philip D. Kohn
City Attorney, City of Irvine



Appendix C: 1992 Agreement and Subsequent Amendment between City of Irvine and City of Santa Ana

AMENDMENT TO AND RESTATEMENT OF THE
1992 AGREEMENT BETWEEN THE CITIES OF SANTA ANA AND IRVINE

THIS AGREEMENT ("Agreement") entered into and shall be effective on this 21st day of MARCH, 2011 by and between the City of Santa Ana, hereinafter referred to as "Santa Ana," and the City of Irvine, hereinafter referred to as "Irvine." Santa Ana and Irvine are collectively referred to as the "Parties." This AGREEMENT replaces and supersedes in its entirety that certain agreement dated November 24, 1992 by and between the Parties titled "Implementation of Roadway and Interchange Mitigation Program for EIR 88-ZC-0087" ("1992 Agreement."). A true and correct copy of the 1992 Agreement is attached hereto as Exhibit "A."

RECITALS

- A. WHEREAS, on July 13, 2010 Irvine certified an Environmental Impact Report for certain General Plan Amendments and Zone Changes that are collectively known as the "IBC Vision Plan." That same evening, Irvine approved the General Plan Amendment for the IBC Vision Plan, and conducted a first reading for the Zone Change for the IBC Vision Plan. On July 27, 2010, Irvine conducted a second reading for the Zone Change for the IBC Vision Plan. The IBC Vision Plan is hereinafter referred to as the "Project." The Project is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north, the San Diego Creek channel to the east, John Wayne Airport and Campus Drive to the south and State Route 55 (SR-55) to the west. The Project is bordered by the cities of Newport Beach, Santa Ana, Costa Mesa and Tustin. The Project includes and/or contemplates (i) an increase in total units in the Irvine Business Complex ("IBC") from 9,401 units to 15,000 units, and (ii) a reduction of 2,715,062 square feet of nonresidential development (measured in office equivalency). In addition, a total of 1,191 density bonus units could be allowed (and are therefore assumed as part of the Project) in accordance with state law, resulting in a total of 16,191 units; and

B. WHEREAS, a Traffic Impact Study (TIS) has been prepared for the Project that identifies Project-related impacts and corresponding pro-rata funding fair-shares for the following intersections and roadway segment in Santa Ana:

- Bristol Street at Segerstrom Intersection – 12.7%
- Main Street at Dyer Road Intersection – 21%
- Grand Avenue at Warner Avenue Intersection – 15.8%
- MacArthur Boulevard widening from Main Street to SR55 – 31.1%

Each intersection and roadway segment listed above shall hereinafter be referred to as “Project Impact” and collectively be referred to as “Project Impacts,” and the corresponding pro-rata funding fair-shares shall hereinafter be referred to as “Improvement Fair Share Contributions”; and

C. WHEREAS, Santa Ana currently has no fee program designed to collect fees for the mitigation of any of the Project Impacts; and

D. WHEREAS, the Project involves the same land area – the IBC – that was the subject of certain Irvine General Plan Amendment and Irvine Zoning Code Amendments project, together with a mitigation fee program and an Environmental Impact Report (“IBC EIR”), for which approvals and certifications were completed by 1992 (collectively, the “1992 Entitlements”); and

E. WHEREAS, in connection with the 1992 Entitlements, the Parties entered into the 1992 Agreement, which outlines the Parties’ roles and responsibilities in implementing certain transportation improvements identified in the 1992 Entitlements; and

F. WHEREAS, the 1992 Agreement may be amended upon the mutual consent of both Parties; and

G. WHEREAS, this Agreement is intended to, and does, restate in full and supersede the 1992 Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby amend and restate in full the 1992 Agreement in full as follows:

- 1 Limit on new development in the IBC The parties hereto agree that Irvine will not issue building permits for development in the IBC which would cause the total development in the IBC (existing development plus development occurring after the date of this Agreement) to exceed 51,000,000 square feet of office equivalency development (as defined in the Irvine Zoning Code) until after the following street improvements, located in the City of Santa Ana, have been completed:

- (a) The widening of Dyer Road to eight (8) lanes from a point commencing just east of the SR-55 freeway northbound direct connector on-ramp to and including the Redhill - Dyer/Barranca Avenue intersection, as provided in the IBC EIR mitigation measures, hereinafter referred to as the "Roadway Improvement".

- (b) An Alton Avenue overcrossing of the SR-55 Freeway, hereinafter referred to as the "Overcrossing Improvement".

If, notwithstanding Irvine's agreement to limit the issuance of building permits as set forth hereinabove, the total development in the IBC exceeds 51,000,000 square feet prior to the completion of the Roadway Improvement and Overcrossing Improvement;

- A. Irvine shall pay to Santa Ana Irvine's share of the Total Costs (as defined in Section 2 herein below) of the Overcrossing Improvement, to the extent such Total Cost remain unpaid. Any amounts received by Santa Ana pursuant to this paragraph shall be expended by Santa Ana in accordance with Section 3 herein below. As of the date of this agreement, Irvine has issued building permits in the IBC for 41,671,636 square feet of office equivalency development.

- B. Irvine shall deposit the Total Costs (as defined in Section 2 herein below)

of the Roadway Improvement, to the extent such Total Costs remain outstanding, in an interest bearing account in a financial institution acceptable to both Irvine and Santa Ana. Irvine shall not withdraw any of the principal of such amount except in connection with the design and construction of the Roadway Improvement, including but not limited to alignment studies, necessary environmental documentation, land acquisition costs, costs of design and construction, and administrative staff costs related to the Roadway Improvements.

2. Responsibilities of the Parties

- A. "Total Costs" defined. The term "Total Costs" means all costs incurred in the design and construction of an improvement (i.e., the Roadway Improvement or the Overcrossing Improvement), including, but not limited to, costs of preparation of environmental documentation, costs of land acquisition (including any costs incurred in any eminent domain action), costs of design and construction, and Santa Ana's administrative staff costs, so long as such administrative staff costs related to Roadway Improvement do not exceed 5% of the Total Costs (excluding administrative staff costs) of the improvement ("Improvement Work").
- B. To assist in minimizing Total Costs of Roadway Improvement, Santa Ana shall consider and process for approval a reduction of otherwise required landscape setbacks during the right of way acquisition phase of the project if, absent such reduction, the taking of buildings would be necessary to construct the Roadway Improvement. Irvine will mitigate parking losses incurred by any parcels affected by partial acquisitions by the addition of onsite parking spaces through reconfiguration of the site, or by acquisition and development of adjacent real estate for parking. All parking mitigation plans will be subject to the approval of Santa Ana.
- C. "Lead Agency" defined. As used herein, the term "Lead Agency" means the city (Irvine or Santa Ana) which is responsible for undertaking the

Improvement Work, either through its own employees or through independent contractors, except as otherwise provided herein below.

- D. Funding responsibilities. Irvine shall be responsible for 100% the Total Cost of the Roadway Improvement, less any portion the Total Costs of the Roadway Improvement for which any entity other than Santa Ana assumes responsibility. Irvine will support City of Santa Ana's effort in obtaining local, state and federal grants for the Overcrossing Improvement. Irvine and Santa Ana shall each be responsible for 50% of the Total Costs of the Overcrossing Improvement; provided, however, that if any entity(ies) and/or grant funds other than Irvine or Santa Ana contribute(s) to the Total Costs of the Overcrossing Improvement ("Third Party Contribution(s)"), Irvine's and Santa Ana's contribution shall each be reduced in an amount equal to 50% of said Third Party Contribution(s). Nothing herein shall be construed to restrict the ability of Irvine and/or Santa Ana to obtain funds to meet their funding responsibilities hereunder through the imposition of development fees or such other revenue measures (collectively "Development Fees") as may be deemed appropriate by Irvine and/or Santa Ana, and said Development Fees shall not be deemed to be Third Party Contributions.

Irvine shall have no responsibility to contribute in any way to the mitigation of the Project Impacts (as defined in Recital B above), whether through the payment of the Improvement Fair Share Contribution (as defined in Recital B above) or otherwise. Responsibility for mitigation of the Project Impacts shall belong to Santa Ana or such other entities (other than Irvine) as may assume responsibility to mitigate the Project Impacts.

- E. Lead Agency Responsibilities. Except as otherwise provided in Section 3 of this Agreement, Irvine shall be the Lead Agency for the Roadway Improvement, provided, however, that to the extent that Irvine is unable to acquire land necessary for the Roadway Improvement due to Irvine's inability to apply its powers

of eminent domain to properties located within Santa Ana, Santa Ana shall assume Lead Agency responsibilities with respect to such land acquisition. All design plans and environmental documentation for the Roadway Improvement that is prepared by or on behalf of Irvine as Lead Agency shall be subject to approval by Santa Ana, which approval shall not be unreasonably withheld or delayed; provided, however, that Santa Ana may require all design plans to conform to Santa Ana design standards in effect at the time such plans are submitted.

Santa Ana shall be the Lead Agency with regard to the Overcrossing Improvement. All alignment and design plans and environmental documentation for the Overcrossing Improvement that are prepared by or on behalf of Santa as Lead Agency shall be subject to approval by Irvine, which approval shall not be unreasonably withheld or delayed.

Santa Ana shall indemnify, defend and hold Irvine, its City Council members, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Santa Ana in connection with the design, construction or maintenance of the Roadway Improvement or Overcrossing Improvement.

Irvine shall indemnify, defend and hold Santa Ana, its City Council members, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Irvine in connection with the design, construction or maintenance of the Roadway Improvement or Overcrossing Improvement; provided, however, that upon completion of the Roadway Improvement, and upon satisfactory completion of inspection by appropriate personnel

for the City of Santa Ana, Irvine shall dedicate or convey the Roadway Improvement in its entirety to Santa Ana (to the extent necessary), and shall thereafter have no further liability or responsibility to Santa Ana in connection with the Improvement Work on the Roadway Improvement. However, Irvine shall cooperate with Santa Ana in the prosecution of any required construction defect claims in regard to the Roadway Improvements.

- F. Payment of costs. Irvine shall reimburse Santa Ana for any portion of the Total Costs of the Roadway Improvement incurred by Santa Ana if Santa Ana acts as Lead Agency, subject to the restrictions and limitations contained in this Agreement, as follows:

Santa Ana shall invoice Irvine not more than once monthly for costs incurred since the previous invoice. Each invoice shall be accompanied by a detailed statement of the nature of the costs incurred. Each proper invoice shall be paid by Irvine within thirty (30) days of receipt. The parties agree to meet and confer in good faith to resolve any dispute over any invoice or the need and necessity of any costs incurred. With regard to any action in eminent domain undertaken by Santa Ana in the implementation of this Agreement, Santa Ana may require commercially reasonable advance payments from Irvine at such times as Santa Ana determines to be appropriate to discharge its responsibilities in such action. The provisions of this paragraph may be modified by the mutual agreement of the City Managers of Irvine and Santa Ana.

- G. Monitoring of Building Permits. Irvine shall monitor the extent of development authorized by the issuance of building permits in the IBC and submit annual reports to Santa Ana. The Annual Report shall indicate the gross square feet of development authorized by building permits issued for development in the IBC.

H. Cooperation. The Parties shall cooperate in the implementation of this Agreement. In particular, Irvine will: (i) retain the Overcrossing Improvement and the Roadway Improvement in the County's Master Plan of Arterial Highways (MPAH), (ii) support Santa Ana in any application for grant funding for the Overcrossing Improvement, and (iii) support Santa Ana in requesting that Orange County Transportation Authority (OCTA) include the Overcrossing Improvement as part of the SR55 freeway widening project. Similarly, Santa Ana will: (i) support Irvine in any application for grant funding for the Roadway Improvement.

3. Payment by Irvine to Santa Ana of Irvine's share:

- A. Overcrossing Improvement. If Santa Ana does not have available funds necessary to enable it to perform its funding obligation for the Overcrossing Improvement at such time as Irvine is prepared to provide funds for the completion of the Overcrossing Improvements, the City Managers of Irvine and Santa Ana shall defer the construction of the Overcrossing Improvement to a mutually agreeable date, provided, however, in the event that parties can not mutually agree upon a deferred date, Irvine may choose to pay Santa Ana the amount of its obligations for the completion of the Overcrossing Improvement in order to be relieved and would in that event, notwithstanding any other provision of this Agreement, be permitted to issue building permits for development in excess of 51,000,000 square feet in the IBC,
- B. Amount of payments. The payment due to Santa Ana from Irvine pursuant to this section shall be the estimated Total Cost of the Overcrossing Improvement as agreed between Irvine and Santa Ana, to the extent of the work that remains to be done, at the time payment is made.
- C. Use of funds by Santa Ana. Any funds received by Santa Ana from Irvine pursuant to this section for the Overcrossing Improvement shall be maintained in a separate fund by Santa Ana, which fund shall be used solely for the completion of the Overcrossing Improvement.

4. Amendment of Santa Ana General Plan. Santa Ana shall process a General Plan Amendment, as necessary to accommodate the Roadway Improvement (the "GPA"). The Parties acknowledge that as part of the GPA, Santa Ana may alter its current designations for Dyer Road outside the area of the Roadway Improvement. Irvine shall not object to any portion of the GPA that is consistent with this Paragraph 4. Until Santa Ana amends its General Plan to accommodate the Roadway Improvement, or certifies to Irvine that the Santa Ana General Plan accommodates the Roadway Improvement, Irvine shall have no obligation to fund the Roadway Improvement.
5. Covenant Not to Sue. Each Party, and its respective agents, officers, employees, representatives and assigns hereby agrees and covenants that this Agreement forever satisfies any past, present, or future claims which the Party, and its agents, officers, employees, representatives or assigns had, has or may have against the other Party or its agents, officers, employees, representatives, and assigns arising out of the IBC Vision Plan, the 1992 Entitlements and the 1992 Agreement. Each Party hereto covenants not to file any future legal actions of whatever kind or nature against the other Party regarding any claim in connection with the IBC Vision Plan, the 1992 Entitlements and the 1992 Agreement, whether such claim is known or unknown, suspected or unsuspected, fixed or contingent.
6. Waiver of Civil Code Section 1542. With regard to matters arising from or related to IBC Vision Plan, the 1992 Entitlements and/or the 1992 Agreement, each of the Parties hereto expressly waives any and all rights that they may have under Civil Code section 1542 ("Section 1542") or any Federal or State statutory right, rules or principles of common law or equity or those of any other jurisdiction, government or political subdivision thereof, similar to Section 1542 ("Similar Provision"). Thus, no Party hereto may invoke the benefit of Section 1542 or any Similar Provision in order to prosecute or assert in any manner any claim released hereunder that arises from or relates to the IBC Vision Plan, the 1992 Entitlements and/or the 1992 Agreement. Section 1542 provides that: "a general

release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially effected his settlement with the debtor. "

Santa Ana Initials:

BR

Irvine initials:

SLK

7. Integration. This Agreement represents the entire understanding of the Parties hereto. No prior or contemporaneous oral or written understanding shall be of any force or effect with respect to those matters covered in this Agreement. This Agreement may not be altered, amended, or modified except by mutual consent of the Parties hereto through a written instrument.
8. California Law. This Agreement shall be construed and interpreted both as to its validity and as to the performance of the Parties in accordance with the laws of the State of California.
9. Execution and Counterparts. This Agreement may be executed and delivered in any number of counterparts or copies ("Counterpart") by the Parties hereto.
10. Authority to Execute. Each person executing this Agreement on behalf of a Party hereto warrant that he or she is duly authorized to execute this Agreement on behalf of said Party and that by so executing this Agreement, each Party formally binds itself to the provisions of this Agreement. Each person executing this Agreement further acknowledges that he or she has obtained all necessary and legally required approvals for entry into this Agreement from legislative or governing boards and that such legislative or governing board has adopted a resolution, motion, ordinance or other action pursuant to State law and its own bylaws or ordinances for approval of this Agreement.
11. Notices. Every notice, demand, request, annual report, or other document or instrument delivered pursuant to this Agreement shall be in writing and shall either be personally delivered, sent by Federal Express or other reputable overnight courier, sent by facsimile transmission with the original subsequently

delivered by any other means authorized herein, or sent by certified United States mail, postage prepaid, return receipt requested, to the address set forth below for the applicable Party, or such other address as Parties may designate from time to time:

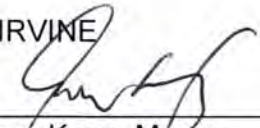
To the City: City of Irvine
City Hall
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92713
Attn: City Manager
cc: Director of Community Development
Director of Public Works
Telephone: (714) 724-6000
Fax: (714) 724-6075

To the City: City of Santa Ana
20 Civic Center Plaza
P.O. Box 1988
Santa Ana, CA 92702
Attn: City Manager
cc: Executive Director of Planning and Building
Executive Director of Public Works
Telephone: (714) 647-6900
Fax: (714) 647-6951


12. Severability. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
13. Amendment and Restatement: This Agreement amends and restates, and thereby supersedes in full, the 1992 Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment To
and Restatement Of the 1992 Agreement as set forth below.

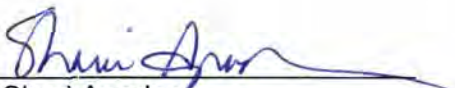
"Irvine"
CITY OF IRVINE

By: 
Sukhee Kang, Mayor

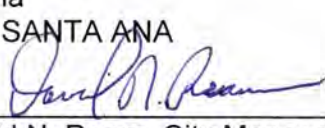
APPROVED AS TO FORM:

By: 
Philip D. Kohn
City Attorney

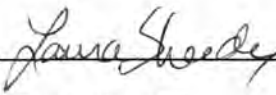
ATTEST:

By: 
Shari Apodaca
City Clerk of the City of Irvine

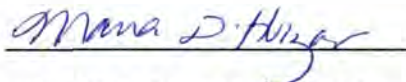
"Santa Ana"
CITY OF SANTA ANA

By: 
David N. Ream, City Manager

APPROVED AS TO FORM:

By: 
City Attorney

ATTEST:

By: 
Clerk of the Council, City of Santa Ana

AGREEMENT

This Agreement for IMPLEMENTING ROADWAY AND INTERCHANGE MITIGATION PROGRAM ("Agreement") is made and entered into as of this 24th day of November, 1992 (the "Effective Date"), by and between the City of Irvine, a California charter city ("Irvine") and the City of Santa Ana, a California municipal corporation ("Santa Ana") (collectively referred to as the "Parties").

R E C I T A L S

A. Irvine has certified Environmental Impact Report 88-ER-0087 (the "IBC EIR"), as adequate and complete and adopted General Plan Amendment No. 7234-GA, and Zoning Amendment 88-ZC-0135 (collectively the "IBC Rezoning") to amend the land use designation and zoning in that portion of the City known as the Irvine Business Complex (the "IBC"), more specifically defined as that area depicted on Exhibit "A," attached hereto and incorporated herein by this reference.

B. The IBC EIR analyzes the IBC Rezoning and concludes that the mitigation measures contained therein will adequately accommodate the traffic impacts which are anticipated to be generated by the IBC Rezoning.

C. Certain mitigation measures discussed in the IBC EIR and adopted as part of the IBC Rezoning are Roadway and Interchange Improvements which are to be constructed within the municipal boundaries of Santa Ana.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereto agree as follows:

1. Limit on new development in the IBC.

The parties hereto agree and stipulate that, as of the date of this Agreement, Irvine has approximately 39,846,000 square feet of development within the IBC. Except as otherwise provided in this Agreement, Irvine agrees that it will not issue building permits for development in the IBC which would cause the total development in the IBC (presently existing development plus development occurring after the date of this Agreement) to exceed 51,000,000 square feet until after the following street improvements, located in the City of Santa Ana, have been completed:

- (a) The widening of Dyer Road to eight (8) lanes from a point commencing just east of the SR-55 freeway northbound direct connector on-ramp to and including the Redhill-Dyer/Barranca Avenue intersection, as provided in the IBC EIR mitigation measures (numbers 1.a. and 2.p.) (the "Roadway Improvements").
- (b) An Alton Avenue overcrossing of the SR-55 freeway with high occupancy vehicle northbound and southbound drop ramps, as provided in the IBC EIR mitigation measures (numbers 1.d and 3.b.) (the "Interchange Improvements").

Irvine further agrees that in the event that, notwithstanding Irvine's agreement to limit the issuance of building permits as abovesaid, the total development in the IBC does exceed 51,000,000 square feet prior to the completion of the Roadway Improvements and

the Interchange Improvements:

- (a) Irvine shall be liable to Santa Ana for Irvine's share of the Total Costs (as defined in Section 2 hereinbelow) of the Interchange Improvements, to the extent such Total Costs remain outstanding, and shall pay such amount to Santa Ana. Any amounts received by Santa Ana pursuant to this paragraph for the Interchange Improvements shall be expended by Santa Ana in accordance with Section 3 hereinbelow.
- (b) Irvine shall deposit the Total Costs (as defined in Section 2 hereinbelow) of the Roadway Improvements, to the extent such Total Costs remain outstanding, in an interest bearing account in a financial institution acceptable to both Irvine and Santa Ana. Irvine shall not withdraw any of the principal of such amount except in connection with the design and construction of the Roadway Improvements, including but not limited to alignment studies and any environmental documentation which may be necessary in addition to the IBC EIR, costs of land acquisition (including any costs incurred in any eminent domain action), costs of design and construction, and administrative staff costs related to the Roadway Improvements. Any and all interest earned on the amounts deposited in such account shall be paid to Santa Ana.

Notwithstanding anything to the contrary in the IBC EIR or in the environmental findings approved by Irvine in its approval of

the IBC Rezoning, the parties hereto agree that the completion of the Roadway Improvements and the Interchange Improvements in accordance with this Agreement (and subject to the exceptions set forth in this Agreement) are appropriate and necessary mitigation measures for the IBC Rezoning under the California Environmental Quality Act.

2. Responsibilities of the Parties.

a. "Total Costs" defined. As used with reference to the Roadway Improvements and/or the Interchange Improvements, the term "Total Costs" means all costs incurred in the completion of those improvements, including, but not limited to, costs of preparation of alignment studies and any environmental documentation which may be necessary in addition to the IBC EIR, costs of land acquisition (including any costs incurred in any eminent domain action), costs of design and construction, and administrative staff costs.

b. "Lead Agency" defined. As used herein, the term "Lead Agency" means the city (Irvine or Santa Ana) which is responsible for undertaking the work necessary to complete the Roadway Improvements and/or the Interchange Improvements, including, but not limited to, preparation of alignment studies and any environmental documentation which may be necessary in addition to the IBC EIR, land acquisition, and design and construction, either through its own employees or through independent contractors, except as otherwise provided hereinbelow.

c. Funding responsibilities. Irvine shall be

responsible for 100% of the Total Costs of the Roadway improvements, exclusive of any portion thereof as to which any governmental entity other than Santa Ana may assume responsibility. Irvine and Santa Ana shall each be responsible for 50% of the Total Costs of the Interchange Improvements, exclusive of any portion thereof as to which any governmental entity other than Irvine or Santa Ana may assume responsibility. Nothing herein shall be construed to restrict the ability of either city to obtain funds to meet its funding responsibilities hereunder through the imposition of development fees or such other revenue measures as may be deemed appropriate by that city.

d. Lead Agency responsibilities. Except as otherwise provided in paragraph b of Section 3 of this Agreement, Irvine shall be the Lead Agency for the Roadway Improvements, provided, however, that to the extent that Irvine is unable to acquire land necessary for the Roadway Improvements due to Irvine's inability to exercise powers of eminent domain in the jurisdiction of the City of Santa Ana, Santa Ana shall assume Lead Agency responsibilities with respect to such land acquisition. Santa Ana shall be the Lead Agency with regard to the Interchange Improvements. All alignment and design plans and environmental documentation prepared by or on behalf of Irvine as Lead Agency shall be subject to approval by Santa Ana, which approval shall not be unreasonably withheld or delayed; provided, however, that Santa Ana may require all design plans to conform to Santa Ana design standards in effect at the time such plans are submitted.

Santa Ana shall indemnify, defend and hold Irvine, its councilmembers, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Santa Ana in connection with the design, construction or maintenance of the Roadway Improvements or Intersection Improvements.

Irvine shall indemnify, defend and hold Santa Ana, its councilmembers, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Irvine in connection with the design, construction or maintenance of the Roadway Improvements or Intersection Improvements.

e. Payment of costs. For any portion of Total Costs incurred by Santa Ana as Lead Agency, Irvine shall pay to Santa Ana Irvine's funding obligation for such costs, as determined pursuant to paragraph a of this section, as follows: Santa Ana shall invoice Irvine not more than once monthly for costs incurred since the previous invoice. Each invoice shall be accompanied by a detailed statement of the nature of the costs incurred. Each proper invoice shall be paid by Irvine within thirty (30) days of

receipt. The parties agree to meet in good faith to resolve any dispute over any invoice or the need and necessity of any costs incurred. With regard to any action in eminent domain action undertaken by Santa Ana in the implementation of this Agreement, Santa Ana may require payments from Irvine at such times as Santa Ana determines to be appropriate to discharge its responsibilities in such action. The provisions of this paragraph may be modified and/or elaborated by the mutual agreement of the City Managers of Irvine and Santa Ana.

f. Monitoring of building permits. Irvine shall monitor the extent of development authorized by the issuance of building permits in the IBC and submit quarterly reports to Santa Ana commencing on or about the first week of January, 1993 (the "Quarterly Report"). The Quarterly Report shall indicate the gross square feet of development authorized by building permits issued for development in the IBC.

g. Cooperation. The parties hereto agree to cooperate in the implementation of this Agreement. In particular, but without limitation, Santa Ana and Irvine shall exercise good faith in cooperating with the California Department of Transportation ("Caltrans") in negotiating and entering into all necessary cooperative agreements for the funding, design, and construction of the Interchange Improvements.

3. Payment by Irvine to Santa Ana of Irvine's share.

a. The Interchange Improvements. In the event that (1) Santa Ana does not have available funds necessary to

enable it to perform its funding obligation for the Interchange Improvements at such time as Irvine is prepared to provide funds for the completion of its funding obligations for the Interchange Improvements, or (2) Caltrans has not taken any and all actions required by it to permit the construction of the Interchange Improvements at such time as Irvine is prepared to provide funds for the completion of its funding obligations for the Interchange Improvements, the City Managers of Irvine and Santa Ana shall defer the construction of the Interchange Improvements to a mutually agreeable date; provided, however, that in the event the parties cannot mutually agree upon a deferred date, Irvine shall pay to Santa Ana the amount of its funding obligation for the Interchange Improvements, and Irvine shall thereupon be relieved of any further responsibility for the completion of the Interchange Improvements pursuant to Section 1 of this Agreement, and the completion of the Interchange Improvements shall no longer be condition precedent to the issuance of building permits for development in excess of 51,000,000 square feet in the IBC.

b. Amount of payments. The amount of the payment due to Santa Ana from Irvine pursuant to this Section shall be the estimated Total Cost of the Interchange Improvements, to the extent of the work that remains to be done, at the time payment is made.

c. Use of funds by Santa Ana. Any funds received by Santa Ana from Irvine pursuant to this Section for the Interchange Improvements shall be used for the completion of the Interchange Improvements.

4. Amendment of Santa Ana General Plan.

Within two years of the execution of this Agreement, Santa Ana shall, if necessary, take action to amend its General Plan to accommodate the Interchange Improvements contemplated by this Agreement. In the event of any litigation challenging the amendment of Santa Ana's general plan to accommodate the Interchange Improvements, the abovesaid time period shall be extended for such time as may be necessary to resolve such litigation. Irvine shall not object to that portion of the Santa Ana General Plan amendment relating to the Interchange Improvements. In the event that, after the expiration of the abovesaid time period, Santa Ana has not amended its General Plan to accommodate the Interchange Improvements at such time as Irvine is prepared to provide funds for the completion of its funding obligations for the Interchange Improvements, then the completion of the Interchange Improvements shall no longer be a condition precedent to the issuance of building permits for development in excess of 51,000,000 square feet in the IBC. Unless and until Santa Ana amends its General Plan to accommodate the Interchange Improvements, or certifies to Irvine that the Santa Ana General Plan accommodates the Interchange Improvements, Irvine shall have no obligation to fund the Interchange Improvements.

Within two years of the execution of this Agreement, Santa Ana shall take an action to amend its General Plan to accommodate the Roadway Improvement contemplated by this Agreement. In the event of any litigation challenging the amendment of Santa

Ana's general plan to accommodate the Roadway Improvement, the abovesaid time period shall be extended for such time as may be necessary to resolve such litigation. Irvine shall not object to that portion of the Santa Ana General Plan amendment relating to the Roadway Improvements or to any Santa Ana General Plan designation of any portion of Dyer Road outside of the area of the Roadway Improvements adopted to effectuate this Agreement. In the event that, after the expiration of the abovesaid time period, Santa Ana has not amended its General Plan to accommodate the Roadway Improvements at such time as Irvine is prepared to acquire land for the Roadway Improvements, then Irvine shall no longer have any obligation under this Agreement to construct or fund the Roadway Improvements.

5. Participation in Five-City Study.

Irvine shall not request Santa Ana's participation in the Five-City study referenced in IBC EIR Condition No. 8 and IBC Mitigation Monitoring and Reporting Checklist Mitigation Measure No. 7A.

6. Payment for Main Street Widening.

Irvine shall not request that Santa Ana contribute any funds whatsoever for the widening of Main Street to six (6) lanes between Sunflower Avenue and San Diego Creek.

7. Covenant Not to Sue.

Each Party, and its respective agents, officers, employees, representatives and assigns hereby agrees and covenants that this Agreement forever satisfies any past, present, or future

claims which the Party, and its agents, officers, employees, representatives or assigns had, has or may have against the other Party or its agents, officers, employees, representatives, and assigns arising out of the IBC Rezoning and/or the preparation and certification of the IBC EIR. As a result, each Party hereto covenants not to file any future legal actions of whatever kind or nature against the other Party regarding any claim in connection with the IBC Rezoning or the IBC EIR whether such claim is known or unknown, suspected or unsuspected, fixed or contingent.

8. Waiver of Civil Code Section 1542.

Each of the Parties hereto expressly waives any and all rights under Section 1542 of the California Civil Code or any Federal or State statutory right, rules or principles of common law or equity or those of any other jurisdiction, government or political subdivision thereof, similar to Civil Code Section 1542 (hereinafter referred to "Similar Provision"). Thus, no Party hereto may invoke the benefit of Section 1542 or any Similar Provision in order to prosecute or assert in any manner any claim released hereunder. Section 1542 provides that:

"a general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially effected his settlement with the debtor."

9. Integration.

This Agreement represents the entire understanding of the Parties hereto. No prior or contemporaneous oral or written

understanding shall be of any force or effect with respect to those matters covered in this Agreement. This Agreement may not be altered, amended, or modified except by mutual consent of the Parties hereto through a written instrument.

10. Attorneys Fees.

In the event that any Party hereto should bring any action, suit or other proceeding to remedy, prevent, or obtain relief from a breach of this Agreement or arising out of a breach of this Agreement, or contesting the validity of this Agreement or attempting to rescind, negate, modify, or reform this Agreement, or any of the terms or provisions of this Agreement, the prevailing Party shall recover from such Party those reasonable attorneys fees and costs, including expert fees, incurred in each and every such action, suit, or other proceeding, including any and all appeals or petitions therefrom.

11. California Law.

This Agreement shall be construed and interpreted both as to validity and performance of the Parties in accordance with the laws of the State of California.

12. Execution and Counterparts.

This Agreement may be executed and delivered in any number of counterparts or copies ("Counterpart") by the Parties hereto.

13. Authority to Execute.

The persons executing this Agreement on behalf of the Parties hereto warrant that they are duly authorized to execute

this Agreement on behalf of said Parties and that by so executing this Agreement, the Parties hereto are formally bound to the provisions of this Agreement. Each person further acknowledges that he or she has obtained all necessary and legally required approvals for entry into this Agreement from legislative or governing boards and that it has adopted a resolution, motion, ordinance or other action pursuant to State law and its own bylaws or ordinances for approval of this Agreement.

14. Notices.

Every notice, demand, request, or other document or instrument delivered pursuant to this Agreement shall be in writing and shall either be personally delivered, sent by Federal Express or other reputable over-night courier, sent by facsimile transmission with the original subsequently delivered by any other means authorized herein, or sent by certified United States mail, postage prepaid, return receipt requested, to the address set forth below for the applicable Party, or such other address as Parties may designate from time to time:

To the City: City of Irvine
City Hall
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92713
Attn: City Manager
cc: Director of Community Development
Telephone: (714) 724-6000
Fax: (714) 724-6075

To the City: City of Santa Ana
20 Civic Center Plaza
P.O. Box 1988
Santa Ana, CA 92702
Attn: City Manager
cc: Executive Director of Planning and
Building
Telephone: (714) 647-6900
Fax: (714) 647-6951

15. Severability clause.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date appearing next to their signatures.

Dated: 12/23/92

ATTEST:

Janice C. Guy
Janice C. Guy
Clerk of the Council

APPROVED AS TO FORM:

Edward J. Cooper
Edward J. Cooper
City Attorney

CITY OF SANTA ANA

by Daniel H. Young
Daniel H. Young
Mayor

Dated: 11-24-92

ATTEST:

Nancy C. Lacy
Nancy C. Lacy
Clerk of the Council

APPROVED AS TO FORM:

City Attorney
City Attorney

CITY OF IRVINE

by Larry Allen Sherada
Larry Allen Sherada
Mayor

Approved as to content

City Manager
City Manager



Appendix D: Detail Layout and Cost Estimate Worksheets for Improvements

City of Irvine

City of Irvine List of Improvements and Associated Costs

Jurisdiction	Int ID	Intersection / Arterial Location	Improvement Strategy	Cost				Fair Share %	Total Cost to IBC Fee
				Construction Subtotal	ROW Subtotal	Contingency Cost*	Total		
Irvine	97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway	Add 3rd NBT and convert de facto right-turn to standard NBR	\$2,918,631	\$2,880,767	\$1,759,316	\$7,558,713	90%	\$6,802,842
Irvine	98	Von Karman Avenue at Alton Parkway	Add 3rd NBT						
Irvine	134	Loop Road/Park Avenue at Warner Avenue	Add 3rd EBT and NBR overlap	\$3,169,280	\$340,175	\$1,901,568	\$5,411,023	90%	\$4,869,921
Irvine	135	Jamboree NB Ramps/Warner Avenue	Add 2nd EBL	\$1,389,515	\$208,725	\$994,757	\$2,592,998	90%	\$2,333,698
Irvine	188	Harvard Avenue at Michelson Drive	Widen SB to 2,2,1	\$1,628,028	\$10,725	\$1,114,014	\$2,752,766	90%	\$2,477,489
Irvine	229	Culver Drive at Alton Parkway	Improve EB to 2,3,0 (de facto right)	\$587,290	\$23,095	\$593,646	\$1,204,030	90%	\$1,083,627
Irvine		Red Hill Avenue between Main Street and Mac Arthur Boulevard	Widen from 4 lanes to 6 lanes.	\$7,088,805	\$7,077,301	\$4,253,284	\$18,419,390	90%	\$16,577,451
Irvine		Gillette Avenue at Alton Parkway	New traffic signal (T-intersection)	\$350,000	\$0	\$137,500	\$487,500	90%	\$438,750
TOTAL									\$34,583,778

*Contingency cost includes:

- Preliminary Project Development Cost (10% Construction Cost, minimum \$300,000)
- Design Engineering/Administration Cost (15% Construction Cost)
- Construction Engineering Cost/Administration (15% Construction Cost)
- Contingency (20% Construction Cost)

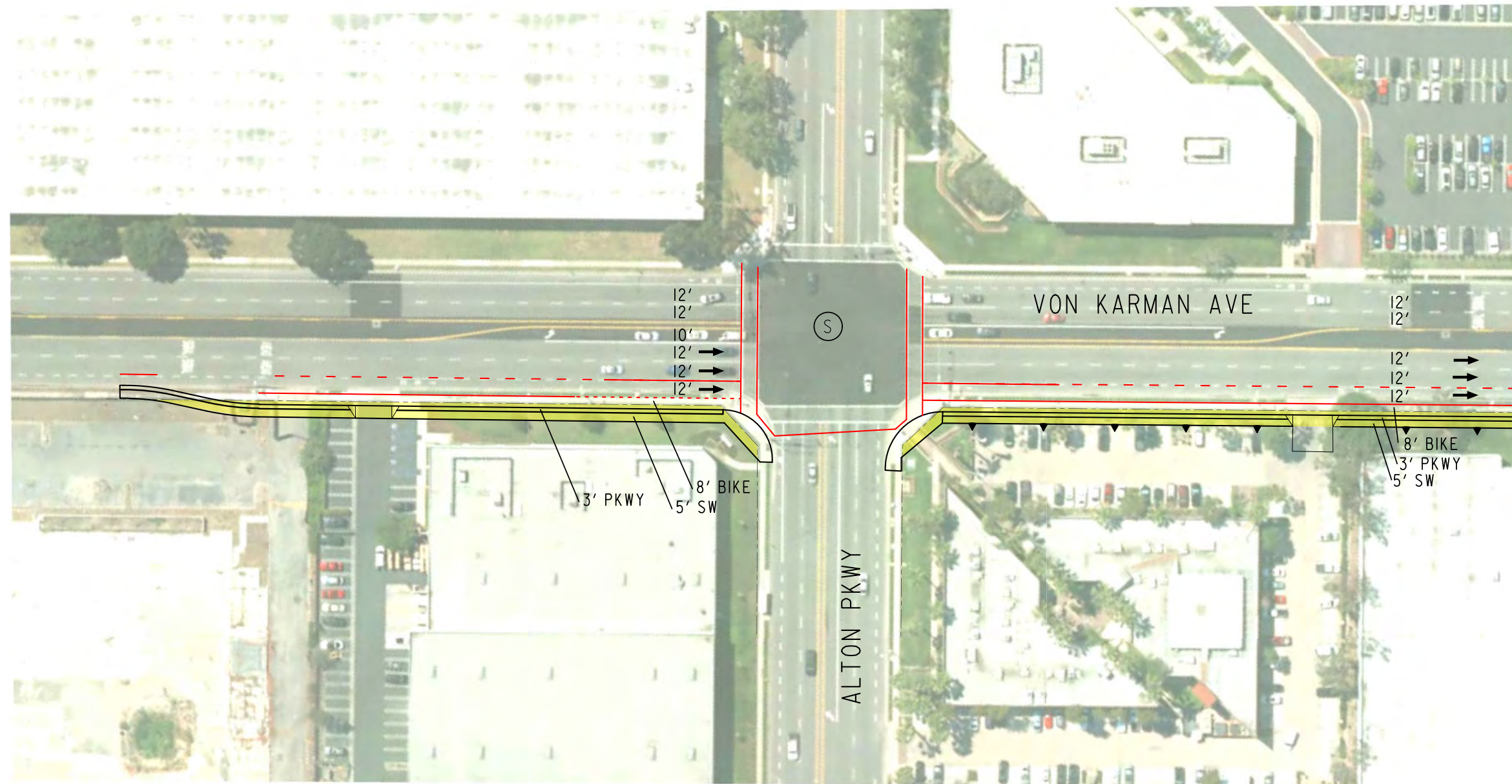
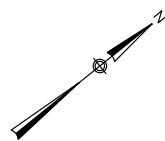
97 - Von Karman Avenue/Tustin Ranch Road at Barranca Parkway
and

98 - Von Karman Avenue at Alton Parkway







Intersections #97 and #98
Von Karman Ave & Barranca Pkwy and Von Karman Ave & Alton Pkwy
Mitigations: Add 3rd NBT lane, Convert defacto right-turn to standard NBR

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.85	\$10,370	
2	Earthwork	\$46.00	CY	1900	\$87,400	
3	Remove Curb & Gutter	\$24.00	LF	3085	\$74,040	
4	Remove Median Curb	\$30.00	LF		\$0	
5	Remove PCC Sidewalk	\$5.00	SF	16305	\$81,525	
6	Remove Pavement	\$5.00	SF	9600	\$48,000	
7	Remove Channel	\$40.00	LF		\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF		\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF		\$0	
10	Remove & Replace Tree	\$1,500.00	EA	46	\$69,000	
11	Modify Driveway	\$6,100.00	EA	11	\$67,100	
12	Construct PCC Pavement	\$14.00	SF		\$0	
13	Construct AC Pavement	\$8.00	SF	34949	\$279,592	
14	Construct AC Overlay	\$3.60	SF		\$0	
15	Construct Slurry Seal	\$0.40	SF		\$0	
16	Construct AC Dike	\$15.00	LF		\$0	
17	Construct Curb & Gutter	\$30.00	LF	3042	\$91,260	
18	Construct Concrete Barrier	\$80.00	LF		\$0	
19	Construct Median Curb	\$31.00	LF	25	\$775	
20	Construct Median Concrete	\$15.00	SF		\$0	
21	Construct Median/Parkway Landscaping	\$13.00	SF	6719	\$87,347	
22	Construct PCC Sidewalk	\$9.05	SF	14590	\$132,040	
23	Construct Wheelchair Ramp	\$6,000.00	EA	12	\$72,000	
24	Construct Retaining Wall	\$75.00	SF	6360	\$477,000	Average Height = 3'
25	Remove Retaining Wall	\$35.00	SF		\$0	Caltrans has \$35 per SF. \$74 too high.
26	Relocate Monument Wall	\$20,000.00	EA		\$0	
27	Parkway Drain	\$1,000.00	EA	9	\$9,000	
28	Sawcut	\$4.00	LF	3032	\$12,128	
	ROADWAY SUBTOTAL				\$1,598,577	
TRAFFIC						
29	Remove Striping	\$3.00	LF	3100	\$9,300	Caltrans Cost \$3 per LF. \$13 too high.
30	Relocate Street Light	\$6,200.00	EA	12	\$74,400	
31	Modify Traffic Signal	\$325,000.00	EA	1	\$325,000	Alton Pkwy, Barranca Pkwy signals
32	New Traffic Signal	\$425,000.00	EA		\$0	
33	Install Striping	\$5.00	LF	4930	\$24,650	
34	Relocate Freeway Sign (2 post)	\$700.00	EA		\$0	
35	Loop Detector	\$2000.00	EA	8	\$16,000	
36	Relocate Sign (1 post)	\$220.00	EA	30	\$6,600	
37	Overhead Sign (2 posts)	\$240,000.00	EA		\$0	
38	Relocate Bus Bench	\$1,458.00	EA	1	\$1,458	
39	Install Ramp Metering System	\$80,000.00	EA		\$0	
40	Install Delineator	\$36.60	EA		\$0	
41	Apply ATMS	\$113,165.00	LS		\$0	
	TRAFFIC SUBTOTAL				\$457,408	
UTILITIES AND DRAINAGE						
42	Relocate Call Box	\$2,051.00	EA		\$0	
43	Relocate Power Pole	\$25,000.00	EA		\$0	
44	Relocate Catch Basin	\$9,760.00	EA	2	\$19,520	
45	Relocate Fire Hydrant	\$5,000.00	EA		\$0	
46	Relocate Utility Boxes	\$1000.00	EA	50	\$50,000	
47	Relocate Main Water Valve	\$12,200.00	EA		\$0	
48	Relocate Utility Vault	\$10,000.00	EA	6	\$60,000	
49	Adjust Manhole to Grade	\$1,500.00	EA		\$0	
50	Adjust Water Meter	\$1000.00	EA		\$0	
51	Adjust Water Valve	\$1000.00	EA	2	\$2,000	
52	Adjust Minor Above Ground Utilities	\$1000.00	EA		\$0	
53	Construct Striping & Marking	\$2.00	LF		\$0	
54	Construct Storm Drain Main	\$122.00	LF		\$0	
55	Construct RCB	\$549.00	CY		\$0	
56	Construct Channel (Earthen)	\$12.20	LF		\$0	
57	Relocate FDC	\$15000.00	EA	5	\$75,000	
58	Construct Concrete V-Ditch	\$19.00	LF		\$0	
59	Construct Bridge Widening	\$500.00	SF		\$0	
	UTILITIES AND DRAINAGE SUBTOTAL				\$206,520	
GENERAL						
60	Mobilization	10.00%	LS	1	\$226,250	
61	Traffic Control	8%	LS	1	\$181,000	
62	Utility Relocations	5%	LS	1	\$113,125	
63	SWPPP Plan and Implementation	6%	LS	1	\$135,750	
	CONSTRUCTION SUBTOTAL				\$2,918,631	
RIGHT-OF-WAY						
64	Right-Of-Way	\$70.00	SF	34721	\$2,430,470	Increase for 2016
65	Parking Impacts	\$20,000.00	EA	5	\$100,000	
66	Temporary Construction Easements	\$6.50	SF	15000	\$97,500	
67	Right-of-Way Management	10%	LS	1	\$252,797	
	RIGHT-OF-WAY SUBTOTAL				\$2,880,767	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$5,799,398	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$437,795	
Construction Engineering Costs/Administration (15% Construction Cost)					\$437,795	
Contingency (20% Construction Cost)					\$583,726	
TOTAL PROJECT COSTS					\$7,558,713	



SEE SHEET 2 OF 3
MATCH LINE



LEGEND

-  SIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PROPOSED ROW
- XX' PROPOSED LANE WIDTH
-  PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 98 (VON KARMAN AVE & ALTON PKWY)

-  ADD 3RD NORTHBOUND THROUGH LANE

MITIGATIONS - IRVINE INTERSECTION 97 (VON KARMAN AVE AT BARRANCA PKWY)

-  ADD 3RD NORTHBOUND THROUGH LANE
-  CONVERT DEFACTO RIGHT-TURN TO STANDARD NBR

IRVINE INTERSECTIONS 97 & 98
VON KARMAN AVE AT BARRANCA PKWY
VON KARMAN AVE AT ALTON PKWY
SHEET 1 OF 3

SEPTEMBER 14, 2016

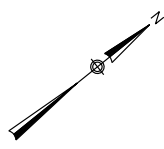


PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT



MATCH LINE
SEE SHEET 1 OF 3

MATCH LINE
SEE SHEET 2 OF 3



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

**MITIGATIONS - IRVINE INTERSECTION 98
(VON KARMAN AVE & ALTON PKWY)**

- ① ADD 3RD NORTHBOUND THROUGH LANE

**MITIGATIONS - IRVINE INTERSECTION 97
(VON KARMAN AVE AT BARRANCA PKWY)**

- ① ADD 3RD NORTHBOUND THROUGH LANE
- ② CONVERT DEFACTO RIGHT-TURN TO STANDARD NBR

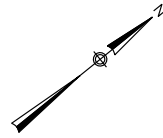
IRVINE INTERSECTIONS 97 & 98
VON KARMAN AVE AT BARRANCA PKWY
VON KARMAN AVE AT ALTON PKWY
SHEET 2 OF 3

SEPTEMBER 14, 2016



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS






CITY OF IRVINE
COMMUNITY DEVELOPMENT



SEE SHEET 2 OF 3
MATCH LINE





LEGEND

-  SIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PROPOSED ROW
-  PROPOSED LANE WIDTH
-  PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 98 (VON KARMAN AVE & ALTON PKWY)

-  ADD 3RD NORTHBOUND THROUGH LANE

MITIGATIONS - IRVINE INTERSECTION 97 (VON KARMAN AVE AT BARRANCA PKWY)

-  ADD 3RD NORTHBOUND THROUGH LANE
-  CONVERT DEFACTO RIGHT-TURN TO STANDARD NBR

IRVINE INTERSECTIONS 97 & 98
VON KARMAN AVE AT BARRANCA PKWY
VON KARMAN AVE AT ALTON PKWY
SHEET 3 OF 3

DECEMBER, 2016



PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

134 - Loop Road/Park Avenue at Warner Avenue

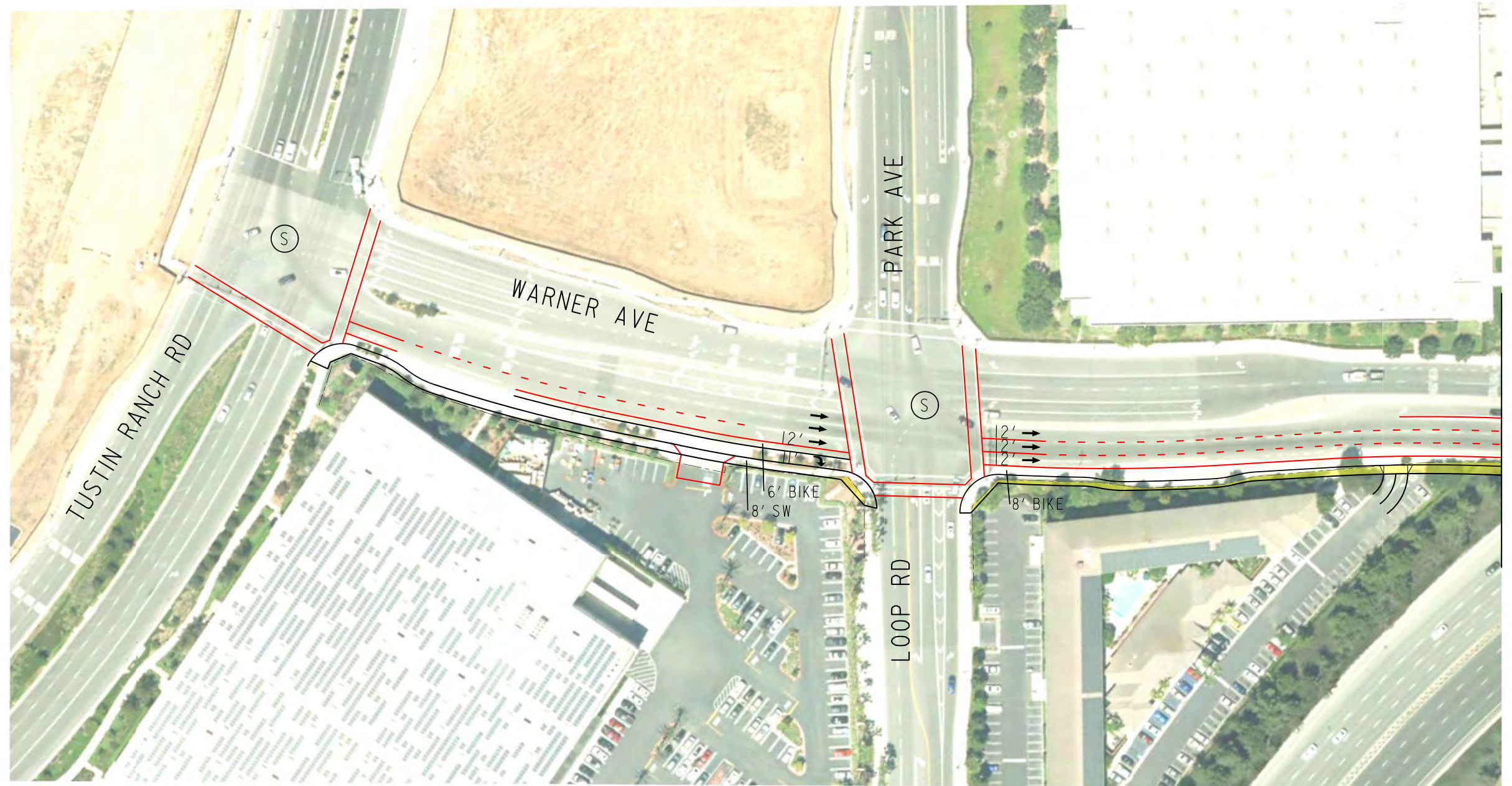
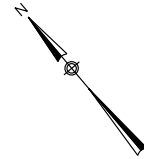
Irvine IBC - Nexus Study

Cost Estimate







Intersection 134
Loop Rd/Park Ave & Warner Ave

ITEM #	DESCRIPTION OF WORK	UNIT PRICE (2012 STUDY)	UNIT PRICE (HDR REVISION)	UNIT	QUANTITY	COST	NOTES
ROADWAY							
1	Clear & Grub	\$12,200.00	\$12,200.00	AC	0.34	\$4,201	
2	Earthwork	\$46.00	\$46.00	CY	3500	\$161,000	
3	Remove Curb & Gutter	\$36.00	\$24.00	LF	1500	\$36,000	Caltrans has \$24 per LF. \$36 too high
4	Remove Median Curb	\$37.00	\$30.00	LF	0	\$0	Caltrans has \$30 per LF. \$37 too high
5	Remove PCC Sidewalk	\$5.00	\$5.00	SF	12800	\$64,000	
6	Remove Pavement	\$5.00	\$5.00	SF	3700	\$18,500	PCC bus stop pad
7	Remove Channel	\$40.00	\$40.00	LF	0	\$0	
8	Remove/Replace Chain Link Fence	\$31.00	\$35.00	LF	0	\$0	
9	Reconstruct Metal Beam Guard Rail	\$86.00	\$40.00	LF	0	\$0	Caltrans has \$30 per LF. \$86 too high
10	Remove & Replace Tree	\$1,500.00	\$1,500.00	EA	10	\$15,000	
11	Modify Driveway	\$6,100.00	\$6,100.00	EA	2	\$12,200	
12	Construct PCC Pavement	\$7.50	\$14.00	SF	3700	\$51,800	2 bus pads
13	Construct AC Pavement	\$6.00	\$8.00	SF	15000	\$120,000	
14	Construct AC Overlay	\$2.50	\$3.60	SF	0	\$0	
15	Construct Slurry Seal	\$0.40	\$0.40	SF	0	\$0	
16	Construct AC Dike	\$4.00	\$15.00	LF	0	\$0	
17	Construct Curb & Gutter	\$19.00	\$30.00	LF	1500	\$45,000	\$30 per recent Irvine bids
18	Construct Concrete Barrier	\$295.00	\$80.00	LF	0	\$0	Caltrans has \$80 per LF.
19	Construct Median Curb	\$31.00	\$31.00	LF	0	\$0	
20	Construct Median Concrete	\$7.90	\$15.00	SF	0	\$0	
21	Construct Median/Parkway Landscaping	\$13.00	\$13.00	SF	10000	\$130,000	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	\$9.05	\$9.05	SF	12800	\$115,840	
23	Construct Wheelchair Ramp	\$5,200.00	\$6,000.00	EA	8	\$48,000	6 curb returns and 1 ADA ramp mod
24	Construct Retaining Wall	\$114.00	\$75.00	SF	855	\$64,125	285' x 3'
25	Remove Retaining Wall	\$74.00	\$35.00	SF	0	\$0	
26	Relocate Monument Wall	\$20,000.00	\$20,000.00	EA	1	\$20,000	
27	Tie-Back Wall (Includes Structural Ex, R&R PCC Slope paving)	-	\$300.00	SF	3000	\$900,000	
28	Sawcut	\$1.25	\$4.00	LF	1500	\$6,000	
	ROADWAY SUBTOTAL					\$1,811,666	
TRAFFIC							
29	Remove Striping	\$13.00	\$3.00	LF	3350	\$10,050	Caltrans Cost \$3 per LF. \$13 too high.
30	Remove Pavement Markings	-	\$150.00	EA	11	\$1,650	
31	Relocate Street Light	\$5,700.00	\$6,200.00	EA	7	\$43,400	
32	Modify Traffic Signal	\$300,000.00	\$325,000.00	EA	1.25	\$406,250	
33	New Traffic Signal	-	\$425,000.00	EA	0	\$0	
34	Install Striping	-	\$5.00	LF	5600	\$28,000	
35	Install Pavement Markings	-	\$350.00	EA	11	\$3,850	
36	Relocate Freeway Sign (2 post)	\$700.00	\$700.00	EA	0	\$0	
37	Loop Detector	\$2,000.00	\$2,000.00	EA	10	\$20,000	
38	Remove Roadside Sign	-	\$150.00	EA	0	\$0	
39	Relocate Sign (1 post)	\$220.00	\$220.00	EA	28	\$6,160	
40	Overhead Sign (2 posts)	\$240,000.00	\$240,000.00	EA	0	\$0	
41	Relocate Bus Bench	\$1,458.00	\$1,458.00	EA	0	\$0	
42	Install Ramp Metering System	\$80,000.00	\$80,000.00	EA	0	\$0	
43	Install Delineator	\$36.60	\$36.60	EA	0	\$0	
44	Apply ATMS	\$113,165.00	\$113,165.00	LS	0	\$0	
	TRAFFIC SUBTOTAL					\$519,360	
UTILITIES AND DRAINAGE							
45	Relocate Call Box	\$2,051.00	\$2,051.00	EA	0	\$0	
46	Relocate Power Pole	\$25,000.00	\$25,000.00	EA	0	\$0	
47	Relocate Catch Basin	\$9,760.00	\$9,760.00	EA	3	\$29,280	
48	Relocate Fire Hydrant	\$5,000.00	\$5,000.00	EA	4	\$20,000	
49	Relocate Utility Boxes	\$895.00	\$1,000.00	EA	48	\$48,000	
50	Relocate Main Water Valve	\$12,200.00	\$12,200.00	EA	0	\$0	
51	Relocate Utility Vault	\$10,000.00	\$10,000.00	EA	2	\$20,000	
52	Adjust Manhole to Grade	\$1,500.00	\$1,500.00	EA	3	\$4,500	
53	Adjust Water Meter	\$610.00	\$1,000.00	EA	2	\$2,000	
54	Adjust Water Valve	\$610.00	\$1,000.00	EA	2	\$2,000	
55	Adjust Minor Above Ground Utilities	\$610.00	\$1,000.00	EA	0	\$0	
56	Construct Striping & Marking	\$2.00	\$2.00	LF	0	\$0	
57	Construct Storm Drain Main	\$122.00	\$122.00	LF	0	\$0	
58	Construct RCB	\$549.00	\$549.00	CY	0	\$0	
59	Construct Channel (Earthen)	\$12.20	\$12.20	LF	0	\$0	
60	Construct Concrete V-Ditch	\$19.00	\$19.00	LF	0	\$0	
61	Construct Bridge Widening	\$500.00	\$500.00	SF	0	\$0	
	UTILITIES AND DRAINAGE SUBTOTAL					\$125,780	
GENERAL							
62	Mobilization	10.00%	\$12,578	LS	1	\$245,681	
63	Traffic Control	8% (\$2,000 Min)		LS	1	\$196,544	
64	Utility Relocation	-	5%	LS	1	\$122,840.31	
65	SWPPP Plan and Implementation	6%		LS	1	\$147,408	
	CONSTRUCTION SUBTOTAL					\$3,169,280	
RIGHT-OF-WAY							
66	Right-Of-Way	\$65.00	\$70.00	SF	3800	\$266,000	Increase for 2016
67	Parking Impacts	\$20,000.00	\$20,000.00	EA	2	\$40,000	
68	Temporary Construction Easements	\$6.50	\$6.50	SF	500	\$3,250	
69	Right-of-Way Management		10%	LS		\$30,925	
	RIGHT-OF-WAY SUBTOTAL					\$340,175	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:						\$3,509,455	
Preliminary Project Development (10% Construction Cost, min \$200,000)						\$316,928	
Design Engineering/Administration Cost (15% Construction Cost)						\$475,392	
Construction Engineering Costs/Administration (15% Construction Cost)						\$475,392	
Contingency (20% Construction Cost)						\$633,856	
TOTAL PROJECT COSTS						\$5,411,023	



LEGEND

-  SIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PROPOSED ROW
-  PROPOSED LANE WIDTH

MITIGATIONS - TUSTIN/IRVINE INTERSECTION I34

-  ADD 3RD EBT AND NBR OVERLAP

TUSTIN/IRVINE INTERSECTION I34
WARNER AVE AT PARK AVE/LOOP RD
SHEET 1 OF 2

DECEMBER, 2016



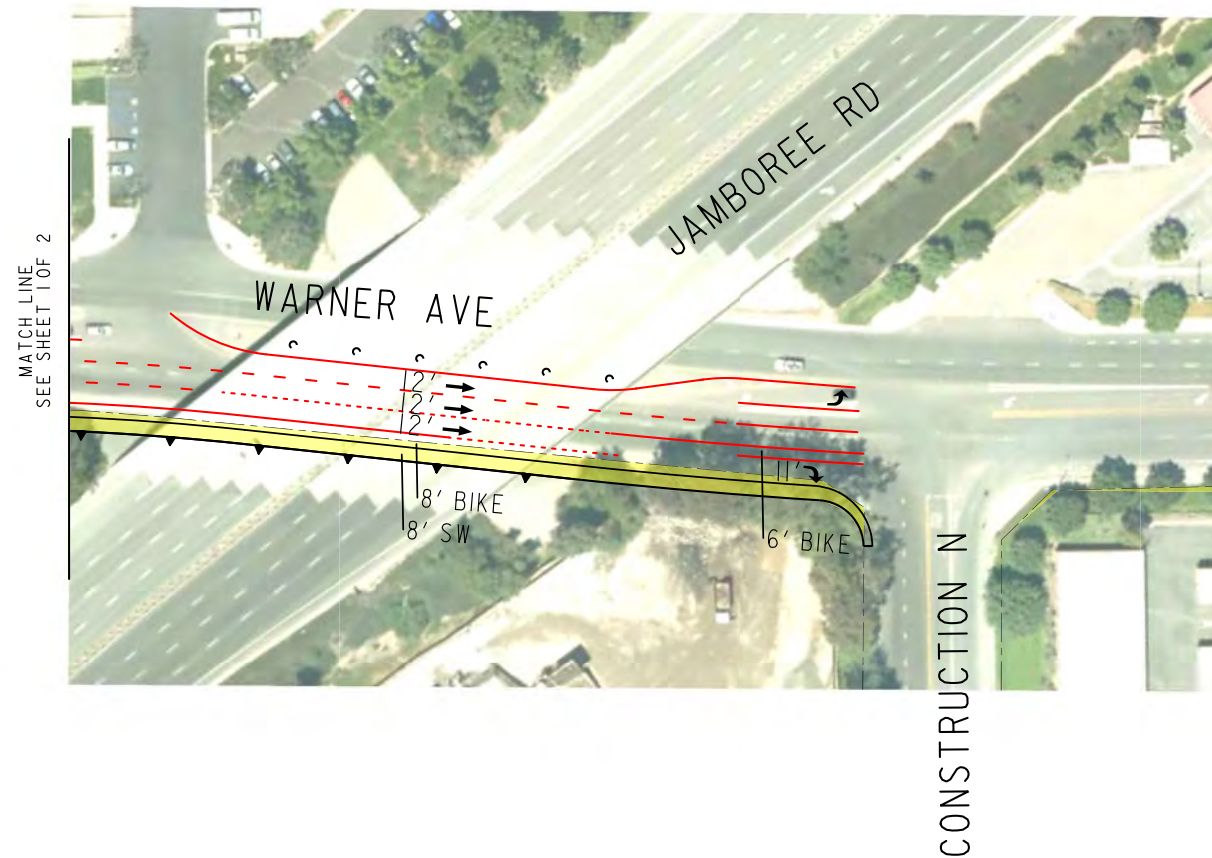
PLAN PREPARED BY:








2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW =
DWG =
PATH =



LEGEND

-  SIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PROPOSED ROW
-  PROPOSED LANE WIDTH
-  PROPOSED RETAINING WALL

MITIGATIONS - TUSTIN/IRVINE INTERSECTION I34

-  ADD 3RD EBT AND NBR OVERLAP

TUSTIN/IRVINE INTERSECTION I34
WARNER AVE AT PARK AVE/LOOP RD
SHEET 2 OF 2

DECEMBER, 2016



PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

135 - Jamboree NB Ramps/Warner Avenue

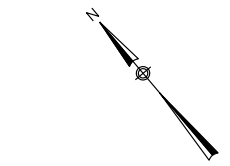
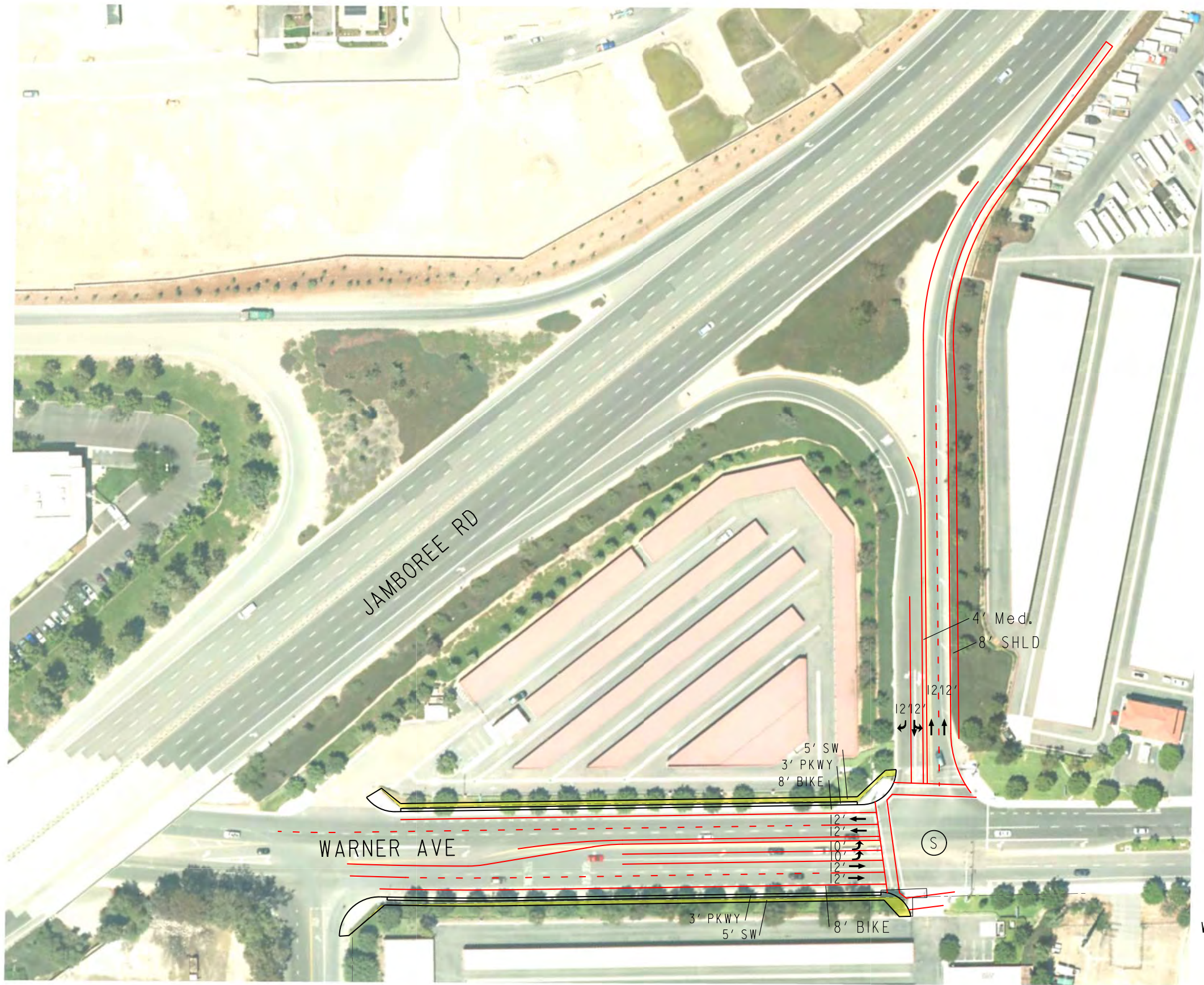
Irvine IBC - Nexus Study

Cost Estimate



Intersection #135(a)
Warner Ave & Jamboree Rd
Mitigations: Add 2nd EBL

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.18	\$2,199	
2	Earthwork	\$46.00	CY	2800	\$128,800	
3	Remove Curb & Gutter	\$24.00	LF	1700	\$40,800	
4	Remove Median Curb	\$30.00	LF	0	\$0	
5	Remove PCC Sidewalk	\$5.00	SF	5500	\$27,500	
6	Remove Pavement	\$5.00	SF	9600	\$48,000	
7	Remove Channel	\$40.00	LF	0	\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF	0	\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF	0	\$0	
10	Remove & Replace Tree	\$1,500.00	EA	30	\$45,000	
11	Modify Driveway	\$6,100.00	EA	1	\$6,100	
12	Construct PCC Pavement	\$14.00	SF	0	\$0	
13	Construct AC Pavement	\$8.00	SF	14500	\$116,000	
14	Construct AC Overlay	\$3.60	SF	0	\$0	
15	Construct Slurry Seal	\$0.40	SF	0	\$0	
16	Construct AC Dike	\$15.00	LF	0	\$0	
17	Construct Curb & Gutter	\$30.00	LF	1700	\$51,000	
18	Construct Concrete Barrier	\$80.00	LF	0	\$0	
19	Construct Median Curb	\$31.00	LF	0	\$0	
20	Construct Median Concrete	\$15.00	SF	0	\$0	
21	Construct Median/Parkway Landscaping	\$13.00	SF	6500	\$84,500	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	\$9.05	SF	5500	\$49,775	
23	Construct Wheelchair Ramp	\$6,000.00	EA	4	\$24,000	
24	Construct Retaining Wall	\$75.00	SF	0	\$0	assume 4'(6'H) x 300 LF wall at toe.
25	Remove Retaining Wall	\$35.00	SF	0	\$0	
26	Relocate Monument Wall	\$20,000.00	EA	0	\$0	
27	Sawcut	\$4.00	LF	1750	\$7,000	
	ROADWAY SUBTOTAL				\$630,674	
TRAFFIC						
28	Remove Striping	\$3.00	LF	4000	\$12,000	
29	Remove Pavement Markings	\$150.00	EA	11	\$1,650	
30	Relocate Street Light	\$6,200.00	EA	2	\$12,400	Along On-Ramp - Protect Street Lights along Warner (except on Sig Poles)
31	Modify Traffic Signal	\$325,000.00	EA	1	\$325,000	two corners modified
32	New Traffic Signal	\$425,000.00	EA	0	\$0	
33	Install Striping	\$5.00	LF	6500	\$32,500	
34	Install Pavement Markings	\$350.00	EA	14	\$4,900	
35	Relocate Freeway Sign (2 post)	\$700.00	EA	1	\$700	
36	Loop Detector	\$2,000.00	EA	0	\$0	video detection
37	Remove Roadside Sign	\$150.00	EA	0	\$0	
38	Relocate Sign (1 post)	\$220.00	EA	7	\$1,540	
39	Overhead Sign (2 posts)	\$240,000.00	EA	0	\$0	
40	Relocate Bus Bench	\$1,458.00	EA	0	\$0	
41	Install Ramp Metering System	\$80,000.00	EA	0	\$0	
42	Install Delineator	\$36.60	EA	0	\$0	
43	Apply ATMS	\$113,165.00	LS	0	\$0	
	TRAFFIC SUBTOTAL				\$390,690	
UTILITIES AND DRAINAGE						
44	Relocate Call Box	\$2,051.00	EA	0	\$0	
45	Relocate Power Pole	\$25,000.00	EA	0	\$0	
46	Relocate Catch Basin	\$9,760.00	EA	3	\$29,280	
47	Relocate Fire Hydrant	\$5,000.00	EA	2	\$10,000	
48	Relocate Utility Boxes	\$1,000.00	EA	2	\$2,000	
49	Relocate Main Water Valve	\$12,200.00	EA	0	\$0	
50	Relocate Utility Vault	\$10,000.00	EA	0	\$0	
51	Adjust Manhole to Grade	\$1,500.00	EA	1	\$1,500	
52	Adjust Water Meter	\$1,000.00	EA	2	\$2,000	
53	Adjust Water Valve	\$1,000.00	EA	10	\$10,000	
54	Adjust Minor Above Ground Utilities	\$1,000.00	EA	1	\$1,000	Area Drain
55	Construct Striping & Marking	\$2.00	LF	0	\$0	
56	Construct Storm Drain Main	\$122.00	LF	0	\$0	
57	Construct RCB	\$549.00	CY	0	\$0	
58	Construct Channel (Earthen)	\$12.20	LF	0	\$0	
59	Construct Concrete V-Ditch	\$19.00	LF	0	\$0	
60	Construct Bridge Widening	\$500.00	SF	0	\$0	
	UTILITIES AND DRAINAGE SUBTOTAL				\$55,780	
GENERAL						
61	Mobilization	\$5,578	LS	1	\$107,714	
62	Traffic Control	8%	LS	1	\$86,171	
63	Utility Relocations	5%	LS	1	\$53,857	
64	SWPPP Plan and Implementation	6%	LS	1	\$64,629	
	CONSTRUCTION SUBTOTAL				\$1,389,515	
RIGHT-OF-WAY						
65	Right-Of-Way	\$70.00	SF	2200	\$154,000	
66	Parking Impacts	\$20,000.00	EA	0	\$0	
67	Temporary Construction Easements	\$6.50	SF	5500	\$35,750	
68	Right-of-Way Management	10%	LS	0	\$18,975	
	RIGHT-OF-WAY SUBTOTAL				\$208,725	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$1,598,240	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$208,427	
Construction Engineering Costs/Administration (15% Construction Cost)					\$208,427	
Contingency (20% Construction Cost)					\$277,903	
TOTAL PROJECT COSTS					\$2,592,998	



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

IRVINE INTERSECTION I35(a)
 WARNER AVE AT JAMBOREE RD RAMP
 SHEET 1 OF 1

MITIGATIONS - IRVINE INTERSECTION I35(a)

- ① ADD SECOND EB LEFT-TURN LANE

DECEMBER, 2016



2015 IBC NEXUS STUDY
 ROADWAY IMPROVEMENTS

CITY OF IRVINE
 COMMUNITY DEVELOPMENT

VIEW =
 DWG =
 PATH =



**Intersection 135(b)
Jamboree Rd & Warner Ave
Mitigations: Construct roundabout**

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.16	\$2,007	
2	Earthwork	\$46.00	CY	1333	\$61,318	
3	Remove Curb & Gutter	\$24.00	LF	400	\$9,600	
4	Remove Median Curb	\$30.00	LF	380	\$11,400	
5	Remove PCC Sidewalk	\$5.00	SF	2400	\$12,000	
6	Remove Pavement	\$5.00	SF	32000	\$160,000	
7	Remove Channel	\$40.00	LF	0	\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF	0	\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF	0	\$0	
10	Remove & Replace Tree	\$1,500.00	EA	25	\$37,500	
11	Modify Driveway	\$6,100.00	EA		\$0	
12	Construct PCC Pavement	\$14.00	SF	0	\$0	
13	Construct AC Pavement	\$8.00	SF	39900	\$319,200	
14	Construct AC Overlay	\$3.60	SF	0	\$0	
15	Construct Slurry Seal	\$0.40	SF	0	\$0	
16	Construct AC Dike	\$15.00	LF	0	\$0	
17	Construct Curb & Gutter	\$30.00	LF	450	\$13,500	
18	Construct Concrete Barrier	\$80.00	LF	0	\$0	
19	Construct Median Curb	\$31.00	LF	1050	\$32,550	
20	Construct Median Concrete	\$15.00	SF	220	\$3,300	
21	Construct Median/Parkway Landscaping	\$13.00	SF	5090	\$66,170	
22	Construct PCC Sidewalk	\$9.05	SF	2200	\$19,910	
23	Construct Wheelchair Ramp	\$6,000.00	EA	8	\$48,000	
24	Construct Retaining Wall	\$75.00	SF	0	\$0	
25	Remove Retaining Wall	\$35.00	SF	0	\$0	
26	Relocate Monument Wall	\$20,000.00	EA	0	\$0	
27	Sawcut	\$4.00	LF	200	\$800	
	ROADWAY SUBTOTAL				\$797,255	
TRAFFIC						
28	Remove Striping	\$3.00	LF	2500	\$7,500	
29	Remove Pavement Markings	\$150.00	EA	5	\$750	
30	Relocate Street Light	\$6,200.00	EA	5	\$31,000	
31	Modify Traffic Signal	\$325,000.00	EA	0	\$0	
32	New Traffic Signal	\$425,000.00	EA	0	\$0	
33	Install Striping	\$5.00	LF	2200	\$11,000	
34	Install Pavement Markings	\$350.00	EA	10	\$3,500	
35	Relocate Freeway Sign (2 post)	\$700.00	EA	0	\$0	
36	Loop Detector	\$2,000.00	EA	0	\$0	
37	Remove Roadside Sign	\$150.00	EA	5	\$750	
38	Relocate Sign (1 post)	\$220.00	EA	5	\$1,100	
39	Install New Sign (1 post)	\$280.00	EA	30	\$8,400	
40	Overhead Sign (2 posts)	\$240,000.00	EA	0	\$0	
41	Remove Traffic Signal	\$80,000.00	EA	1	\$80,000	
42	Relocate Bus Bench	\$1,458.00	EA	0	\$0	
43	Install Ramp Metering System	\$80,000.00	EA	0	\$0	
44	Install Delineator	\$36.60	EA	0	\$0	
45	Apply ATMS	\$113,165.00	LS	0	\$0	
	TRAFFIC SUBTOTAL				\$144,000	
UTILITIES AND DRAINAGE						
46	Relocate Call Box	\$2,051.00	EA		\$0	
47	Relocate Power Pole	\$25,000.00	EA		\$0	
48	Relocate Catch Basin	\$9,760.00	EA	3	\$29,280	
49	Relocate Fire Hydrant	\$5,000.00	EA		\$0	
50	Relocate Utility Boxes	\$1,000.00	EA	10	\$10,000	
51	Relocate Main Water Valve	\$12,200.00	EA		\$0	
52	Relocate Utility Vault	\$10,000.00	EA	2	\$20,000	
53	Adjust Manhole to Grade	\$1,500.00	EA	5	\$7,500	
54	Adjust Water Meter	\$1,000.00	EA	2	\$2,000	
55	Adjust Water Valve	\$1,000.00	EA	1	\$1,000	
56	Adjust Minor Above Ground Utilities	\$1,000.00	EA	2	\$2,000	
57	Construct Striping & Marking	\$2.00	LF		\$0	
58	Construct Storm Drain Main	\$122.00	LF		\$0	
59	Construct RCB	\$549.00	CY		\$0	
60	Construct Channel (Earthen)	\$12.20	LF		\$0	
61	Construct Concrete V-Ditch	\$19.00	LF		\$0	
62	Construct Bridge Widening	\$500.00	SF		\$0	
	UTILITIES AND DRAINAGE SUBTOTAL				\$71,780	
GENERAL						
63	Mobilization	\$7,178	LS	1	\$101,303	
64	Traffic Control	8%	LS	1	\$81,043	
65	Utility Relocations	5%	LS	1	\$50,651.73	
66	SWPPP Plan and Implementation	6%	LS	1	\$60,782	
	CONSTRUCTION SUBTOTAL				\$1,306,815	
RIGHT-OF-WAY						
67	Right-Of-Way	\$70.00	SF	19100	\$1,337,000	
68	Building Modifications	-	LS	1	\$300,000	
69	Parking Impacts	\$20,000.00	EA	5	\$100,000	
70	Temporary Construction Easements	\$6.50	SF	1000	\$6,500	
71	Right-of-Way Management	10%	LS	1	\$144,350	
	RIGHT-OF-WAY SUBTOTAL				\$1,887,850	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$3,194,665	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$196,022	
Construction Engineering Costs/Administration (15% Construction Cost)					\$196,022	
Contingency (20% Construction Cost)					\$261,363	
TOTAL PROJECT COSTS					\$4,148,072	

Note: This was an alternative improvement considered, but costs were not included in fees



- LEGEND
- (S) SIGNALIZED INTERSECTION
 - DIRECTION OF TRAVEL
 - PROPOSED ROW
 - XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION I35(b)

(I) ROUNDABOUT AT WARNER & JAMBOREE RD

IRVINE INTERSECTION I35(b)
WARNER AVE AT JAMBOREE RD RAMPS
SHEET 1 OF 1

DECEMBER, 2016



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

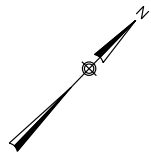
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188 - Harvard Avenue at Michelson Drive



Intersection #188
Harvard Ave & Michelson Street
Mitigations: Widen SB TO 2,2,1 configuration

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	1,452	\$17,714	
2	Earthwork	\$46.00	CY	4000	\$184,000	
3	Remove Curb & Gutter	\$24.00	LF	650	\$15,600	
4	Remove Median Curb	\$30.00	LF	0	\$0	
5	Remove PCC Sidewalk	\$5.00	SF	3200	\$16,000	
6	Remove Pavement	\$5.00	SF	0	\$0	
7	Remove Channel	\$40.00	LF		\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF		\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF		\$0	
10	Remove & Replace Tree	\$1,500.00	EA	4	\$6,000	
11	Modify Driveway	\$6,100.00	EA		\$0	
12	Construct PCC Pavement	\$14.00	SF		\$0	
13	Construct AC Pavement	\$8.00	SF	8000	\$64,000	
14	Construct AC Overlay	\$3.60	SF	0	\$0	
15	Construct Slurry Seal	\$0.40	SF	0	\$0	
16	Construct AC Dike	\$15.00	LF	0	\$0	
17	Construct Curb & Gutter	\$30.00	LF	650	\$19,500	
18	Construct Concrete Barrier	\$80.00	LF		\$0	
19	Construct Median Curb	\$31.00	LF	0	\$0	
20	Construct Median Concrete	\$15.00	SF	0	\$0	
21	Construct Median/Parkway Landscaping	\$13.00	SF	25000	\$325,000	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	\$9.05	SF	3250	\$29,413	
23	Construct Wheelchair Ramp	\$6,000.00	EA	1	\$6,000	
24	Construct Retaining Wall	\$75.00	SF	1800	\$135,000	assume 4'(6'H) x 300 LF wall at toe.
25	Remove Retaining Wall	\$35.00	SF		\$0	
26	Relocate Monument Wall	\$20,000.00	EA		\$0	
27	Sawcut	\$4.00	LF	650	\$2,600	
ROADWAY SUBTOTAL					\$820,827	
TRAFFIC						
28	Remove Striping	\$3.00	LF	3000	\$9,000	
29	Remove Pavement Markings	\$150.00	EA	8	\$1,200	
30	Relocate Street Light	\$6,200.00	EA	2	\$12,400	
31	Modify Traffic Signal	\$325,000.00	EA	1	\$325,000	
32	New Traffic Signal	\$425,000.00	EA	0	\$0	
33	Install Striping	\$5.00	LF	3500	\$17,500	
34	Install Pavement Markings	\$350.00	EA	10	\$3,500	
35	Relocate Freeway Sign (2 post)	\$700.00	EA		\$0	
36	Loop Detector	\$2,000.00	EA	15	\$30,000	
37	Remove Roadside Sign	\$150.00	EA	5	\$750	
38	Relocate Sign (1 post)	\$220.00	EA	5	\$1,100	
39	Overhead Sign (2 posts)	\$240,000.00	EA		\$0	
40	Relocate Bus Bench	\$1,458.00	EA	0	\$0	
41	Install Ramp Metering System	\$80,000.00	EA		\$0	
42	Install Delineator	\$36.60	EA	0	\$0	
43	Apply ATMS	\$113,165.00	LS	0	\$0	
TRAFFIC SUBTOTAL					\$400,450	
UTILITIES AND DRAINAGE						
44	Relocate Call Box	\$2,051.00	EA		\$0	
45	Relocate Power Pole	\$25,000.00	EA		\$0	
46	Relocate Catch Basin	\$9,760.00	EA	1	\$9,760	
47	Relocate Fire Hydrant	\$5,000.00	EA		\$0	
48	Relocate Utility Boxes	\$1,000.00	EA		\$0	
49	Relocate Main Water Valve	\$12,200.00	EA		\$0	
50	Relocate Utility Vault	\$10,000.00	EA	3	\$30,000	1 small & 1 Huge; assume 3
51	Adjust Manhole to Grade	\$1,500.00	EA		\$0	
52	Adjust Water Meter	\$1,000.00	EA		\$0	
53	Adjust Water Valve	\$1,000.00	EA		\$0	
54	Adjust Minor Above Ground Utilities	\$1,000.00	EA	1	\$1,000	Area Drain
55	Construct Striping & Marking	\$2.00	LF		\$0	
56	Construct Storm Drain Main	\$122.00	LF		\$0	
57	Construct RCB	\$549.00	CY		\$0	
58	Construct Channel (Earthen)	\$12.20	LF		\$0	
59	Construct Concrete V-Ditch	\$19.00	LF		\$0	
60	Construct Bridge Widening	\$500.00	SF		\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$40,760	
GENERAL						
61	Mobilization	10%	LS	1	\$126,204	
62	Traffic Control	8%	LS	1	\$100,963	
63	Utility Relocation	5%	LS	1	\$63,102	
64	SWPPP Plan and Implementation	6%	LS	1	\$75,722	
CONSTRUCTION SUBTOTAL					\$1,628,028	
RIGHT-OF-WAY						
65	Right-Of-Way	\$70.00	SF	0	\$0	
66	Parking Impacts	\$20,000.00	EA	0	\$0	
67	Temporary Construction Easements	\$6.50	SF	1500	\$9,750	
68	Right-of-Way Management	10%	LS	1	\$975	
RIGHT-OF-WAY SUBTOTAL					\$10,725	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$1,638,753	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$244,204	
Construction Engineering Costs/Administration (15% Construction Cost)					\$244,204	
Contingency (20% Construction Cost)					\$325,606	
TOTAL PROJECT COSTS					\$2,752,766	



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 188

- (1) WIDEN SB TO 2, 2, 1 CONFIGURATION

IRVINE INTERSECTION 188
HARVARD DR & MICHELSON DR
SHEET 1 OF 1

DECEMBER, 2016



PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

229 - Culver Drive at Alton Parkway

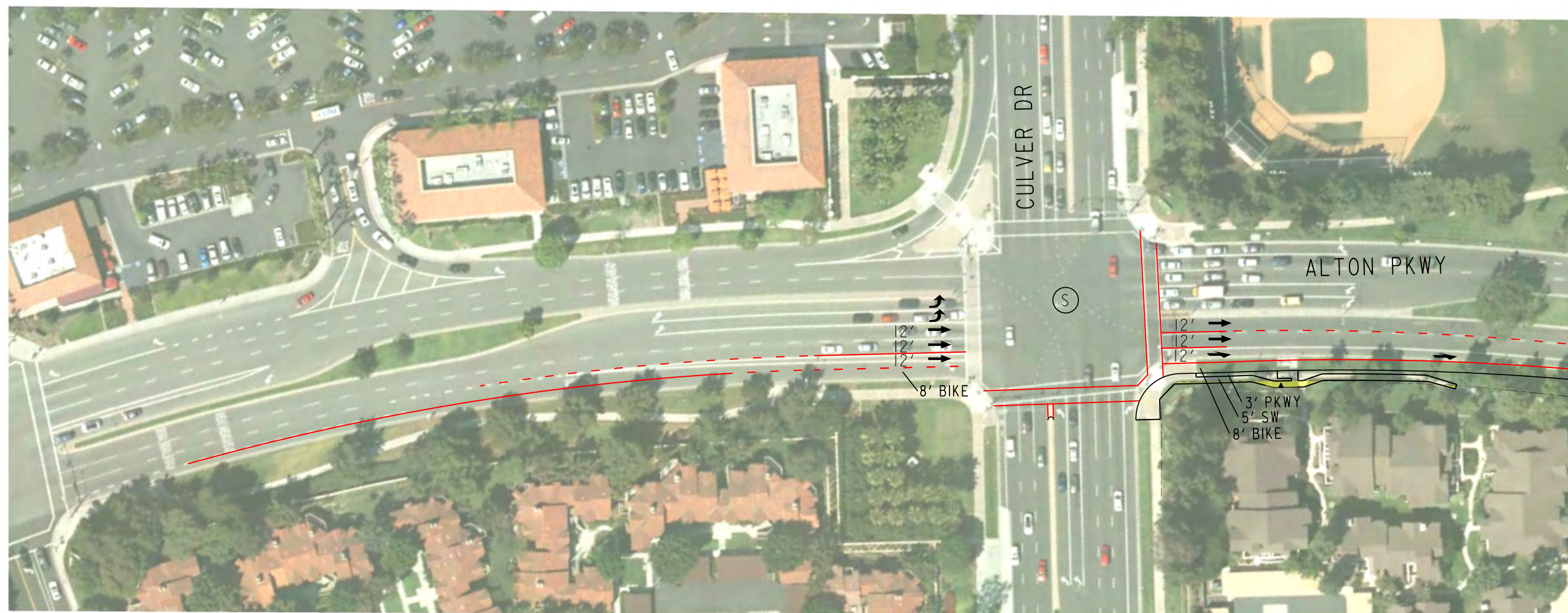
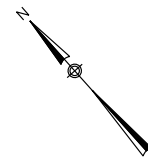
Irvine IBC - Nexus Study

Cost Estimate



Intersection #229
Culver Drive & Alton Parkway
Mitigations: Widen EB to 2, 3, defacto RT

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.18	\$2,196	
2	Earthwork	\$46.00	CY	1612	\$74,152	
3	Remove Curb & Gutter	\$24.00	LF	800	\$19,200	
4	Remove Median Curb	\$30.00	LF	29	\$870	
5	Remove PCC Sidewalk	\$5.00	SF	3639	\$18,195	
6	Remove Pavement	\$5.00	SF	1542	\$7,710	
7	Remove Channel	\$40.00	LF		\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF		\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF		\$0	
10	Remove & Replace Tree	\$1,500.00	EA	15	\$22,500	
11	Modify Driveway	\$6,100.00	EA		\$0	
12	Construct PCC Pavement	\$14.00	SF		\$0	
13	Construct AC Pavement	\$8.00	SF	7490	\$59,920	
14	Construct AC Overlay	\$3.60	SF		\$0	
15	Construct Slurry Seal	\$0.40	SF		\$0	
16	Construct AC Dike	\$15.00	LF		\$0	
17	Construct Curb & Gutter	\$30.00	LF	751	\$22,530	
18	Construct Concrete Barrier	\$80.00	LF		\$0	
19	Construct Median Curb	\$31.00	LF	7	\$217	
20	Construct Median Concrete	\$15.00	SF	5	\$75	
21	Construct Median/Parkway Landscaping	\$13.00	SF	1949	\$25,337	
22	Construct PCC Sidewalk	\$9.05	SF	3437	\$31,105	
23	Construct ADA Compliant Curb Ramp	\$6,000.00	EA	1	\$6,000	
24	Construct Retaining Wall	\$75.00	SF	100	\$7,500	
25	Remove Retaining Wall	\$35.00	SF		\$0	
26	Relocate Monument Wall	\$20,000.00	EA		\$0	
27	Sawcut	\$4.00	LF	783	\$3,132	
	ROADWAY SUBTOTAL				\$300,639	
TRAFFIC						
28	Remove Striping	\$3.00	LF	2824	\$8,472	
29	Remove Pavement Markings	\$150.00	EA	5	\$750	
30	Relocate Street Light	\$6,200.00	EA		\$0	
31	Modify Traffic Signal	\$325,000.00	EA	0.25	\$81,250	
32	New Traffic Signal	\$425,000.00	EA		\$0	
33	Install Striping	\$5.00	LF	3021	\$15,105	
34	Install Pavement Markings	\$350.00	EA	8	\$2,800	
35	Relocate Freeway Sign (2 post)	\$700.00	EA		\$0	
36	Loop Detector	\$2000.00	EA	8	\$16,000	
37	Remove Roadside Sign	\$150.00	EA	1	\$150	
38	Relocate Sign (1 post)	\$220.00	EA	4	\$880	
39	Overhead Sign (2 posts)	\$240,000.00	EA		\$0	
40	Relocate Bus Bench	\$1,458.00	EA	1	\$1,458	
41	Install Ramp Metering System	\$80,000.00	EA		\$0	
42	Install Delineator	\$36.60	EA		\$0	
43	Apply ATMS	\$113,165.00	LS		\$0	
	TRAFFIC SUBTOTAL				\$126,865	
UTILITIES AND DRAINAGE						
44	Relocate Call Box	\$2,051.00	EA		\$0	
45	Relocate Power Pole	\$25,000.00	EA		\$0	
46	Relocate Catch Basin	\$9,760.00	EA	1	\$9,760	
47	Relocate Fire Hydrant	\$5,000.00	EA		\$0	
48	Relocate Utility Boxes	\$1000.00	EA	18	\$18,000	
49	Relocate Main Water Valve	\$12,200.00	EA		\$0	
50	Relocate Utility Vault	\$10,000.00	EA		\$0	
51	Adjust Manhole to Grade	\$1,500.00	EA		\$0	
52	Adjust Water Meter	\$1000.00	EA		\$0	
53	Adjust Water Valve	\$1000.00	EA		\$0	
54	Adjust Minor Above Ground Utilities	\$1000.00	EA		\$0	
55	Construct Storm Drain Main	\$122.00	LF		\$0	
56	Construct RCB	\$549.00	CY		\$0	
57	Construct Channel (Earthen)	\$12.20	LF		\$0	
58	Construct Concrete V-Ditch	\$19.00	LF		\$0	
59	Construct Bridge Widening	\$500.00	SF		\$0	
	UTILITIES AND DRAINAGE SUBTOTAL				\$27,760	
GENERAL						
60	Mobilization	\$3,776	LS	1	\$45,526	
61	Traffic Control	8%	LS	1	\$36,421	
62	Utility Relocation	5%	LS	1	\$22,763	
63	SWPPP Plan and Implementation	6%	LS	1	\$27,316	
	CONSTRUCTION SUBTOTAL				\$587,290	
RIGHT-OF-WAY						
64	Right-Of-Way	\$70.00	SF	286	\$20,020	
65	Parking Impacts	\$20,000.00	EA		\$0	
66	Temporary Construction Easements	\$6.50	SF	150	\$975	
67	Right-of-Way Management	10%	LS	1	\$2,100	
	RIGHT-OF-WAY SUBTOTAL				\$23,095	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$610,385	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$88,094	
Construction Engineering Costs/Administration (15% Construction Cost)					\$88,094	
Contingency (20% Construction Cost)					\$117,458	
TOTAL PROJECT COSTS					\$1,204,030	



MATCH LINE
SEE SHEET 2 OF 2

LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 229

- (1) WIDEN EB TO 2, 3, DEFACTO RT

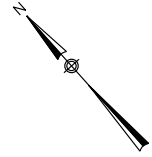
IRVINE INTERSECTION 229
CULVER DR & ALTON PKWY
SHEET 1 OF 2

DECEMBER, 2016



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT



MATCH LINE
SEE SHEET 1 OF 2



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 229

- (I) WIDEN EB TO 2, 3, DEFACTO RT

IRVINE INTERSECTION 229
CULVER DR & ALTON PKWY
SHEET 2 OF 2

DECEMBER, 2016



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2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

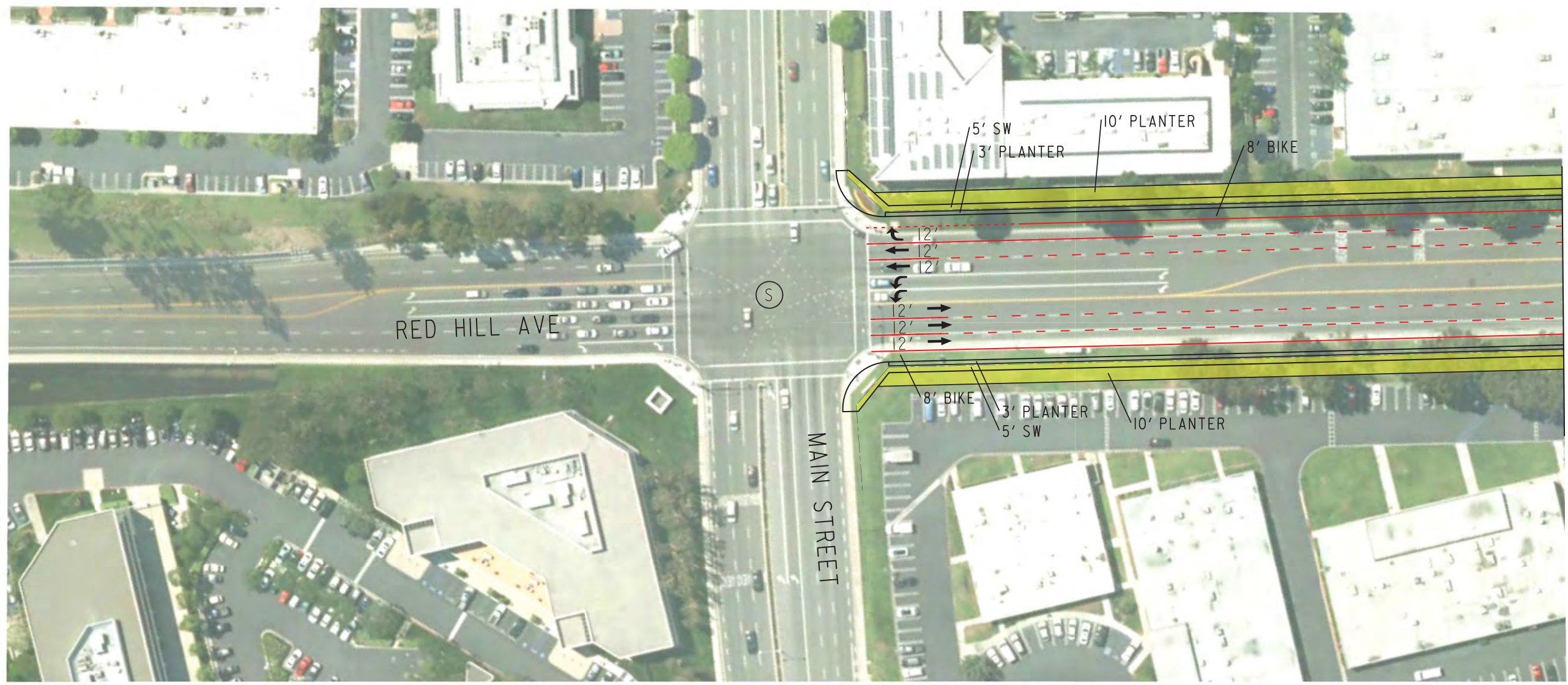
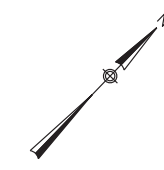
Red Hill Avenue between Main Street and MacArthur Boulevard



Arterial
Red Hill Ave From Main St to MacArthur Blvd

Mitigations: Widen Red Hill from 4 lanes to 6 lanes between Main St and MacArthur Blvd





ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	3.56	\$43,467	
2	Earthwork	\$46.00	CY	6798	\$312,705	
3	Remove Curb & Gutter	\$24.00	LF	4850	\$116,400	
4	Remove Median Curb	\$30.00	LF	35	\$1,050	
5	Remove PCC Sidewalk	\$5.00	SF	19416	\$97,080	
6	Remove Pavement	\$5.00	SF	7275	\$36,375	
7	Remove Channel	\$40.00	LF		\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF		\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF		\$0	
10	Remove & Replace Tree	\$1,500.00	EA	45	\$67,500	
11	Modify Driveway	\$6,100.00	EA	6	\$36,600	
12	Construct PCC Pavement	\$14.00	SF		\$0	
13	Construct AC Pavement	\$8.00	SF	88600	\$708,800	
14	Construct AC Overlay	\$3.60	SF		\$0	
15	Construct Slurry Seal	\$0.40	SF		\$0	
16	Construct AC Dike	\$15.00	LF		\$0	
17	Construct Curb & Gutter	\$30.00	LF	4850	\$145,500	
18	Construct Concrete Barrier	\$80.00	LF		\$0	
19	Construct Median Curb	\$31.00	LF	30	\$930	
20	Construct Median Concrete	\$15.00	SF	262	\$3,930	
21	Construct Median/Parkway Landscaping	\$13.00	SF	88000	\$1,144,000	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	\$9.05	SF	48500	\$438,925	
23	Construct Wheelchair Ramp	\$6,000.00	EA	9	\$54,000	
24	Construct Retaining Wall	\$75.00	SF	9700	\$727,500	Average height 2' wall along entire length
25	Remove Retaining Wall	\$35.00	SF		\$0	
26	Relocate Monument Sign	\$5,000.00	EA	3	\$15,000	
27	Sawcut	\$4.00	LF	4850	\$19,400	
ROADWAY SUBTOTAL					\$3,969,162	
TRAFFIC						
28	Remove Striping	\$3.00	LF	25000	\$75,000	
29	Remove Pavement Markings	\$150.00	EA	28	\$4,200	
30	Relocate Street Light	\$6,200.00	EA	10	\$62,000	
31	Modify Traffic Signal	\$325,000.00	EA	2	\$650,000	Sky Park N, Main St
32	New Traffic Signal	\$425,000.00	EA		\$0	
33	Install Striping	\$5.00	LF	30300	\$151,500	
34	Install Pavement Markings	\$350.00	EA	32	\$11,200	
35	Relocate Freeway Sign (2 post)	\$700.00	EA		\$0	
36	Loop Detector	\$2,000.00	EA	6	\$12,000	video detection
37	Remove Roadside Sign	\$150.00	EA		\$0	
38	Relocate Sign (1 post)	\$220.00	EA	35	\$7,700	
39	Overhead Sign (2 posts)	\$240,000.00	EA		\$0	
40	Relocate Bus Bench	\$1,458.00	EA	2	\$2,916	
41	Install Ramp Metering System	\$80,000.00	EA		\$0	
42	Install Delineator	\$36.60	EA		\$0	
43	Apply ATMS	\$113,165.00	LS		\$0	
TRAFFIC SUBTOTAL					\$976,516	
UTILITIES AND DRAINAGE						
44	Relocate Call Box	\$2,051.00	EA		\$0	
45	Relocate Power Pole	\$25,000.00	EA	14	\$350,000	
46	Relocate High Voltage Power Pole	\$100,000.00	EA	1	\$100,000	At Mitchell S
47	Relocate Catch Basin	\$9,760.00	EA	2	\$19,520	
48	Relocate Fire Hydrant	\$5,000.00	EA	5	\$25,000	
49	Relocate Utility Boxes	\$1,000.00	EA	32	\$32,000	
50	Relocate Main Water Valve	\$12,200.00	EA		\$0	
51	Relocate Utility Vault	\$10,000.00	EA	2	\$20,000	
52	Adjust Manhole to Grade	\$1,500.00	EA		\$0	
53	Adjust Water Meter	\$1,000.00	EA	3	\$3,000	
54	Adjust Water Valve	\$1,000.00	EA		\$0	
55	Adjust Minor Above Ground Utilities	\$1,000.00	EA		\$0	
56	Construct Striping & Marking	\$2.00	LF		\$0	
57	Construct Storm Drain Main	\$122.00	LF		\$0	
58	Construct RCB	\$549.00	CY		\$0	
59	Construct Channel (Earthen)	\$12.20	LF		\$0	
60	Construct Concrete V-Ditch	\$19.00	LF		\$0	
61	Construct Bridge Widening	\$500.00	SF		\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$549,520	
GENERAL						
62	Mobilization	\$54,952	LS	1	\$549,520	
63	Traffic Control	8%	LS	1	\$439,616	
64	Utility Relocation	5%	LS	1	\$274,760	
65	SWPPP Plan and Implementation	6%	LS	1	\$329,712	
CONSTRUCTION SUBTOTAL					\$7,088,805	
RIGHT-OF-WAY						
66	Right-Of-Way	\$70.00	SF	90313	\$6,321,910	
67	Parking Impacts	\$20,000.00	EA	3	\$60,000	
68	Temporary Construction Easements	\$6.50	SF	8000	\$52,000	
69	Right-of-Way Management	10%	LS		\$643,391	
RIGHT-OF-WAY SUBTOTAL					\$7,077,301	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$14,166,106	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$708,881	
Design Engineering/Administration Cost (15% Construction Cost)					\$1,063,321	
Construction Engineering Costs/Administration (15% Construction Cost)					\$1,063,321	
Contingency (20% Construction Cost)					\$1,417,761	
TOTAL PROJECT COSTS					\$18,419,390	



MATCH LINE
SEE SHEET 2 OF 4

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 1 OF 4

LEGEND

-  SIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PROPOSED ROW
-  XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

-  WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

DECEMBER, 2016



2015 IBC NEXUS STUDY ROADWAY IMPROVEMENTS
CITY OF IRVINE COMMUNITY DEVELOPMENT



LEGEND

- SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL
- PROPOSED ROW
- PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

- WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 2 OF 4

DECEMBER, 2016



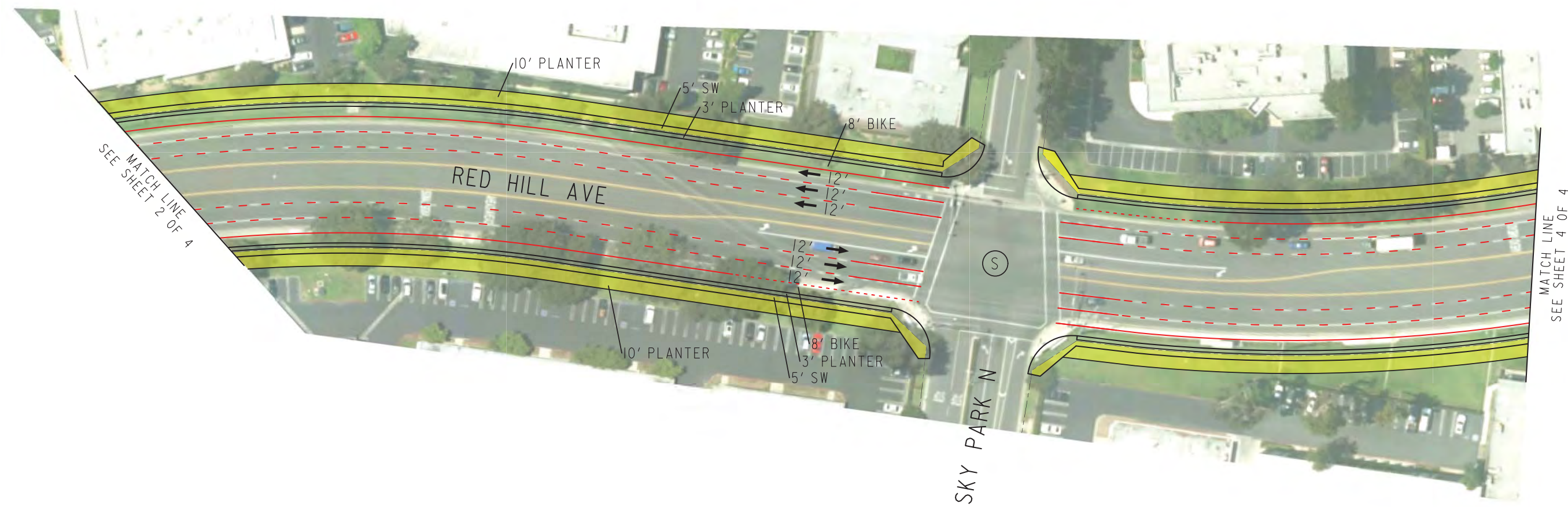
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2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW =
DWG =
PATH =



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

- (1) WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 3 OF 4

DECEMBER, 2016



2015 IBC NEXUS STUDY ROADWAY IMPROVEMENTS
CITY OF IRVINE COMMUNITY DEVELOPMENT



IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 4 OF 4

LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

- (1) WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

DECEMBER, 2016



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

Gillete Avenue and Alton Parkway



Gillette & Alton
Mitigations: New Traffic Signal (3-leg intersection)

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC		\$0	
2	Earthwork	\$46.00	CY		\$0	
3	Remove Curb & Gutter	\$24.00	LF		\$0	
4	Remove Median Curb	\$30.00	LF		\$0	
5	Remove PCC Sidewalk	\$5.00	SF		\$0	
6	Remove Pavement	\$5.00	SF		\$0	
7	Remove Channel	\$40.00	LF		\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF		\$0	
9	Remove and Replace Pedestal and Wrought Iron Fence	\$75.00	LF		\$0	
10	Remove and Replace Vinyl Fence	\$40.00	LF		\$0	
11	Reconstruct Metal Beam Guard Rail	\$40.00	LF		\$0	
12	Remove & Replace Tree	\$1,500.00	EA		\$0	
13	Modify Driveway	\$6,100.00	EA		\$0	
14	Construct PCC Pavement	\$14.00	SF		\$0	
15	Construct AC Pavement	\$8.00	SF		\$0	
16	Construct AC Overlay	\$3.60	SF		\$0	
17	Construct Slurry Seal	\$0.40	SF		\$0	
18	Construct AC Dike	\$15.00	LF		\$0	
19	Construct Curb & Gutter	\$30.00	LF		\$0	
20	Construct Concrete Barrier	\$80.00	LF		\$0	
21	Construct Median Curb	\$31.00	LF		\$0	
22	Construct Median Concrete	\$15.00	SF		\$0	
23	Construct Median/Parkway Landscaping	\$13.00	SF		\$0	
24	Construct PCC Sidewalk	\$9.05	SF		\$0	
25	Construct Wheelchair Ramp	\$6,000.00	EA		\$0	
26	Construct Retaining Wall	\$75.00	SF		\$0	
27	Remove Retaining Wall	\$35.00	SF		\$0	
28	Relocate Monument Wall	\$20,000.00	EA		\$0	
29	Sawcut	\$4.00	LF		\$0	
ROADWAY SUBTOTAL					\$0	
TRAFFIC						
30	Remove Striping	\$3.00	LF		\$0	
31	Remove Pavement Markings	\$150.00	EA		\$0	
32	Relocate Street Light	\$6,200.00	EA		\$0	
33	Modify Traffic Signal	\$325,000.00	EA		\$0	
34	New Traffic Signal	\$265,000.00	EA	1	\$350,000	Small, 3-leg intersection
35	Install Striping	\$5.00	LF		\$0	
36	Install Pavement Markings	\$350.00	EA		\$0	
37	Relocate Freeway Sign (2 post)	\$700.00	EA		\$0	
38	Loop Detector	\$2,000.00	EA		\$0	
39	Remove Roadside Sign	\$150.00	EA		\$0	
40	Relocate Sign (1 post)	\$220.00	EA		\$0	
41	Overhead Sign (2 posts)	\$240,000.00	EA		\$0	
42	Relocate Bus Bench	\$1,458.00	EA		\$0	
43	Relocate Automatic Gate	\$10,000.00	EA		\$0	
44	Install Ramp Metering System	\$80,000.00	EA		\$0	
45	Install Delineator	\$36.60	EA		\$0	
46	Apply ATMS	\$113,165.00	LS		\$0	
TRAFFIC SUBTOTAL					\$350,000	
UTILITIES AND DRAINAGE						
47	Relocate Call Box	\$2,051.00	EA		\$0	
48	Relocate Power Pole	\$25,000.00	EA		\$0	
49	Relocate Catch Basin	\$9,760.00	EA		\$0	
50	Relocate Fire Hydrant	\$5,000.00	EA		\$0	
51	Relocate Utility Boxes	\$1,000.00	EA		\$0	
52	Relocate Main Water Valve	\$12,200.00	EA		\$0	
53	Relocate Utility Vault	\$10,000.00	EA		\$0	
54	Adjust Manhole to Grade	\$1,500.00	EA		\$0	
55	Adjust Water Meter	\$1,000.00	EA		\$0	
56	Adjust Water Valve	\$1,000.00	EA		\$0	
57	Adjust Minor Above Ground Utilities	\$1,000.00	EA		\$0	
58	Construct Striping & Marking	\$2.00	LF		\$0	
59	Construct Storm Drain Main	\$122.00	LF		\$0	
60	Construct RCB	\$549.00	CY		\$0	
61	Construct Channel (Earthen)	\$12.20	LF		\$0	
62	Construct Concrete V-Ditch	\$19.00	LF		\$0	
63	Construct Bridge Widening	\$500.00	SF		\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$0	
GENERAL						
64	Mobilization	\$0	LS	0	\$0	Included in unit cost
65	Traffic Control	8%	LS	0	\$0	Included in unit cost
66	Utility Relocations	5%	LS	0	\$0	None
67	SWPPP Plan and Implementation	6%	LS	0	\$0	None
CONSTRUCTION SUBTOTAL					\$350,000	
RIGHT-OF-WAY						
68	Right-Of-Way	\$70.00	SF		\$0	
69	Parking Impacts	\$20,000.00	EA		\$0	
70	Temporary Construction Easements	\$8.50	SF		\$0	
71	Right-of-Way Management	10%	LS		\$0	
RIGHT-OF-WAY SUBTOTAL					\$0	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$350,000	
Preliminary Project Development (10% Construction Cost)					\$0	Not needed for traffic signal
Design Engineering/Administration Cost					\$15,000	\$15k for traffic signal
Construction Engineering Costs/Administration (15% Construction Cost)					\$52,500	
Contingency (20% Construction Cost)					\$70,000	
TOTAL PROJECT COSTS					\$487,500	

City of Santa Ana

City of Santa Ana List of Improvements and Associated Costs

Jurisdiction	Int ID	Intersection / Arterial Location	Improvement Strategy	Cost				Fair Share %	Total Cost to IBC Fee
				Construction Subtotal	ROW Subtotal	Contingency Cost*	Total		
Santa Ana		Alton Overcrossing at SR-55	SR-55/Alton Parkway Overcrossing Project plus the following improvements:	\$1,607,512	\$493,488	\$1,103,756	\$55,500,000		
			• Intersection #44: Red Hill / Alton (Add 1 NBR, convert de facto SBR to 1 SBR, add 2nd EBL, convert 1 WBR to free WBR)				\$3,204,755		
			• Signalization and widening of Halladay Street / Alton Parkway				\$800,000		
			• Signalization at Daimler Street / Alton Parkway				\$680,000		
			TOTAL				\$60,184,755	50%	\$30,092,378
Santa Ana		Dyer Road widening between SR-55 NB on ramp and e/o RR tracks (Phase 2)	Dyer Road widening from SR-55 to Red Hill Avenue (consistent with Barranca-Dyer Project Report)	\$6,728,087	\$14,246,363	\$4,036,852	\$25,011,301	90%	\$22,510,171
Santa Ana	719	Flower Street and Segerstrom Avenue	Add eastbound de facto lane	\$238,813	\$53,900	\$419,407	\$712,124	9.6%	\$68,364
								TOTAL	\$52,670,912

*Contingency cost includes:

- Preliminary Project Development Cost (10% Construction Cost, minimum \$300,000)
- Design Engineering/Administration Cost (15% Construction Cost)
- Construction Engineering Cost/Administration (15% Construction Cost)
- Contingency (20% Construction Cost)

Alton Overcrossing at SR-55



Cost Estimate

Alton Parkway Overcrossing at SR-55 Improvements

Mitigations:

- SR-55/Alton Overcrossing Improvements per KOA Study, 2010 (includes widening of Halladay/Alton intersection of adding 1 EBT and WBT)
 - Intersection #44: Red Hill Avenue / Alton Parkway (add 1 NBR, 1 SBR, 2nd EBL, and 2nd WBL)
 - Signalization at Daimler Street at Alton Parkway, Halladay Street at Alton Parkway

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.29	\$3,585	
2	Earthwork	\$46.00	CY	1333	\$61,333	
3	Remove Curb & Gutter	\$24.00	LF	1150	\$27,600	
4	Remove Median Curb	\$30.00	LF	0	\$0	
5	Remove PCC Sidewalk	\$5.00	SF	8040	\$40,200	
6	Remove Pavement	\$5.00	SF	1150	\$5,750	
7	Remove Channel	\$40.00	LF	0	\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF	0	\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF	0	\$0	
10	Remove & Replace Tree	\$1,500.00	EA	8	\$12,000	
11	Modify Driveway	\$6,100.00	EA	2	\$12,200	
12	Construct PCC Pavement	\$14.00	SF	700	\$9,800	Bus turnout
13	Construct AC Pavement	\$8.00	SF	11500	\$92,000	
14	Construct AC Overlay	\$3.60	SF	0	\$0	
15	Construct Slurry Seal	\$0.40	SF	0	\$0	
16	Construct AC Dike	\$15.00	LF	0	\$0	
17	Construct Curb & Gutter	\$30.00	LF	1100	\$33,000	
18	Construct Concrete Barrier	\$80.00	LF	0	\$0	
19	Construct Median Curb	\$31.00	LF	0	\$0	
20	Construct Median Concrete	\$15.00	SF	0	\$0	
21	Construct Median/Parkway Landscaping	\$13.00	SF	3500	\$45,500	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	\$9.05	SF	6500	\$58,825	
23	Construct Wheelchair Ramp	\$6,000.00	EA	4	\$24,000	
24	Construct Retaining Wall	\$75.00	SF	1320	\$99,000	assume 4'(6"H) x 220 LF wall
25	Remove Retaining Wall	\$35.00	SF	0	\$0	
26	Relocate Monument Wall	\$20,000.00	EA	0	\$0	
27	Sawcut	\$4.00	LF	1150	\$4,600	
ROADWAY SUBTOTAL					\$529,393	
TRAFFIC						
28	Remove Striping	\$3.00	LF	4550	\$13,650	
29	Remove Pavement Markings	\$150.00	EA	8	\$1,200	
30	Relocate Street Light	\$6,200.00	EA	2	\$12,400	
31	Modify Traffic Signal	\$325,000.00	EA	0	\$0	
32	New Traffic Signal	\$425,000.00	EA	1	\$425,000	Replace all new poles and controller
33	Install Striping	\$5.00	LF	5750	\$28,750	
34	Install Pavement Markings	\$350.00	EA	22	\$7,700	
35	Relocate Freeway Sign (2 post)	\$700.00	EA	0	\$0	
36	Loop Detector	\$2,000.00	EA	0	\$0	
37	Remove Roadside Sign	\$150.00	EA	0	\$0	
38	Relocate Sign (1 post)	\$220.00	EA	6	\$1,320	
39	Overhead Sign (2 posts)	\$240,000.00	EA	0	\$0	
40	Relocate Bus Bench	\$1,458.00	EA	0	\$0	
41	Install Ramp Metering System	\$80,000.00	EA	0	\$0	
42	Install Delineator	\$36.60	EA	0	\$0	
43	Apply ATMS	\$113,165.00	LS	0	\$0	
TRAFFIC SUBTOTAL					\$490,020	
UTILITIES AND DRAINAGE						
44	Relocate Call Box	\$2,051.00	EA	0	\$0	
45	Relocate Power Pole	\$25,000.00	EA	6	\$150,000	2 complex pole with comm., assume 6 poles
46	Relocate Catch Basin	\$9,760.00	EA	2	\$19,520	
47	Relocate Fire Hydrant	\$5,000.00	EA	2	\$10,000	
48	Relocate Utility Boxes	\$1,000.00	EA	21	\$21,000	
49	Relocate Main Water Valve	\$12,200.00	EA	1	\$12,200	Along Redhill, NW of intersection
50	Relocate Utility Vault	\$10,000.00	EA	1	\$10,000	
51	Adjust Manhole to Grade	\$1,500.00	EA	0	\$0	
52	Adjust Water Meter	\$1,000.00	EA	2	\$2,000	
53	Adjust Water Valve	\$1,000.00	EA	2	\$2,000	
54	Adjust Minor Above Ground Utilities	\$1,000.00	EA	0	\$0	
55	Construct Striping & Marking	\$2.00	LF	0	\$0	
56	Construct Storm Drain Main	\$122.00	LF	0	\$0	
57	Construct RCB	\$549.00	CY	0	\$0	
58	Construct Channel (Earthen)	\$12.20	LF	0	\$0	
59	Construct Concrete V-Ditch	\$19.00	LF	0	\$0	
60	Construct Bridge Widening	\$500.00	SF	0	\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$226,720	
GENERAL						
61	Mobilization	\$22,672	LS	1	\$124,613	
62	Traffic Control	8%	LS	1	\$99,691	
63	Utility Relocation	5%	LS	1	\$62,307	
64	SWPPP Plan and Implementation	6%	LS	1	\$74,768	
CONSTRUCTION SUBTOTAL					\$1,607,512	
RIGHT-OF-WAY						
65	Right-Of-Way	\$70.00	SF	5875	\$411,250	
66	Parking Impacts	\$20,000.00	EA	0	\$0	
67	Temporary Construction Easements	\$6.50	SF	5750	\$37,375	
68	Right-of-Way Management	10%	LS	1	\$44,863	
RIGHT-OF-WAY SUBTOTAL					\$493,488	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$2,100,999	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$241,127	
Construction Engineering Costs/Administration (15% Construction Cost)					\$241,127	
Contingency (20% Construction Cost)					\$321,502	
TOTAL PROJECT COSTS (Red Hill & Alton)					\$3,204,755	
Traffic Signal at Alton & Daimler					\$680,000	Includes all soft costs
Traffic Signal at Alton & Halladay					\$800,000	Includes all soft costs
Alton/55 Overcrossing Project (cost includes widening of Halladay/Alton intersection; all cost in 2016 \$)					\$55,500,000	
TOTAL ALTON/55 PROJECT COSTS					\$60,184,755	

HUITT-ZOLLARS
PS&E COST ESTIMATE - 100% PS&E ROADWAY
ALTON PARKWAY OVERCROSSING
ITEM AND QUANTITY LIST

March 31, 2014
EA 12-005501
Project ID# 12-0000-0003

COMBINED ESTIMATE

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
1	020215		TEMPORARY CRASH CUSHION (TYPE ADIEM)	EA	2.00	2	\$30,175	\$60,400
2	070012		PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	1.00	1	\$17,000	\$17,000
3	070018		TIME-RELATED OVERHEAD	WDAY	325.00	325	\$3,400	\$1,105,000
4	074016		CONSTRUCTION SITE MANAGEMENT	LS	1.00	1	\$81,600	\$81,600
5	074019		PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	1.00	1	\$11,050	\$11,100
6	074029		TEMPORARY SILT FENCE	LF	3664.00	3,664	\$4	\$14,900
7	074033		TEMPORARY CONSTRUCTION ENTRANCE	EA	4.00	4	\$5,100	\$20,400
8	074038		TEMPORARY DRAINAGE INLET PROTECTION	EA	6.00	6	\$357	\$2,100
9	074041		STREET SWEEPING	LS	1.00	1	\$85,000	\$85,000
10	074042		TEMPORARY CONCRETE WASHOUT (PORTABLE)	LS	1.00	1	\$3,400	\$3,400
11	074056		RAIN EVENT ACTION PLAN	EA	35.30	36	\$850	\$30,600
12	074057		STORM WATER ANNUAL REPORT	EA	1.00	1	\$3,400	\$3,400
13	074058		STORM WATER SAMPLING AND ANALYSIS DAY	DAY	15.50	16	\$1,950	\$31,200
14	120090	S	CONSTRUCTION AREA SIGNS	LS	1.00	1	\$42,500	\$42,500
15	120100	S	TRAFFIC CONTROL SYSTEM	LS	1.00	1	\$221,000	\$221,000
16	128650	S	PORTABLE CHANGEABLE MESSAGE SIGN	LS	1.00	1	\$127,500	\$127,500
17	120149		TEMPORARY PAVEMENT MARKING (PAINT)	SF	66.00	66	\$4	\$300
18	120159		TEMPORARY TRAFFIC STRIPE (PAINT)	LF	30326.26	30,327	\$1	\$25,800
19	120300		TEMPORARY PAVEMENT MARKER	EA	3634.57	3,635	\$9	\$32,400
20	129000		TEMPORARY RAILING (TYPE K)	LF	3940.00	3,940	\$26	\$100,500
21	129100		TEMPORARY CRASH CUSHION MODULE	EA	56.00	56	\$595	\$33,300
22	129150		TEMPORARY TRAFFIC SCREEN	LF	3940.00	3,940	\$7	\$28,500
23	141101		REMOVE YELLOW PAINTED TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	32244.10	32,245	\$1	\$46,600
24	141103		REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	1917.85	1,918	\$3	\$5,200
25	150608		REMOVE CHAIN LINK FENCE	LF	180.00	180	\$10	\$1,800
26	150662		REMOVE METAL BEAM GUARD RAILING	LF	1287.50	1,288	\$14	\$18,000
27	150717		REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING	SQFT	99.00	99	\$3	\$300
28	150722		REMOVE PAVEMENT MARKER	EA	5552.40	5,553	\$2	\$12,300
29	150771		REMOVE ASPHALT CONCRETE DIKE	LF	559.65	560	\$4	\$2,500
30	150860		REMOVE BASE AND SURFACING	CY	2522.30	2,523	\$34	\$85,800
31	152387		RELOCATE ROADSIDE SIGN-TWO POST	EA	2.00	2	\$1,615	\$3,200
32	153221		REMOVE CONCRETE BARRIER	LF	176.07	177	\$36	\$6,300
33	160101	P	CLEARING AND GRUBBING	LS	1.00	1	\$102,000	\$102,000
34	170101	P	DEVELOP WATER SUPPLY	LS	1.00	1	\$170,000	\$170,000
35	190101		ROADWAY EXCAVATION	CY	1532.01	1,533	\$43	\$65,200
36	190107		ROADWAY EXCAVATION (TYPE Y-1) (AERIALY DEPOSITED LEAD)	CY	1532.01	1,533	\$31	\$46,900
37	190110		LEAD COMPLIANCE PLAN	LS	1.00	1	\$8,500	\$8,500

HUITT-ZOLLARS
PS&E COST ESTIMATE - 100% PS&E ROADWAY
ALTON PARKWAY OVERCROSSING
ITEM AND QUANTITY LIST

March 31, 2014
EA 12-005501
Project ID# 12-0000-0003

COMBINED ESTIMATE

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
38	192003	F	STRUCTURE EXCAVATION (BRIDGE)	CY	478.00	478	\$179	\$85,300
39	192020		STRUCTURE EXCAVATION (TYPE D)	CY	382.00	382	\$187	\$71,400
40	193003	F	STRUCTURE BACKFILL (BRIDGE)	CY	1053.00	1,053	\$128	\$134,300
41	203031		EROSION CONTROL (HYDROSEED)	SF	65694.00	65,694	\$1	\$55,800
42	204099	S	PLANT ESTABLISHMENT WORK	LS	1.00	1	\$17,000	\$17,000
43	250201		CLASS 2 AGGREGATE SUBBASE	CY	1364.95	1,365	\$44	\$60,300
44	390132		HOT MIX ASPHALT (TYPE A)	TON	2860.82	2,861	\$213	\$608,000
45	390137		RUBBERIZED ASPHALT CONCRETE (TYPE G)	TON	133.36	134	\$272	\$36,400
46	394046		PLACE ASPHALT CONCRETE DIKE (TYPE D)	LF	559.65	560	\$83	\$46,600
47	490780		FURNISH PILING (CLASS 200)	LF	7594.00	7,594	\$39	\$296,900
48	490781		DRIVE PILE (CLASS 200)	EA	138.00	138	\$3,400	\$469,200
49	500001		PRESTRESSING STEEL	LS	1.00	1	\$425,000	\$425,000
50	510051	F	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	374.00	374	\$782	\$292,500
51	510053	F	STRUCTURAL CONCRETE, BRIDGE	CY	2892.00	2,892	\$1,258	\$3,638,100
52	510086		STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	CY	200.00	200	\$952	\$190,400
53	519100		JOINT SEAL (MR = 2")	LF	180.00	180	\$145	\$26,000
54	520102	F/S	BAR REINFORCING STEEL (BRIDGE)	LB	703608.00	703,608	\$2	\$1,196,100
55	560203		FURNISH SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	3735.00	3,735	\$12	\$44,400
56	560204		INSTALL SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	3735.00	3,735	\$9	\$31,700
57	566011		ROADSIDE SIGN - ONE POST	EA	31.00	31	\$553	\$17,100
58	800360		CHAIN LINK FENCE (TYPE CL-6)	LF	81.98	82	\$37	\$3,100
59	802501		4' CHAIN LINK GATE (TYPE CL-6)	EA	1.00	1	\$1,870	\$1,900
60	820134		OBJECT MARKER (TYPE P)	EA	12.00	12	\$136	\$1,600
61	832003		METAL BEAM GUARD RAILING (WOOD POST)	LF	1422.29	1,423	\$85	\$121,000
62	833032	F/S	CHAIN LINK RAILING (TYPE 7)	LF	663.00	663	\$105	\$69,900
63	833088		TUBULAR HANDRAILING	LF	120.00	120	\$122	\$14,700
64	833142	F	CONCRETE BARRIER (TYPE 26 MOD)	LF	783.00	783	\$221	\$173,000
65	839585		ALTERNATIVE FLARED TERMINAL SYSTEM	EA	1.00	1	\$4,420	\$4,400
66	839705		CONCRETE BARRIER (TYPE 60E)	LF	315.76	316	\$306	\$96,700
67	840501	S	THERMOPLASTIC TRAFFIC STRIPE	LF	5112.23	5,113	\$1	\$6,100
68	840515	S	THERMOPLASTIC PAVEMENT MARKING	SF	132.00	132	\$6	\$800
69	840656	S	PAINT TRAFFIC STRIPE (2-COAT)	LF	40286.47	40,287	\$0	\$9,600
70	850101	S	PAVEMENT MARKER (NON-REFLECTIVE)	EA	3882.24	3,883	\$3	\$13,200
71	850111	S	PAVEMENT MARKER (RETROREFLECTIVE)	EA	2090.55	2,091	\$7	\$14,200
72	860090		MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	1.00	1	\$34,000	\$34,000
73	860460		LIGHTING AND SIGN ILLUMINATION	LS	1.00	1	\$64,600	\$64,600

COMBINED ESTIMATE

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
74	860930		TRAFFIC MONITORING STATION	LS	1.00	1	\$56,100	\$56,100
75	861100		RAMP METER SYSTEM	LS	1.00	1	\$15,300	\$15,300
76	999990		MOBILIZATION	LS	1.00	1	10%	\$1,226,000
			SUBTOTAL					\$12,321,200

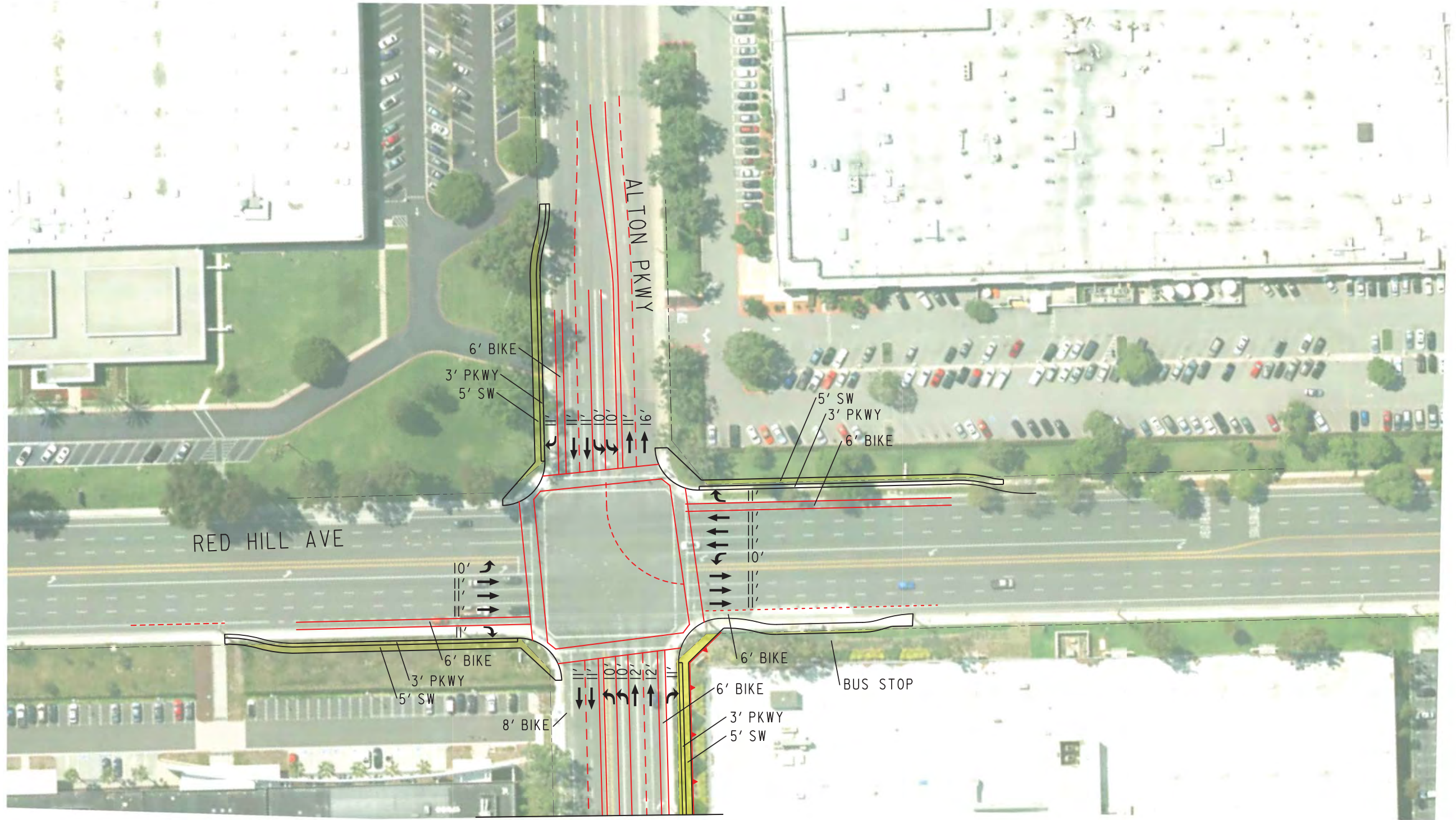
SUPPLEMENTAL WORK AND CITY FURNISHED MATERIAL

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
77	066062		COZEEP CONTRACT	LS	1	1	\$102,000.00	\$102,000
78	066063		TRAFFIC MANAGEMENT PLAN & PUBLIC INFORMATION	LS	1	1	\$51,000.00	\$51,000
79	066070		MAINTAINING TRAFFIC	LS	1	1	\$59,500.00	\$59,500
80	066595		WATER POLLUTION CONTROL MAINTENANCE SHARING	LS	1	1	\$17,000.00	\$17,000
81	066596		ADDITIONAL WATER POLLUTION CONTROL	LS	1	1	\$13,600.00	\$13,600
82	066597		STORM WATER SAMPLING AND ANALYSIS	LS	1	1	\$8,500.00	\$8,500
83	066600		DISPOSAL OF YELLOW PAINTED TRAFFIC STRIPE	LS	1	1	\$17,000.00	\$17,000
84	066610		PARTNERING	LS	1	1	\$34,000.00	\$34,000
85	066666		COMPENSATION ADJUSTMENT FOR PRICE INDEX FLUCTUATIONS OF PAVING ASPHALT	LS	1	1	\$51,000.00	\$51,000
86			LOCAL ASSISTANCE (CITIES)	LS	1	1	\$34,000.00	\$34,000
			SUBTOTAL					\$387,600

NET SUBTOTAL \$12,700,000
CONTINGENCIES (10%) \$1,300,000

TOTAL (Caltrans) **\$14,000,000**
Total (Street from separate file) **\$10,400,000**
Hazardous Material Removal **\$8,000,000**
Right of Way **\$22,500,000**
Design Cost (Update PS&E and Revalidation) **\$600,000**
GRAND TOTAL **\$55,500,000**

Concept plans for Alton Overcrossing at SR-55 was not developed as part of the IBC Fee Study. The concept remains the same as was developed as part of "Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, May 2010"



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 44

- (1) ADD 1 NBR
- (2) ADD 1 SBR
- (3) ADD 2ND EBL
- (4) ADD 2ND WBT

IRVINE INTERSECTION 44
RED HILL AVE & ALTON PKWY
SHEET 1 OF 2

DECEMBER, 2016

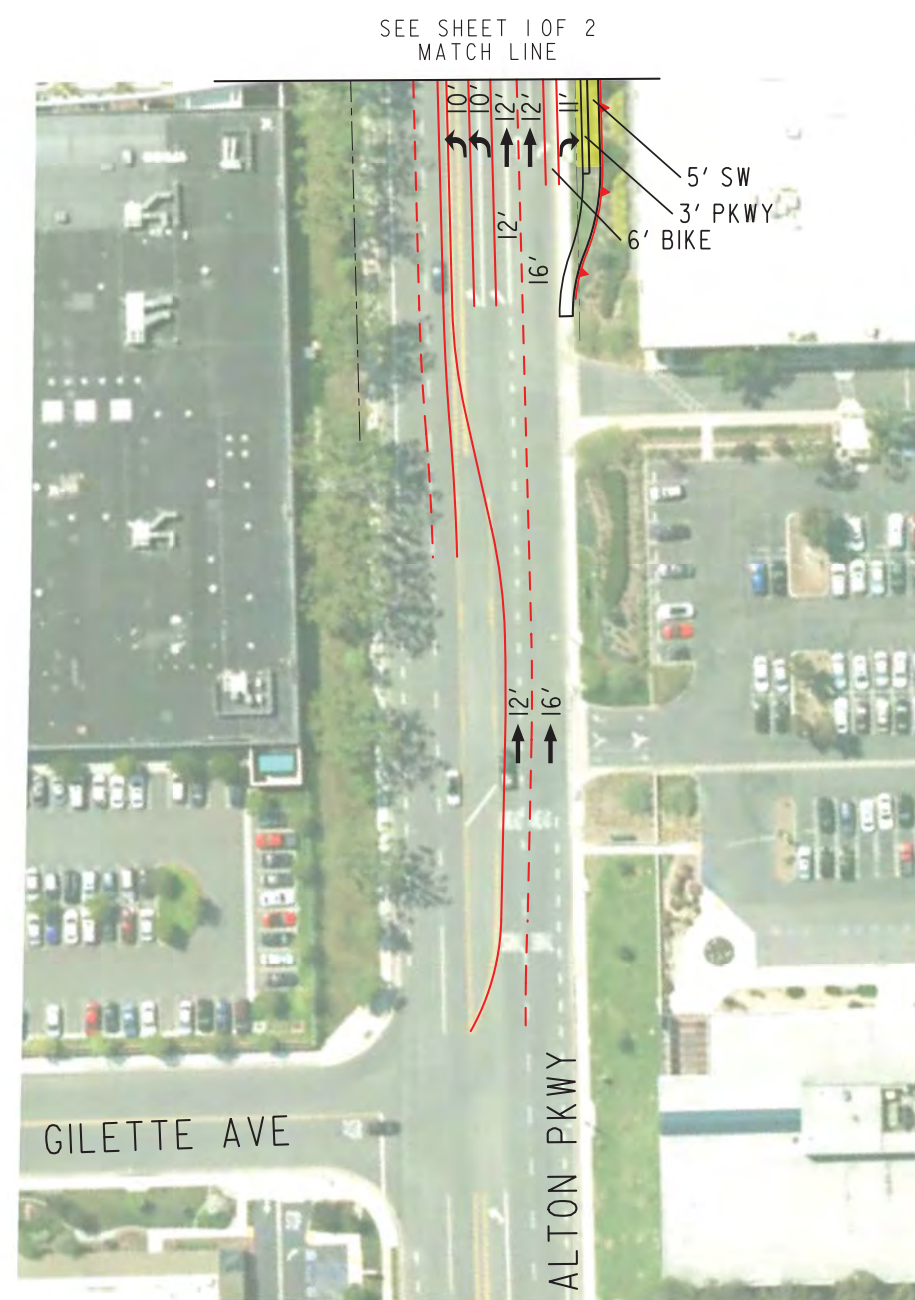


PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT



LEGEND

- (S) SIGNALIZED INTERSECTION
- DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 44

- (1) ADD INBR
- (2) ADD ISBR
- (3) ADD 2ND EBL
- (4) ADD 2ND WBT

IRVINE INTERSECTION 44
RED HILL AVE & ALTON PKWY
SHEET 2 OF 2

SEPTEMBER 14, 2016



PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

Dyer Road widening between SR-55 NB on-ramp and Red Hill Avenue (Phase 2)

Irvine IBC - Nexus Study

Cost Estimate



Intersection
Dyer Rd & SR-55
Mitigations: Dyer Rd widening from SR-55 to Red Hill

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	3.52	\$42,940	Original area + 2-6' bike lanes
2	Earthwork	\$46.00	CY	6500	\$299,000	116,500 sf x 1.5' deep/27 = 6,500 CY
3	Remove Curb & Gutter	\$24.00	LF	4830	\$115,920	
4	Remove Median Curb	\$30.00	LF	0	\$0	
5	Remove PCC Sidewalk	\$5.00	SF	36975	\$184,875	
6	Remove Pavement	\$5.00	SF	5750	\$28,750	1' sawcut (AC) and 750 SF (PCC)
7	Remove Channel	\$40.00	LF	0	\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF	0	\$0	
9	Reconstruct Metal Beam Guard Rail	\$40.00	LF	0	\$0	
10	Remove & Replace Tree	\$1,500.00	EA	64	\$96,000	
11	Modify Driveway	\$6,100.00	EA	15	\$91,500	
12	Construct PCC Pavement	\$14.00	SF	750	\$10,500	Bus Stop Pad
13	Construct AC Pavement	\$8.00	SF	70000	\$560,000	
14	Construct AC Overlay	\$3.60	SF	0	\$0	
15	Construct Slurry Seal	\$0.40	SF	0	\$0	
16	Construct AC Dike	\$15.00	LF	270	\$4,050	
17	Construct Curb & Gutter	\$30.00	LF	4815	\$144,450	
18	Construct Concrete Barrier	\$80.00	LF	0	\$0	
19	Construct Median Curb	\$31.00	LF	0	\$0	
20	Construct Median Concrete	\$15.00	SF	0	\$0	
21	Construct Median/Parkway Landscaping	\$13.00	SF	22500	\$292,500	Includes new irrigation. Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	\$9.05	SF	46400	\$419,920	
23	Construct Wheelchair Ramp	\$6,000.00	EA	9	\$54,000	
24	Construct Retaining Wall	\$75.00	SF	1200	\$90,000	assume 3'(4'H) x 300 LF wall at toe.
25	Remove Retaining Wall	\$35.00	SF	0	\$0	
26	Relocate Monument Wall	\$20,000.00	EA	0	\$0	
27	Sawcut	\$4.00	LF	5000	\$20,000	
ROADWAY SUBTOTAL					\$2,454,405	
TRAFFIC						
28	Remove Striping	\$3.00	LF	844	\$2,532	
29	Remove Pavement Markings	\$150.00	EA	12	\$1,800	
30	Relocate Street Light	\$6,200.00	EA	19	\$117,800	includes 5 new on so side east of tracks
31	Modify Traffic Signal	\$325,000.00	EA	2	\$650,000	1 full and 2 partials
32	New Traffic Signal	\$425,000.00	EA	0	\$0	
33	Install Striping	\$5.00	LF	9200	\$46,000	
34	Install Pavement Markings	\$350.00	EA	25	\$8,750	
35	Relocate Freeway Sign (2 post)	\$700.00	EA	0	\$0	
36	Loop Detector	\$2,000.00	EA	21	\$42,000	video detection at Barranca/Redhill
37	Remove Roadside Sign	\$150.00	EA	1	\$150	
38	Relocate Sign (1 post)	\$220.00	EA	58	\$12,760	
39	Overhead Sign (2 posts)	\$240,000.00	EA	0	\$0	
40	Relocate Commercial Sign	\$3,000.00	EA	4	\$12,000	
41	Relocate Bus Bench	\$1,458.00	EA	3	\$4,374	1 stop counted as 2 because of canopy
42	Install Ramp Metering System	\$80,000.00	EA	0	\$0	
43	Install Delineator	\$36.60	EA	0	\$0	
44	Apply ATMS	\$113,165.00	LS	0	\$0	
45	Railroad Signal, panels and coordination		LS	1	\$1,500,000	
TRAFFIC SUBTOTAL					\$2,398,166	
UTILITIES AND DRAINAGE						
46	Relocate Call Box	\$2,051.00	EA	0	\$0	
47	Relocate Power Pole	\$25,000.00	EA	2	\$50,000	
48	Relocate Catch Basin	\$9,760.00	EA	5	\$48,800	1 large CB counted as 2
49	Relocate Fire Hydrant	\$5,000.00	EA	8	\$40,000	
50	Relocate Utility Boxes	\$1,000.00	EA	64	\$64,000	
51	Relocate Main Water Valve	\$12,200.00	EA	6	\$73,200	
52	Relocate Utility Vault	\$10,000.00	EA	4	\$40,000	
53	Adjust Manhole to Grade	\$1,500.00	EA	8	\$12,000	
54	Adjust Water Meter	\$1,000.00	EA	10	\$10,000	
55	Adjust Water Valve	\$1,000.00	EA	9	\$9,000	
56	Adjust Minor Above Ground Utilities	\$1,000.00	EA	15	\$15,000	
57	Construct Striping & Marking	\$2.00	LF	0	\$0	
58	Construct Storm Drain Main	\$122.00	LF	0	\$0	
59	Parkway Drain	\$1,000.00	SEA	1	\$1,000	
60	Construct RCB	\$549.00	CY	0	\$0	
61	Construct Channel (Earthen)	\$12.20	LF	0	\$0	
62	Construct Concrete V-Ditch	\$19.00	LF	0	\$0	
63	Construct Bridge Widening	\$500.00	SF	0	\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$363,000	
GENERAL						
63	Mobilization	\$36,300	LS	1	\$521,557	
64	Utility Relocation	5%	LS	1	\$260,779	
65	Traffic Control	8%	LS	1	\$417,246	
66	SWPPP Plan and Implementation	6%	LS	1	\$312,934	
CONSTRUCTION SUBTOTAL					\$6,728,087	
RIGHT-OF-WAY						
67	Right-Of-Way	\$70.00	SF	135112	\$9,457,859	
68	Building Demolition	\$1,000,000.00	EA	3	\$3,000,000	1 per full take
69	Parking Impacts	\$20,000.00	EA	18	\$360,000	
70	Temporary Construction Easements	\$6.50	SF	20520	\$133,380	
71	Right-of-Way Management	10%	LS	1	\$1,295,124	
RIGHT-OF-WAY SUBTOTAL					\$14,246,363	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$20,974,449	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$672,809	
Design Engineering/Administration Cost (15% Construction Cost)					\$1,009,213	
Construction Engineering Costs/Administration (15% Construction Cost)					\$1,009,213	
Contingency (20% Construction Cost)					\$1,345,617	
TOTAL PROJECT COSTS					\$25,011,301	



LEGEND

- (S) SIGNALIZED INTERSECTION
- ➔ DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - SANTA ANA INTERSECTION

- (I) DYER RD WIDENING - RED HILL TO SR-55
(CONSISTENT WITH PROJECT REPORT
DATED MAY 2004)

SANTA ANA INTERSECTION
SR-55 & DYER RD
SHEET 1 OF 3

DECEMBER, 2016

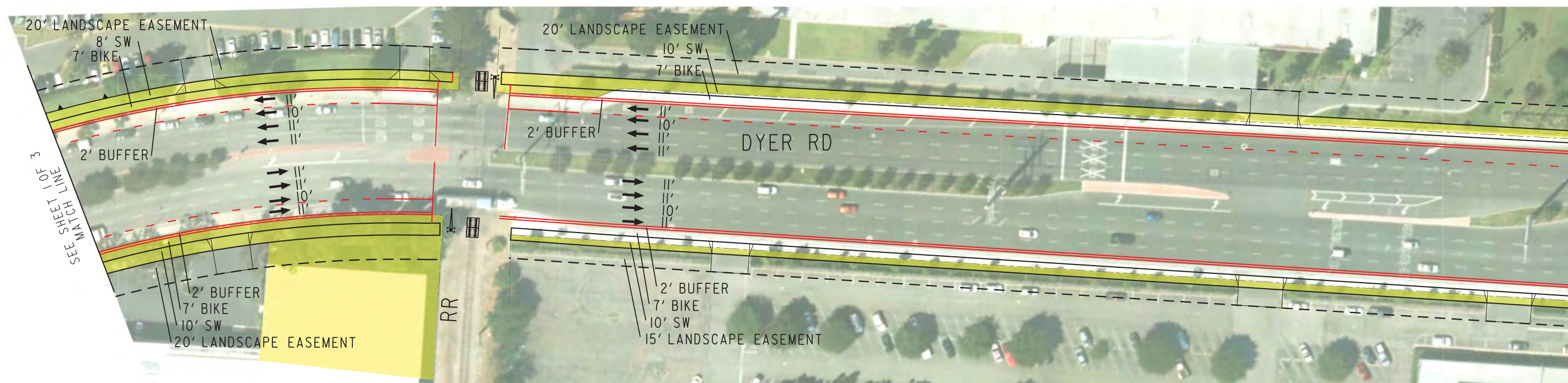


PLAN PREPARED BY:



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT



LEGEND

(S) SIGNALIZED INTERSECTION

➔ DIRECTION OF TRAVEL

PROPOSED ROW

XX' PROPOSED LANE WIDTH

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MITIGATIONS - SANTA ANA INTERSECTION

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SANTA ANA INTERSECTION
SR-55 & DYER RD
SHEET 2 OF 3

DECEMBER, 2016

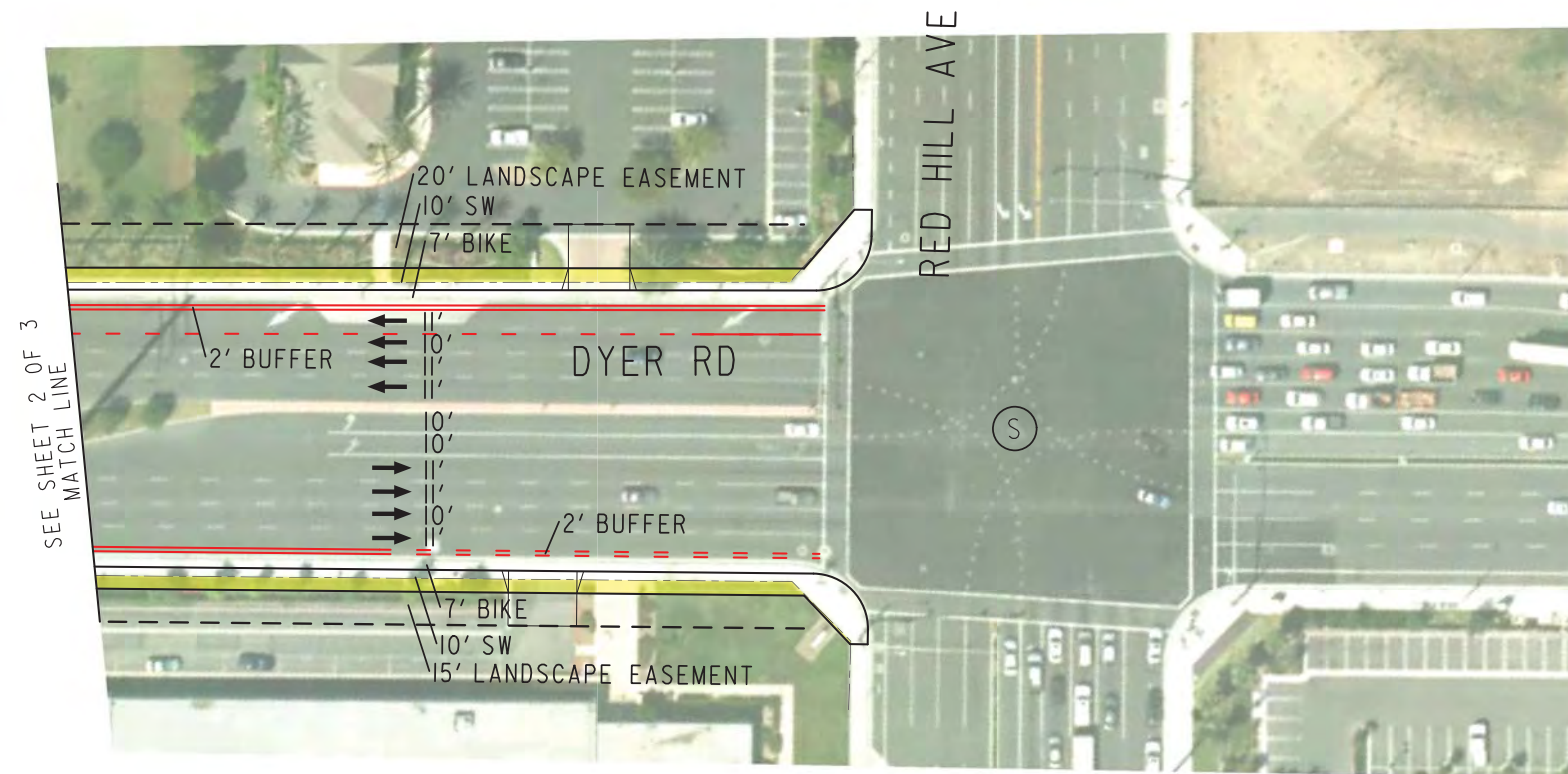
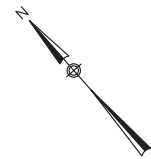


PLAN PREPARED BY:







2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT



LEGEND

-  SIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PROPOSED ROW
-  PROPOSED LANE WIDTH

MITIGATIONS - SANTA ANA INTERSECTION

-  DYER RD WIDENING - RED HILL TO SR-55
(CONSISTENT WITH PROJECT REPORT
DATED MAY 2004)

SANTA ANA INTERSECTION
SR-55 & DYER RD
SHEET 3 OF 3

DECEMBER, 2016



2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

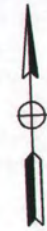
Flower Street and Segerstrom Avenue

Note: Concepts were not developed for the 2015 IBC Fee Update at this location since it is consistent with 2010 IBC Fee Study

Irvine IBC - Nexus Study						
Cost Estimate						
Intersection 719 Flower St & Segerstrom Ave Mitigations: Add EB Defacto Lane						
ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.10	\$1,220	
2	Earthwork	\$46.00	CY	66	\$3,036	
3	Remove Curb & Gutter	\$24.00	LF	0	\$0	
4	Remove Median Curb	\$30.00	LF	280	\$8,400	
5	Remove PCC Sidewalk	\$5.00	SF	1890	\$9,450	
6	Remove Pavement	\$5.00	SF	560	\$2,800	
7	Remove Channel	\$40.00	LF	0	\$0	
8	Remove/Replace Chain Link Fence	\$35.00	LF	0	\$0	
9	Remove and Replace Pedestal and Wrought Iron Fence	\$75.00	LF	0	\$0	
10	Remove and Replace Vinyl Fence	\$40.00	LF	0	\$0	
11	Reconstruct Metal Beam Guard Rail	\$40.00	LF	0	\$0	
12	Remove & Replace Tree	\$1,500.00	EA	4	\$6,000	
13	Modify Driveway	\$6,100.00	EA	0	\$0	
14	Construct PCC Pavement	\$14.00	SF	1120	\$15,680	
15	Construct AC Pavement	\$8.00	SF	1780	\$14,240	
16	Construct AC Overlay	\$3.60	SF	0	\$0	
17	Construct Slurry Seal	\$0.40	SF	0	\$0	
18	Construct AC Dike	\$15.00	LF	0	\$0	
19	Construct Curb & Gutter	\$30.00	LF	270	\$8,100	
20	Construct Concrete Barrier	\$80.00	LF	0	\$0	
21	Construct Median Curb	\$31.00	LF	0	\$0	
22	Construct Median Concrete	\$15.00	SF	0	\$0	
23	Construct Median/Parkway Landscaping	\$13.00	SF	0	\$0	
24	Construct PCC Sidewalk	\$9.05	SF	2090	\$18,915	
25	Construct Wheelchair Ramp	\$6,000.00	EA	1	\$6,000	
26	Construct Retaining Wall	\$75.00	SF	0	\$0	
27	Remove Retaining Wall	\$35.00	SF	0	\$0	
28	Relocate Monument Wall	\$20,000.00	EA	0	\$0	
29	Sawcut	\$4.00	LF	290	\$1,160	
ROADWAY SUBTOTAL					\$95,001	
TRAFFIC						
30	Remove Striping	\$3.00	LF	0	\$0	
31	Remove Pavement Markings	\$150.00	EA	0	\$0	
32	Relocate Street Light	\$6,200.00	EA	1	\$6,200	
33	Modify Traffic Signal	\$325,000.00	EA	0.25	\$81,250	
34	New Traffic Signal	\$425,000.00	EA	0	\$0	
35	Install Striping	\$5.00	LF	0	\$0	
36	Install Pavement Markings	\$350.00	EA	0	\$0	
37	Relocate Freeway Sign (2 post)	\$700.00	EA	0	\$0	
38	Loop Detector	\$2,000.00	EA	0	\$0	
39	Remove Roadside Sign	\$150.00	EA	0	\$0	
40	Relocate Sign (1 post)	\$220.00	EA	1	\$220	
41	Overhead Sign (2 posts)	\$240,000.00	EA	0	\$0	
42	Relocate Bus Bench	\$1,458.00	EA	1	\$1,458	
43	Relocate Automatic Gate	\$10,000.00	EA	0	\$0	
44	Install Ramp Metering System	\$80,000.00	EA	0	\$0	
45	Install Delineator	\$36.60	EA	0	\$0	
46	Apply ATMS	\$113,165.00	LS	0	\$0	
TRAFFIC SUBTOTAL					\$89,128	
UTILITIES AND DRAINAGE						
47	Relocate Call Box	\$2,051.00	EA	0	\$0	
48	Relocate Power Pole	\$25,000.00	EA	0	\$0	
49	Relocate Catch Basin	\$9,760.00	EA	0	\$0	
50	Relocate Fire Hydrant	\$5,000.00	EA	0	\$0	
51	Relocate Utility Boxes	\$1,000.00	EA	1	\$1,000	
52	Relocate Main Water Valve	\$12,200.00	EA	0	\$0	
53	Relocate Utility Vault	\$10,000.00	EA	0	\$0	
54	Adjust Manhole to Grade	\$1,500.00	EA	0	\$0	
55	Adjust Water Meter	\$1,000.00	EA	0	\$0	
56	Adjust Water Valve	\$1,000.00	EA	0	\$0	
57	Adjust Minor Above Ground Utilities	\$1,000.00	EA	0	\$0	
58	Construct Striping & Marking	\$2.00	LF	0	\$0	
59	Construct Storm Drain Main	\$122.00	LF	0	\$0	
60	Construct RCB	\$549.00	CY	0	\$0	
61	Construct Channel (Earthen)	\$12.20	LF	0	\$0	
62	Construct Concrete V-Ditch	\$19.00	LF	0	\$0	
63	Construct Bridge Widening	\$500.00	SF	0	\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$1,000	
GENERAL						
64	Mobilization	10%	LS	1	\$18,513	
65	Traffic Control	8%	LS	1	\$14,810	
66	Utility Relocations	5%	LS	1	\$9,256	
67	SWPPP Plan and Implementation	6%	LS	1	\$11,108	
CONSTRUCTION SUBTOTAL					\$238,816	
RIGHT-OF-WAY						
68	Right-Of-Way	\$70.00	SF	700	\$49,000	
69	Parking Impacts	\$20,000.00	EA	0	\$0	
70	Temporary Construction Easements	\$6.50	SF	0	\$0	
71	Right-of-Way Management	10%	LS	0	\$4,900	
RIGHT-OF-WAY SUBTOTAL					\$53,900	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$292,716	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$35,822	
Construction Engineering Costs/Administration (15% Construction Cost)					\$35,822	
Contingency (20% Construction Cost)					\$47,763	
TOTAL PROJECT COSTS					\$712,124	

LEGEND

- CENTERLINE
- RIGHT OF WAY TAKE
- RIGHT OF WAY
- RETAINING WALL



MITIGATION:
+ ADD EB DE FACTO RIGHT TURN LANE

SANTA ANA - INTERSECTION 719
FLOWER STREET AND SEGERSTROM AVENUE

City of Costa Mesa

City of Costa Mesa List of Improvements and Associated Costs

Jurisdiction	Int ID	Intersection / Arterial Location	Improvement Strategy					Fair Share %	Total Cost to IBC Fee
				Construction Subtotal	ROW Subtotal	Contingency Cost*	Total		
Costa Mesa	10	SR-55 Frontage Road SB Ramps at Paularino	Improve Southbound to 1.5 Left, 1.5 Through, 1 Right.	\$585,227	\$29,260	\$592,613	\$1,207,101	2.4%	\$28,970
								TOTAL	\$28,970

*Contingency cost includes:

- Preliminary Project Development Cost (10% Construction Cost, minimum \$300,000)
- Design Engineering/Administration Cost (15% Construction Cost)
- Construction Engineering Cost/Administration (15% Construction Cost)
- Contingency (20% Construction Cost)

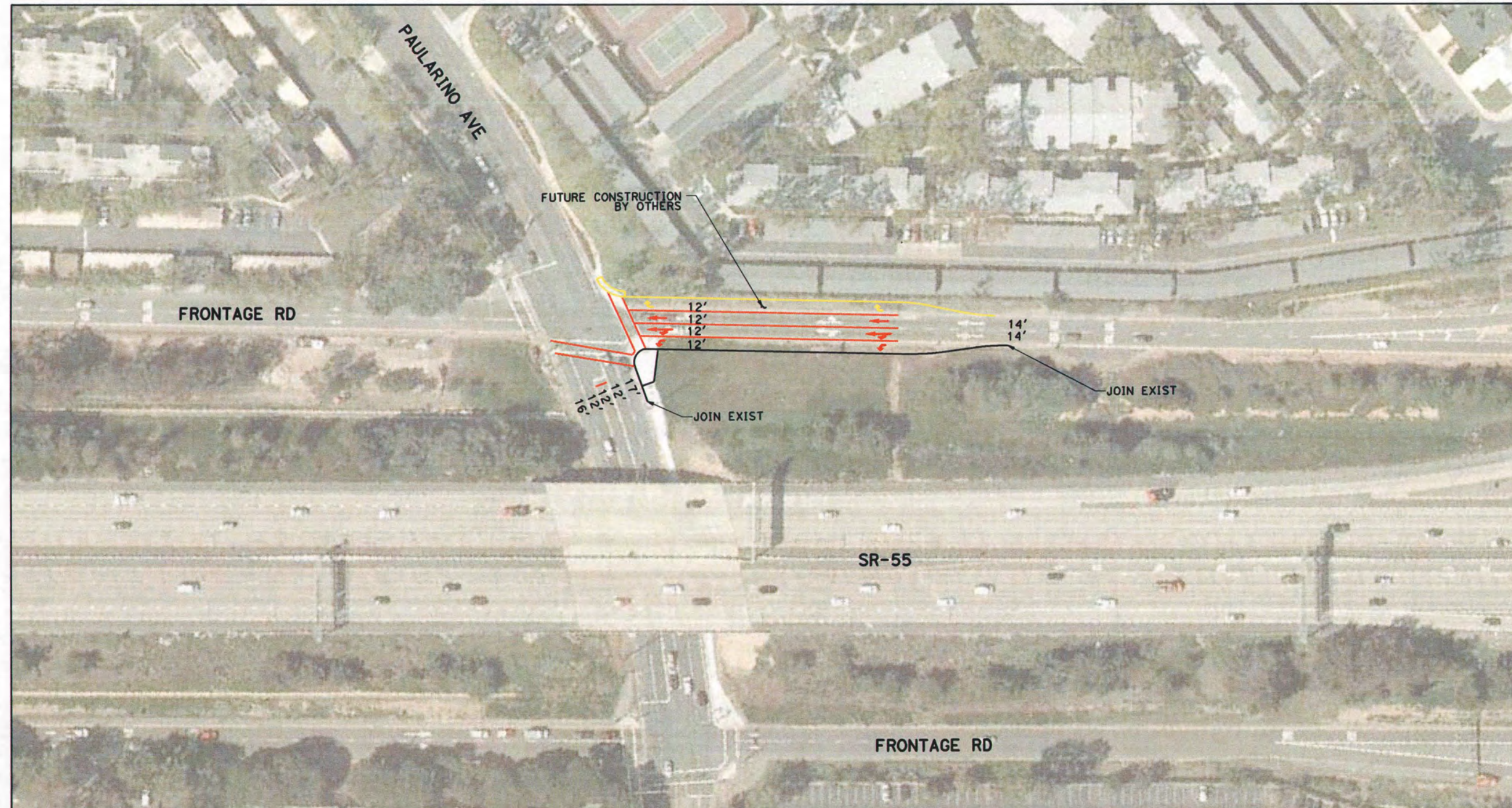
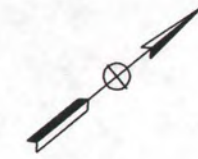
10 - SR-55 Frontage Road SB Ramps at Paularino

Note: Concepts were not developed for the 2015 IBC Fee Update at this location since it is consistent with 2010 IBC Fee Study

Irvine IBC - Nexus Study						
Cost Estimate						
Intersection 10 SR-55 Frontage Roads & Palarino Mitigations: Improve SB to 1.5L, 1.5T, 1R						
ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
ROADWAY						
1	Clear & Grub	\$12,200.00	AC	0.10	\$1,220	
2	Earthwork	\$46.00	CY	620	\$28,520	
3	Remove Curb & Gutter	\$24.00	LF	730	\$17,520	
4	Remove Median Curb	\$30.00	LF	0	\$0	
5	Remove PCC Sidewalk	\$5.00	SF	330	\$1,650	
6	Remove Pavement	\$5.00	SF	1370	\$6,850	
7	Remove Channel	\$40.00	LF	6	\$240	
8	Remove/Replace Chain Link Fence	\$35.00	LF	160	\$5,600	
9	Remove and Replace Pedestal and Wrought Iron Fence	\$75.00	LF	0	\$0	
10	Remove and Replace Vinyl Fence	\$40.00	LF	0	\$0	
11	Reconstruct Metal Beam Guard Rail	\$40.00	LF	0	\$0	
12	Remove & Replace Tree	\$1,500.00	EA	0	\$0	
13	Modify Driveway	\$6,100.00	EA	0	\$0	
14	Construct PCC Pavement	\$14.00	SF	0	\$0	
15	Construct AC Pavement	\$8.00	SF	5580	\$44,640	
16	Construct AC Overlay	\$3.60	SF	0	\$0	
17	Construct Slurry Seal	\$0.40	SF	0	\$0	
18	Construct AC Dike	\$15.00	LF	0	\$0	
19	Construct Curb & Gutter	\$30.00	LF	690	\$20,700	
20	Construct Concrete Barrier	\$80.00	LF	0	\$0	
21	Construct Median Curb	\$31.00	LF	0	\$0	
22	Construct Median Concrete	\$15.00	SF	0	\$0	
23	Construct Median/Parkway Landscaping	\$13.00	SF	0	\$0	
24	Construct PCC Sidewalk	\$9.05	SF	630	\$5,702	
25	Construct Wheelchair Ramp	\$6,000.00	EA	2	\$12,000	
26	Construct Retaining Wall	\$75.00	SF	0	\$0	
27	Remove Retaining Wall	\$35.00	SF	0	\$0	
28	Relocate Monument Wall	\$20,000.00	EA	0	\$0	
29	Sawcut	\$4.00	LF	710	\$2,840	
ROADWAY SUBTOTAL					\$147,482	
TRAFFIC						
30	Remove Striping	\$3.00	LF	0	\$0	
31	Remove Pavement Markings	\$150.00	EA	0	\$0	
32	Relocate Street Light	\$6,200.00	EA	0	\$0	
33	Modify Traffic Signal	\$325,000.00	EA	0.75	\$243,750	
34	New Traffic Signal	\$425,000.00	EA	0	\$0	
35	Install Striping	\$5.00	LF	3080	\$15,400	
36	Install Pavement Markings	\$350.00	EA	0	\$0	
37	Relocate Freeway Sign (2 post)	\$700.00	EA	1	\$700	
38	Loop Detector	\$2,000.00	EA	0	\$0	
39	Remove Roadside Sign	\$150.00	EA	0	\$0	
40	Relocate Sign (1 post)	\$220.00	EA	2	\$440	
41	Overhead Sign (2 posts)	\$240,000.00	EA	0	\$0	
42	Relocate Bus Bench	\$1,458.00	EA	0	\$0	
43	Relocate Automatic Gate	\$10,000.00	EA	0	\$0	
44	Install Ramp Metering System	\$80,000.00	EA	0	\$0	
45	Install Delineator	\$36.60	EA	0	\$0	
46	Apply ATMS	\$113,165.00	LS	0	\$0	
TRAFFIC SUBTOTAL					\$260,290	
UTILITIES AND DRAINAGE						
47	Relocate Call Box	\$2,051.00	EA	0	\$0	
48	Relocate Power Pole	\$25,000.00	EA	1	\$25,000	
49	Relocate Catch Basin	\$9,760.00	EA	1	\$9,760	
50	Relocate Fire Hydrant	\$5,000.00	EA	0	\$0	
51	Relocate Utility Boxes	\$1,000.00	EA	1	\$1,000	
52	Relocate Main Water Valve	\$12,200.00	EA	0	\$0	
53	Relocate Utility Vault	\$10,000.00	EA	1	\$10,000	
54	Adjust Manhole to Grade	\$1,500.00	EA	0	\$0	
55	Adjust Water Meter	\$1,000.00	EA	0	\$0	
56	Adjust Water Valve	\$1,000.00	EA	0	\$0	
57	Adjust Minor Above Ground Utilities	\$1,000.00	EA	0	\$0	
58	Construct Striping & Marking	\$2.00	LF	0	\$0	
59	Construct Storm Drain Main	\$122.00	LF	0	\$0	
60	Construct RCB	\$549.00	CY	0	\$0	
61	Construct Channel (Earthen)	\$12.20	LF	0	\$0	
62	Construct Concrete V-Ditch	\$19.00	LF	7	\$133	
63	Construct Bridge Widening	\$500.00	SF	0	\$0	
UTILITIES AND DRAINAGE SUBTOTAL					\$45,893	
GENERAL						
64	Mobilization	10%	LS	1	\$45,366	
65	Traffic Control	8%	LS	1	\$36,293	
66	Utility Relocations	5%	LS	1	\$22,683	
67	SWPPP Plan and Implementation	6%	LS	1	\$27,220	
CONSTRUCTION SUBTOTAL					\$585,227	
RIGHT-OF-WAY						
68	Right-Of-Way	\$70.00	SF	380	\$26,600	
69	Parking Impacts	\$20,000.00	EA	0	\$0	
70	Temporary Construction Easements	\$6.50	SF	0	\$0	
71	Right-of-Way Management	10%	LS	1	\$2,660	
RIGHT-OF-WAY SUBTOTAL					\$29,260	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					\$614,487	
Preliminary Project Development (10% Construction Cost, min \$300,000)					\$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					\$87,784	
Construction Engineering Costs/Administration (15% Construction Cost)					\$87,784	
Contingency (20% Construction Cost)					\$117,045	
TOTAL PROJECT COSTS					\$1,207,101	

LEGEND

- CENTERLINE
- RIGHT OF WAY TAKE
- RIGHT OF WAY
- RETAINING WALL



- MITIGATIONS:**
- + ADD SB LEFT TURN LANE
 - + RESTRIPE LEFT SB THROUGH LANE TO SHARED THROUGH-LEFT

COSTA MESA - INTERSECTION 10
SR-55 SB FRONTAGE ROAD AND PAULARINO AVENUE



Appendix E: 1993 Agreement between City of Irvine and City of Costa Mesa

AGREEMENT

This Agreement for IMPLEMENTING THE IBC ROADWAY MITIGATION AND MONITORING PROGRAM ("Agreement") is made and entered into as of this 4th day of January, 1993 (the "Effective Date"), by and between the City of Irvine, a California charter city ("Irvine") and the City of Costa Mesa, a California municipal corporation ("Costa Mesa") (collectively referred to as the "Parties").

R E C I T A L S

A. Irvine has certified Environmental Impact Report 88-ER-0087 (the "IBC EIR"), as adequate and complete and adopted General Plan Amendment No. 7234-GA, and Zoning Amendment 88-ZC-0135 (collectively the "IBC Rezoning") to amend the land use designation and zoning in that portion of the City known as the Irvine Business Complex (the "IBC"), more specifically defined as that area depicted on Exhibit "A," attached hereto and incorporated herein by this referenced.

B. The IBC EIR analyzes the IBC Rezoning and concludes that the traffic mitigation measures contained therein (the "IBC Traffic Mitigation Measures") will adequately accommodate the traffic impacts which are anticipated to be generated by the IBC Rezoning.

C. The Parties hereto wish to monitor the traffic generated as a result of the IBC Rezoning to allow them to make timely decisions on the funding and implementation of the IBC Traffic Mitigation Measures.

C O V E N A N T S:

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereto agree as follows:

1. Mitigation Monitoring Program.

Irvine shall monitor the implementation of the IBC Traffic Mitigation Measures in the manner provided for in the mitigation monitoring program adopted by Irvine pursuant to City Council Resolution No. 92-162 (the "Mitigation Monitoring Program").

2. Implementation of the Development Deferral Program.

Irvine shall implement the development deferral program contained within in Appendix "B" of the IBC EIR (the "DDP") in either situation provided below:

(a) Irvine shall implement the DDP if the Mitigation Monitoring Program discloses that traffic generated by the IBC Rezoning has caused any arterial within Costa Mesa to exceed that arterial's applicable level of service ("LOS"). For the purpose of this Agreement an arterial's applicable LOS shall be that minimum LOS adopted for that arterial in the Circulation Element of the Costa Mesa General Plan as of the Effective Date. The DDP will remain in effect until such time as Irvine has devised and funded a mitigation measure which will reduce the IBC generated traffic on the arterial to the arterial's applicable LOS; or

(b) Irvine shall implement the DDP if, within three years prior to the scheduled

implementation of any IBC Traffic Mitigation Measure within Costa Mesa, Irvine determines that it will not have sufficient funds to actually construct that mitigation measure. The DDP will remain in effect until Irvine determines that it can fund the previously approved mitigation measure, or it devises a substitute mitigation measure acceptable to Costa Mesa and determines that the substitute mitigation measure can be funded.

3. Additional Mitigation.

In the event that the Mitigation Monitoring Program discloses that traffic generated as a result of the IBC Rezoning is having significant impact within Costa Mesa in excess of the traffic impacts discussed in the IBC EIR, Irvine and Costa Mesa shall meet and confer on the appropriate method to mitigate that significant impact (the "Supplemental Mitigation Measure(s)"). Irvine shall contribute its proportionate fair share of the cost of implementing the Supplemental Mitigation Measure(s). Irvine's proportionate fair share of the cost of the Supplemental Mitigation Measure(s) shall be based upon that percentage of IBC generated traffic which is actually attributable to the need for implementation of the Supplemental Mitigation Measure(s).

4. Analysis of Traffic Study Assumptions.

The City of Irvine will, at its own cost, hire a consultant to independently:

- a. Conduct a traffic analysis of IBC EIR traffic assumptions after the completion of construction following issuance of building permits for 46 million gross square feet (approximately 40 million gross square feet existing today).
- b. More specifically, all EIR traffic assumptions affecting the City of Costa Mesa will be analyzed which may include factors such as trip rates, TDM rates, and occupancy.

5. Covenant Not to Sue.

Each Party, and its respective agents, officers, employees, representatives, and assigns hereby agrees and covenants that this Agreement forever satisfies any past, present, or future claims which the Party, and its agents, officers, employees, representatives or assigns had, has or may have against the other Party or its agents, officers, employees, representatives, and assigns arising out of the IBC Rezoning and/or the preparation and certification of the IBC EIR. As a result, each Party hereto covenants not to file any future legal actions of whatever kind or nature against the other party regarding any claim in connection with the IBC Rezoning or the IBC EIR whether such claim is known or unknown, suspected or unsuspected, fixed or contingent.

6. Waiver of Civil Code Section 1542.

Each of the Parties hereto expressly waives any and all rights under Section 1542 of the California Civil Code or any Federal or State statutory right, rules or principles of common law

or equity or those of any other jurisdiction, government or political subdivision thereof, similar to Civil Code Section 1542 (hereinafter referred to "Similar Provision"). Thus, no Party hereto may invoke the benefit of Section 1542 or any Similar Provision in order to prosecute or assert in any manner any claim released hereunder. Section 1542 provides that:

"a general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially effected his settlement with the debtor."

7. Integration.

This Agreement represents the entire understanding of the Parties hereto. No prior or contemporaneous oral or written understanding shall be of any force or effect with respect to those matters covered in this Agreement. Except as set forth in Sections 2(e) and 3(a) above, this Agreement may not be altered, amended, or modified except by mutual consent of the Parties hereto through a written instrument.

8. Attorneys Fees.

In the event that any Party hereto should bring any action, suit or other proceeding to remedy, prevent, or obtain relief from a breach of this Agreement or arising out of a breach of this Agreement, or contesting the validity of this Agreement or attempting to rescind, negate, modify, or reform this Agreement or any of the terms or provisions of this Agreement, the prevailing Party shall recover from such Party those reasonable attorneys fees and costs, including expert fees, incurred in each and every such

action, suit, or other proceeding, including any and all appeals or petitions therefrom.

9. California Law.

This Agreement shall be construed and interpreted both as to validity and performance of the Parties in accordance with the laws of the State of California.

10. Execution and Counterparts.

This agreement may be executed and delivered in any number of counterparts or copies ("Counterpart") by the Parties hereto.

11. Authority to Execute.

The persons executing this Agreement on behalf of the Parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said Parties and that by so executing this Agreement, the Parties hereto are formally bound to the provisions of this Agreement. Each person further acknowledges that he or she has obtained all necessary and legally required approvals for entry into this Agreement from legislative or governing boards and that it has adopted a resolution, motion, ordinance or other action pursuant to State law and its own bylaws or ordinances for approval of this Agreement.

12. Notices.

Every notice, demand, request, or other document or instrument delivered pursuant to this Agreement shall be in writing and shall either be personally delivered, sent by Federal Express or other reputable over-night courier, sent by facsimile transmission with the original subsequently delivered by any other

means authorized herein, or sent by certified United States mail, postage prepaid, return receipt requested, to the address set forth below for the applicable Party, or such other address as Parties may designate from time to time:

To Irvine: City of Irvine
City Hall
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92713
Attn: City Manager
cc: Director of Community Development
Telephone: (714) 724-6000
Fax: (714) 724-6075

To Costa Mesa: City of Costa Mesa
77 Fair Drive
P.O. Box 1200
Costa Mesa, CA 92626
Attn: City Manager
cc: Executive Director of Planning and Building
Telephone: (714) 754-5327
Fax: (714)

13. Severability clause.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their signature as appearing below.

ATTEST:

Eileen P. Phinney
Clerk of the Council

CITY OF COSTA MESA

by


Mayor

APPROVED AS TO FORM:

Thomas Kahl 12-13-92
City Attorney

CITY OF IRVINE

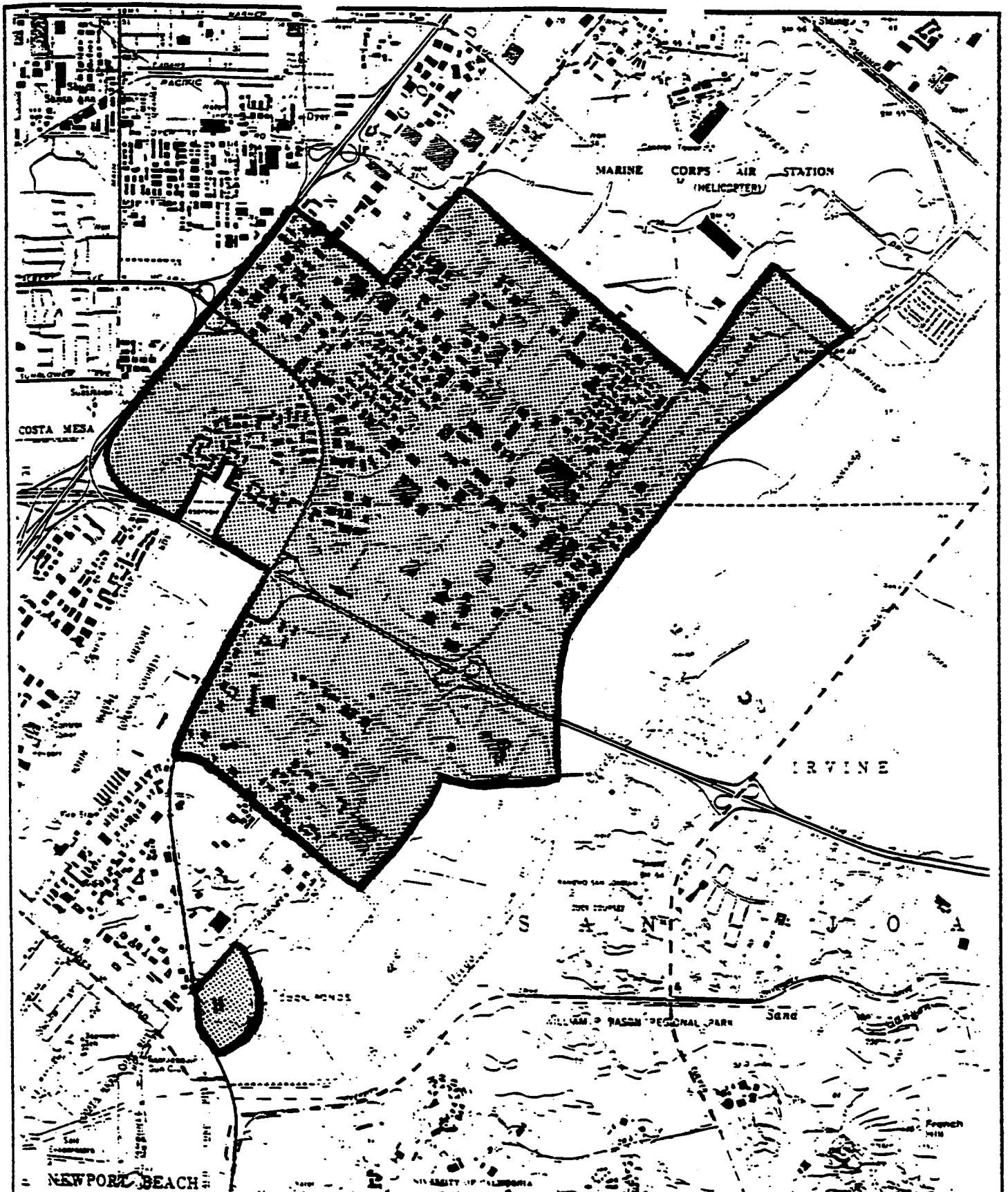
ATTEST:

Randy C. Lacey
Clerk of the Council

by Lacey Ann Sherman
Mayor

APPROVED AS TO FORM:

[Signature]
City Attorney



Source: U.S.G.S. Topographic Map
Tustin Quadrangle, Revised 1981

ATTACHMENT A

IRVINE BUSINESS COMPLEX Site Vicinity Map



Robert Beir, William Pross & Associates
1.01



Appendix F: 2010 Settlement Agreement between City of Irvine and Caltrans District 12

TRAFFIC MITIGATION AGREEMENT

THIS AGREEMENT entered into and shall be effective on this 25th day of January, 2011 by and between the State of California, acting by and through its Department of Transportation, hereinafter referred to as "Department," and the City of Irvine, hereinafter referred to as "Agency." The Department and Agency are collectively referred to as the "Parties."

RECITALS

- A. WHEREAS, on July 13, 2010 Agency certified the Final Environmental Impact Report (FEIR) for certain General Plan Amendments and Zone Change that are collectively known as the Irvine Business Complex (IBC) Vision Plan. That same evening, the Agency approved the General Plan Amendment for the IBC Vision Plan, and conducted the first reading for the Zone Change for the IBC Vision Plan. On July 27, 2010, the Agency conducted the second reading for the Zone Change for the IBC Vision Plan. The IBC Vision Plan is hereinafter referred to as the "Proposed Land Use Project." The Proposed Land Use Project is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north, the San Diego Creek channel to the east, John Wayne Airport and Campus Drive to the south and State Route 55 (SR-55) to the west. The Proposed Land Use Project is bordered by the cities of Newport Beach, Santa Ana, Costa Mesa and Tustin. The Proposed Land Use Project allow for and/or contemplates (i) an increase in total units in the IBC from 9,401 units to 15,000 units, and (ii) a reduction of 2,715,062 square feet of nonresidential development (measured in office equivalency). In addition, a total of 2,038 density bonus units could be allowed (and are therefore assumed as part of the project) in accordance with state law, for a total of 17,038 units; and
- B. WHEREAS, Mitigation Measure 13-4 of the FEIR ("MM 13-4") requires that an agreement between Parties be executed to address fair-share funding responsibilities for certain improvements within the jurisdiction and control of Department that will ultimately offset impacts to the State Highway System (SHS) as a result of the Proposed Land Use Project; and
- C. WHEREAS, as set forth in the letters dated October 21, 2009 (Exhibit A) and November 12, 2009 (Exhibit B), each attached hereto and incorporated herein by reference, the Parties agree on the methodology used to (i) identify impacts to the SHS as a result of the Proposed Land Use Project and (ii) establish Agency's pro-rata share of funding responsibilities to offset and mitigate for impacts to the SHS as a result of the Proposed Land Use Project; and

D. WHEREAS, a Traffic Impact Study (TIS) identifies various impacts to the SHS as a result of the Proposed Land Use Project. The SHS facilities that the TIS identifies as being impacted by the Proposed Land Use Project are listed below. Each listed facility shall be referred to as an “Individual SHS Project”. Each Individual SHS Project displays Agency’s corresponding pro-rata funding percentage of the mitigation responsibility, based on the methodology described in Exhibit A and Exhibit B:

- Northbound Interstate (I)-5 mainline: Jamboree to Newport (1.8% fair-share)
- Northbound I-5 mainline: Newport to State Route (SR)-55 (1.7% fair-share)
- Southbound I-5 mainline: Jamboree to Tustin Ranch (2.3% fair-share)
- Southbound I-5 mainline: Tustin Ranch to Red Hill (2.3% fair-share)
- Southbound I-5 connector: SR-55 to southbound I-5 (2.3% fair-share)
- Northbound I-405 mainline: Jamboree to MacArthur (2.2% fair-share)
- Northbound I-405 off-ramp: Culver (1.8% fair-share)
- Northbound I-405 off-ramp: MacArthur (7.3% fair-share)
- Northbound I-405 on-ramp: MacArthur (3.8% fair-share)
- Southbound I-405 mainline: Jamboree to MacArthur (2.9% fair-share)
- Southbound I-405 off-ramp: Jamboree (21.6% fair-share)
- Southbound I-405 on-ramp loop: Bristol (7.5% fair-share)
- Southbound I-405 connector: I-405 to southbound SR-55 (3.3% fair-share)
- Northbound SR-55 mainline: I-405 to MacArthur (3.3% fair-share)
- Northbound SR-55 mainline: MacArthur to Dyer (3.0% fair-share)
- Northbound SR-55 mainline: Dyer to Edinger (2.7% fair-share)
- Northbound SR-55 off-ramp: Baker (1.1% fair-share)
- Northbound SR-55 direct on-ramp: Dyer (3.6% fair-share)
- Southbound SR-55 mainline: I-405 to MacArthur (4.8% fair-share)
- Southbound SR-55 mainline: MacArthur to Dyer (4.1% fair-share)
- Southbound SR-55 on-ramp: Baker (3.1% fair-share)
- Southbound SR-55 loop on-ramp: MacArthur (8.0% fair-share)
- Northbound SR-73 on-ramp: Campus (6.1% fair-share)
- Southbound SR-73 off-ramp: Jamboree (4.0% fair-share); and

E. WHEREAS, the Parties have agreed upon a feasible improvement at each Individual SHS Project location that provides adequate mitigation of the associated Proposed Land Use Project impacts; and

F. WHEREAS, the Parties have agreed that Agency’s total funding commitment to offset the Proposed Land use Project impacts on SHS facilities will not exceed the amount of \$7,025,962 (Total Fair-Share Contribution), as more particularly set forth in Exhibit C attached hereto; and

- G. WHEREAS, Agency intends to adopt a fee program imposed on future development within the IBC ("IBC Transportation Fee Program" or "Program") that, among other things, will collect the Total Fair Share Contribution; and
- H. WHEREAS, the Total Fair Share Contribution constitutes a percentage of the total amount forecasted to be collected through the IBC Transportation Fee Program; and
- I. WHEREAS, Agency will segregate, and devote solely to the payment of the Total Fair Share Contribution in accordance with this Agreement, a percentage of the incoming Program funds equivalent to the ratio of the Total Fair Share Contribution to the remainder of the Program funds (\$7,025,962 / Total Fee Program Amount at Time of Segregation) of every dollar collected through the IBC Transportation Fee Program (the "Segregated Amount"). This ratio will be adjusted as funds are expended from either the Segregated Amount and/or the remainder of the Program funds; and
- J. WHEREAS, the Parties have agreed that Agency will not contribute any funding towards improvement of the Individual SHS Project identified as Northbound I-405 off-ramp at Culver because the Agency will mitigate this location as an intersection impact identified in the FEIR and TIS; and
- K. WHEREAS, Agency now desires to fulfill the requirements of MM 13-4.

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties hereby agree as follows:

AGREEMENT

- 1. Parties agree that Agency's total fair share contributions toward Individual SHS Projects shall not exceed the Total Fair-Share Contribution amount. For so long as Agency's cumulative contributions toward the Individual SHS Projects remains below Agency's Total Fair-Share Contribution amount, Agency shall be required to pay its fair share contribution, up to the then existing total of the Segregated Amount, to each Individual SHS Project.
- 2. Subject to the conditions and limitations on the amount and timing of funding set forth in this Agreement, the Parties agree to execute a separate Contribution Cooperative Agreement authorizing the transfer of funds for each and every Individual SHS Project at least 180 days prior to scheduled date of commencement of construction. So long as the Contribution Cooperative Agreement(s) is(are) fully consistent with the terms of this Agreement, Agency authorizes the City Manager to execute Contribution Cooperative Agreement(s) on behalf of Agency.

3. Parties agree to include the following general conditions when developing each Contribution Cooperative Agreement: (i) provide Agency with 60 calendar days to pay invoice, once it has been received, (ii) each invoice from Department will bill in the form of a lump sum, (iii) if, at the time the Contribution Cooperative Agreement is being prepared, the Segregated Amount held by Agency is less than the anticipated fair share contribution for an Individual SHS Project, the Contribution Cooperative Agreement will consider alternative billing arrangements such that Agency may remit to Department additional Segregated Amounts within a reasonable time as additional fees under the IBC Transportation Fee Program are paid to the Agency, and (iv) if, following Agency's payment of a fair share contribution toward an Individual SHS Project, Department's plans for construction of said Individual SHS Project are terminated or delayed for a period exceeding one year, Department shall refund Agency's fair share contribution toward said individual SHS Project; provided however, that said refund shall be without prejudice to Department's ability to re-invoice Agency for a fair share contribution to said Individual SHS Project if and when construction plans for said project are re-activated.
4. If Agency's fair share contribution to an Individual SHS Project would cause Agency's cumulative contributions under this Agreement to exceed the Total Fair Share Contribution amount, then Agency shall only be responsible to pay such amount as would result in the cumulative contributions under this Agreement equaling the Total Fair Share Contribution amount.
5. If, by December 31, 2040, the Department fails to utilize any portion of Agency's Total Fair-Share Contribution, those remaining funds shall be released from the commitments of this Agreement.
6. Agency's Total Fair-Share Contribution shall fully satisfy Agency's obligation to participate in the mitigation of traffic impacts per MM 13-4 of the FEIR. Agency will not be required to fund any additional improvements that may arise from the Proposed Land Use Project.
7. Department shall use the Total Fair-Share Contribution, and each and every portion thereof, for the purpose of mitigating impacts to the SHS as a result of the Proposed Land Use Project. Department may allocate a portion of funds towards improvements that have not yet been identified, but would provide equal or greater mitigation value than one or more of the Individual SHS Project(s), identified in Exhibit C of this Agreement, to offset the Proposed Land Use Project impacts.
8. Department shall advertise, award and administer (AAA) the construction contract for each and every project that utilizes Total Fair-Share Contribution funds.
9. Department shall not use Total Fair-Share Contribution funds for projects off the SHS, unless a cooperative agreement ("Cooperative Agreement") is first developed and executed by the Parties that (i) clearly demonstrates a nexus, (ii) transfers AAA responsibilities, (iii) addresses maintenance responsibilities, and (iv) provides all

necessary and standard language including indemnification, document retention, wage requirements, and other associated commitments.

10. This Agreement shall expire upon the earliest of the following occurrences: (i) when Department has expended the entire Total Fair-Share Contribution; (ii) when all unspent Total Fair-Share Contribution funds are returned to Agency; or (iii) on December 31, 2040.
11. All notices, transmittals of documentation and other writings required or permitted to be delivered or transmitted to either of the Parties under this Agreement shall be personally served or deposited in a United States mail depository, first class postage prepaid, and addressed as follows:

If to the Agency: City of Irvine
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623
Attention: City Manager

If to the Department: California Department of Transportation
District 12
3347 Michelson Drive, Suite 100
Irvine, CA 92612
Attention: Deputy District Director, Transportation
Planning and Local Assistance

All such notices and communications shall be deemed to have been duly given when delivered by hand, if personally delivered. Except where service is by registered or certified mail, return receipt requested, service of any instrument or writing shall be deemed completed forty-eight (48) hours after deposit in the United States mail depository.

12. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, other than the Parties hereto and their respective authorized successors and assigns, any legal or equitable right, remedy or claim under or in respect to this Agreement or any of the provisions contained herein. This Agreement and each and every condition and provision hereof are intended to be for the sole and exclusive benefit of the Agency and the Department, and their respective authorized successors and assigns, and for the benefit of no other person or entity.
13. This Agreement shall be governed by and construed in accordance with the laws of the State of California, and any dispute arising from or related to the interpretation or performance of this agreement shall be commenced in the Superior Court of the State of California, County of Orange.

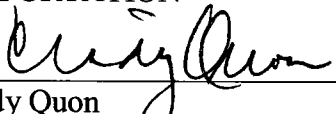
14. No failure on the part of either Party hereto to insist upon or demand the strict performance by the other Party of any covenant, term, condition or promise of this Agreement, or to exercise any right or remedy as a result of any breach of the Agreement, shall constitute a continuing waiver of any such breach or of any such covenant, term, condition, promise, right or remedy. No waiver of any breach shall in any way affect, alter or modify this Agreement, but each and every covenant, term, condition and promise of this Agreement shall continue in full force and effect. No single or partial exercise of any right, remedy, power or privilege under this Agreement shall preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege under this Agreement.
15. Nothing in this Agreement shall be construed to make the Parties joint ventures or partners, or to create any relationship of principal and agent, and the Parties specifically disavow any such relationship between one another.
16. This Agreement has been negotiated at arms' length between persons sophisticated and knowledgeable in the matters addressed herein, and both Parties have had the opportunity to consult with legal counsel of such party's choosing regarding this Agreement. Accordingly, any rule of law (including California Civil Code § 1654) or legal decision that would require interpretation of this Agreement against the drafter hereof is not applicable and is waived.
17. This Agreement is intended by the Parties as a final expression of their agreement and is intended to be a complete and exclusive statement of the agreement and understanding of the Parties hereto in respect to the subject matter contained herein. There are no restrictions, promises, warranties or undertakings relating to the subject matter of this Agreement, other than those set forth or referred to in this Agreement.
18. Each officer of the Department and the Agency affixing his or her signature below thereby warrants and represents that he or she has the full legal authority to bind his or her respective party to all of the terms, conditions and provisions of this Agreement; that his or her respective party has the full legal right, power, capacity and authority to enter into this Agreement and perform all the obligations herein; and that no other approvals or consents are necessary in connection therewith.
19. Neither this Agreement nor any provision hereof may be changed, waived, discharged or terminated, except upon the duly authorized execution of a subsequent agreement in writing executed by all of the Parties.
20. Neither Agency nor any officer or employee thereof is responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by Department and/or its agents under or in connection with any work, authority, or jurisdiction conferred upon Department under this Agreement. Department and/or its agents shall fully defend, indemnify and save harmless Agency and all of its officers and employees from all claims, suits, or actions or every name, kind and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or

other theories or assertions of liability occurring by reason of anything done or omitted to be done by Department and/or its agents under this Agreement.

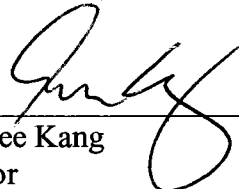
21. Neither Department nor any officer or employee thereof is responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by Agency and/or its agents under or in connection with any work, authority, or jurisdiction conferred upon Agency under this Agreement. Agency and/or its agents shall defend, indemnify and save harmless Department and all of its officers and employees from all claims, suits, or actions or every name, kind and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories or assertions of liability occurring by reason of anything done or omitted to be done by Agency and/or its agents under this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as set forth below.

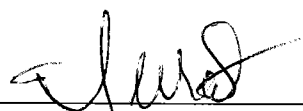
CALIFORNIA DEPARTMENT OF
TRANSPORTATION

By: 
Cindy Quon
Director, District 12

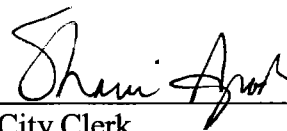
CITY OF IRVINE

By: 
Sukhee Kang
Mayor

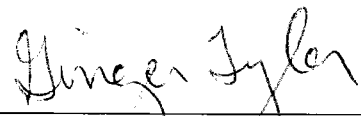
APPROVED AS TO FORM AND
PROCEDURE:

By: 
Deputy Attorney,
Department of Transportation

ATTEST:

By: 
City Clerk

APPROVED AS TO FINANCIAL TERMS
AND POLICIES:

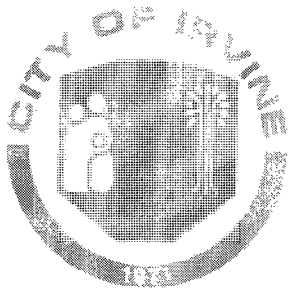
By: 
Headquarters Accounting Administrator,

APPROVED AS TO FORM:

By: 
City Attorney

Exhibit A

(October 21, 2009 letter)



Public Works Department

www.ci.irvine.ca.us

City of Irvine, 100 Center Plaza, P.O. Box 15375, Irvine, California 92615-0375

(949) 724-6000

October 21, 2009

Ryan Chamberlain
Caltrans District 12
3337 Michelson Drive Suite 380
Irvine, CA 92612-8894

Dear Mr. Chamberlain:

This letter is to follow up on our recent follow up discussions regarding the proposed methodology used for analyzing the traffic impacts of the proposed project in the IBC Vision Plan ("Project") on the Caltrans facilities in the project study area. Based on our discussion and follow up phone call, the city is proposing to use the following two-tiered approach, revised traffic analysis methodology and the indicated fair share formula instead of previously indicated methodology documented in our October 15, 2009 letter:

1. Evaluate freeway mainline segments and ramps based on peak hour V/C ratios. If the V/C ratio indicates LOS F for a given freeway mainline segment or ramp, then the Highway Capacity Manual (HCM) methodology indicated below as the second step of this two tiered approach is not needed for that freeway mainline segment or ramp.
2. Apply the HCM methodology to determine the LOS. This second step will only be taken for a freeway mainline segment if the V/C ratio analysis indicates that the mainline segment operates at LOS D/E cusp (0.89) and if the Project contributes greater than 200 vehicle trips per hour (based on the comparison of no-project and with-project V/C ratios) to a freeway mainline segment. This second step will only be taken for a ramp if the V/C ratio analysis indicates that the ramp operates at LOS D/E cusp (0.89) and the Project contributes greater than 30 vehicle trips per hour to a ramp.

Traffic Analysis Methodology

Level of Service (LOS) Targets:

Freeway Mainline Segments: A significant impact occurs when:

- a. The segment LOS is better than D/E cusp (<0.89) without the project and the project adds additional trips that degrades the segment beyond the LOS D/E

cusped and the project contributes more than 200 vehicles per hour once beyond the D/E cusp, or

- b. The segment is at LOS D/E cusp or worse (≥ 0.89) before project and the project contributes greater than 200 vehicle trips per hour.

Off-Ramps and On-Ramps: A significant impact occurs when:

- a. The ramp LOS is better than D/E cusp (< 0.89) without the project and the project adds additional trips that degrades the segment beyond the LOS D/E cusp and the project contributes more than 30 vehicles per hour once beyond the D/E cusp, or
- b. The ramp is at LOS D/E cusp or worse (≥ 0.89) without the project and the project contributes greater than 30 vehicle trips per hour.

Ramp Intersections:

- Both the Intersection Capacity Utilization (ICU) analysis methodology and the HCM intersection analysis methodology will be applied to determine intersection levels of service. The performance criteria at the ramp intersections will be based on the performance criteria of the City in which the intersection is located. A significant impact occurs when a given ramp intersection is at an unacceptable LOS (based on either the ICU or HCM analysis results) and the project contribution exceeds impact threshold applied by the City in which the intersection is located, based on the comparison of no-project and with-project ICU values.

Equitable Share Responsibility

Consistent with recently approved traffic studies for General Plan Amendment and Zone Changes relating to Planning Areas 1, 5B, 6, 8, 9, 18, 33, 34, 39 and 40, and Orange County Great Park, the City will conduct the equitable share responsibility toward feasible improvements for freeway segments and ramps based on the following formula:

$$\text{Equitable Share Responsibility} = \frac{\text{Future with Project} - \text{Future No Project}}{\text{Future with Project}}$$

The additional trips added that bring any segment to the D/E cusp would not need to be considered when calculating fair share responsibility toward feasible improvements. Only those additional trips added once beyond the D/E cusp would be used for the equitable share calculations.

Upon the completion of our traffic analysis, we will work closely with your staff to identify feasible improvements for the impacted facilities. We appreciate your time in

October 21, 2009
Fair Share Calculation
Page 3

working closely with us on the proposed methodologies. Please feel free to contact me at (949) 724-7526 if you have any questions regarding this letter.

Sincerely,



Shohreh Dupuis
Manager of Transit and Transportation

cc: Christopher Herre, Caltrans District 12
James Pinheiro, Caltrans District 12
Jose Hernandez, Caltrans District 12
Charlie Larwood, OCTA

Exhibit B

(November 12, 2009 letter)

DEPARTMENT OF TRANSPORTATION

District 12
3337 Michelson Drive, Suite 380
Irvine, CA 92612-8894
Tel: (949) 724-2267
Fax: (949) 724-2592



*Flex your power!
Be energy efficient!*

November 12, 2009

Shohreh Dupuis
City of Irvine
Public Works Department
One Civic Center Plaza
Irvine, California 92623

File: IGR/CEQA
SCH #: 2007011024
Log #: 1817Q
I-405, I-5, SR-55,
SR-73, SR-261

Subject: Irvine Business Complex Vision Plan and Mixed Use Overlay Zoning Code

Dear Ms. Dupuis:

Thank you for providing us with the updated information on the two-tier approach and significance threshold for the Traffic Impact Study and the methodology for fair share calculation for the subject project.

The Department of Transportation (Department), District 12 is offering the following comments:

1. The Department agrees with the two tier traffic analysis approach provided the following assumptions are correct.
 - A. Freeway mainline segments and ramps will be evaluated using ICU methodology to calculate peak hour V/C ratios. If the V/C indicates LOS F for a given freeway mainline segment or ramp, HCM methodology would not need to be applied to that freeway mainline segment or ramp.
 - B. HCM analysis would be performed when:
 - a. A mainline segment operates at LOS D/E cusp (0.89) or worse, but better than LOS E/F cusp (1.00), and the project contributes greater than 200 vehicles per hour (based on the comparison of no-project and with project V/C ratios) to that mainline segment; or
 - b. A ramp operates at LOS D/E cusp (0.89) or worse, but better than LOS E/F cusp (1.00), and the project contributes greater than 30 vehicles per hour (based on the comparison of no-project and with project V/C ratios) to that ramp.

On LOS Targets:

2. The Departments agrees with that freeway mainline segments, ramps, and ramp intersections thresholds outlined in your October 21, 2009 letter. Should a significant impact occur to any State-owned facilities, measures to reduce impacts should be included in the CEQA analysis. We encourage the City to meet with our Local Development/Intergovernmental branch to discuss potential mitigation measure that could be used for this project.

On Equitable Share Responsibility

3. The Department concurs that the formula provided in your letter dated October 21, 2009 should be used to calculate fair share contributions for this project. The additional trips added that bring any segment to the D/E cusp would not need to be considered when calculating fair share responsibility toward feasible improvements. Only those additional trips added once beyond the D/E cusp would be used for the equitable share calculations.

Thank you again for the information provided and we look forward to continuing working with the City to finalize the traffic analysis, potential fair share calculation and feasible improvements identification. If you have any questions or need to contact us, please do not hesitate to call me at (949) 724-2899.

Sincerely,



RYAN CHAMBERLAIN

Deputy District Director, Planning

cc: James Pinheiro, Deputy District Director – Maintenance/Operations
Chris Herre, Branch Chief, Local Development/Intergovernmental Review

Exhibit C

(Improvement Funds)

Potential Projects to Mitigate IBC Vision Plan's Traffic Impacts to State Facilities

Impacts					Potential Mitigation Projects				Cost Estimate	City Fairshare	City Comment
Route	Direction	Facility Type	Location	P2030 Project Fair Share	Description	Location	Agency	Notes			
I-5	NB	Mainline	Jamboree to Newport	1.8%	Add 1 GP lane between Jamboree and Newport Blvd	Jamboree to Newport Blvd		Project would mitigate impacts at Jamboree to Tustin Ranch, Tustin Ranch to Redhill, and Redhill to Newport. Percentage represents the average of 1.8%, 1.9% and 1.8% for those 3 segments respectively (M2 project)	\$20,400,000	\$374,000	
			Newport to SR-55	1.7%	Widen connector to two lanes; An additional GP lane on SR-55 to 17th St.	NB I-5 to NB SR-55 connector	OCTA SR-55 feasibility study		\$7,200,000	\$122,400	
	SB	Mainline	Jamboree to Tustin Ranch	2.3%	Add a second aux lane	Tustin Ranch - Jamboree		Caltrans PSR, also including widening SB I-5 off-ramp at Jamboree	\$2,924,000	\$67,252	
			Tustin Ranch to Red Hill	2.3%	Add 1GP lane between Tustin and Jamboree	Tustin Ranch - Jamboree		M2 project	\$6,720,000	\$154,560	
		Fwy Connector		2.3%	Fwy-to-Fwy connector ramp metering	SB SR-55 to SB I-5 connector			\$850,000	\$19,550	
I-405	NB	Mainline	Jamboree to MacArthur	2.2%	Add a second aux lane	Jamboree to MacArthur			\$9,000,000	\$198,000	
		Off-ramp	Culver off-ramp	1.8%	Add aux lane from Jeffrey to Culver, provide 2 lane exit and an additional right-turn lane at intersection				\$15,900,000	\$0	No City fair-share contribution towards aux lane project from Jeffrey to Culver. However, City is committed to implementing intersection improvements at a cost of \$359,000.
			MacArthur off-ramp	7.3%	Add a second exit ramp	MacArthur off-ramp			\$1,250,000	\$91,250	
		On-ramp	MacArthur on-ramp	3.8%	Widen ramps to 4 lanes at entrance that merge to 3 lanes at ramp meter	MacArthur on-ramp			\$2,250,000	\$85,500	
	SB	Mainline	Jamboree to MacArthur	2.9%	Add 2nd aux lane from MacArthur to Jamboree	Jamboree to MacArthur			\$9,000,000	\$261,000	
		Off-ramp	Jamboree off-ramp	21.6%	Widen intersection to provide 2 left turn and 3 right turn lanes with 500 ft storage	Jamboree off-ramp			\$1,500,000	\$324,000	
		On-ramp	Bristol Loop on-ramp	7.5%	Extend left lane to ramp meter and upgrade ramp metering signal hardware	Bristol loop on-ramp			\$2,100,000	\$157,500	
		Fwy Connector		3.3%	Fwy-to-Fwy connector ramp metering	SB I-405 to NB SR-55 connector			\$850,000	\$28,050	
SR-55	NB	Mainline	I-405 to MacArthur	3.3%	Add one GP lane and one Aux lane	I-405 to MacArthur		M2 project	\$23,863,636	\$787,500	
			MacArthur to Dyer	3.0%	Add one GP lane and one Aux lane	MacArthur to Dyer		M2 project	\$21,477,273	\$644,318	
			Dyer to Edinger	2.7%	Add one GP lane and one Aux lane	Dyer loop on-ramp to Edinger		M2 project	\$38,181,818	\$1,030,909	
		Off-ramp	Baker St off-ramp	1.1%	Add a right turn lane at intersection	Baker St. Off-ramp			\$500,000	\$5,500	
		On-ramp	Dyer Rd Direct on-ramp	3.8%	Increase storage capacity at on-ramps	Dyer Rd Direct On-ramp			\$1,300,000	\$46,800	
	SB	Mainline	I-405 to MacArthur	4.8%	Add one GP lane and one Aux lane	MacArthur to I-405		M2 project	\$23,863,636	\$1,145,465	
			MacArthur to Dyer	4.1%	Add one GP lane and one Aux lane	MacArthur to Dyer		M2 project	\$21,477,273	\$880,568	
		On-ramp	Baker St. on-ramp	3.1%	Increase storage capacity at on-ramps between merging point and ramp meter	Baker St. On-ramp			\$1,000,000	\$31,000	
			MacArthur loop on-ramp	8.0%	Widen on-ramps	MacArthur to I-405	Santa Ana / Caltrans	Santa Ana is finalizing a PR with Caltrans Design Branch	\$4,225,000	\$338,000	
SR-73	NB	On-ramp	Campus Dr. on-ramp	6.1%	Widen on-ramp to 3 lanes and upgrade ramp metering signal and hardware	Campus Dr. on-ramp			\$1,850,000	\$112,850	
	SB	Off-ramp	Jamboree off-ramp	4.0%	Add a 3rd lane from past gore point to join with left lane pocket at Jamboree	Jamboree off-ramp			\$3,000,000	\$120,000	
									\$220,682,636	\$7,025,962	3.18%

Total Fair Share Contribution towards freeway facility improvements **\$7,025,962**



Appendix G: Details of Developments considered for 2015 Update

IBC TRAFFIC IMPROVEMENT FEE ANALYSIS																			
July 31, 2010 to July 31, 2015																			
IBC Projects Paid With Cash Receipts (CR)																			
ID	Project Name	IBC Project #	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities						Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)					
CR-1	Edward Life Sciences	2	1	Edwards	1	Existing	Cash Receipts	10/22/2012					81,165		Industrial to Office Conversion			Reconciliation of project from Industrial to Office uses. Cash receipt for Case #00541392-PPA Paid in two instalments	
CR-2	Edward Life Sciences	2	1	Edwards	1	Existing	Cash Receipts	10/22/2012					957	483	Conversion into Office and Industrial			Reconciliation of project from Industrial to Office uses. Cash receipt for Case #00541392-PPA	
CR-3	Edward Life Sciences	2	1	Edwards	1	Existing	Cash Receipts	6/27/2014					97,664	15,688	Office and Industrial			#00593571-CNEW for new 4-story building	
									0	0	0	0	179,786	16,171	0				
IBC Projects With Pre-Paid IBC Transportation Fees																			
ID	Project Name	IBC Project #	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities						Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)					
Pre-1	Element Hotel (Ext. Stay Hotel)	49	17662	Armstrong	1	Existing	Pre-Paid	6/27/2012		122					Ext. Stay Hotel		0	#00547885-PIBC	
Pre-2	Kelvin Apartments	364	2852	Kelvin	1	Existing	Pre-Paid	6/27/2012	194						Residential	156	38	#00547263-PIBC; Approval: February 2011	
Pre-3	Equity I	17	2501	Alton	2	Under Const.	Pre-Paid	6/5/2014	190						Residential	190	190	00578892-RNA; Paid at Planning Counter	
Pre-4	Equity II	529	16931	Millikan	2	Under Const.	Pre-Paid	6/5/2014	154						Residential	154	154	00578892-RNA; Paid at Planning Counter	
Pre-5	Homewood Suites (Ext.-Stay Hotel)	608	17370	Red Hill	2	Under Const.	Pre-Paid	6/30/2014		161		3,224			Real and Ext. Stay Hotel		0	#00609316-PIBC - Vacant Parcel	
Pre-6	2801 Kelvin	361	2801	Kelvin	2	Under Const.	Pre-Paid	12/12/2014	381						Residential	305	76	#00645304-PIBC; Approval: June 2013	
Pre-7	Metropolis	107	2500	Main	2	Under Const.	Pre-Paid	12/12/2014	457						Residential	368	89	#00609447-PIBC; Approval: February 2013	
Pre-8	Elements (Phase 1)	56 & 97	2601	Campus	3	Approved	Pre-Paid	12/12/2014	700						Residential	560	140	#00609448-PIBC; Approval: December 2014	
								TOTAL	2,076	283	0	3,224	0	0	0		1,733	343	2,076
IBC Transportation Fees Paid via Permits Issued																			
ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities						Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)					
Permit-1	N/A	16	2481	Alton	1	Existing	Paid	7/12/2010						224	Industrial to Warehouse		0	224 SF Enclosure Addition; #00504865-SBP	
Permit-2	Gillette Building	572	17062	Murphy	1	Existing	Paid	10/8/2010					1,763		Office		0	Intensification of 1,763 SF from industrial to office; #00510330-SBPT	
Permit-3	Von Karman Center	664	16782	Von Karman	1	Existing	Paid	12/16/2010					943		Office		0	#00514777-SBPT	
Permit-4	Edwards Life Sciences	2	1212	Alton Pkwy	1	Existing	Paid	3/8/2011						540	Industrial to Warehouse		0	#00519702-SBP	
Permit-5	Irvine Family Spa	64	2332	Barranca	1	Existing	Paid	3/30/2011					10,903		Office		0	Conversion of industrial to office (10,903 SF); #00521226-SBPT	
Permit-6	Edwards Life Sciences	2	1452	Alton	1	Existing	Paid	6/9/2011					140		Office		0	Addition of 140 SF for facade/lobby/toilet remodel on north bldg elevation for 1452 Alton; #00524653-SBP	

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.

ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities						Land Use	Residential Density	Density	Total Project Cost	Notes
Permit-7	Equus & Innova Corporate Ctr	674	17352	Von Karman	1	Existing	Paid	7/11/2011					22,636		Industrial to Office			0	Plans consist of: (1) add 253 SF entry element to 1st floor (office - 2 conference rooms); (2) add 7,577 SF to 2nd floor (office); (3) convert 14,806 SF of industrial (manuf/WH) to office use on 2nd floor mezzanine. Overall bldg SF increases from 91,534 SF to 99,364 SF. IBC fees due = \$ 85,619.75; #00527059-SBP
Permit-8	Edwards Life Sciences	2	1	Edwards	1	Existing	Paid	9/20/2011						1,545	Industrial to Warehouse			0	1,545 SF addition of industrial space; #00531427-SBP
Permit-9	MacArthur Medical Campus	609	1400	Reynolds	1	Existing	Paid	10/4/2011					3,000		Industrial to Office			0	Converting a total of 3,751 SF of existing med off use into It manuf uses w/in the bldg in order to expand 3,000 square feet (call center office); #00532276-SBPT
Permit-10	N/A	447	2900	McCabe	1	Existing	Paid	11/18/2011					2,017		Industrial to Office			0	2,017 SF conversion of warehouse to office- 2,017 SF x \$3.95/SF = \$7,967.15 due; #00535026-SBPT
Permit-11	E-Bogu Martial Arts School	72	1581	Browning	1	Existing	Paid	1/17/2012					897	775	Industrial to Office			0	Converting 897 SF of ind to off use & adding 775 SF ind. IBC fees due = \$4,705.65; #00536633-SBP
Permit-12	N/A	618	1672	Reynolds	1	Existing	Paid	3/14/2012					1,420		Industrial to Office			0	Convert 1,239 SF of existing ind to office use, add 181 SF of new office SF for an improved entrance/lobby area. IBC fee due = \$5,684.35; #00540939-SBP
Permit-13	N/A	456	1400	McGaw	1	Existing	Paid	4/10/2012					1,148		Industrial to Office			0	Convert 175 SF of WH to off & 798 SF of existing WH to manuf use at 1400 McGaw. Existing LU: 2,670 SF off & 10,830 SF WH & 126 SF ZP. Proposed: 2,845 SF off, 798 SF manuf, 9,857 SF WH & 9 SF ZP. IBC fees due = \$691.25; #00542555-SBPT
Permit-14	N/A	455	1392	McGaw	1	Existing	Paid	4/25/2012						715	Industrial to Warehouse			0	#00543308-SBPT
Permit-15	Edwards Life Sciences	2	1402	Alton	1	Existing	Paid	7/19/2012					350		Office			0	Add 350 SF office on 2nd fl by extending slab near west stairway at 1402 Alton; #00549377-SBP
Permit-16	N/A	677	17462	Von Karman	1	Existing	Paid	11/13/2012						9,840	Industrial to Warehouse			0	Construction of 9,840 warehouse mezzanine. Increases Industrial from 80,754SF to 90,594SF and reduces ZP from 19,694SF to 16,287SF. #00558205-SBPT
Permit-17	N/A	385	1822	Langley	1	Existing	Paid	2/5/2013					3,273		Industrial to Office			0	Building previously destroyed by fire, and rebuilt as follows: 1st floor: 2,708 SF office, 8,781 SF manuf., 1,831 SF ware; 2nd floor: 950 SF office, 3,931 SF ware. Total building is 18,201 SF. #00562535-SBP
Permit-18	N/A	525	16871	Millikan	1	Existing	Paid	2/8/2013					600		Industrial to Office			0	#00564394-SBPT
Permit-19	3M Dental Products	478	2111	McGaw	1	Existing	Paid	3/20/2013						6,752	Industrial to Warehouse			0	Approved assuming concurrent request for 6,752 SF warehouse mezzanine addition would be built. Mezzanine permit was never pulled.; #00567314-SBP
Permit-20	N/A	445	2569	McCabe	1	Existing	Paid	4/2/2013					207		Office			0	Added 207 SF office to a new total of 23,687 SF; #00568649-SBP
Permit-21	Edwards Life Sciences	2	1402	Alton	1	Existing	Paid	7/10/2013					5,881		Industrial to Office			0	Conversion of 5,881 SF of manufacturing space to office space at 1402 Alton; #00576671-SBPT
Permit-22	Glidewell Implant R&D Facility	245	2181	Dupont	1	Existing	Paid	9/12/2013					2,950		Industrial to Office			0	Approved addition of 2,950 SF office on 2nd floor mezzanine.; #00582419-SBP
Permit-23	My Montessori Childcare	20	16601	Armstrong	1	Existing	Paid	10/21/2013					24,457		Industrial to Childcare (Office)			0	My 1st Montessori Preschool; CUP approved conversion of existing 35,337 SF off/ind bldg to 24,457 SF childcare facility (office trip generator); #00586597-SBP
Permit-24	N/A	198	17992	Cowan	1	Existing	Paid	12/27/2013						800	Industrial to Warehouse			0	Per 00588730-CASF, 800 SF warehouse mezzanine addition; #00594393-SBP

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ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
Permit-25	N/A	700	18651	Von Karman	1	Existing	Paid	12/30/2013					367			Office			0	New 367 SF office within the building; #00588479-CTIS
Permit-26	Hilton Garden Inn Hotel	565	2381	Morse	1	Existing	Paid	2/13/2014		168						Ext. Stay Hotel			0	The demolition of the entire 30,000 SF office building was issued in Feb 2014. The SF FEE CREDIT for this building equated to \$171,600 or 30,000 SF; #00597988-SBPF
Permit-27	N/A	65	2400	Barranca	1	Existing	Paid	2/14/2014					20,508			Industrial to Office			0	OFFICE T1 WITH A OCCUPANCY. NEW INTERIOR ELEVATOR WITH ROOF PENETRATION. Tenant: Emerson Process Management; #00597152-SBPT; 00590188-CTIS
Permit-28	N/A	220	17392	Daimler	1	Existing	Paid	5/9/2014					2,979			Industrial to Office			0	Convert 2,979 SF of Industrial to Office; #00604424-SBPT
Permit-29	Spellbound	297	17192	Gillette	1	Existing	Paid	5/28/2014					1,170			Industrial to Office			0	Per #00602164-CTI, an office T1 to increase Office to 3,168 SF and Industrial to 11,645 SF; #00606287-SBPT
Permit-30	Edwards Life Sciences	2	1431	McGaw	1	Existing	Paid	6/2/2014					22,050		5,570	Office and Warehouse			0	Replacement 27,620 SF BRC bldg approved for 22,050 SF Off & 5,570 SF WH (ventilated animal penning area), demolition of bldg processed separately; #00603745-SBP
Permit-31		700	18651	Von Karman	1	Existing	Paid	7/7/2014						23,807		Industrial to Manufacturing			0	#00593637-CASF: 23,807 SF manf. mezzanine addition; AND conversion of 20,641 SF warehouse to manuf.; #00609631-SBP
Permit-32	Display It	21	16680	Armstrong	1	Existing	Paid	8/15/2014					2,469			Industrial to Office			0	Permit covers 2,469 SF of Industrial use to Office use, thereby increasing office from 8,484 SF to 10,953 SF. The remaining square footage is 73,903 SF of Industrial use; #00613451-SBP
Permit-33	Douglas Plaza - Tower 17	703	18881	Von Karman	1	Existing	Paid	10/20/2014					123			Office			0	Accessory Deli will be enlarged from 783 SF to 906SF; #00619268-SBP
Permit-34	Edwards Life Sciences	2	1411	McGaw	1	Existing	Paid	12/19/2014					97,664		15,688	Office and Warehouse			0	Per 00593571-CNEW, E2 Building, 1411 McGaw (attached to 1441 McGaw) is comprised of 97,664 SF office and 15,688 SF warehouse; #00593571-CNEW
Permit-35	Irvine Concourse	413	1970	Main	1	Existing	Paid	2/26/2015							200	Warehouse			0	Generator Enclosure in Parking Garage 200 SF; #00628249-SBP
Permit-36	Alton Self Storage	14	2215	Alton Pkwy	1	Existing	Paid	3/19/2015							215,651	Warehouse			0	This project consists of the build-out of a mini-warehouse from an existing shell industrial building. An existing SF Credit of \$3,344.13 has been applied to reduce the Gross IBC Fee; #00630971-SBP
Permit-37	Pro Source	461	1672	McGaw	1	Existing	Paid	3/26/2015					179			Industrial to Office			0	Per #00625128-CTTI modify to 3,286 SF Office and 8,270 Warehouse; #00631016-SBPT
Permit-38	McKinlry	45	17611	Armstrong	1	Existing	Paid	4/13/2015					4,426			Industrial to Office			0	The building had 5,214 square feet of office and 16,098 square feet of manufacturing. The applicant submitted 00619379-CASF to provide 9,460 square feet of office and 13,418 square feet of warehouse. A total of \$24,650.18 in IBC fees is due; #00632886-SBP
Permit-39	N/A	276	17752	Fitch	1	Existing	Paid	5/20/2015					1,390			Industrial to Office			0	Per #00631430-CTIS, convert portion of existing warehouse to office use and demolish 138 SF of warehouse. Office to be 5,471 SF with 15,854 SF Warehouse; #00637341-SBPT
							39	TOTAL	0	168	0	0	235,910	24,582	257,525		0	0	0	
Discretionary IBC Projects Approved between July 31, 2010 and July 31, 2015 (IBC Fee Estimates based on July 1, 2016 IBC Fee Amounts)																				
ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					

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ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities								Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
Disc-1	Milani Apartments (formerly Martin St Apts.)	702	18831	Von Karman	6	Approved	Not Paid	N/A	287							Residential	229	58	287	Approval: November 2014	
Disc-2a	Irvine Gateway (formerly Irvine Lofts/Kilroy)	671	17150	Von Karman	3	Approved	Paid	12/14/2015	363							Residential	276	87	363	Approval: December 2011	
Disc-2b	Irvine Gateway (formerly Irvine Lofts/Kilroy)	671	17150	Von Karman	6	Approved	Not Paid	N/A	71							Residential	71		71	Approval: December 2011	
Disc-3	Elements (formerly ITC/Greenlaw/Campus Verde)	56 & 97	2601	Campus	6	Approved	Not Paid	12/12/2014	900							Residential	720	180	900	Approval: December 2014; Demo SF Credits from IBC Projects #98 and #658 Remaining 700 units are Paid for and are shown as ID - Pre-8	
Disc-4	16103 Derian (formerly 17275 Derian)	235	16103	Derian	5	Approved	Paid	3/17/2016	80							Residential	66	14	80	Approval: February 2015 LU will be included for fee calc, but the dev will not be subject to new fees	
Disc-5	360 Fusion (formerly Murphy Apts)	582	2852	McGaw	5	Approved	Paid	2/22/2016	280							Residential	224	56	280	Approval: October 2014 LU will be included for fee calc, but the dev will not be subject to new fees	
Disc-6	Main and Jamboree Apartments	431	2700	Main	5	Approved	Paid	11/3/2016	388							Residential	310	78	388	Approval: December 2014 LU will be included for fee calc, but the dev will not be subject to new fees	
Disc-7	Pistola Apartments	238	17422	Derian	6	Approved	Not Paid	N/A	371							Residential	297	74	371	Approval: July 2015	
Disc-8	2152-2182 Alton	1	2152-2182	Alton	4	In Process / Pending	Not Paid	N/A	357							Residential	286	71	357	Approval: May 2016	
Disc-9	17822 Gillette	307	17822	Gillette	4	In Process / Pending	Not Paid	N/A	137							Residential	137	0	137	Approval: Feb 2016	
								TOTAL	3,234	0	0	0	0	0	0		2,616	618	3,234		
Pending Project - Fees Unpaid																					
ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities								Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)						
Pend-1	Campus and Von Karman Apartments	N/A	2171-2361 Campus and 2192, 2222, 2302 Martin		4	In Process / Pending	Not Paid	N/A	876							Residential	701	175	876		
Pend-2	2055 Main		2055	Main	4	In Process / Pending	Not Paid	N/A	179							Residential	143	36	179		
Pend-3	2525 Main		2525	Main	4	In Process / Pending	Not Paid	N/A	272							Residential	217	55	272		
Pend-4	2660 Barranca/16542 Millikan		2660 Barranca/16542 Millikan		4	In Process / Pending	Not Paid	N/A	180							Residential	180		180		
Pend-5	17811 Gillette		17811	Gillette	4	In Process / Pending	Not Paid	N/A	75							Residential	75		75		
Pend-6	17861 Cartwright		17861	Cartwright	4	In Process / Pending	Not Paid	N/A	54							Residential	54		54		
								TOTAL	1,636	0	0	0	0	0	0		1,370	266	1,636		
Pre Application - Fees Unpaid																					
ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities								Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)						
Pre-ap1	2602 McGaw		2602	McGaw	4	In Process / Pending	Not Paid	N/A	120							Residential	120		120		

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.

ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units 120	Density Bonus DU 0	Total Project DU 120	Notes			
									120	0	0	0	0	0	0								
Development Agreements for IBC Developments (Central Park West and Park Place are not included in the fee calculation and are not subject to 2015 Fees)																							
ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes			
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)								
DA-1-1	Central Park West (CPW) - Existing	338	401	Rockefeller	1	Built/Existing	Paid		646							Residential	646		646				
DA-1-2	Central Park West (CPW) - Permits Issued	338	401	Rockefeller	2	Under Const.	Paid		16							Residential	16		16				
DA-1-3	Central Park West (CPW) - Approved Res. Units	338			6	Approved	Unpaid - Demo Credit Remaining		613							Residential	613		613				
DA-1-4	Central Park West (CPW) - Retail	338			6	Approved	Unpaid - Demo Credit Remaining		0			26,688				Residential / Retail			0				
TOTAL									1,275	0	0	26,688	0	0	0		1,275	0	1,275				
DA-2-1	18582 Teller (HCG)	501	2722	Michelson	7	Demolished	Unpaid - Demo Credit Remaining		0				15,781			Office			0				
DA-2-2	18582 Teller (HCG)	501			7	Demolished	Unpaid - Demo Credit Remaining		0					104,519		Industrial			0				
DA-2-3	2722 Michelson (HCG)	501			7	Pending Demo	Unpaid - Demo Credit Remaining		0				25,828			Office			0				
DA-2-4	2722 Michelson (HCG)	501			7	Pending Demo	Unpaid - Demo Credit Remaining		0					143,727		Industrial			0				
DA-2-5	Hines CA Green (HCG)	501			6	Approved	Not Paid		0				785,000			Office			0	Option to pay lower prevailing fee, based on DA			
DA-2-6	Hines CA Green (HCG)	501			6	Approved	Not Paid		0			15,500				Retail			0	Option to pay lower prevailing fee, based on DA			
								TOTAL	0	0	0	15,500	826,609	248,246	0				0				
DA-3-1	Park Place (Res. Site 1 - Future)	503	3333	Michelson	6	Approved	Not Paid		267							Residential	267		267	Only 267 residential units to be paid. 360 Affordable units at Villa			
DA-3-2	Park Place (Res. Site 1 - Vireo Apts.)	503			6	Approved	Not Paid		520							Residential	520		520				
DA-3-3	Park Place (Res. Site 1 (TIC Apts.)	503			2	Under Const.	Paid		989							Residential	861	128	989	Per Bill Jacobs: Remainder of 360 DB units approved for Park Place is 128 units within 989 Unit TIC project			
DA-3-4	Park Place (BOSA) Res. Site 1 (Density Bonus)	503			1	Existing	Paid		232							Residential		232	232	Per Bill Jacobs: Corrected Park Place Project names- Site 1 is Bosa-232 DB Units			
DA-3-5	Park Place (Villa Sienna)	503	20	Palatine	1	Existing	Paid		1226							Residential	1226		1,226				
DA-3-6	Park Place (Villa Sienna Affordable)	503	20	Palatine	1	Existing	Paid		216							Residential	216		216				
DA-3-7	Park Place (Hotel)	503			1	Existing	Paid				190					Hotel			0				
DA-3-8	Park Place (Office)	503			6	Approved	Not Paid						2,629,820			Office			0				
DA-3-9	Park Place (Retail)	503			6	Approved	Not Paid					122,562				Retail			0				
DA-3-10	Park Place (Health Club)	503			6	Approved	Not Paid						45,000			Office			0				
TOTAL									3,450	0	190	122,562	2,674,820	0	0		3,090	360	3,450				
DA-4-1	Avalon Apartments I	18	2777	Alton	1	Existing	Paid		279							Residential	224	55	279				
DA-4-2	Avalon Apartments I	18	2777	Alton	3	Approved	Paid		1							Residential		1	1				

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.



May 31, 2017

The Honorable Don Wagner
Mayor, City of Irvine
One Civic Center Plaza
Irvine, CA 92606

Re: Irvine Business Complex Traffic Nexus Fee Study Update

Dear Mayor Wagner and City Council Members:

On behalf of our membership, **I would like to state our concerns with the proposed Traffic Nexus Fee Study Update.**

The Building Industry Association of Southern California, Orange County Chapter (BIA/OC) is a non-profit trade association of over 1,100 member companies employing over 100,000 people affiliated with the home building industry. Our mission is to champion housing as the foundation of vibrant and sustainable communities.

Orange County is ranked 2nd only to the bay area for the highest housing prices. This is largely due to 1) lack of adequate housing stock, 2) a jobs to housing imbalance, and 3) lack of available land coupled with excessive regulation on the housing industry.

As the City considers the proposed Traffic Fee Update for the remaining development in the Irvine Business Complex (IBC), we ask the Council to consider the thousands of dollars in fees currently associated with each dwelling unit. At a time when the region is faced with rising home prices, every effort to reduce the ultimate cost to build in Orange County should be considered.

With this in mind, the BIA/OC is concerned by the proposed 108% increase to the traffic impact fee, and ask that options such as gradually implementing the fee update be proposed.

While we understand that traffic is an important issue the City must

PRESIDENT
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evaluate as the IBC implementation moves forward, increasing the cost on those doing business in the IBC by such a large percentage at one time may affect the affordability of new development projects.

Thank you for your thoughtful consideration.

Respectfully,

A handwritten signature in black ink, appearing to be 'S. LaMotte', with a stylized, looping initial 'S' and a trailing horizontal line.

Steven C. LaMotte
Chapter Executive Officer

**ADDENDUM TO THE
IRVINE BUSINESS COMPLEX
RESIDENTIAL AND MIXED-USE VISION PLAN
DRAFT ENVIRONMENTAL IMPACT REPORT
(SCH NO. 2007011024)**

**FOR THE 2015-17 IBC TRANSPORTATION MITIGATION
FEE PROGRAM UPDATE
IRVINE, CA**

June 27, 2017



City of Irvine Community Development Department
One Civic Center Plaza
Irvine, CA 92623
Contact: Bill Jacobs, Principal Planner
(949) 724-6521

**Addendum to the IBC Vision Plan
and Mixed Use Overlay Zoning Code
Final Environmental Impact Report
(SCH No. 2007011024)
Planning Area 36**

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Appendices

- A. Irvine Business Complex Vision Plan 2015 Traffic Study Update (Executive Summary), prepared by Iteris and HDR, January 13, 2016
- B. 2015 Update to Irvine Business Complex Vision Plan Traffic Fee Nexus Study, prepared by HDR and Iteris, June 7, 2017
- C. Mitigation Monitoring and Reporting Plan from 2010 IBC Vision Plan EIR

Addendum to IBC Vision Plan EIR for or 2015-17 IBC Transportation Mitigation Fee Program Update, June 2017

CITY OF IRVINE

ADDENDUM TO THE IBC EIR VISION PLAN

1.0 INTRODUCTION

1.1 Purpose and Relevant Background for This Addendum

This Addendum serves as the environmental document enabling the City of Irvine to approve the proposed 2015-17 IBC Transportation Mitigation Fee Program Update (the “Project”). As discussed more fully below, the City has determined, via a 2015 Traffic Study Update, that the Project does not present either new significant impacts or substantial increases in the severity of previously identified environmental impacts than previously studied under the IBC’s Program EIR completed in 2010. Accordingly, this Addendum satisfies the City’s environmental review obligations under the California Environmental Quality Act (CEQA). (See CEQA Guidelines, § 15164.)

By way of background, the City previously approved a Program EIR for the IBC in 2010. That document, including the “IBC Vision Plan and Mixed Use Zoning Code,” evaluated the environmental impacts of (1) increasing the total number of potential residential entitlement in the Irvine Business Complex (IBC) (Planning Area 36) from 9,015 residential dwelling units to 15,000 units, representing an increase of 5,985 additional units, while (2) implementing corresponding decreases in potential non-residential entitlement. Notably, this reallocation did not result in an increase in the overall intensity limitations set forth in the Irvine Zoning Ordinance. In fact, at the time that the IBC EIR was certified in 2010, 2,035 of the 5,985 units identified as additional units were designated as pending units associated with development applications filed for seven pending projects, and the remaining 3,950 units were identified as potential units without any pending applications. In addition to residential entitlement, the IBC EIR evaluated the addition of up to 1,598 new density bonus units that are allowable in accordance with state law on top of the 440 existing and approved density bonus units in the IBC. If all density bonus units are used, the total residential intensity in the IBC could total 17,038 units upon buildout.

The certified IBC EIR also identified a series of transportation improvements and corresponding fee program to mitigate the impacts of the IBC Vision Plan pursuant to the Mitigation Fee Act, named the IBC Transportation Mitigation Fee Program. The City adopted the IBC Transportation Mitigation Fee Program in 2011.

As required by the City’s Zoning Code, the City conducted an updated traffic study in 2015 to ensure the implementation of the IBC Transportation Mitigation Fee Program remained in accordance with the IBC Vision Plan. This 2015 Traffic Study Update identified changes in traffic conditions, and assumed a reduction in the theoretical number of potential density bonus units based on unallocated units because the number of unallocated units decreased from the original 2010 land use assumptions.

The 2015 Traffic Study Update concluded that the changes in traffic conditions would not cause new or more severe adverse environmental impacts or require major revisions to the project studied in the IBC EIR. The 2015 Traffic Study Update reached this conclusion by considering new information, in the form of a “snapshot” of the current development activity in the IBC, as well as ambient regional growth to compare with the 2010 assumptions. While traffic conditions, including the number and location of impacts, have

changed since 2010, none of these changes are significant. Accordingly, an addendum is the appropriate level of environmental review to update the IBC Transportation Mitigation Fee Program.

For example, the 2015 Traffic Study Update noted that the residential unit intensity cap had not increased since the 2010 study, and while some intersections were identified as deficient, an updated fee program would mitigate those deficiencies. Notably, though, is the 2015 Traffic Study Update's conclusion that there is actually a net overall **decrease** in traffic impacts compared to the 2010 study.

As discussed below, there are no new significant impacts resulting from the implementation of the Project, nor are there any substantial increases in the severity of any previously identified environmental impacts. Any Project impacts would be either the same or lessened from the anticipated levels associated with the 2010 IBC Vision Plan, which were evaluated in the IBC EIR. Except where indicated otherwise in this Addendum, the Project impacts were evaluated in the IBC EIR and all feasible mitigation measures and alternatives identified in that EIR would be incorporated into the resolution approving the project.

1.2 Legal Basis for Addendum

CEQA requires the City to "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." (CEQA Guidelines, § 15164.) Accordingly, the City must prepare an addendum unless it "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 would 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 would 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 would have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined would 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 evaluated 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.

(CEQA Guidelines, § 15162.) As discussed in this Addendum, none of the conditions requiring the preparation of a subsequent EIR are met. (See *ibid.*) Accordingly, an addendum is the legally appropriate level of environmental review for the approving the Project.

1.3 Previous Environmental Documentation

The IBC EIR consists of a Program EIR for the IBC Vision Plan General Plan Amendment and Mixed Use Overlay Zoning Code, and a Project EIR for a number of residential development proposals in process at the time; thereby allowing for the eventual build out of the IBC. (CEQA Guidelines, §§ 15168, 15161.) That General Plan Amendment evaluated and approved the following:

- Adoption of the IBC Residential Mixed Use Vision Plan as a new element of the General Plan;
- Amendment of the Land Use Element to reference the new IBC Element;
- Amendment of Land Use Element Table A-1 to increase the residential unit cap to 15,000 units and reduce non-residential intensity accordingly;
- Amendment of Land Use Element Table A-1 to replace the previous 52 unit/acre density cap with a 30 unit/acre density minimum;
- Amendment of Circulation Element Figure B-1 to reflect the downgrade of Jamboree Road from a 10-lane facility to an eight-lane facility between Barranca Parkway and McGaw Avenue; downgrade Red Hill to six lanes between Barranca Parkway and Main Street; downgrade Barranca Parkway to seven lanes (four westbound, three eastbound) between Red Hill and Jamboree Road; downgrade Main Street to a six-lane divided arterial between Red Hill and Harvard Avenue; downgrade MacArthur Blvd. to a seven-lane divided highway between Red Hill and Main Street and to a six-lane divided highway between Fitch and Red Hill Avenue;
- Amendment of Circulation Element Figure B-4 to reference new IBC trails;
- Amendment of Parks and Recreation Element Table K-1 to add additional description of IBC neighborhood parks; and
- Amendments to Zoning Ordinance Chapter 9-36, *Irvine Business Complex*, and Chapter 5-8, *Irvine Business Complex Residential/Mixed Use Overlay Zone*, to update and clarify existing development standards related to monitoring of development intensity and land use compatibility.

Relevant to this Project, the IBC EIR also included the following improvements to mitigate the traffic impacts of implementing the IBC Vision Plan:

Costa Mesa

- Intersection #12: SR-55 Southbound Frontage Road at Baker Street: Improve the southbound approach to one left turn lane, one shared through left, one through lane, and one right turn lane. Restripe the eastbound approach to two through lanes and a shared through right turn lane.
- Intersection #13: SR-55 Northbound Frontage Road at Baker Street: Restripe the eastbound approach to include a single left turn lane, three through lanes, and no right turn lane, plus the addition of a northbound de facto right turn lane. Addition of second southbound left-turn lanes.

Irvine

- Intersection #141: Jamboree Road and Main Street: Improve the northbound and southbound approaches to 2 left turn lanes, 5 through lanes, and 1 right turn lane. Additionally, as part of this improvement, convert the westbound free right turn lane to a single right turn lane.
- Intersection #188: Harvard Avenue and Michelson Drive: Add a second southbound left turn lane.
- Intersection #232: Culver Drive and I-405 Northbound Ramps: Restripe the westbound approach of this intersection to one left turn lane and two right-turn lanes.
- Intersection #136: Jamboree Road and Barranca Parkway: Convert the existing free northbound right-turn lane to a standard right turn lane and add a fifth northbound through lane.

Newport Beach

- Intersection #62: Campus Drive at Bristol Street NB: In 2015, the required improvement is the implementation of the already planned addition of a fifth westbound through lane, consistent with the City of Newport Beach's General Plan buildout. For the buildout scenario, an additional improvement of a third southbound right turn lane is required. Implementation of the identified improvements results in acceptable operations under both scenarios and the mitigation appears to be physically feasible although potentially cost prohibitive due to potential impacts to a structure adjacent to the intersection. The addition of a 5th westbound through lane was identified by the City of Newport Beach as part of the Newport Beach General Plan Update Traffic Study (Urban Crossroads, 2006). The addition of a 3rd southbound right turn lane was identified in the John Wayne Airport (JWA) Improvement Program as an ancillary improvement to support the growth of the Airport.
- Intersection #85: MacArthur Boulevard and Birch Street: Improve the eastbound approach to two eastbound left-turn lanes and two eastbound through lanes.

Santa Ana

- Intersection #543 Bristol Street and Segerstrom Avenue: Two alternative improvements are proposed and outlined below. The City of Irvine shall coordinate with the City of Santa Ana to determine the most appropriate future improvement at this location.
 - Alternative 1: Add 3rd eastbound through and westbound through lanes on Segerstrom Avenue
 - Alternative 2: Add 4th northbound through and southbound through lanes on Bristol Street
- Intersection #723 Main Street and Dyer Road (Segerstrom): Add a third northbound through lane and a defacto northbound right-turn lane.
- Intersection #730 Grand Avenue and Warner Avenue: Add a third westbound through lane.
- Arterial #1884 MacArthur Blvd. from Main Street to SR-55: Widen from 6 to 8 Lanes

Tustin

- Intersection #24: Newport Avenue and Walnut Avenue: Add a defacto westbound right turn lane and defacto northbound right turn lane.
- Intersection #93: Tustin Ranch Road and El Camino Real: Add a fourth southbound through lane and restripe the eastbound approach to one left turn lane, a shared through right turn lane and a right turn lane.
- Intersection #134: Loop Road/Park Avenue at Warner Avenue: Add a third eastbound through lane.
- Intersection #754: Red Hill Avenue at Carnegie Avenue/A Street: This intersection has a project impact under the Post-2030 scenario. The project impact is largely due to heavy traffic on the northbound through movement. Widening the northbound approach to provide a fourth northbound through lane on Red Hill. This intersection is expected to be substantially expanded as a result of development of the Tustin Legacy project and shall be monitored to observe if any additional improvements are warranted when that project nears buildout.

Most of the environmental impacts identified in the IBC EIR were determined to be less than significant or were reduced to a level considered less than significant through either the adoption of mitigation measures or the incorporation of project revisions that would avoid or substantially lessen impacts. However, impacts to Air Quality, Noise, Land Use, and Traffic were identified as significant and unavoidable in the IBC EIR. For those environmental topic areas, the City adopted a Statement of Overriding Considerations. This Addendum addresses the changed circumstances between then and now, concluding that these changed circumstances do not require a subsequent EIR. (See Section 6.0, *Environmental Assessment, infra.*)

1.4 Evaluation of Environmental Impacts

The City concluded that a subsequent EIR was not required for this Project by analyzing the Environmental Checklist Form factors the CEQA Guidelines identify for determining when a subsequent EIR is required. (See CEQA Guidelines, § 15063(d)(3).) Since the delta between the original environmental review the City conducted in 2010 and the Updated Traffic Study in 2015 shows no new significant impacts posed by this Project, no subsequent EIR is required, and this Addendum is appropriate. The Environmental Checklist Form is used to review the potential environmental impacts of the project for each of the following environment topic areas:

- Aesthetics
- Agriculture and Forest 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 and Traffic
- Utilities and Service Systems

1.5 Summary of Findings

Based on the City's analysis of the factors identified in CEQA's Environmental Checklist Form and the following supporting environmental impact assessment, the City concludes that there is not substantial evidence in the record to show that this Project would not result in any new significant impacts that were not previously addressed in the IBC EIR. Accordingly, the changes posed by the Project are appropriately analyzed via this Addendum.

To reach this conclusion, the City reviewed the following technical reports specific to the Project:

- Irvine Business Complex Vision Plan 2015 Traffic Study Update, prepared by Iteris and HDR, January 13, 2016
- 2015 Update to Irvine Business Complex Vision Plan Traffic Fee Nexus Study, prepared by HDR and Iteris, June 7, 2017

2.0 PROJECT DESCRIPTION

2.1 Project Location

The Irvine Business Complex, also referred to within the City of Irvine as Planning Area 36, is an urbanized, developing mixed-use area encompassing approximately 2,600 acres located within the City of Irvine. The IBC Vision study area is consistent with the study area analyzed in 2010, and consists of the current boundaries of the IBC and its surroundings in the City of Irvine, as well as the Cities of Newport Beach, Tustin, Santa Ana, Costa Mesa, and unincorporated Orange County. Additionally, the entirety of the “Airport area” of Newport Beach is incorporated into the study area. To determine appropriate study area limits, a peak hour difference plot was developed between the Baseline and With Update model runs and the extent to which plan update related trips were originating and terminating formed the study area boundaries. The study area boundaries extend south of Ford Road within the City of Newport Beach to encompass the intersections at Jamboree Road and San Joaquin Hills Road and MacArthur Boulevard and San Joaquin Hills Road. These intersections, along with those along Bryan Avenue between Newport Avenue in the City of Tustin and Culver Drive in the City of Irvine were added to the IBC study area at the request of the Cities adjacent to the IBC. Figure 1.1 displays the study area with studied intersections highlighted. The study area is served by five freeways, SR-73, SR-55, I-405, I-5, and SR-261.

2.2 Project Objectives

The following objectives have been established for the IBC Vision Plan and will aid decision makers in their review of the proposed project and associated environmental impacts. Implementation of the updated transportation mitigation fee program will ensure ongoing compliance with these objectives.

- Provide for the ongoing development of the IBC consistent with the City’s General Plan Urban and Industrial land use designations and the City’s adopted Vision Plan Goals, which are:
 - Protect the existing job base.
 - Develop mixed-use cores.
 - Provide transportation, pedestrian, and visual connectivity.
 - Create usable open space.
 - Develop safe, well-designed neighborhoods.
- Provide additional housing opportunities near existing employment centers, consistent with the City’s General Plan Land Use and Housing Elements.
- Provide residential uses near existing employment centers, retail and entertainment uses, and transportation facilities consistent with the goals of the Southern California Association of Governments’ Regional Comprehensive Plan and Compass Blueprint.
- Provide residential development in areas of the IBC where adequate supporting uses and public services and facilities are provided, consistent with the City’s General Plan Land Use Element.
- Contribute to the development of mixed-use cores by incorporating residential, office, and commercial/retail uses into existing areas of nearby community facilities, retail goods and

services, and restaurants to enhance the IBC's overall mixed-use urban character and reduce vehicle miles traveled in the South Coast Air Basin.

- Provide neighborhood-level amenities to serve the level of mixed-use development envisioned by the City's General Plan and IBC Vision Plan.
- Incorporate sustainable provisions into implementation of the IBC Vision Plan.
- Identify and pursue opportunities for open space areas that serve the recreational needs of IBC residents and employees.
- Contribute to the development of mixed-use cores by incorporating residential uses into an existing core of nearby community facilities, retail and services businesses, and restaurants to enhance the area's overall urban character pursuant to the goals of the City's IBC Vision Plan.
- Minimize the impact to the environment by promoting a sustainable infill development, consistent with the objectives of Senate Bill (SB) 375.

2.3 Project Background

The City of Irvine established an Irvine Business Complex (IBC) Nexus Fee Program in 1992 (henceforth to be referred to as the 1992 Fee Program) to support the City's adoption of the more traffic intensive 1990 IBC Rezone General Plan Amendment (GPA) and Zone Code. The intent of the 1992 Fee Program was to support the implementation of specific improvements identified in a subsequent Environmental Impact Report (henceforth to be referred to as the 1992 EIR) prepared in conjunction with the 1992 rezoning actions. This approach is consistent with the City's General Plan Roadway Development Objective B-1 to "Plan, provide and maintain an integrated vehicular circulation system to accommodate projected local and regional needs."

As discussed in Section 1 of this Addendum, the City adopted the IBC Vision Plan in 2010 to accommodate the ongoing shift in development patterns to improve the jobs-housing balance, and reduce vehicle miles travelled. In recent years, as development patterns within the IBC showed an increased demand for residential uses and a decreased demand for manufacturing and warehouse uses, The Vision Plan project, together with its accompanying EIR (Vision Plan EIR) were approved/certified by the Irvine City Council on July 13, 2010.

As part of the Vision Plan approval, the Zoning Ordinance was updated to require the City to re-evaluate traffic conditions (and traffic impact locations) and its impact on improvement needs, by way of a five-year traffic study update (amended to every two years in October 2015). In 2015, a five-year traffic study update (the "2015 IBC Traffic Study Update") was completed to fulfil the requirements of the Zoning Ordinance. Based on the findings of the 2015 IBC Traffic Study Update, a new set of transportation improvements were identified. In this 2015 five-year fee/nexus update (henceforth to be referred to as 2015 IBC Traffic Fee Nexus Update), the fee structure and the nexus associated with the findings of the 2015 IBC Traffic Study Update, is being revised to accommodate the identified set of transportation improvements.

Subsequent to the completion of the Vision Plan, the City of Irvine entered into contractual agreements with the potentially affected jurisdictions/agencies (Caltrans District 12 and cities of Newport Beach, Santa Ana, Costa Mesa, and Tustin). Thus for this 2015 IBC Traffic Fee Nexus Update, only the fee associated with the findings of the 2015 IBC Traffic Study Update, were updated. The associated fair-shares and the nexus remained consistent with the 2010 Vision Plan Traffic Fee Nexus Study (henceforth to be referred as Vision Plan Traffic Fee Nexus Study). This 2015 five-year update takes a “snapshot” of the development activity from the inception of the Vision Plan in 2010 to July 31, 2015, to evaluate the changes in land uses and traffic patterns, and subsequent improvement needs, resulting in the development of a proposed fee to be imposed effective fiscal year (FY) 2017-2018. In 2010, the Vision Plan established two overlay zoning districts:

- Urban Neighborhood, in which residential mixed use was encouraged; and
- Business Complex, in which the existing allowable mix of non-residential uses was maintained.

The Vision Plan allowed for the buildout of 15,000 residential base dwelling units (DU) within the Urban Neighborhood Overlay Zone District, with a potential maximum of 2,038 additional density bonus units, pursuant to state law. In order to achieve the maximum residential development intensity contemplated under the Vision Plan, the Plan adopted a “flexible zoning” mechanism under which non-residential development intensity could be exchanged for residential development intensity, thus achieving the maximum 15,000 DU (plus 2,038 DU pursuant to state law), by “offsetting” reduction of nonresidential development intensity. Based on approvals since 2010, the total number of density bonus units pursuant to state law assumed for this five-year update is reduced to 1,794 DU, down from the theoretical assumption of 2,038 DU in 2010. The accompanying 2015 IBC Traffic Study Update provided an assessment of existing, interim-year 2020 and buildout year Post-2035 with and without the updated land use conditions.

2.4 Project Description and Purpose

Pursuant to requirements of the California Environmental Quality Act (CEQA), the City Council, as part of their approval of the Vision Plan in 2010, determined to make the City responsible to mitigate, where feasible, the impacts to the transportation system attributable to buildout of the Vision Plan. This 2015 IBC Traffic Fee Nexus Update is consistent with the principles of the Vision Plan Traffic Fee Nexus Study and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. Through equitable developer fees, the objective of this update is to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

California's Mitigation Fee Act (AB 1600, Cal. Gov. Code §§ 66000-66009) creates the legal framework for local governments to assess new fees toward future development. Such fees require new development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must take the following steps to establish a nexus between a proposed fee and project impacts:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:

- The use of the fee and the type of development paying the fee;
- The need for the traffic improvements and the types of development on which the fee is imposed; and
- The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

These principles closely emulate two landmark US Supreme Court rulings that provide guidance on the application of impact fees. The first case, *Nollan v. California Coastal Commission* (1987) 107 S.Ct. 3141, established that local governments are not prohibited from imposing impact fees or dedications as conditions of project approval provided the local government establishes the existence of a "nexus" or link between the exaction and the interest being advanced by that exaction. The *Nollan* ruling clarifies that once the adverse impacts of development have been quantified, the local government must then document the relationship between the project and the need for the conditions that mitigate those impacts. The ruling further clarifies that an exaction may be imposed on a development even if the development project itself will not benefit provided the exaction is necessitated by the project's impacts on identifiable public resources. The second case, *Dolan v. City of Tigard* (1994) 114 S.Ct. 2309, held that in addition to the *Nollan* standard of an essential nexus, there must be a "rough proportionality" between proposed exactions and the project impacts that the exactions are intended to provide benefit. As part of the *Dolan* ruling, the US Supreme Court advised that "a term such as 'rough proportionality' best encapsulates what we hold to be the requirements of the Fifth Amendment. No precise mathematical calculation is required, but the city (or other local government) must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."

The combined effect of both rulings resulted in the requirement that public exactions must be carefully documented and supported. This requirement was reiterated by the provisions of the State of California Mitigation Fee Act and subsequent rulings in the California Supreme Court (*Ehrlich v. City of Culver City* (1996) 12 C4th 854) and the California Court of Appeal (*Loyola Marymount University v. Los Angeles Unified School District* (1996) 45 Cal.App.4th 1256). The Vision Plan Traffic Fee Nexus Study satisfied the requirements of the State of California Mitigation Fee Act. Thus this update is not intended to re-analyze the nexus or the purpose, but is to review and revise the fee program based on the needs determined by the 2015 IBC Traffic Study Update.

The 2015 IBC Traffic Study Update analyzed the project study area presented in Figure 2. All improvements identified under the interim year 2020 and buildout Post-2035 conditions are located within this defined project study area. Consistent with the methodology used in the 2010 IBC Vision Plan Traffic Study (henceforth referred to as 2010 IBC EIR Traffic Study), the 2015 IBC Traffic Study Update identified specific mitigation measure improvements that mitigate unacceptable level of service (LOS) E and F to acceptable LOS of A-D, per the City's Traffic Impact Analysis (TIA) Guidelines (adopted August 2004) and per the performance criteria for each affected agency (Caltrans District 12 and cities of Newport Beach, Costa Mesa, Santa Ana, and Tustin). For locations within the City of Irvine, 90% of the improvement costs are included in the fee program. For locations not under the City of Irvine's jurisdiction, a fair-share methodology is applied that considers fair-shares of improvement costs. The proportionate fair-shares of improvement costs in the City of Costa Mesa and Santa Ana, associated with remaining improvements from the City of Irvine's General Plan, are included in the Fee Program. A 2011 amended agreement with the

City of Santa Ana, replacing the 1992 agreement between the two cities, identified specific improvements for which the City of Irvine is either partially or fully responsible for certain improvement and those associated improvement costs were included in this update. In 2009 and 2010, respectively, the City of Newport Beach and the City of Tustin entered into settlement agreements with the City of Irvine, where City of Irvine made a one-time lump-sum payment to each of the cities, as its fair-share contribution towards transportation improvements and absolved itself from any future financial or implementation obligation related to the Vision Plan buildout.

Exhibit 1: IBC Location Map

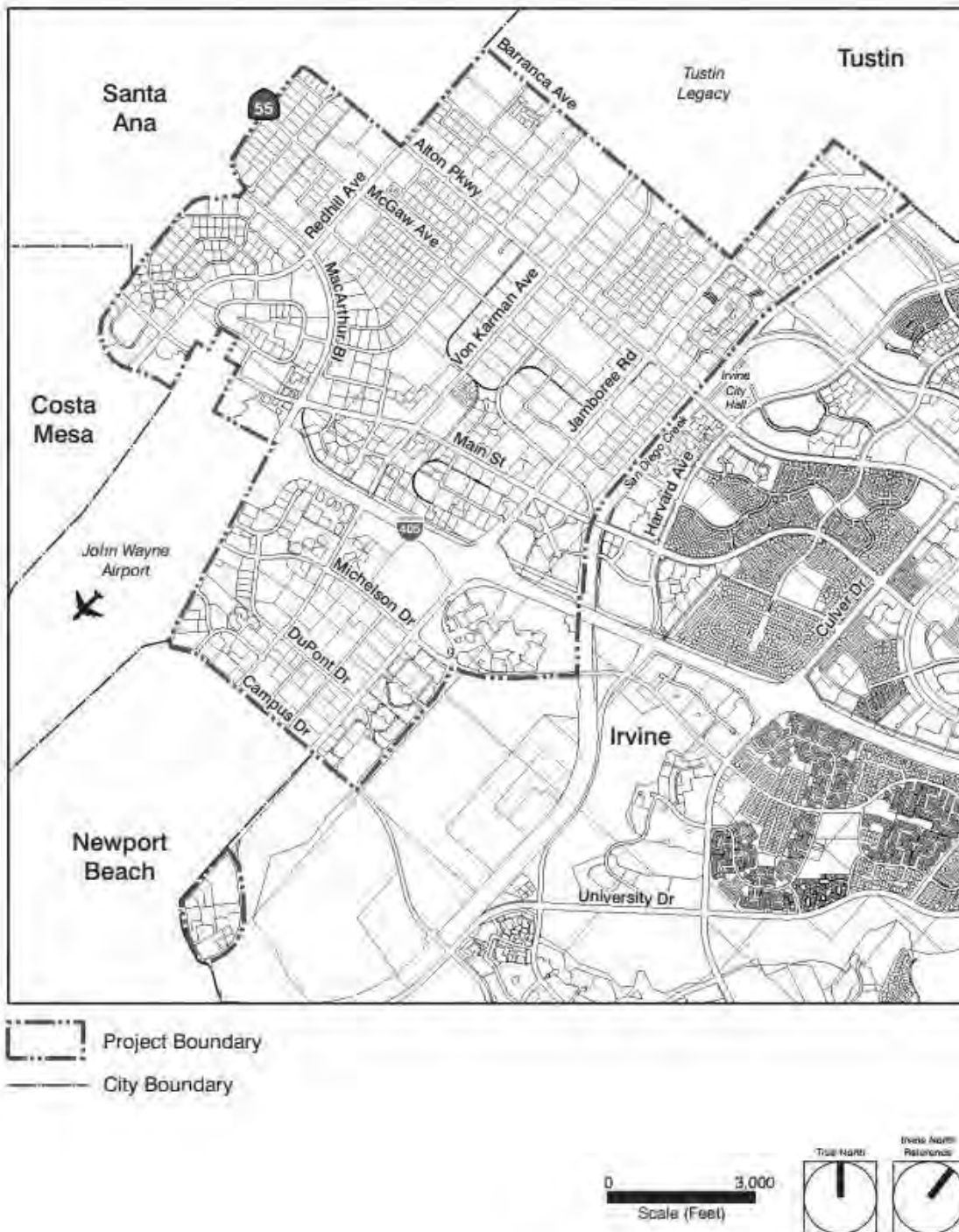
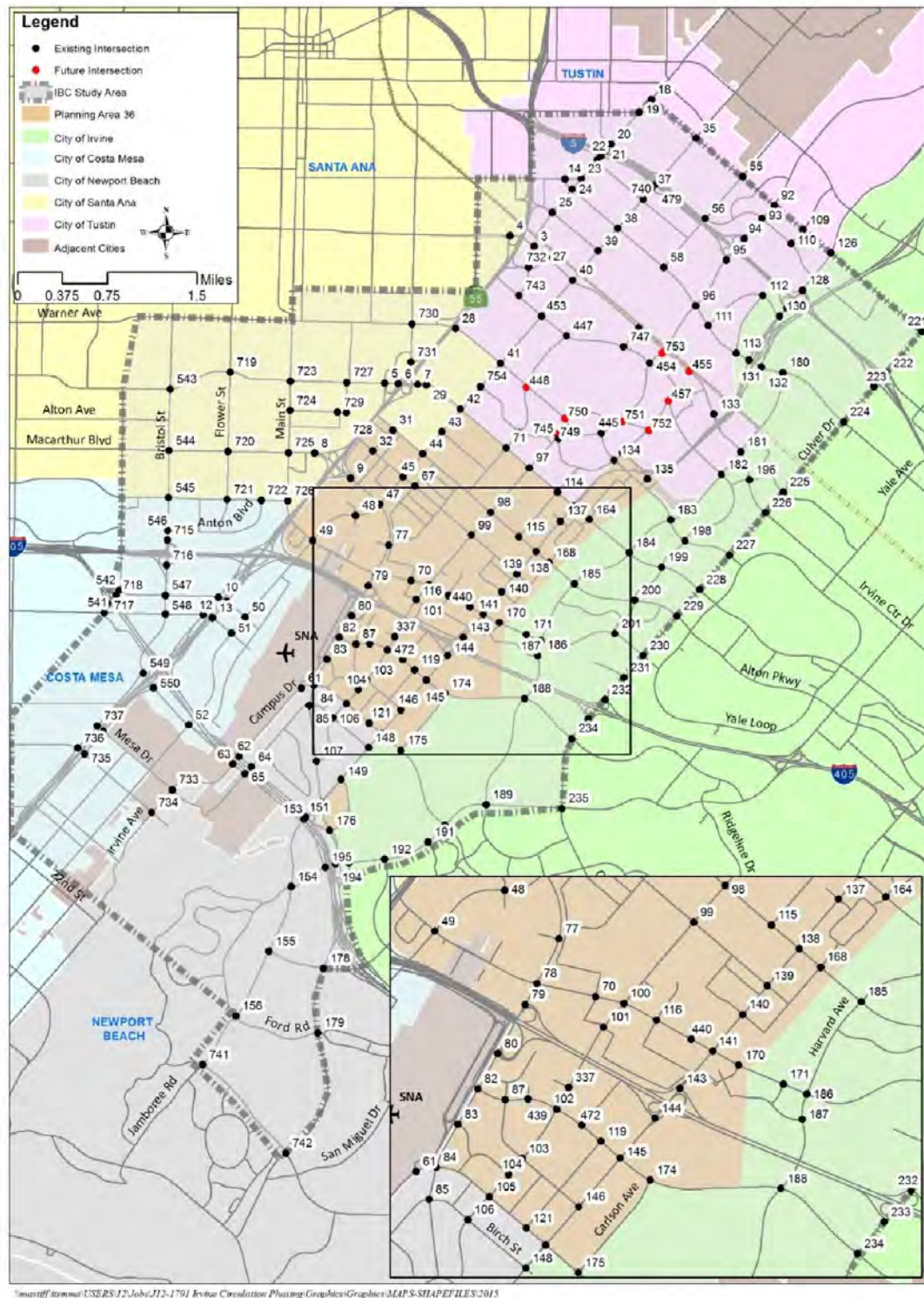


Exhibit 2: IBC Traffic Study Boundary



3.0 ENVIRONMENTAL SETTING

The following sections describe the setting for the Irvine Business Complex.

3.1 Aesthetics

The majority of the IBC is located in the Central Flatlands landform zone of the City of Irvine, while a portion of the IBC extends south of I-405 within the San Joaquin Hills landform zone. San Diego Creek, Peters Canyon Wash, and the Barranca Channel traverse the IBC. There are no significant landforms within the IBC or the surrounding area. Nighttime lighting in the IBC comes from various sources, such as streetlights, security lighting in parking lots and along walkways, electronic signs, vehicle headlights, and light emitted from the exteriors and interiors of buildings. Nighttime glare is generally limited to headlights reflecting off glass surfaces. During the day, sunlight reflects off glass surfaces associated with buildings and vehicles, creating glare.

The IBC is largely urbanized and does not contain any large areas of open space or significant visual resources. However, the San Joaquin Freshwater Marsh, which is located just southeast of the IBC, is considered a significant visual resource. Vegetation throughout the IBC consists of landscaped areas and mature ornamental trees. The City's General Plan does not identify any significant visual resources, preservation areas, or scenic vistas in the IBC. According to the California Department of Transportation's (Caltrans) California Scenic Highway Mapping System, the IBC is not located near an Officially Designated State Scenic Highway.

3.2 Agriculture and Forest Resources

The IBC is largely urbanized and does not contain any agricultural zoned land uses or operations. A mix of residential, industrial, and mixed-use development comprises the majority of the IBC. As a result, the IBC does not include any Prime Farmland, Unique Farmland, Farmland of Statewide Importance, forest land, timberland, or parcels under a Williamson Act contract.

3.3 Air Quality

South Coast Air Basin

The IBC is located in the South Coast Air Basin (Air Basin), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The Air Basin is located in a coastal plain, with connecting broad valleys and low hills. The Air Basin is bound by the Pacific Ocean to the southwest, with high mountains forming the remainder of its perimeter. The broader Air Basin region occurs in the semi-permanent high-pressure zone of the eastern Pacific, which results in a mild climate tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds.

Criteria Air Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable

particulate matter (PM_{2.5}), and lead are primary air pollutants. Of these, CO, SO₂, NO_x, PM₁₀, PM_{2.5}, and lead are criteria pollutants. VOC and NO_x are criteria pollutant precursors and proceed to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are principal secondary pollutants.

Air Quality Management Plan

The South Coast Air Quality Management District (SCAQMD), the California Air Resources Board (ARB), SCAG, and the U.S. Environmental Protection Agency (EPA) are responsible for preparing the Air Quality Management Plan (AQMP) for the Air Basin. The current 2012 AQMP was adopted December 7, 2012. The purpose of the 2012 AQMP is to establish a comprehensive and integrated program that will lead the Air Basin into compliance with the federal 24-hour PM_{2.5} air quality standard, and to provide an update of the Air Basin's projections in meeting the federal 8-hour O₃ standards. The AQMP is submitted to the EPA as the State Implementation Plan (SIP) once it is approved by the SCAQMD Governing Board and the ARB. Specifically, the AQMP serves as the official SIP submittal for the federal 2006 24-hour PM_{2.5} standard, for which EPA established a due date of December 14, 2012. In addition, the AQMP updated specific elements of the previously approved 8-hour O₃ SIP: (1) an updated emissions inventory, and (2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour O₃ SIP.

The 2012 AQMP proposes PM_{2.5} measures to be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high PM_{2.5} days), Section 182(e)(5) implementation measures (to maintain progress towards meeting the 2023 8-hour O₃ national standard), and transportation control measures. Most of the control measures focus on incentives, outreach, and education.

There are multiple VOC and NO_x reductions in the 2012 AQMP that attempt to reduce O₃ formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, mold release products, and consumer products. The 2012 AQMP also contains proposed mobile source implementation measures for the deployment of zero- and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There are measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines. The 2012 AQMP also relies upon SCAG's Regional Transportation Strategy, which is included in its adopted 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program.

Existing Ambient Air Quality

Existing ambient air quality levels and historical trends and projections in the vicinity of the IBC and the City of Irvine have been documented by the SCAQMD. The IBC is located between Source Receptor Area (SRA) 17-Inland Orange County (Central Orange County) and SRA 18-Coastal (North Orange County Coastal). For the IBC EIR, both the Costa Mesa Monitoring Station and the Anaheim Monitoring Station were used for data collection. The collected data shows that the broader IBC area occasionally exceeded the state and federal one-hour and eight-hour O₃ standards. The data also indicates that the area regularly exceeded the state PM₁₀ and federal PM_{2.5} standards. At these particular monitoring stations, the federal PM₁₀ standard was only exceeded once during the five years between

2004 and 2008. The CO, SO₂, or NO₂ standards were not exceeded at any point during the same five-year period.

3.4 Biological Resources

The IBC is largely urbanized and does not contain any large areas of open space. The IBC contains several small, concrete-lined flood control channels that lack vegetative cover. A dominant feature of the area is San Diego Creek, which runs along the eastern edge of the IBC.

Plant Communities

Because of previous development, the IBC contains little remaining native vegetation. Existing vegetation primarily consists of non-native, ornamental landscaped areas with mature ornamental trees. Most of the remaining undeveloped parcels in the IBC contain little or no vegetation, due to recent grading, site preparation, or weed abatement activities. While some undeveloped and undisturbed parcels contain vegetation, these communities are generally characterized as ruderal, with only a small portion of undeveloped parcels fostering annual grassland.

In total, eight vegetation communities were mapped in the IBC: urban, ornamental plantings/parks, ornamental landscaping/annual grassland, ruderal, annual grassland, graded, concrete flood control channels, and earthen flood control channels. Despite the eight mapped vegetation communities, ornamental landscaping is the dominant plant community found within the IBC. These ornamental landscaped areas generally consist of a combination of turf, shrubbery, lawn, perennials, and narrow bands of urban forest.

Wildlife Communities

Wildlife found in the IBC is typical of developed urbanized areas containing predominantly ornamental plant communities. Bird species observed in the developed portions of the IBC are those commonly found in urbanized areas, such as the black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), and lesser goldfinch (*Carduelis psaltria*). Because of its urbanized setting, the IBC does not function as a wildlife movement corridor. The majority of the IBC does not contain wetlands or waters of the U.S. or state that would be under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Californian Department of Fish and Wildlife (CDFW), or Santa Ana Regional Water Quality Control Board (RWQCB). However, San Diego Creek and San Joaquin Marsh, which adjoin the IBC, contain jurisdictional waters and wetlands.

The IBC is located in the Orange County's Central and Coastal Natural Community Conservation Planning/Habitat Conservation Plan (NCCP/HCP), with a small area in the southern portion of the IBC proposed as a NCCP reserve area. This area consists of the upland area located between the San Joaquin Freshwater Marsh, the San Diego Creek, MacArthur Boulevard, and Fairchild Road, and is owned and managed by the University of California, Irvine (UCI). While the IBC does not contain any sensitive or regulated habitats, several habitats considered sensitive by the CDFW and the NCCP/HCP adjoin the area. These would include wetland and riparian habitats in the San Joaquin Reserve and Sanctuary areas, as well as within San Diego Creek. Small pockets of coastal sage scrub adjoin the IBC and are known to support nesting territories of the coastal California gnatcatcher.

3.5 Cultural Resources

Historical Resources

In 1876, James Irvine bought out his partners in Flint, Bixby & Co. and became the sole owner of the Irvine Ranch. Just as with the previous ownership, Irvine continued to run Irvine Ranch as a ranching operation for many years. When James Irvine Jr. took over control of the Irvine Ranch, the younger Irvine transitioned the ranch from raising cattle to raising crops. He drilled wells and developed the Irvine Ranch water system, including Irvine Lake, to support the farming operations. In 1887, the San Bernardino and San Diego Railroad, a subsidiary of the Santa Fe Railroad, laid a rail line across the ranch. Buildings to process and pack the ranch's agriculture products were subsequently constructed next to the tracks.

Irvine Ranch was predominately agricultural, containing only sparsely placed farmhouses and associated outbuildings through the 1950s. The Interstate 405 (I-405) was constructed in the mid-1960s, followed closely by increased development. For the remainder of the 20th century, urbanization continued, with commercial development dominating the IBC area, and with residential projects incrementally developed. With the dawning of the 21st century, redevelopment began taking place.

No significant historical resources, as defined by local, state, or federal law, are known to occur within the IBC.

Archeological Resources

Beginning approximately 3,000 years before present (BP), the IBC was in the territory of the Tongva/Gabrielino people. The Tongva/Gabrielino territory encompassed more than 2,500 square miles, stretching from Topanga Canyon in the northwest, Mount Wilson in the north, San Bernardino in the east, Aliso Creek in the southeast, and the Southern Channel Islands. At European contact, the tribe consisted of more than 5,000 people living in various settlements throughout the area. The size of villages varied, with some villages being quite large, housing up to 150 people.

Three known prehistoric archaeological sites occur within the boundaries of the IBC. These sites had cooking features, abundant food refuse, both ground and chipped stone tools, waste from tool creation, ceremonial and ornamental objects, and burials. Archaeological evidence demonstrates that the largest components of the sites date between 5,000 and 1,000 years BP. A portion of one site was preserved from future development with burials intact and preserved. Aside from these sites, the remainder of the IBC does not appear to contain any sensitivity for prehistoric resources.

Paleontological Resources

Surface soils of the IBC consist of recent alluvial sediments deposited by streams and other water sources. Lying at variable depths below the surface, but generally more than six and less than 30 feet deep, is a complex of sand, silt, and clay containing Late Pleistocene (50,000 to 10,000 years old) fossils. Underlying the Pleistocene strata are sands aging from Middle to Early Pleistocene (1.8 million to 50,000 years old) of the San Pedro Formation, containing fossils.

Fossils associated with the IBC include herbivores, carnivores, rabbits, rodents, birds, reptiles, and amphibians. The herbivores include mammoth, mastodon, giant ground sloth,

bison, camel, llama, horse, tapir, peccary, deer, pronghorn, and dwarf pronghorn. The carnivores include bear, saber-toothed cat, jaguar, bobcat, dire wolf, coyote, gray fox, raccoon, weasel, badger, skunk, and sea otter. Known birds include turkey vulture and duck. The smaller animals include many types of rabbits, rats, mice, gophers, wood rats, moles, shrews, lizards, snakes, and salamanders. The known fossils are all from the Pleistocene Epoch and represent the last Ice Age (50,000 to 10,000 years ago).

3.6 Geology and Soils

The majority of the IBC is located at the southern end of the broad Coastal Plain of Orange County, mostly in the Tustin Plain, while a portion of the IBC extends south of I-405 is within the easternmost margin of Newport Mesa. The Tustin Plain is part of the coastal section of the Peninsular Range Province, a 900-mile, predominantly coastal range 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. The northwest-trending Santa Ana Mountains have uplifted on their eastern side along the Whittier-Elsinore Fault Zone, producing a tilted, irregular, and complex highland that slopes westward toward the sea.

Sediments eroded from the Santa Ana Mountains and the San Joaquin Hills have been deposited by streams emanating from these highlands (Peters Canyon Wash, San Diego Creek, etc.) and the lower reach of the Santa Ana River, producing the broad, complex, alluvial fan of the Tustin Plain. This alluvial fan consists of relatively flat-lying, unconsolidated to semi-consolidated sediments that are approximately 30 to over 1,200 feet thick beneath the IBC, generally thickening to the northwest. These deposits include strata of the upper member of the Pliocene Fernando Formation (approximately two to three million years old) and Pleistocene (10,000 to two million years old) alluvium. The near-surface, unconsolidated Holocene sediments beneath the IBC are between 10 and 20 feet thick and predominately consist of young alluvial fan deposits. Soil development in 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.

Earthquakes are common to the greater Southern California region, including the IBC and City of Irvine. Earthquake Fault Zones have been identified along known active faults in California in accordance with the Alquist-Priolo Earthquake Fault Zoning Act. Known active and potentially active faults that could produce substantial ground shaking in the IBC include the San Joaquin Hills, Newport-Inglewood (Offshore), Newport-Inglewood (LA Basin), and Whittier-Elsinore Faults. However, no known active surface faults are mapped or traverse the IBC, and the area is not in an Alquist-Priolo Earthquake Fault Zone.

Neither erosion nor subsidence is considered a potential significant geologic hazard in the IBC. However, previous geotechnical investigations have identified the IBC as being susceptible to both expansive and corrosive soils.

Groundwater

Groundwater was encountered at a depth of about 10 to 14 feet below the existing ground surface. A review of the California Department of Mines and Geology's Seismic Hazard Zone Report 012 indicates that historical high groundwater level for the project area is as shallow as 10 feet below the existing ground surface.

Faulting and Seismicity

Based on a review of referenced publications and seismic data, no faults are known to traverse through or immediately adjacent to the project site, and the site does not lie within an “Earthquake Fault Zone” as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act.

Liquefaction

The site is located within an area mapped as requiring a site-specific liquefaction hazards evaluation. The majority of soils encountered in core penetration tests and nearby borings consist of cohesive, non-liquefiable clays. However, thin layers of silty sands were also encountered. Based on the Preliminary Geotechnical Investigation, it is estimated that the potential total liquefaction-induced settlement will be between 1 and 1.5 inches at the site with a differential settlement of 0.5 to 0.75 inch.

3.7 Greenhouse Gas Emissions

Climate Change and Greenhouse Gas Emissions

Climate change is the variation of Earth’s climate over time, whether a result of natural variability or human activity. The climate system is interactive, consisting of five major components: the atmosphere, the hydrosphere (ocean, rivers, and lakes), the cryosphere (sea ice, ice sheets, and glaciers), the land surface, and the biosphere (flora and fauna). The atmosphere is the most unstable and rapidly changing part of the system. It is made up of 78.1 percent nitrogen (N₂), 20.9 percent oxygen (O₂), and 0.93 percent argon (Ar). These gases have only limited interaction with the incoming solar radiation and do not interact with infrared (long-wave) radiation emitted by the Earth. However, there are a number of trace gases, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and O₃, that absorb and emit infrared radiation, and thus, have an effect on climate. These are defined as greenhouse gases (GHG), and while they comprise less than 0.1 percent of the total volume mixing ratio in dry air, they play an essential role in influencing climate.

Non-CO₂ GHG are those listed in the Kyoto Protocol (CH₄, N₂O, hydrofluorocarbons [HFC], perfluorocarbons [PFC], and sulfur hexafluoride [SF₆]), as well as those listed under the Montreal Protocol and its amendments (chlorofluorocarbons [CFC], hydrochlorofluorocarbons [HCFC], and halons). Water vapor (H₂O) is the strongest GHG, but is also the most variable in its phases (vapor, cloud droplets, ice crystals). However, H₂O is not considered a pollutant in the atmosphere.

IBC Emissions Inventory

An existing GHG emissions inventory of the IBC was conducted for the IBC EIR. This inventory was based on the existing land uses in 2010. Lifecycle emissions were not included in this analysis because comprehensive information was not available for all of the future development in the IBC, and thus, lifecycle GHG emissions would have been speculative. The inventory concluded that the primary source of GHG emissions within the IBC is transportation sources, especially those associated with commuter and commercial vehicles. Non-transportation emissions from structures and associated direct sources of emissions represent a much smaller proportion of IBC’s GHG emissions inventory. It is important to note that these emission sources can be controlled, both through physical or regulatory mechanisms.

3.8 Hazards and Hazardous Materials

The IBC is largely urbanized and developed with residential, commercial, industrial, and mixed uses. As part of the mixed-use development model, the IBC Vision Plan and Mixed Use Overlay Zoning Code allows for several different land uses of varying types and intensities to occur close to one another. Searches of various regulatory databases were conducted to understand potential environmental hazards in the IBC and devise measures that would avoid significant impacts to residential uses and other sensitive receptors as a result of these potential environmental hazards.

CalARP Program

In the IBC, the Orange County Fire Authority (OCFA) administers the CalARP Program, which includes the federal Accidental Release Prevention Program (Title 40, CFR Part 68) with certain state-specific additions pursuant to Article 2, Chapter 6.95 of the Health and Safety Code. The purpose of the CalARP Program is to prevent accidental releases of regulated hazardous substances by rigorously evaluating business operations that use and exceed the threshold quantity of a regulated substance. The owner or operator of a stationary source is required to develop and submit a risk management plan (RMP) to prevent accidental releases to the public and the environment. A 2009 review of OCFA records showed that five businesses in the IBC were regulated under CalARP, with RMPs submitted to the OCFA. However, inclusion on the CalARP list does not necessarily insinuate an increased risk level to the surrounding environment.

SCAQMD Title V Permit

In accordance with Title V of the 1990 Clean Air Act Amendments and subsequent EPA requirements, SCAQMD regulates business operations within its jurisdiction that release pollutants into the air through the issuance of permits. A recent review of the SCAQMD Facility Information Detail (FIND) database showed that there are approximately 511 regulated operations in the IBC. Of these regulated facilities within the IBC, eight are identified as “Title V” facilities. Again, inclusion on the SCAQMD Title V list does not necessarily insinuate an increased risk level to the surrounding environment. Title V applies only to major sources, defined by the EPA as facilities emitting or potentially emitting any criteria pollutant or hazardous air pollutant at levels equal to or greater than the major source thresholds.

Regulatory Database Search

Based on an Environmental Data Resources (EDR) database report, which is a compilation of various regulatory databases maintained by governmental agencies, the IBC is the location of numerous sites that have experienced historical releases of hazardous substances into the environment and/or are undergoing environmental investigation or remediation. The database search identified the following types of sites in the general vicinity of the IBC. Listing within the EDR database does not imply that all sites are contaminated or require remediation. Some of the listed sites may have already been granted site closure by a regulatory agency. Additionally, the identified lists are not mutually exclusive. A given site may appear on one or more lists.

- One U.S. Department of Defense site was listed. The Tustin Marine Corps Air Station is located adjacent to and north of the IBC. This site has undergone investigation and remediation activities, including ongoing monitoring for a groundwater contaminant plume.

- 10 sites were listed by the EPA Toxic Chemical Release Inventory System. These sites are identified because of operational releases of toxic substances to the air, water, and land in reportable quantities specified in the Superfund Amendments and Reauthorization Act Title III, Section 313.
- 112 sites were listed on the Cortese list, which is maintained by the State Water Resources Control Board (SWRCB), Integrated Waste Management Board, and the Department of Toxic Substances Control. These sites are listed because of a release of hazardous substances.
- 173 sites were listed on the California Regional Water Quality Control Board (RWQCB) Leaking Underground Storage Tank (LUST) list.
- 41 sites were listed on the California RWQCB Spills Leaks Investigation and Cleanup (SLIC) list.
- 39 sites were listed on the Orange County Industrial Site Cleanups list maintained by the Orange County Health Care Agency.
- 12 sites were listed on the Department of Toxic Substances Control Envirostor database. These sites are listed because of agency involvement with respect to investigation and/or remediation of hazardous substance contamination.

3.9 Hydrology and Water Quality

Surface Water and Drainage

The IBC is located within the San Diego Creek watershed, which is part of the larger Santa Ana River basin. The majority of the local drainage systems in the IBC (approximately 75 percent) discharge to one of three regional facilities within the area: Lane Channel (designated F08 by the Orange County Flood Control District), Armstrong Channel (F08S01), and Barranca Channel (F09), all of which ultimately discharge into San Diego Creek. Armstrong Channel is tributary to Lane Channel at MacArthur Boulevard, which then confluences with San Diego Creek near I-405, south of Jamboree Road. Barranca Channel also connects with San Diego Creek, albeit upstream of Lane Channel's confluence point at Main Street, south of Jamboree Road. A small portion (less than 25 percent) of the IBC drains to San Diego Creek via separate storm drain systems.

Groundwater

The IBC is located within the Irvine Groundwater Management Zone of the lower Santa Ana River basin. As defined in the Santa Ana RWQCB's 1995 (updated 2003) Water Quality Control Plan (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 IBC is located over the Irvine Subbasin of the Orange County Main Groundwater Basin. The Orange County Water District (OCWD) manages the level of water in this groundwater basin, including the Irvine Subbasin, and this basin provides more than half of the water used within the District. OCWD has an ongoing program for testing water quality, with water in the groundwater basin having been determined to be of sufficient quality and potable when pumped directly from the ground. Approximately 95 percent of the IBC is developed with impervious surfaces, leaving very few permeable surfaces available for groundwater recharge.

Groundwater quality in the Irvine Subbasin has been affected by high concentrations of nitrate, total dissolved solids (TDS), selenium, and contamination from organic compounds. High nitrate and TDS concentrations are likely the result of historic agricultural operations and associated irrigation activities, and thus, primarily impact shallow portions of the regional aquifer. In response to elevated TDS levels, groundwater extraction and treatment projects (also known as desalters) are in operation or planned in the cities of Tustin and Irvine. The desalters are also designed to address other pollutants, including nitrate, selenium, and organic solvents.

Flood Hazards

Based on the most recent Federal Emergency Management Agency (FEMA) Federal Insurance Rate Maps (FIRMs), the majority of the IBC is located within Zone X, which is defined as areas outside the 0.2-percent annual chance floodplain (500-year floodplain). Lane Channel, Armstrong Channel, and Barranca Channel are all located within Zone A, which is identified as areas within the one-percent annual chance floodplain (100-year floodplain). Additionally, portions of the IBC are located within the dam inundation zone for Land Use and Planning

Irvine Business Complex

The IBC is a business and industrial area encompassing approximately 2,800 acres in the southwestern portion of the City of Irvine. The IBC is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north (known now as Tustin Legacy), San Diego Creek to the east, John Wayne Airport (JWA) and Campus Drive to the south, and State Route 55 (SR-55) to the west. The I-405 traverses the southern portion of the IBC, and the Santa Ana Freeway (I-5) is to the north and east. The IBC is bordered by the cities of Newport Beach to the south, Santa Ana and Costa Mesa to the west, and Tustin to the north.

The IBC also consists of a 40-acre detached parcel that is approximately 0.5 mile south of the primary IBC boundary. This parcel is bounded by Jamboree Road, Fairchild Road, Macarthur Boulevard, and the San Joaquin Marsh. This parcel is adjacent to the City of Newport Beach.

Existing On-site Land Uses

The prominent land use in the IBC is office, along with substantial amounts of industrial, manufacturing, and warehouse uses and several acres of medium- and high-density housing, currently totaling approximately 6,858 existing residential dwelling units. In addition to these existing dwelling units, the IBC EIR and its associated General Plan and Zoning Code amendments allow for 8,142 additional dwelling units for a total of 15,000 base units. Through state density bonus law provisions, qualifying IBC residential projects may increase the number of allowed units such that a maximum total of 17,038 dwelling units would result.

The City's General Plan designates land use within the IBC as Urban and Industrial, providing for office, industrial, and commercial uses mixed with medium- and high-density housing. Other specific uses include medical offices, light and heavy manufacturing, research and development, retail, restaurants, commercial schools, childcare centers, churches, and hotels. The IBC contains a range of industrial and service industries, including specialty pharmaceutical, healthcare and medical products, clothing manufacturers, and other commercial and financial institutions. Because of its proximity to JWA and centralized location in Orange County, the IBC includes a growing number of other

service industries that cater to business and pleasure travelers, including hotels and restaurants.

Existing Surrounding Land Uses

North of the IBC is the location of the former MCAS Tustin, which is currently being redeveloped as Tustin Legacy. The Tustin Legacy redevelopment plan provides for a wide-range of land uses similar in concept to that of the IBC Vision Plan. Some of the residential and commercial portions of the Tustin Legacy redevelopment plan have already been constructed, including a 1,000,000-square-foot regional commercial shopping center at the northwest corner of Jamboree Road and Barranca Parkway, known as The District at Tustin Legacy.

East of the IBC and south of I-405 is the San Joaquin Marsh, a permanently preserved natural area. Southeast of the IBC and adjacent to the marsh is a property owned and operated by UCI. According to the UCI 2007 Long Range Development Plan (LRDP), this site, known as North Campus, which is currently occupied by academic and support facilities, an arboretum, and a child development center, is planned to be redeveloped with up to 950,000 square feet of office/research space and 455 multi-family residential dwelling units by the year 2036.

Southwest of the IBC is JWA, which provides commercial airline service to the greater Orange County area and is surrounded by numerous hotels and restaurants in the cities of Newport Beach and Irvine that currently serve travelers. There is no distinctive boundary that separates the IBC and the City of Newport Beach, as similar mixed-use developments overlap one other in this area, forming a rather cohesive urban form across the boundary.

San Diego Creek, which traverses the southeastern boundary of the IBC, provides an important connection to a comprehensive system of parks, recreational and public facilities, and open space areas within and around the City of Irvine. The San Joaquin Wildlife Sanctuary, which bounds the IBC, offers 10 miles of trails for pedestrians, bicyclists, and equestrian users.

3.10 Mineral Resources

Primarily because of ever-increasing development activity over the years, the greater Orange County area has experienced a noticeable reduction in mineral resources extraction operations throughout the decades. While valuable aggregate resources still remain in areas such as the Santa Ana River, Trabuco Canyon, and San Juan Creek, no valuable or important mineral resources or mining operations currently exist in either the IBC or the City of Irvine. Neither the City's nor the County's General Plan identify the IBC as containing any valuable or important mineral resources or zoned for mineral extraction operations.

3.11 Noise

Existing Noise Environment

The IBC is impacted by many different sources of noise. Mobile sources of noise, primarily commuter and commercial vehicles traveling on local roadways, are the most common and significant noise source in the IBC. Major roadways in the IBC are Alton Parkway, Barranca Parkway, Campus Drive, DuPont Drive, Jamboree Road, MacArthur Boulevard, Main Street, McGaw Avenue, Michelson Drive, Red Hill Avenue, Von Karman Avenue, and the I-405. Other mobile sources of noise include air traffic generated by JWA, which contributes

substantially to the overall ambient noise environment. Secondary noise sources include stationary source such as rooftop HVAC systems.

Roadway Noise

Roadway noise generated from vehicles includes noise associated with engine vibrations, exhaust systems, and the interaction between tires and road. Major arterial roadways in the IBC accommodate large volumes of traffic and are responsible for a significant contribution to the ambient noise environment. Smaller local and collector streets also contribute to the overall ambient noise environment, although to a lesser extent. For the IBC EIR, noise modeling was conducted using the FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) based on average daily traffic (ADT) volumes. Noise levels on roadways throughout the IBC, measured at 50 feet from the roadway centerline, ranged from 60.3 A-weighted decibels (dBA) on University Drive east of Irvine Avenue to 80.1 dBA on Jamboree Road between Edinger Road and Warner Avenue.

Aircraft Noise

Aircraft noise generated from air traffic at JWA includes noise associated with takeoffs, flyovers/overflights, approaches, and landings. Each of these activities can expose receptors surrounding the airport to excessive noise levels. Section 21096 of the California Public Resources Code requires that when preparing an EIR for any project within an airport influence area, as defined by an Airport Land Use Compatibility Plan (ALUCP), the lead agency shall use the California Airport Land Use Planning Handbook as a technical resource with respect to airport noise and safety compatibility issues. The basis for compatibility zone delineation for airports is the Community Noise Equivalent Level (CNEL) contours created with the Federal Aviation Administration (FAA) Integrated Noise Model for private and public airports. As outlined in the IBC EIR, 65 dBA CNEL and 60 dBA CNEL contours fall within the western portion of the IBC.

Stationary Sources of Noise

Stationary sources of noise include commercial and industrial equipment and activities associated with the various land uses within and adjacent to the IBC. Whereas mobile noise sources affect many receptors along an entire length of roadway or flight path, stationary noise sources only affect their immediate area. Major stationary sources in the IBC are industrial and warehousing operations. On-site mechanical equipment such as generators and HVAC, along with warehousing and industrial truck traffic, result in noise on local roadways and in the vicinity of industrial operations.

3.12 Population and Housing

According to the most recently available information provided by the City of Irvine, there are approximately 6,858 existing residential units within areas zoned as 5.1 IBC Multi-Use, 5.0 IBC Mixed Use, or 5.3 IBC Residential. Numerous other moderate- and large-scale residential projects are currently either already approved or under review and awaiting approval. Based on the City's recent adoption of 2010 U.S. Census-based population standards, there is an average of 1.46 residents per dwelling unit in high-density residential projects in the City of Irvine. Using this metric, the approximate current population in the IBC is 10,013 residents. By comparison, the 2010 U.S. Census Bureau's 2009-2013 5-Year American Community Survey total population figure for Census Tract 755.15 (inclusive of the general IBC area) is 14,650 people, including 9,489 people (2010 estimate) in renter-occupied dwellings.

The City's zoning ordinance allows for a total of 15,000 base residential units in the IBC (including density bonus units for affordable housing). Based on the City's recent adoption of 2010 Census-based population standard of 1.46 residents per dwelling unit in high-density residential projects, this equates to roughly 24,875 residents in the IBC upon buildout.

3.13 Public Services

Fire Protection Services

The OCFA currently provides fire protection services to the City of Irvine, including the IBC. In addition to traditional fire protection and emergency medical services, OCFA provides urban search and rescue, fire prevention, hazardous materials coordination, and wildland management services. OCFA facilities serving the IBC include Fire Station #28 (17862 Gillette Avenue), Station #6 (3180 Barranca Parkway), Station #4 (2 Californian Avenue), and Station #36 (301 East Yale Loop).

Police Protection Services

The Irvine Police Department (IPD) presently provides police protection services to the City of Irvine, including the IBC. From their headquarters located at 1 Civic Center Plaza, the IPD provides all services normally associated with public safety, including patrols, investigations, crime analysis, crime prevention, and emergency management/disaster preparedness. The department also has emergency access to helicopter services and mutual aid assistance from surrounding agencies.

Schools

The IBC is located within the enrollment boundaries of the Irvine Unified School District (IUSD), Tustin Unified School District (TUSD), and Santa Ana Unified School District (SAUSD).

The IUSD schools closest to the IBC are Culverdale and Westpark Elementary Schools, South Lake Middle School, and University High School. According to the IBC EIR, in 2009 all four IUSD schools were under capacity. However, a recent review of the 2012-2013 enrollments published by the California Department of Education found that all but South Lake Middle School were over the maximum capacities provided in the IBC EIR.

Parks

Other than a few small pocket parks and several private recreational facilities found within individual residential developments, the IBC does not currently contain any neighborhood or community parks. Instead, the IBC's park and recreational needs are predominately met by the nearby areas, which include several larger public park and recreational facilities, including the San Joaquin Marsh, San Diego Creek Trail, William R. Mason Regional Park (18712 University Drive), Colonel Bill Barber Marine Corps Memorial Park (4 Civic Center Plaza), San Marco Park (1 San Marco), and San Carlo Park (1 San Carlo).

Other Public Facilities

The IBC is served by the University Park Library (4512 Sandburg Way), Heritage Park Regional Library (14361 Yale Avenue), and the Kate Wheeler Library (13109 Old Myford Road). The three branches total an estimated 43,347 square feet and contain 332,536 volumes. Two senior centers, Lakeview Senior Center (20 Lake Road) and Ranch Senior

Center (3 Ethel Coplen Way), provide seniors in the IBC with social and recreational opportunities.

3.14 Recreation

The San Joaquin Marsh is within walking distance of the southernmost portion of the IBC. The San Joaquin Marsh consists of two separately managed areas: the San Joaquin Freshwater Marsh Reserve to the south; and the San Joaquin Wildlife Sanctuary to the north. The Wildlife Sanctuary encompasses 300 acres of coastal freshwater wetlands and 10 miles of trails for pedestrian, bicycle, and equestrian users.

The San Diego Creek Trail, which runs along the southeastern boundary of the IBC, provides an important connection to a comprehensive system of parks and open space developed within the City. In addition to the San Joaquin Wildlife Sanctuary, the San Diego Creek Trail connects to the Mountains to the Sea Trail, which unites recreational users in the IBC to historic Irvine Ranch, northern foothills, the Upper Newport Bay, and the Pacific Ocean.

William R. Mason Regional Park (18712 University Drive) is located approximately two miles from the IBC. The regional park encompasses 345 acres of open spaces, grassy knolls, a lake, and natural areas. Colonel Bill Barber Marine Corps Memorial Park (4 Civic Center Plaza), which is located adjacent to the IBC, serves the area as a community park and connects to the San Diego Creek Trail. Within the IBC, there are also several private recreational facilities found within individual residential developments. These facilities are predominantly gated or indoor facilities serving the residents of the individual residential developments, as described as private neighborhood parks under Section 5-5-1004 of the Irvine Municipal Code, also known as the Subdivision Ordinance.

3.15 Transportation and Traffic

The IBC's study area consists of the current boundaries of the IBC and its surroundings in the City, as well as portions of the cities of Newport Beach (including the entirety of the "airport area" of Newport Beach), Tustin, Santa Ana, Costa Mesa, and unincorporated Orange County. The study area is served by five freeways: SR-73, SR-55, SR-261, I-405, and I-5.

Public and Alternative Transportation

The IBC is currently served by rail transit at the Irvine Metrolink Station located on Barranca Parkway and the Tustin Metrolink Station located on Edinger Avenue.

The IBC is presently served by a number of local bus routes operated by the Orange County Transportation Authority (OCTA) along major thoroughfares and locations within the IBC. The Irvine Shuttle (The iShuttle) is a clean fuel, rubber tire shuttle bus that operates adjacent to and within the study area, primarily transporting commuters and residents throughout the IBC and offering connections to the Irvine and Tustin Metrolink Stations and JWA.

There is an extensive network of recreational and commuter trails that connect to destinations within the IBC. Land uses within the IBC that are required to provide bicycle parking include, but are not limited to shopping centers (greater than 50,000 square feet of gross floor area), restaurants, and office developments (greater than 100,000 square feet of

gross floor area). Within the City, there are 44.5 miles of off-street Class I bikeways and 282 miles of on-street Class II bikeways. The Orange County Bicycle Master Plan, the City of Irvine Bicycle Transportation Plan, and the Irvine General Plan Circulation Element all address bicycle networks in the study area.

With the addition of residential units among the existing predominant office uses in the IBC, there is a growing need for pedestrian transportation amenities such as sidewalks, crosswalks, and other important connections throughout the study area. Development impact fees are expected to contribute to the enhancement of pedestrian facilities in the IBC as residential uses increase.

Existing Conditions

To analyze the potential local and regional traffic impacts that could result from buildout of the IBC, the City's traffic model, Irvine Transportation Analysis Model (ITAM) 8.4, was applied during the IBC EIR evaluation process to forecast future traffic conditions for the study area. There are 275 different arterial segments, 224 intersections, 30 northbound and southbound freeway mainline segments, and 98 freeway ramps within the study area that were evaluated as part of the IBC EIR's traffic analysis.

Under existing conditions, traffic within the City and adjacent jurisdictions is generally heaviest in the north-south direction, with Jamboree Road and Culver Drive being the City's highest utilized north-south corridors. In addition, other heavily traveled north-south arterials include MacArthur Boulevard, University Drive, Main Street in the City of Santa Ana, Edinger Avenue in the City of Tustin, MacArthur Boulevard in the City of Newport Beach, and Bristol Street in the City of Costa Mesa. The following were some of the most heavily traveled arterial segments within the study area:

Jamboree Road

Irvine

- El Camino Real to I-5 NB On-Ramp (61,500 vehicles per day [vpd])
- I-5 NB Ramps to I-5 SB Off-Ramp (65,000 vpd)
- Warner Avenue to Edinger Avenue (78,500 vpd)
- Edinger Avenue to Walnut Avenue (71,900 vpd)
- Warner Avenue to Barranca Parkway (69,500 vpd)
- Michelson Drive to I-405 southbound off-ramp (69,500 vpd)

City of Newport Beach

- MacArthur Boulevard from Bison to Ford (75,900 vpd)

Bristol Street

Costa Mesa

- Anton Boulevard to I-405 NB Ramps (62,500 vpd)
- I-405 NB Ramps to I-405 SB Ramps (63,000 vpd)

Existing arterial traffic conditions were evaluated based on the existing counts and lane configurations. Level of Service (LOS) E or F indicates a deficient segment for all arterial segments outside of the IBC within the City of Irvine. IBC segments are considered deficient at LOS F. The IBC arterial analysis conducted indicated that 12 roadway segments are deficient under the Existing Year 2008 daily conditions, 11 of which are in Irvine.

The City's Traffic Impact Analysis (TIA) Guidelines mandate a peak hour link analysis on all links that exceed the permissible daily LOS threshold applicable to the segment. The City's acceptable threshold is LOS D, unless the arterial segment is located within the IBC, where LOS E is acceptable. All arterial segments that are deficient under daily conditions operate at an acceptable LOS in both peak hours, performing at LOS C or better, and there are no segments within the City that fail under peak hour existing conditions.

The City limits the size and intensity of land uses within the IBC in order to limit the potential negative impacts of traffic generated by each use. Each property in the IBC has an assigned Development Intensity Value (DIV) budget with a maximum allocation of AM peak-hour, PM peak-hour, and average daily DIVs. The IBC has provisions in place to allow for Transfers of Development Rights (TDRs) to allow unused portions of the allocated DIV budget for one property to be transferred to other properties through a process specified in the Zoning Ordinance, which requires among other things the preparation of a traffic study.

3.16 Utilities and Service Systems

Water Services

The Irvine Ranch Water District (IRWD) provides domestic water services to the IBC. IRWD is a multi-service agency that provides potable and recycled water supply and wastewater collection, treatment, and disposal services to a service area encompassing 84,610 acres and a service population of approximately 266,000. IRWD, which serves all of the City of Irvine, is a member agency of the OCWD, and is the largest constituent agency of the Municipal Water District of Orange County (MWDOC). IRWD's decision-making process is guided by two planning documents: the Water Resources Master Plan (WRMP), a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs; and the Urban Water Management Plan (UWMP), a document required by statute.

Sewer Services

The IRWD provides wastewater collection service in the City. The IBC is located in the Orange County Sanitation District (OCSD), tributary zone No. 7 (SD-7). With the exception of the former MCAS Tustin Marine Corps Air Station and a residential area east of the MCAS, the IBC comprises the entirety of SD-7. Wastewater generated in the IBC currently flows to OCSD, and not to IRWD treatment facilities. The IBC wastewater collection system includes over 40 miles of sewer lines, ranging between eight to 66 inches in diameter. There are two IRWD pump stations operational in the IBC: the Michelson Pump Station and the Main Pump Station.

Solid Waste Services

Orange County Integrated Waste Management Department (IWMD) is the agency that regulates and operates the local Orange County landfills, including the Frank R. Bowerman Landfill (11002 Bee Canyon Access Road). Waste Management of Orange County serves as the private waste hauler for residential uses in the City. Bowerman Landfill encompasses

725 acres in the City, including 341 permitted acres for disposal, and is permitted to accept a maximum 11,500 tons of waste per day. The Bowerman Landfill's current closure date is 2053, although it is currently understood that the IWMD is pursuing the required permits for expansion of the facility.

4.0 ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** 2015-17 IBC Transportation Mitigation Fee Program Update
2. **Lead Agency Name and Address:** City of Irvine
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623-9575
3. **Project Sponsor's Name and Address:** City of Irvine
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623-9575
4. **City Contact Person and Phone Number:** Bill Jacobs, Principal Planner
City of Irvine
Community Development Department
One Civic Center Plaza
Irvine, CA 92623
949-724-6521
5. **Project Location(s):** The approximately 2,800-acre Irvine Business Complex (IBC) comprises Planning Area 36 in the City of Irvine, in south/central Orange County, as shown in Exhibit 1. More specifically, the IBC is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north, the San Diego Creek channel to the east, John Wayne Airport and Campus Drive to the south, and State Route 55 (SR-55) to the west, as shown on Figure 3 2, Local Vicinity. The San Diego Freeway (I-405) traverses the southern portion of the IBC, and the Santa Ana Freeway (1-5) is to the north and east. The IBC is bordered by the cities of Newport Beach to the south, Santa Ana and Costa Mesa to the west, and Tustin to the north (see Exhibit 1).
6. **General Plan Designation:** Urban and Industrial
7. **Zoning Designation:** 5.0 IBC Mixed-Use, 5.1 IBC Multi-Use, 5.2 IBC Industrial, 5.3 IBC Residential
8. **Description of Project:** This 2015 IBC Vision Plan Five-Year Traffic Study Update fulfills requirements of the City of Irvine Zoning Ordinance, which was updated as part of the 2010 IBC Vision Plan approval to require the City to re-evaluate traffic conditions (and traffic impact locations) by way of a five-year traffic study update (amended to every two years in October 2015). This five-year update evaluates potential traffic impact locations and documents how development actually occurred over the past five years to determine how close the Vision Plan assumptions were to forecasting this condition. The update takes a "snapshot" of the development activity today and considers ambient regional growth to compare with the 2010 assumptions. If as a result of actual development the original traffic impacts are altered or changed, the City has the ability to revise the list of traffic mitigations and IBC fees accordingly within the umbrella of the adopted Vision Plan.

This IBC Vision Plan Five-Year Traffic Study Update analyzes the potential impacts on the circulation system based on updated conditions to the 2010 amendment to

the City of Irvine General Plan that placed a 15,000 dwelling unit limit (plus a maximum of 2,038 density bonus units pursuant to state law) on the residential development in the IBC area. Based on approvals since 2010, the total number of density bonus units assumed for this update is reduced to 1,794 from 2,038. This reduction represents 2,038 assumed theoretical density bonus units in 2010 less 244 theoretical units removed due to reduction in units not associated with any planned project.

The analysis presents areas of deficiency in the existing circulation system and future circulation systems and offers recommended mitigations to allow for a return to acceptable levels of service (LOS) or to the pre-Vision Plan condition within the study area. The analysis focuses on the identification of updated potential traffic impacts on the current circulation system as it is transformed into a mixed-use community from its previous offerings of office, commercial, and industrial uses within the IBC area. This traffic study provides an assessment of the existing conditions in 2015, existing conditions with the updated Vision Plan assumptions, as well as future Interim Year (2020) and Buildout Year (post-2035) scenarios with and without the updated Vision Plan assumptions. A comparison of the impacted locations versus the impacted locations identified in the 2010 IBC Vision Plan Traffic Study is also performed.

9. **Surrounding Land Uses and Setting:** 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. Adjacent to the IBC, on the north, is the City of Tustin and the former MCAS Tustin, currently being redeveloped with residential and commercial uses as part of the Tustin Legacy Specific Plan. A 40-acre parcel of the IBC is detached and to the south of the main IBC boundary area (see Figure 3-3), and bounded by Jamboree Road, Fairchild Road, Macarthur Boulevard, and the San Joaquin Marsh, and adjacent to the City of Newport Beach. The most prominent land use in the IBC is office, with substantial amounts of industrial/warehouse uses and approximately 7,000 residential units.

10. **Other Public Agencies whose Approval is Required:**

None

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
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 which would adversely affect day or nighttime views in the area?							●

2 AGRICULTURE AND FOREST 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 Dept. 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?							●
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?							●

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
e) Result in the loss of forest land 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 odor affecting a substantial number of people?						•

4	BIOLOGICAL RESOURCES Would the project:						
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, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?						•

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but no 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 ordinances?							•
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?							•

5	CULTURAL RESOURCES Would the project:						
a)	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?						•
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 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:						

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?							•
ii) Strong seismic ground shaking?							•
iii) Seismic-related ground failure, including liquefaction?							•
iv) 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?							•
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?						•

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
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?							•
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?							•

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
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 a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?							•
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 in 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 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?							•

ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
j) Inundation by seiche, tsunami, or mudflow?							●

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?						●

ISSUES:		Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
				Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
c)	A substantially 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?							•
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 Would the project:							
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ISSUES:	Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
			Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
a) 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 following public services:							
i) Fire protection?							•
ii) Police protection?							•
iii) Schools?							•
iv) Parks?							•
v) Other public facilities?							•

15 RECREATION Would the project:							
a) 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 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?						•	

ISSUES:		Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
				Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
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?							•
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?							•

ISSUES:		Substantial Change in Project Requiring Major EIR Revisions	Substantial Change in Circumstances Requiring Major EIR Revisions	New Information - Not Previously Known			Less Than Significant Impact	No Change From Previous Analysis
				Results in New Significant Impacts	Results in More Severe Impacts	New Mitigation Measures Available to Reduce Significant Impacts		
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?							•
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 would cause substantial adverse effects on human beings, either directly or indirectly?							•

5.0 ENVIRONMENTAL ASSESSMENT

This section provides information and analysis that explains the answers presented in the Environmental Checklist Form found above. Each environmental assessment area includes the following, where applicable:

- Summary of the IBC EIR findings
- Discussion of the proposed project
- Level of significance of the project after mitigation
- Applicable mitigation measures

Applicable Programs, Policies, and Procedures (PPPs), Project Design Features (PDFs), and Mitigation Measures (MMs) found within the IBC EIR are listed within each corresponding environmental assessment area that follows. Refer to Appendix C, which includes both the IBC EIR Executive Summary and Mitigation Monitoring and Reporting Program (MMRP), for a full and complete description of each PPP, PDF, and MM certified within the IBC EIR.

5.1 Aesthetics

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to aesthetics.

Discussion of the Proposed Project

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Change from Previous Analysis: The project area is located within a relatively flat, urbanized area lacking any significant scenic vistas. The nearest scenic resources to the project site are the San Joaquin Freshwater Marsh, which is located just outside the IBC's southeastern boundary, and the bluffs at the Upper Newport Bay, which are located several miles to the southwest. The proposed project would not affect the view shed of either of these scenic resources. Therefore, similar to the findings of the IBC EIR, no impacts associated with scenic vistas would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Change from Previous Analysis: The nearest Officially Designated State Scenic Highway to the project site is a segment of SR-91, located over 10 miles to the north. Therefore, similar to the findings of the IBC EIR, no impacts associated with scenic highways would occur. The project area contains no protected tree species. The project area consists only of ornamental landscape. Additionally, there are no historic buildings or rock outcroppings located in the project area. Therefore, project implementation would not damage scenic

resources including but not limited to trees, rock outcroppings, or historic buildings within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Change from Previous Analysis: The existing visual character of the project area is defined by the urban and industrial uses. The surrounding area does not exhibit distinct architectural character and there is no uniformity of architectural styles. No unique or scenic visual resources exist on the project site or in its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Change from Previous Analysis: There are two primary sources of light: light emanating from building interiors that pass through windows and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). The project would not create generate new light.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater aesthetic impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.2 Agriculture and Forest Resources

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to agriculture and forest resources.

Discussion of the Proposed Project

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?

and

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

and

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))?**

and

d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

and

e) **Result in the loss of forest land or conversion of forest land to non-forest use?**

No Change from Previous Analysis [a), b), c), d), and e)]: There is no designated Farmland, land zoned for agricultural use, land under Williamson Act contracts, forest land or timberland, or land zoned for forestry use in the IBC. Therefore, similar to the findings of the IBC EIR, no impacts associated with agriculture and forestry resources would occur.

Level of Significance of the Project After Mitigation

No Impact: No new or substantially greater agriculture and forest resources impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.3 Air Quality

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to:

- Operational activities exposing off-site sensitive receptors to substantial concentrations of NO₂, CO, PM₁₀, and PM_{2.5}.
- Creating objectionable odors.

However, the IBC EIR identified that the IBC Vision Plan could result in significant and unavoidable impacts related to:

- The IBC's regional population, housing and employment growth projections not being accounted for in the SCAQMD's 2007 AQMP.
- Construction emissions exceeding the SCAQMD's regional significance thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5}, which would significantly contribute to the nonattainment of designations of the Air Basin for O₃ and particulate matter (PM₁₀ and PM_{2.5}).

- Operational emissions exceeding the SCAQMD's regional significance threshold and significantly contributing to the nonattainment designations of the Air Basin for O₃ and particulate matter (PM₁₀ and PM_{2.5}).
- Construction activities exposing sensitive receptors to substantial concentrations of NO_x, PM₁₀, and PM_{2.5}.
- Placing residential uses within ARB's recommended buffer distances from I-405 or existing distribution centers, chrome platers, dry cleaners, or gas stations.

Discussion of the Proposed Project

The following analysis is based in part on the August 2015 Air Quality and Greenhouse Gas Analysis Report prepared by LSA Associates, Inc. and the September 2015 Health Risk Assessment (HRA) Report prepared by FirstCarbon Solutions. Both reports are included as appendices to this Addendum.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Change from Previous Analysis: The IBC EIR found that regional growth projections in the IBC were not accounted for in the SCAQMD's 2007 AQMP. However, since certification of the IBC EIR, the SCAQMD has prepared and adopted an updated 2012 AQMP that accounts for existing population and projected planned growth within the IBC.

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the AQMP:

1. Indicator: Whether the project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

Project applicability: Applicable and assessed below.

2. Indicator: A project would conflict with the AQMP if it will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Project applicability: The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by SCAG that generated the mobile inventory used by the SCAQMD for AQMP are not available. Therefore, this indicator is not applicable.

Considering the recommended criteria in the 1993 SCAQMD Handbook, this analysis uses the following criteria to address this potential impact:

- Step 1: Project's contribution to air quality violations (SCAQMD's first indicator)

- Step 2: Assumptions in AQMP (SCAQMD's second indicator)
- Step 3: Compliance with applicable emission control measures in the AQMPs

Step 1: Project's Contribution to Air Quality Violations

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

As addressed in Impact 6.3.b) below, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO_x, VOC, PM₁₀, or PM_{2.5}, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the basin is in nonattainment (O₃, NO₂, PM₁₀, PM_{2.5}) at a monitoring station in the Air Basin. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP, which are to achieve attainment of pollutants.

As discussed in Impact 6.3.c) below, the project would not exceed the regional significance thresholds.

Step 2: Assumptions in AQMP

According to Chapter 12 of the SCAQMD Handbook, the purpose of the consistency finding is to determine whether a project is inconsistent with the assumptions and objectives of the regional air quality plans and, thus, whether it would interfere with the region's ability to comply with federal and state air quality standards. If a project is inconsistent, local governments need to consider project modifications or inclusion of mitigation to eliminate the inconsistency. Consistency with the AQMP implies that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the national and state air quality standards. To assess the environmental impacts of new or renovated developments accurately, environmental pollution and population growth are projected for future scenarios.

The development of emission burdens used in air quality management plans to demonstrate compliance with ambient air quality standards is based, in part, on land use patterns contained within local general plans. Thus, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and if the general plan was adopted prior to the applicable AQMP, then the growth generated by a project would be consistent with the growth assumed within the AQMP.

The Irvine General Plan has designated the project area as Urban and Industrial, which supports higher density residential development. Since the project's intended actions are consistent with the current City's General Plan, implementation of the project would not require any amendments to the General Plan designations for the project site. Therefore, the project would be within the City's General Plan designation and is consistent with the adopted AQMP according to this criterion.

Step 3: Control Measures

This step involves assessing the project's compliance with the control measures in the AQMPs.

2003 AQMP. The 2003 AQMP contains a number of land use and transportation control measures, including the SCAQMD's Stationary and Mobile Source Control Measures, State Control Measures proposed by ARB, and Transportation Control Measures provided by SCAG. ARB's strategy for reducing mobile source emissions include the following approaches: new engine standards; reduce emissions from in-use fleet, require clean fuels, support alternative fuels and reduce petroleum dependency, work with EPA to reduce emissions from national and state sources, and pursue long-term advanced technology measures. Transportation control measures provided by SCAG include those contained in their RTP/SCS, the most current version of which is the 2012-2035 RTP/SCS. The RTP/SCS contains control measures to reduce emissions from on-road sources by incorporating strategies such as high occupancy vehicle interventions, transit, and information-based technology interventions. The project is assumed to indirectly comply with these control measures.

2007 AQMP. The focus of the 2007 AQMP is to demonstrate attainment of the federal PM_{2.5} ambient air quality standard by 2015 and the federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of state standards. This is to be accomplished by building upon improvements from the previous plans and incorporating all feasible control measures while balancing costs and socioeconomic impacts. The 2007 AQMP indicates that PM_{2.5} is formed mainly by secondary reactions or sources. Therefore, instead of reducing fugitive dust, the strategy for reducing PM_{2.5} focuses on reducing precursor emissions of SO_x, directly emitted PM_{2.5}, NO_x, and VOC.

The Final 2007 AQMP control measures consist of four components. The first component is SCAQMD's Stationary and Mobile Source Control Measures. The Final 2007 AQMP includes 30 short-term and mid-term stationary and seven mobile source control measures for SCAQMD implementation. A complete listing of the measures is in the 2007 AQMP and includes measures such as VOC reductions from gasoline transfer and dispensing facilities, further NO_x reductions from space heaters, localized control program for PM emission hot spots, urban heat island, energy efficiency and conservation, etc. Some of the measures have/will become new rules and some have/will be amendments to existing rules. When the pending rules pass, all new development project would be required to follow any applicable rules.

The second component is ARB's Proposed State Strategy, which includes short- and mid-term control measures aimed at reducing emissions from sources that are primarily under state jurisdiction, including on-road and off-road mobile sources, and consumer products. These measures are required in order to achieve the remaining emission reductions necessary for PM_{2.5} attainment. ARB's strategy includes measures such as improvements to California's Smog Check Program, expanded passenger vehicle retirement, cleaner in-use heavy-duty trucks, reductions from port-related sources, cleaner off-road equipment, evaporative and exhaust strategies, pesticide strategies, etc. When these measures are implemented by the ARB, the project would be required to follow them.

The third component is SCAQMD Staff's Proposed Policy Options to Supplement ARB's Control Strategy. SCAQMD staff believes that a combination of regulatory actions and public funding is the most effective means of achieving emission reductions. As such, the 2007 Final AQMP proposes three policy options for the decision makers to consider in achieving additional reductions. The first option is to incorporate the SCAQMD proposed additional

control measures as a menu of selections, further reducing emissions from sources primarily under state and national jurisdiction. The second option is to have the State fulfill its NO_x emission reduction obligations under the 2003 AQMP by 2010 for its short-term defined control measures plus additional reductions needed to meet the NO_x emission target between 2010 and 2014. The third option is based on the same rate of progress under the aforementioned first option, but it relies heavily on public funding assistance to achieve the needed NO_x reductions via accelerated fleet turnover to post-2010 on-road emission standards or the cleanest off-road engine standards in effect today or after 2010. This strategy does not apply to the project.

The fourth component consists of Regional Transportation Strategy and Control Measures provided by SCAG. Transportation plans within the Basin are required by statute to conform to air quality plans in the region, as established by the 1990 Federal Clean Air Act and reinforced by other Acts. The region must demonstrate that its transportation plans and programs conform to the mandate to meet the federal ambient air quality standards in a timely manner. The Regional Transportation Plan, prepared by the SCAG, is developed every four years with a 20-year planning horizon to meet the long-term transportation planning requirements for emission reductions from on-road mobile sources within the basin. The biennial Regional Transportation Improvement Program requires that the short-term implementation requirements of the Transportation Conformity Rule be met by SCAG. The first two years of the program are fiscally constrained and demonstrate timely implementation of a special category of transportation projects called Transportation Control Measures. In general, Transportation Control Measures are those projects that provide emission reductions from on-road mobile sources, based on changes in the patterns and modes by which the regional transportation system is used. Strategies are grouped into three categories: high occupancy vehicle strategy, transit and systems management, and information-based technology (traveling during a less congested time of day). SCAG approved the transportation measures in their RTC/SCS, which have been included in the region's air quality plans. The Transportation Control Measures will be implemented and will subsequently reduce emissions in the Basin.

2012 AQMP. The 2012 AQMP was adopted December 7, 2012. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour PM_{2.5} air quality standard, and to provide an update of the Basin's projections in meeting the federal 8-hour O₃ standards. Similar to the prior AQMPs, the project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, as discussed in the Regulatory section, the AQMP relies upon the SCAG Regional Transportation Strategy, which is in its adopted 2012-2035 RTP/SCS and in the 2011 Federal Transportation Improvement Program. Included in the RTP/SCS are regional transportation strategy and transportation control measures that include the following: active transportation (non-motorized transportation – biking and walking), transportation demand management, transportation system management, transit, passenger and high-speed rail, goods movement, aviation and airport ground access, highways, arterials, and operations and maintenance.

Geographical areas in the state that exceed the federal air quality standards are called nonattainment areas. The project area is in nonattainment for O₃, PM₁₀, PM_{2.5}, and NO₂. State Implementation Plans (SIPs) show how each area will attain the federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, ARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in

2007 and 2008 and clarifies ARB's legal commitment. A 2011 Progress Report found that the Basin is currently 94 percent of the way towards achieving the 2014 emissions levels identified in its PM_{2.5} SIP. The SIP takes into account ARB rules and regulations. The project would be required to comply with all applicable rules and regulations.

Summary

Analysis Step 1: The project would not contribute to air quality violations because its construction emissions do not exceed the SCAQMD localized significance thresholds. In addition, project construction and operational emissions do not exceed the SCAQMD's regional significance thresholds. Therefore, the project is consistent with this criterion.

Analysis Step 2: The project would be consistent with the Irvine General Plan land use designation and is consistent with the adopted AQMP. Therefore, the project is consistent with this criterion.

Analysis Step 3: Similar to all other new development projects, the project would be required to comply with all applicable SCAQMD and SCAG rules and regulations. Therefore, the project is consistent with this criterion.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

No Change from Previous Analysis: The IBC EIR found that construction emissions associated with buildout of the IBC would generate short-term emissions that exceed the SCAQMD's regional significance thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5}. IBC PPP 2-1 through PPP 2-4 and PDF 2-6 through PDF 2-9 would reduce air pollutant emissions generated during construction activities to the extent feasible. However, the IBC EIR determined that buildout of the IBC would have the potential for air quality standard violation from construction activities, and concluded that this impact was significant and unavoidable. The proposed project would not create any new air quality impact beyond impacts previously analyzed and mitigated.

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)?

No Change from Previous Analysis: Regarding this impact, for the project to result in a less than significant effect, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the regional significance thresholds. This is an approach recommended by the SCAQMD in its comment letters.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court

Step 1: Regional Analysis

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The Air Basin is in nonattainment for PM₁₀, PM_{2.5}, NO₂, and O₃. Therefore, if the project exceeds the regional thresholds for PM₁₀, or PM_{2.5}, then it contributes to a cumulatively considerable impact for those pollutants. If the project exceeds the regional threshold for NO_x or VOC, then it follows that the project would contribute to a cumulatively considerable impact for O₃. If the project exceeds the NO_x threshold, it could contribute cumulatively to NO₂ concentrations.

Regional emissions include those generated from all on-site and off-site activities. Regional significance thresholds have been established by the SCAQMD because emissions from projects in the Air Basin can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. Projects within the Air Basin region with regional emissions in excess of any of the thresholds are considered to have a significant regional air quality impact. The proposed project would not create any new air quality impact beyond impacts previously analyzed and mitigated.

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines Section 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. This analysis considers the current CEQA Guidelines, which includes the recent amendments approved by the Natural Resources Agency and effective on March 18, 2010. This analysis is based on the 2003 and 2007 AQMPs. The Basin is in nonattainment for O₃, PM₁₀ and PM_{2.5}, and NO₂, which means that concentrations of those pollutants currently exceed the ambient air quality standards for those pollutants. When concentrations of O₃, PM₁₀, PM_{2.5}, and NO₂ exceed the ambient air quality standard, those sensitive to air pollution (such as the elderly, children, and the sick) could experience health effects such as decrease of pulmonary function and localized lung edema in humans and animals, increased mortality risk, and risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans.

Under the current CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The AQMPs describe and evaluate the future

projected emissions sources in the Basin and set forth a strategy to meet both state and federal Clean Air Act planning requirements and federal ambient air quality standards. Thus, the AQMPs are relevant plans for CEQA cumulative impacts analysis. The 2003 AQMP updates the attainment demonstration for the federal standards for O₃ and PM₁₀; replaces the 1997 attainment demonstration for the federal CO standard and provides a basis for a maintenance plan for CO for the future; and updates the maintenance plan for the federal NO₂ standard that the Basin has met since 1992. The 2007 AQMP focuses on O₃ and PM_{2.5}, and also incorporates significant new scientific data, emission inventories, ambient measurements, control strategies, and air quality modeling.

The geographic scope for cumulative criteria pollution from air quality impacts is the Basin, because that is the area in which the air pollutants generated by the sources within the basin circulate and are often trapped. The SCAQMD is required to prepare and maintain an AQMP and a SIP to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SCAQMD does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning are necessary to maintain clean air. The SCAQMD evaluated the entire Basin when it developed the AQMP.

In accordance with CEQA Guidelines Section 15064(h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously approved plan or mitigation program. As discussed in Impact 6.3a), the project complies with the control measures in the 2003 and the 2007 AQMP and all applicable SCAQMD rules and regulations. The project would not exceed the SCAQMD's CEQA significance thresholds; the analysis contained in Impact 6.3a) demonstrates that the project is consistent with the most recent AQMP and SIP without mitigation.

Step 3: Cumulative Health Impacts

The Air Basin is in nonattainment for O₃, NO₂, PM₁₀, and PM_{2.5}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as the elderly, children, and the sick). Thus, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects. However, the health effects are a factor of the dose-response curve; concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are all factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not necessarily mean that 100 percent of the population would experience health effects.

The regional analysis of construction and operational emissions indicates that the project would not exceed the SCAQMD regional significance thresholds, and the project would not result in cumulative health impacts.

d) Expose sensitive receptors to substantial pollutant concentrations?

No Change from Previous Analysis: The IBC EIR found that construction activities could expose sensitive receptors to substantial pollutant concentrations of NO_x, PM₁₀, and PM_{2.5}. With regard to long-term operations of the IBC, development of new residential uses and associated outdoor public recreational areas within 500 feet of I-405 could expose sensitive

receptors to diesel particulates and other pollutants. Development of residential uses within specified distances of certain types of industrial uses (e.g., truck bays of existing distribution center; existing chrome plating facility, dry cleaning facilities, gas-dispensing facilities) could expose sensitive receptors to toxic air contaminants (TACs). The proposed project would not create any new air quality impact beyond impacts previously analyzed and mitigated.

Sensitive Receptors

Those individuals who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO₂ and CO), commercial and/or industrial facilities would be considered sensitive receptors for those purposes.

The closest sensitive receptor to the project site is an apartment complex located adjacent to the project site's eastern boundary. Additionally, once operational, the project's residents would also represent sensitive receptors within the context of being impacted by surrounding sources of air emissions.

Localized Significance Threshold Analysis

The localized construction analysis uses thresholds that represent the maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. The thresholds are developed on the basis of the ambient concentrations of that pollutant for each SRA and on the location of the sensitive receptors. If the project results in emissions under those thresholds, it follows that the project would not cause or contribute to an exceedance of the standard. The standards are set to protect the health of sensitive individuals. If the standards are not exceeded at the sensitive receptor locations, it follows that the receptors would not be exposed to substantial pollutant concentrations.

As discussed in Impact 6.3b), the localized construction and operational analysis demonstrated that the project would not exceed the LSTs for NO_x, CO, PM₁₀, or PM_{2.5}. Therefore, construction and operation of the project would not expose sensitive receptors to substantial pollutant concentrations of NO_x, CO, PM₁₀, or PM_{2.5}.

CO Hot Spot Assessment

As also addressed in Impact 6.3b), a CO hot spot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from off-site motor vehicles traveling on the roads surrounding the project. The CO hot spot analysis demonstrated that emissions of CO during operation would not result in an exceedance of the most stringent ambient air quality standards for CO. The standards are set to protect the health of sensitive individuals. If the standards are not exceeded, then the sensitive individuals would not be significantly impacted. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact.

Criteria Pollutant Analysis

The main source of air pollutant emissions during operation are from off-site motor vehicles traveling on the roads surrounding the project. As shown in Impact b), the project would not

exceed the SCAQMD's local significance thresholds for construction or operational emissions. Therefore, according to this criterion, air pollutant emissions during operation would result in a significant and unavoidable impact.

Toxic Air Pollutants – On-site Workers

A variety of state and national programs protect workers from safety hazards, including high air pollutant concentrations (California OSHA and CDC 2012).

On-site workers are not required to be addressed through this health risk assessment process. A document published by the California Air Pollution Control Officers Association (CAPCOA 2009), *Health Risk Assessments for Proposed Land Use Projects*, indicates that on-site receptors are included in risk assessments if they are persons not employed by the project. Persons not employed by the project would not remain on-site for any significant period. Therefore, a health risk assessment for on-site workers is not required or recommended.

Toxic Air Pollutants –Construction

The construction equipment would emit DPM, which the ARB has identified as a carcinogen. However, the DPM emissions during construction are short-term in nature. Guidance published by the California Air Pollution Control Officers Association, *Health Risk Assessments for Proposed Land Use Projects*, does not include guidance for health risks from construction projects addressed in CEQA; risks near construction projects are expected to be included later when the toxic emissions from construction activities are better understood. Therefore, exposure to DPM during construction is anticipated to be less than significant health impact.

Toxic Air Pollutants –Operation

The SCAQMD requires all facilities that utilize stationary equipment that emit air emissions or TACs to obtain an air permit, and the details of each air permit are provided at the above website. Air permits are required for chrome plating operations, facilities that use Hexavalent Chromium, dry cleaning facilities, gas stations, and from any industrial facility that releases TACs. If a facility is also a truck distribution center, then the SCAQMD also requires that the facility provide information on how many trucks per day operate at the facility and how many of those trucks have operational TRUs.

The project is an area-wide program not subject to the screening distances provided in Sections 5-8-4(f) and (g) of the Zoning Ordinance and therefore a quantitative HRA is not required for the proposed project.

e) Create objectionable odor affecting a substantial number of people?

No Change from Previous Analysis: The IBC EIR found that new land uses within the IBC would not create objectionable odors. However, new residential uses could be close to existing odor generators. The project does not involve changes in land use that would generate new odors.

Level of Significance of the Project After Mitigation

No Change from Previous Analysis: No new or substantially greater air quality impacts to the IBC as modified with the pending project would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

plans.

5.4 Biological Resources

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to biological resources.

Discussion of the Proposed Project

Would the project:

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?

and

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?

and

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but no limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

and

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?

and

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances?

and

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?

No Change from Previous Analysis [a), b), c), d), e), and f)]: The project area consists of previously developed land in an urbanized setting and contains no native habitat. The project area is landscaped with several non-native species of trees, ornamental shrubs, and sod grass. The area of the IBC affected by the project does not contain any wetlands, riparian habitat, jurisdictional drainage features, or sensitive natural communities identified in local or regional plans, policies, or regulations, or that are otherwise regulated by CDFW or USFWS. No federally or state-listed endangered or threatened plant or animal species or any other special status species are known to occur within the project area. Therefore, similar to the findings of the IBC EIR, impacts associated with biological resources would result in a less than significant impact.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater biological resources impacts to the IBC as modified with the pending project would occur. No mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.5 Cultural Resources

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to cultural resources.

Discussion of the Proposed Project

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

and

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

and

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

and

d) Disturb any human remains, including those interred outside of formal cemeteries?

No Change from Previous Analysis [a), b), c), and d)]: The IBC is located in a predominantly urbanized setting. Both surface and shallow subsurface soils have been previously

disturbed, and thus, there is low potential to encounter significant prehistorical or historical resources within the modern ground surface. According to Figure E-1 of the Cultural Resources Element of the Irvine General Plan, there are no recorded or known archaeological or historic sites on the project site or in the surrounding area.

There is little chance that human remains would be encountered during grading activities. Records indicate that no human remains have ever been found on or near the project site, and that the chance that human remains could be encountered during grading activities is extremely low because of prior disturbance of the project site. Thus, a plan to mitigate for potential impacts to human remains during construction is not required. Therefore, similar to the findings of the IBC EIR, impacts associated with cultural resources would result in a less than significant impact.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater cultural resources impacts to the IBC, as modified with the pending project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.6 Geology and Soils

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to geology and soils.

Discussion of the Proposed Project

Would the project:

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

i. Rupture 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?

No Change from Previous Analysis: The project area would be subject to strong ground shaking resulting from earthquakes on nearby active faults. However, there are no known active or potentially active faults or fault traces crossing the project site. Thus, the project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. Therefore, similar to the findings of the IBC EIR, no impacts associated with fault rupture would occur.

ii. Strong seismic ground shaking?

No Change from Previous Analysis: Ground shaking generated by fault movement would be considered a potentially significant impact that may affect the project area. The project does

not propose any changes to soil or geology conditions. Therefore, similar to the findings of the IBC EIR, impacts associated with strong seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

No Change from Previous Analysis: As determined by the California Geological Survey, the project area is susceptible to liquefaction. The project does not propose any changes to soil or geology conditions. Therefore, similar to the findings of the IBC EIR, impacts associated with seismic ground failure, including liquefaction would be less than significant.

iv. Landslides?

No Change from Previous Analysis: As determined by the California Geological Survey, the project area is not susceptible to landslide. Additionally, because of the lack of slopes on or around the project site, no landslides are anticipated to occur. Therefore, similar to the findings of the IBC EIR, no impacts associated with landslides would occur.

b) Result in substantial soil erosion or the loss of topsoil?

No Change from Previous Analysis: The project does not propose any changes to soil or geology conditions. Therefore, similar to the findings of the IBC EIR, impacts associated with soil erosion or topsoil loss would be less than significant.

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?

No Change from Previous Analysis: The project does not propose any changes to soil or geology conditions. Therefore, similar to the findings of the IBC EIR, impacts associated with unstable geologic soils would be less than significant.

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?

No Change from Previous Analysis: The project does not propose any changes to soil or geology conditions. Therefore, similar to the findings of the IBC EIR, impacts associated with expansive soils would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Change from Previous Analysis: The project does not propose any changes to soil or geology conditions affecting water or wastewater. Therefore, similar to the findings of the IBC EIR, no impacts associated with septic tanks or alternative wastewater disposal systems would occur.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater geology and soils impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.7 Greenhouse Gas Emissions

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to GHG emissions.

Discussion of the Proposed Project

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold Development

A variety of agencies have developed GHG emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The CAPCOA explored a variety of threshold approaches, but did not recommend one approach (CAPCOA, 2008). The ARB recommended approaches for setting interim significance thresholds (ARB 2008), in which a draft industrial project threshold suggests that non-transportation-related emissions under 7,000 MTCO₂e per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The Bay Area Air Quality Management District and the San Joaquin Valley Air Pollution Control District have both developed GHG thresholds. However, those thresholds are not applicable to the project since the project is under the jurisdiction of the SCAQMD. The SCAQMD is in the process of developing thresholds, as discussed below.

On December 5, 2008, the SCAQMD Governing Board adopted an interim GHG significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers, as follows:

- Tier 1 consists of evaluating whether or not a project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.

- Tier 3 is a screening threshold level to determine significance using a 90 percent emission capture rate approach and is 10,000 MTCO₂e per year (with construction emissions amortized over 30 years and added to operational emissions).
- Tier 4 was not approved in the interim greenhouse gas threshold.
- Tier 5 would allow the project proponent to purchase off-site mitigation to reduce greenhouse gas emissions to less than the screening level (in Tier 3).

The SCAQMD is in the process of preparing recommended significance thresholds for GHGs for local lead agency consideration (SCAQMD draft local agency threshold); however, the SCAQMD Board has not approved the thresholds as of the date of this analysis. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO₂e per year
 - Based on land use type: residential: 3,500 MTCO₂e per year; commercial: 1,400 MTCO₂e per year; industrial: 10,000 MTCO₂e; or mixed use: 3,000 MTCO₂e per year
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD discusses its draft thresholds in the following excerpt (SCAQMD 2008):

The overarching policy objective with regard to establishing a GHG [greenhouse gas] significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimately contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It

is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.

As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to some type of CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact.

Therefore, the policy objective of staff's recommended interim GHG significance threshold proposal for project's where the SCAQMD is the lead agency is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that staff estimates that these GHG emissions would account for less than one percent of future 2050 statewide GHG emissions target (85 MMTCO₂e/yr). In addition, these small projects would be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory.

In summary, the SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO₂ concentrations at 450 ppm, thus stabilizing global climate.

Thresholds of Significance for this Project

To determine whether the proposed project would have a significant impact with respect to the generation of GHG emissions, this analysis utilizes the SCAQMD's draft local agency tiered threshold. The threshold is as follows:

- Tier 1: The project is not exempt under CEQA; go to Tier 2.
- Tier 2: There is no greenhouse gas reduction plan applicable to the project; go to Tier 3.
- Tier 3: project greenhouse gas emissions compared with the threshold: 3,500 MTCO₂e per year (see analysis below)

Section 15064.4(b) of the CEQA Guideline amendments for greenhouse gas emissions state that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration #1: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Greenhouse Gas Inventory

The project does not change land use and GHG assumptions from the 2010 IBC EIR, therefore no new inventory was prepared,

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Change from Previous Analysis [a) and b)]: The IBC EIR found that the IBC project would not result in a significant impact on GHG emissions. All new development projects within the IBC would be reviewed for conformance with applicable IBC PPPs and PDFs and additional measures in Section 9-36-20, *Environmental Standards*, of the Zoning Ordinance related to GHG reduction. New development would be required to demonstrate compliance with applicable GHG emissions reduction measures in conformance with the IBC EIR and Section 9-36-20 of the Zoning Ordinance. Therefore, similar to the findings of the IBC EIR, impacts associated with GHG emissions would be less than significant.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater global climate change impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.8 Hazards and Hazardous Materials

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to hazards and hazardous materials.

Discussion of the Proposed Project

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Change from Previous Analysis: The IBC EIR found that the IBC project would not result in a significant impact related to hazards and hazardous materials. All new development projects within the IBC would be reviewed for conformance with applicable IBC PPPs and PDFs and additional measures in Section 9-36-20, *Environmental Standards*, of the Zoning Ordinance. New development would be required to demonstrate compliance with applicable hazards and hazardous materials-related measures in conformance with the IBC EIR and Section 9-36-20 of the Zoning Ordinance. Therefore, similar to the findings of the IBC EIR, impacts associated with GHG emissions would be less than significant.

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?

No Change from Previous Analysis: Any transport, use, or disposal of hazardous materials would comply with all applicable federal, state, and local requirements. Both construction and operation of the project would comply with the policies and programs set forth by all applicable federal, state, and local agencies, including the EPA, DTSC, Cal/OSHA, Caltrans, RCRA, OCHCA, and the OCFA. Adherence with the applicable provisions of these agencies would ensure that any interaction with hazardous materials occurs in the safest possible manner, reducing the opportunity for the accidental release of hazardous materials into the environment. As required by the U.S. Occupational Safety and Health Administration (OSHA), all hazardous materials stored on development sites will be accompanied by a Material Safety Data Sheet, which, in the case of accidental release, will inform personnel as to the necessary remediation procedures.

Residential development applicants would also be required to provide a Notification Letter and Safety Plan in accordance with the City of Irvine Good Neighbor Program. This letter is sent to businesses in proximity to new residential developments to inform them of the presence of the pending sensitive land use. The letter then requires those businesses to notify residents of any accident at the businesses that may involve the release of hazardous substances. The Good Neighbor Program would also require the project Applicant to prepare a safety plan that includes staff training, emergency tools, first aid provisions, supervision of children or other individuals in an emergency, and a shelter-in-place program for when evacuation is not appropriate or practicable. Therefore, similar to the findings of the IBC EIR, impacts associated with upset or accident conditions involving the release of hazardous materials would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Change from Previous Analysis: The proposed project does not change land use assumptions or intensity allocations from current conditions.

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?

No Change from Previous Analysis: The proposed project does not change land use assumptions or intensity allocations from current conditions. Affected sites within the project area have been identified in the IBC EIR and updated with each new affected development project.

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?

No Change from Previous Analysis: The project site is located within the Orange County Airport Land Use Commission's (ALUC) Airport Environs Land Use Plan (AELUP) height restriction zone identified in the IBC EIR. Building height limits within this restricted zone are determined in accordance with Part 77 (Objects Affecting Navigable Airspace) of the FAA regulations. Prior to project approval, the height of the residential building would be determined to ensure that the structure does not exceed height limitations as defined in Part 77.25 of the FAA regulations. The project does not propose changes to current building height allowances. Therefore, similar to the findings of the IBC EIR, impacts associated with public airport hazards would be less than significant.

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?

No Change from Previous Analysis: The IBC is not within the vicinity of a private airstrip. Therefore, similar to the findings of the IBC EIR, no impacts associated with private airstrip safety hazards would occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Change from Previous Analysis: Proposed improvements as part of the project facilitate emergency access, response and evacuation. *Therefore, similar to the findings of the IBC EIR, impacts associated with an emergency response plan or emergency evacuation plan would be less than significant.*

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?

No Change from Previous Analysis: Because of the project location in an urbanized setting and OCFA standards for new development, the project would not expose people or structures to hazardous wildfire conditions. Therefore, similar to the findings of the IBC EIR, no impacts associated with wildland fires would occur.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater hazardous and hazardous materials impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.9 Hydrology and Water Quality

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to hydrology and water quality.

Discussion of the Proposed Project

Would the project:

a) Violate any water quality standards or waste discharge requirements?

and

f) Otherwise substantially degrade water quality?

No Change from Previous Analysis [a) and f]):

The project does not change current hydrologic patterns or water quality conditions. Compliance with existing federal, state and local regulations would be required for construction of new roadway improvements at time of design and construction. Therefore, similar to the findings of the IBC EIR, impacts associated with water quality standards would be less than significant.

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)?

No Change from Previous Analysis: The project area does not serve as a groundwater recharge area. Because of the large amount of existing impervious areas in the IBC, no appreciable groundwater infiltration occurs under the current condition. The IBC EIR found that there is adequate potable water available to serve the project area. Therefore, similar to the findings of the IBC EIR, no impacts associated with water groundwater supplies or recharge would occur.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

and

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 in which would result in flooding on- or off-site?

and

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?

No Change from Previous Analysis [c), d), and e)]: The project area is largely covered with impervious surfaces in the form of buildings and paved asphalt parking lots. The storm drain system in the project area currently has sufficient capacity to accommodate stormwater runoff from the project site and surrounding area.. Because the project area is currently developed and connected to a storm drain system (as opposed to a natural stream), and no increases in peak flow rates would be expected, erosion and subsequent siltation of downstream waters is not a concern. Therefore, similar to the findings of the IBC EIR, impacts associated with drainage patterns, on- or off-site erosion or siltation, drainage volumes and velocities, and downstream flooding would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

and

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

and

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?

No Change from Previous Analysis [g), h), and i)]: According to a review of FIRMs published by FEMA, the affected portions of the project area are located outside of a 100-year flood hazard area. However, portions of the IBC, are located within the dam inundation zone for Prado Dam, which encompasses a large portion of Orange County. Nonetheless, given the distance of this dam from the project area, as well as the extreme remoteness of a dam failure, the risk of inundation and flooding would be low. Therefore, similar to the findings of the IBC EIR, impacts associated with flooding would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No Change from Previous Analysis: The project area is not located along the coastline, or adjacent to an enclosed body of water, or near an exposed hillside. Therefore, similar to the findings of the IBC EIR, no impacts associated with seiche, tsunami, or mudflow would occur.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater hydrology and water quality impacts to the IBC, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.10 Land Use and Planning

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to land use and planning.

Discussion of the Proposed Project

Would the project:

a) Physically divide an established community?

No Change from Previous Analysis: The project site is located in a largely urbanized area and is generally bound by roadways, office, and industrial uses. There are no existing established communities on or adjacent the project site and the site does not provide connectivity between any established communities. Additionally, all planned improvements constructed and installed as part of the project would not extend off-site and potentially divide any established community in the general vicinity of the project site. Therefore, similar to the findings of the IBC EIR, impacts associated with division of an established community would be less than significant.

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?

No Change from Previous Analysis: The project conforms to the IBC Vision Plan, which has been developed to facilitate the continued evolution of the IBC from solely office, industrial, and commercial uses into a fully mixed-use business and residential community. The IBC Vision Plan, adopted as Element N of the City's General Plan, represents policy direction to create a neighborhood framework for the IBC, while the overlay zone and related code amendments created development standards for new residential and mixed-use development to ensure proper integration of these uses into the planned neighborhood framework. More specifically, the project conforms to Chapter 9-36 of the Zoning Ordinance, which allows for a maximum of 15,000 residential base units within the IBC plus up to 2,038 density bonus units as an incentive for projects that provide affordable housing. Therefore, similar to the findings of the IBC EIR, impacts associated with land use plans, policies, and regulations would be less than significant.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Change from Previous Analysis: The IBC EIR found that there would be no impacts to either habitat conservation or natural community plans. While the IBC is located in the Orange County's Central and Coastal NCCP/HCP, as addressed in Section 6.4, *Biological Resources*, above, the project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species. Thus, although located within the boundary of the NCCP/HCP, the project

would not affect any plant or wildlife species, or habitat, protected under the plan. Therefore, similar to the findings of the IBC EIR, no impacts associated with habitat conservation or natural community plans would occur.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater land use and planning impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.11 Mineral Resources

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to mineral resources.

Discussion of the Proposed Project

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?

and

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?

No Change from Previous Analysis [a) and b]): There are no known mineral resources or mineral resource recovery sites on or adjacent to the project site. Therefore, similar to the findings of the IBC EIR, no impacts associated with mineral resources or mineral recovery sites would occur.

Level of Significance of the Project After Mitigation

No Change from Previous Analysis: No new or substantially greater impacts on mineral resources would result from the IBC, as modified with the proposed project, would occur. No mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.12 Noise

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to:

- Stationary-source noise generated by land uses within the IBC would comply with Municipal Code standards and would not substantially elevate the ambient noise environment.
- Noise-sensitive habitable rooms in structures within the 60 dBA CNEL noise contour of JWA 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.

However, the IBC EIR identified that the IBC project could result in significant and unavoidable impacts related to:

- Construction activities could result in temporary noise increases in the IBC and the surrounding area. 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 vibration could be perceptible at adjacent sensitive receptors. IBC 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.
- Project-related vehicle trips would substantially increase ambient noise at sensitive receptors on a segment of McGaw Avenue, and cumulatively on segments of Valencia Avenue, Warner Avenue, McGaw Avenue, and Birch Street.
- Sensitive receptors 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 would be adequately sound attenuated with all mitigation measures and conditions incorporated. PDF-3 requires occupancy disclosure notices for units with patios and/or balconies that do not meet the 65 dBA CNEL.

Discussion of the Proposed Project

Would the project:

a) Expose people to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No Change from Previous Analysis: The IBC EIR identified temporary noise increases from construction activities and impacts from traffic noise as potentially significant impacts. The

project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

b) Expose people to, or generate excessive groundborne vibration or groundborne noise levels?

No Change from Previous Analysis: The IBC EIR identified the perception of construction-related groundborne vibration at nearby sensitive receptors as a significant impact. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

c) Substantially and permanently increase ambient noise levels in the project vicinity above levels existing without the project?

No Change from Previous Analysis: The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used in the IBC EIR to evaluate highway traffic-related noise conditions along roadway segments in the project area. Standard vehicle mix for Orange County roadways was used for traffic on these roadway segments. The modeled traffic noise levels represent the worst-case scenario, which assumes no shielding is provided between the traffic and the location where the noise contours are drawn. The traffic noise model results show that development-related traffic would have mostly small (2.0 dBA or less) noise level increases along roadway segments in the project vicinity for the future opening (2017) and cumulative (2035) year scenarios. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

d) Substantially, temporarily, or periodically increase ambient noise levels in the project vicinity above levels existing without the project?

No Change from Previous Analysis: The IBC EIR identified temporary noise increases from construction activities as a significant impact. Construction activities associated with the proposed project would elevate daytime noise levels in the vicinity of noise-sensitive receptors within the project area. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

e) If 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?

No Change from Previous Analysis: The IBC EIR evaluated the impact of new development within the AELUP area overseen by the John Wayne Airport Authority, and includes development standards to reduce potential impacts from aircraft noise to a less than significant level. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

f) If located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Change from Previous Analysis: The project area is not within the vicinity of a private airstrip. Therefore, similar to the findings of the IBC EIR, no impacts associated with private airstrip noise would occur.

Level of Significance of the Project After Mitigation

No Change from Previous Analysis: No new or substantially greater noise impacts to the IBC, as modified with the proposed project, would occur. In addition, as the proposed project would provide air conditioning as a standard feature, traffic noise impacts would be reduced to less than significant and no additional mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.13 Population and Housing

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to population and housing.

Discussion of the Proposed Project

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)?

The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

and

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Change from Previous Analysis [b) and c]): The IBC EIR identified no existing housing to be demolished as part of implementation of the Vision Plan. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater population and housing impacts to the IBC, as modified with the proposed project, would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.14 Public Services

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to public services.

Discussion of the Proposed Project

Would the project:

a) 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 following public services:

i) Fire protection?

No Change from Previous Analysis: The IBC EIR identified existing Orange County Fire Authority (OCFA) requirements that would mitigate impacts of implementation of the IBC Vision Plan to a less than significant level. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

ii) Police protection?

No Change from Previous Analysis: The IBC EIR identified existing City policies and code requirements that would mitigate impacts of implementation of the IBC Vision Plan to a less than significant level. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

iii) Schools?

No Change from Previous Analysis: The IBC EIR identified student generation for new residential development within the Irvine, Santa Ana, and Tustin Unified School Districts. Each district identified no significant impacts from implementation of the IBC Vision Plan. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

iv) Parks?

No Change from Previous Analysis: The IBC EIR identified existing City policies and code requirements that would mitigate impacts of implementation of the IBC Vision Plan to a less than significant level. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

v) Library Services?

No Change from Previous Analysis: The IBC EIR identified existing library service policies in the General Plan that would mitigate impacts of implementation of the IBC Vision Plan to a less than significant level. The project does not change land use assumptions from the IBC EIR so impacts remain unchanged.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater public services impacts to the IBC, as modified with the proposed project, would occur. No mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.15 Recreation

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to recreation.

Discussion of the Proposed Project

Would the project:

a) 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?

and

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?

No Change from Previous Analysis [a) and b)]: No Change from Previous Analysis: The project does not change land use assumptions nor demand for recreational services from the IBC EIR so impacts remain unchanged.

Level of Significance of the Project After Mitigation

Less than Significant Impact: No new or substantially greater recreation impacts to the IBC, as modified with the proposed project, would occur. No mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.16 Transportation and Traffic

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to:

- Change in air traffic patterns
- Hazardous design feature or incompatible uses
- Policies, plans, and programs for alternative transportation
- Adequacy of emergency access and parking capacity

However, the IBC EIR identified that the IBC project could result in significant and unavoidable impacts related to:

- Additional traffic volumes would be generated and would impact levels of service (LOS) for the existing local and regional roadway system.

Discussion of the Proposed Project

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?

Less than Significant Impact [a) and b]): The project does not create a net increase in IBC circulation impacts when compared to the traffic analysis in the IBC EIR.

Overview

This IBC Vision Plan Five-Year Traffic Study Update analyzes the potential impacts on the circulation system based on updated conditions to the 2010 amendment to the City of Irvine General Plan that placed a 15,000 dwelling unit limit (plus a maximum of 2,038 density bonus units pursuant to state law) on the residential development in the IBC area. Based on approvals since 2010, the total number of density bonus units assumed for this update is reduced to 1,794 from 2,038. This reduction represents 2,038 assumed theoretical density bonus units in 2010 less 244 theoretical units removed due to reduction in units not associated with any planned project.

The analysis presents areas of deficiency in the existing circulation system and future circulation systems and offers recommended mitigations to allow for a return to acceptable

levels of service (LOS) or to the pre-Vision Plan condition within the study area. The analysis focuses on the identification of updated potential traffic impacts on the current circulation system as it is transformed into a mixed-use community from its previous offerings of office, commercial, and industrial uses within the IBC area. This traffic study provides an assessment of the existing conditions in 2015, existing conditions with the updated Vision Plan assumptions, as well as future Interim Year (2020) and Buildout Year (post-2035) scenarios with and without the updated Vision Plan assumptions. A comparison of the impacted locations versus the impacted locations identified in the 2010 IBC Vision Plan Traffic Study is also performed.

To assess the impact of the land use changes since the implementation of the 2010 Vision Plan, a total of six scenarios were analyzed:

- Existing Conditions (using current traffic counts)
- Existing Conditions with updated assumptions of Vision Plan Buildout
- 2020 Cumulative Baseline (existing land uses on the ground within IBC area; cumulative growth outside the IBC area)
- 2020 Cumulative Baseline plus updated Vision Plan assumptions anticipated to be constructed by 2020
- Post-2035 Cumulative Baseline (existing land uses on the ground within IBC area; cumulative growth outside the IBC area)
- Post-2035 Cumulative Baseline with updated assumptions of Vision Plan Buildout

Table 1 shows the land use assumptions for each scenario

Table 1 – Land Use Assumptions

SCENARIO	MULTI-FAMILY RESIDENTIAL (DU)	RETAIL MIX (TSF)	HOTEL (ROOM)	OFFICE MIX (TSF)	INDUSTRIAL MIX (TSF)	MINI-WAREHOUSE (TSF)	EXTENDED STAY HOTEL (ROOM)
2015 Existing	7,060	1,384	2,322	26,639	13,934	379	474
2015 With Update	16,795	1,690	2,653	34,286	12,339	549	1049
2020 Cumulative Baseline	7,060	1,384	2,322	26,639	13,934	379	474
2020 Cumulative With Update	16,671	1,405	2,535	27,750	13,240	883	1049
Post-2035 Cumulative Baseline	7,060	1,384	2,322	26,639	13,934	379	474
Post-2035 Cumulative Baseline With Update	16,795	1,690	2,653	34,286	12,339	549	1049

Traffic Impacts & Fair Share

A number of agreements were signed between the City of Irvine and adjacent jurisdictions during the 2010 IBC Vision Plan effort which required the City of Irvine to provide specific dollar amounts of infrastructure funding to each adjacent jurisdiction. These agreements were premised on the understanding that the Vision Plan had no additional responsibilities toward improvements identified, provided the residential unit cap within the IBC is not exceeded.

The residential unit intensity cap has not increased since the 2010 study. This traffic study update is intended only to analyze the change in traffic conditions since the 2010 approval. Except as otherwise specified in those existing agreements with adjacent jurisdictions, the Vision Plan is not responsible for mitigating the improvements identified in this study update within the cities of Tustin, Newport Beach, Santa Ana, or for improvements on Caltrans facilities.

For the sole purpose of providing a reference point for comparison with the 2010 study, a fair-share methodology was used to evaluate what the financial participation of mitigating IBC Vision impacts would be in the absence of the above-mentioned agreements. The following methodology is applied:

- For plan update impacts within the City of Irvine, the IBC Vision Plan is fully responsible.
- For plan update impacts outside the City of Irvine, the IBC Vision Plan would participate on a fair-share basis.

All impacts referenced in this study update represent impacts as defined in the City of Irvine's Traffic Impact Analysis (TIA) Guidelines, adopted August 2004, or for locations outside Irvine, per the performance criteria for each affected agency.

The cost of improvements will be presented in a supplemental nexus report. Under future forecast conditions there are a number of deficient intersections. **Table 2** demonstrates the deficiencies, impacts, and fair-shares under each future scenario.

Table 2 – Intersection/Arterial Segment Impacts/Cumulative Deficiencies

ID	INTERSECTION	JURISDICTION	IBC VISION WITH UPDATE (2020)		IBC VISION WITH UPDATE (POST-2035)		FAIR-SHARE		
			CUMULATIVE DEFICIENCY	IMPACT	CUMULATIVE DEFICIENCY	IMPACT	2020 WITH UPDATE*	POST- 2035 WITH UPDATE*	EXPECTED SHARE (VISION PLAN)
85	MacArthur Boulevard at Birch Street	Newport Beach				X		5.6%	No Share
723	Main Street at Segerstrom Avenue	Santa Ana				X		40.3%	No Share
728	Halliday East at Alton Parkway	Santa Ana				X		7.2%	No Share
36	Red Hill Avenue at El Camino Real	Tustin		X			10.7%		No Share
445	Tustin Ranch Rd at Warner Ave N	Tustin				X		15.7%	No Share
93	Tustin Ranch Road at Bryan Avenue	Tustin	X		X		0.3%	9.9%	No Share
111	Franklin Avenue at Walnut Avenue	Tustin	X		X		3.9%	3.5%	No Share
749	Park Ave at A Street	Tustin			X			1.5%	No Share
98	Von Karman Avenue at Alton Pkwy	Irvine				X			100.0%
144	Jamboree Road at I-405 SB Ramps	Irvine				X			100.0%
145	Jamboree Road at Michelson Drive	Irvine				X			100.0%
188	Harvard Avenue at Michelson Drive	Irvine				X			100.0%
229	Culver Drive at Alton Parkway	Irvine				X			100.0%

ID	INTERSECTION	JURISDICTION	IBC VISION WITH UPDATE (2020)		IBC VISION WITH UPDATE (POST-2035)		FAIR-SHARE		
			CUMULATIVE DEFICIENCY	IMPACT	CUMULATIVE DEFICIENCY	IMPACT	2020 WITH UPDATE*	POST- 2035 WITH UPDATE*	EXPECTED SHARE (VISION PLAN)
97	Von Karman Ave/Tustin Ranch Rd at Barranca Pkwy	Irvine				X			100.0%
234	Culver Drive at Michelson Drive	Irvine	X						No Share
135	Jamboree NB Ramps/Warner Ave	Irvine			X				100.0%
134	Loop Rd/Park Ave at Warner Ave	Irvine/Tustin	X		X				100.0%
1326	Dyer Rd between SR-55 SB and SR-55 NB	Santa Ana		X		X	15.9%	21.3%	No Share

*Fair-share percentage is shown for informational and comparison purposes only

Improvement Strategies

The IBC Vision Plan Traffic Study Update proposes improvements for all intersections (and one impacted arterial segment) within the study area that are identified as impacts as well as all forecast cumulative deficiencies. Due to the above-mentioned agreements with adjacent cities and Caltrans (other than in the City of Costa Mesa), contribution towards improvements identified at locations where the update has an impact outside the City of Irvine are provided for reference only. Improvement strategies have utilized other studies in adjacent jurisdictions and have been vetted through site analyses to propose improvements that are feasible and reasonable. **Table 3** displays the mitigation strategies for each deficient intersection within the IBC study area.

Table 3– Improvement Strategies

INTER-SECTION ID #	INTERSECTION NAME	JURISDICTION	IMPROVEMENT STRATEGY
2020 Impacts and Cumulative Deficiencies			
234	Culver Drive at Michelson Drive (cumulative deficiency)	Irvine	Improve EB to 2,2,0
134	Loop Road/Park Ave at Warner Avenue (cumulative deficiency)	Irvine/Tustin	Add 3rd EBT and NBR overlap
36	Red Hill Avenue at El Camino Real (update impact)	Tustin	Reconfigure SB to 1.5,2.5,0**
93	Tustin Ranch Road at Bryan Avenue (cumulative deficiency)	Tustin	Add 4th SBT**
111	Franklin Avenue at Walnut Avenue (cumulative deficiency)	Tustin	Add 3rd WBT**
1326*	Dyer Road between SR-55 SB and SR-55 NB (impact)	Santa Ana	Add 4 th EBT**
P-2035 Impacts and Cumulative Deficiencies			
98	Von Karman Avenue at Alton Parkway (impact)	Irvine	Add 3rd NBT
135	Jamboree NB Ramps/Warner Avenue (cumulative deficiency)	Irvine	Restripe EB to 2,2,0
144	Jamboree Road at I-405 SB Ramps (impact)	Irvine	Improve EB to 2.5,0,2.5
145	Jamboree Road at Michelson Drive (impact)	Irvine	Add 3rd EBL, 3rd SBL, and WBT***
188	Harvard Avenue at Michelson Drive (impact)	Irvine	Improve SB to 2,2,0
229	Culver Drive at Alton Parkway (impact)	Irvine	Improve EB to 2,3,0
97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway (impact)	Irvine	Add 3rd NBT and convert De Facto to Standard NBR
134	Loop Road/Park Ave at Warner Avenue (cumulative deficiency)	Irvine/Tustin	Add 3rd EBT and NBR overlap
85	MacArthur Boulevard at Birch Street (impact)	Newport Beach	Improve EB to 2 EBL and 2 EBT**

INTER-SECTION ID #	INTERSECTION NAME	JURISDICTION	IMPROVEMENT STRATEGY
723	Main Street at Segerstrom Avenue (impact)	Santa Ana	Add 3rd NBT, De Facto NBR**
728	Halladay East at Alton Parkway (impact)	Santa Ana	Add 2nd EBT and 2nd WBT**
1326*	Dyer Road between SR-55 SB and SR-55 NB (impact)	Santa Ana	Add 4 th WBT**
93	Tustin Ranch Road at Bryan Avenue (cumulative deficiency)	Tustin	Add 4th SBT**
111	Franklin Avenue at Walnut Avenue (cumulative deficiency)	Tustin	Add 3rd WBT**
445	Tustin Ranch Road at Warner Avenue North (impact)	Tustin	Improve NB to 0,2.5,1.5**
749	Park Ave at A Street (cumulative deficiency)	Tustin	Add 2nd SBL and 2nd WBL**

* Arterial Segment

** Improvement strategy provided for information and planning purposes only.

*** Alternative improvement strategy is implementation of the Jamboree/Michelson pedestrian bridge across Jamboree.

Comparison of Impacts to 2010 Traffic Study

Table 4 shows the net overall result of fewer future impacts compared to the 2010 Vision Plan Study. The number of interim year forecast impacts reduce from 13 to 10. The number of Buildout year forecast impacts reduces from 41 to 22. Additional details are provided in **Chapter 8**.

Table 4 - Comparison of Number of Impacted Locations between 2010 IBC Traffic Study and 2015 Update

Facility Type	Interim Year		Buildout Year	
	2010 Study	2015 Update	2010 Study	2015 Update
Arterial Segments	0	1	1	1
Intersections	4	1	15	10
Freeway Mainline	4	6	14	5
Freeway Ramps	5	2	11	6
Total	13	10	41	22

In the 2010 Traffic Study the Interim year was 2015 and Buildout year was Post-2030 whereas in the current update study, the Interim year is 2020 and the Buildout year is Post-2035.

Arterial System Deficiencies

Individual arterial segments that operate at a deficient LOS under daily conditions within the City of Irvine are candidates for peak hour analysis to determine performance during the AM and PM peak hour. The peak hour analysis conducted for each of the forecast future scenarios revealed no arterial segments operating at a deficient level in either peak hour within the City of Irvine. For arterial segments within the Cities of Newport Beach, Costa Mesa, and Tustin, daily arterial segment LOS analysis is valuable for long-range planning purposes but the Cities do not assess segment deficiencies under daily conditions. Deficiencies are assessed at intersections at either end of the arterial segment. Intersection deficiencies for the IBC Vision have been assessed and conclusions discussed in the next section. Hence, there are no deficiencies or impacts expected in future forecast scenarios for arterial segments within Newport Beach, Costa Mesa, and Tustin.

In the City of Santa Ana, daily arterial volume-to-capacity ratio (V/C) analysis is used to assess deficiencies in the arterial network. An increase of 0.01 or more of the daily V/C ratio constitutes an impact when compared with the Baseline conditions. There were no impacted arterial segments in the interim year in the 2010 Traffic Study within the City of Santa Ana while one arterial segment is impacted in the 2015 Update in the Interim year:

- Dyer Road between SR-55 NB ramps and SR-55 SB ramps

In the Buildout year in the 2010 Study one arterial location was impacted:

- MacArthur Boulevard between Main Street and SR-55 SB in the City of Santa Ana

This MacArthur Boulevard widening no longer appears to be needed as forecast volumes drop from 51,000 ADT to 39,000 ADT in the 2015 update. In the Buildout conditions of the 2015 update one arterial location was impacted (also impacted in 2020):

- Dyer Road between SR-55 NB ramps and SR-55 SB ramps

Intersection Deficiencies and Impacts

Analysis of the intersections was conducted for all intersections within the defined IBC Vision study area. For each jurisdiction, the established and published criteria for evaluating impacts have been employed in this study. Plan update impacts are identified for the study area using the methodology for each respective jurisdiction.

Table 5 compares the impacted intersections in both traffic studies for the Interim year. In the 2010 study four intersections were impacted whereas in the 2015 Update only one intersection is impacted.

Table 5 – Intersection Impacts - Interim Year (2010 Study vs. 2015 Update)

ID	LOCATION	JURISDICTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
145	Jamboree Rd at Michelson Dr	Irvine	PM	x		
234	Culver Drive at Michelson Drive	Irvine	PM			x*
62	Campus Dr at Bristol Street NB	Newport Beach	PM	x		
93	Tustin Ranch Rd at El Camino Real	Tustin	AM	x		
134	Loop Rd/Park Ave at Warner Ave	Irvine/Tustin	PM	x		x*
36	Red Hill Ave at El Camino Real	Tustin	PM			x
* Irvine cumulative deficiency			Sum	4	0	1
			Total Impacts (2010 Study)	4	Total Impacts (2015 Update)	1

Table 6 shows that while 15 intersections were impacted in Buildout in the 2010 Study only 10 are impacted in the 2015 Update build-out condition. The following three locations were impacted in both studies:

- # 85 - MacArthur Boulevard at Birch Street in Newport Beach
- #145 - Jamboree Road at Michelson Drive in Irvine
- #723 - Main Street at Segerstrom Avenue in Santa Ana

Two of the 2010 Study impacted locations #135 Jamboree Road at Barranca Parkway and #141 Jamboree Road at Main Street have programmed improvements that are expected to be completed by 2020. As noted previously these improvements have been incorporated into analysis which results in a satisfactory level of service and no impacts under all scenarios studied in the 2015 Update.

Table 6 – Intersection Impacts - Buildout Year (2010 Study vs. 2015 Update)

INT ID	LOCATION	JURISDICTION	PERIOD	2010 STUDY ONLY	2010 STUDY 2015 UPDATE	2015 UPDATE ONLY
12	SR-55 Frontage Road SB at Baker Street	Costa Mesa	AM	x		
13	SR-55 Frontage Road NB at Baker Street	Costa Mesa	AM	x		
62	Campus Drive at Bristol Street NB	Newport Beach	PM	x		
85	MacArthur Boulevard at Birch Street	Newport Beach	PM(both)		x	
543	Bristol at Segerstrom	Santa Ana	PM	x		
723	Main Street at Segerstrom Avenue	Santa Ana	PM(both)		x	
728	Halladay East at Alton Parkway	Santa Ana	AM&PM			x
730	Grand Avenue at Warner Avenue	Santa Ana	PM	x		
754	Red Hill Avenue at Carnegie Avenue	Tustin/Santa Ana	PM	x		
24	Newport Avenue at Walnut Avenue	Tustin	AM	x		
93	Tustin Ranch Road at El Camino Real	Tustin	AM	x		
445	Tustin Ranch Road at Warner Avenue N	Tustin	PM			x
97	Von Karman/Tustin Ranch at Barranca	Irvine/Tustin	PM			x
98	Von Karman Avenue at Alton Parkway	Irvine	PM			x
134	Loop Road/Park Ave at Warner Avenue	Irvine/Tustin	PM	x		x**
135	Jamboree NB Ramps/Warner	Irvine	PM			x**
136	Jamboree Road at Barranca Parkway*	Irvine/Tustin	PM	x		
141	Jamboree Road at Main Street*	Irvine	PM	x		
144	Jamboree Road at I-405 SB Ramps	Irvine	AM			x
145	Jamboree Road at Michelson Drive	Irvine	PM(both)		x	
188	Harvard Avenue at Michelson Drive	Irvine	PM	x **		X
229	Culver Drive at Alton Parkway	Irvine	PM			x
232	Culver Drive at I-405 NB Ramps	Irvine	PM	x		
* Improvement currently programmed			Sum	12	3	7
** Irvine cumulative deficiency			Total Impacts (2010 Study)	15	Total Impacts (2015 Update)	10

The completion of the Tustin Ranch Road extension seems to have had an effect on the location of impacted intersections. Compared to the 2010 Study, traffic is drawn away from Red Hill Avenue and Jamboree Road onto Von Karman Avenue/Tustin Ranch Road. A noticeable progression of impacted and deficient intersections can be seen in the PM peak period as traffic heads north from the heart of the IBC using Von Karman Avenue that becomes Tustin Ranch Road and eventually accesses the Jamboree Road Expressway at the Warner Avenue Ramp. The progression of impacted/deficient intersections is:

- Von Karman Avenue at Alton Parkway (Irvine)
- Von Karman Avenue at Barranca Parkway (Irvine)
- Tustin Ranch Road at Warner Avenue North (Tustin)
- Loop Road/Park Avenue at Warner Avenue (Irvine/Tustin-Deficiency only)
- Jamboree Northbound Ramps at Warner Avenue (Irvine-Deficiency only)

Freeway Mainline and Ramps

Table 7 compares the Interim Year impacted freeway mainline segments in both traffic studies. In the 2010 study four segments were impacted whereas in the 2015 Update six locations are impacted. Three of these locations all on I-405 between Jamboree Road and SR-55 are common in both studies.

Table 7 – Freeway Mainline Impacts - Interim Year (2010 Study vs. 2015 Update)

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road to MacArthur Boulevard	SB	PM	x		
I-405	Jamboree Road to MacArthur Boulevard	NB	AM		x	
I-405	MacArthur Boulevard to SR-55	NB	AM		x	
I-405	MacArthur Boulevard to SR-55	SB	PM		x	
I-5	North of SR-55	NB	AM			x
SR-55	Dyer Road to Edinger Avenue	NB	AM			x
SR-73	Campus Drive to SR-55	NB	AM			x
Sum				1	3	3
Total Impacts (2010 study)				4	Total Impacts (2015 Update)	6

Table 8 compares the Buildout year impacted freeway mainline segments in both traffic studies. In the 2010 study fourteen segments were impacted whereas in the 2015 Update only five locations are impacted. Two of these locations are common in both studies.

Table 8 – Freeway Mainline Impacts - Buildout Year (2010 Study vs. 2015 Update)

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road to MacArthur Boulevard	SB	PM	x		
I-5	Jamboree Road to Tustin Ranch Road	NB	AM	x		
I-5	Jamboree Road to Tustin Ranch Road	SB	AM&PM	x		
I-5	Newport Avenue to SR-55	NB	AM	x		
I-5	North of SR-55	SB	AM	x		
I-5	Red Hill Avenue to Newport Avenue	NB	AM	x		
I-5	Tustin Ranch Road to Red Hill Avenue	NB	AM	x		
I-5	Tustin Ranch Road to Red Hill Avenue	SB	AM&PM	x		
SR-55	I-405 to MacArthur Boulevard	NB	AM&PM	x		
SR-55	I-405 to MacArthur Boulevard	SB	AM&PM	x		
SR-55	MacArthur Boulevard to Dyer Road	NB	PM	x		
SR-55	MacArthur Boulevard to Dyer Road	SB	AM	x		
I-405	Jamboree Road to MacArthur Boulevard	NB	AM		X	
SR-55	Dyer Road to Edinger Avenue	NB	PM		X	

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	MacArthur Boulevard to SR-55	NB	AM&PM			x
I-405	MacArthur Boulevard to SR-55	SB	AM&PM			x
SR-55	McFadden St/Sycamore Ave to I-5	NB	PM			x
			Sum	12	2	3
			Total Impacts (2010 Study)	14	Total Impacts (2015 Update)	5

Table.9 compares the Interim year impacted freeway ramps in both traffic studies. In the 2010 study five ramps were impacted whereas in the 2015 Update only two locations are impacted. Both the 2015 Update ramps are on I-405 and were also impacts in the 2010 study.

Table 9 – Freeway Ramp Impacts - Interim Year (2010 Study vs. 2015 Update)

FREEWAY	LOCATION	RAMP	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road	NB Off	AM	x		
SR-55	Victoria Street	NB Direct On	AM	x		
SR-73	MacArthur Boulevard	NB On	AM	x		
I-405	Jamboree Road	SB Off	PM		x	
I-405	Bristol Street	SB Loop On	PM		x	
Sum				3	2	0
Total Impacts (2010 Study)				5	Total Impacts (2015 Update)	2

Table 10 compares the Buildout year impacted freeway ramps in both traffic studies. In the 2010 study eleven ramps were impacted whereas in the 2015 Update only six ramps are impacted. Three of the ramps impacted in the 2015 Update ramps are on I-405 and were also impacts in the 2010 study.

Table 10 – Freeway Ramp Impacts - Buildout Year (2010 Study vs. 2015 Update)

FREEWAY	LOCATION	RAMP	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Culver Drive	NB Off	AM	X		
I-405	MacArthur Boulevard	NB On	PM	X		
I-405	Jamboree Road	SB Off	AM/PM	X		
SR-55	Baker Street	NB Off	AM/PM	X		
SR-55	Baker Street	SB On	PM	X		
SR-55	MacArthur Boulevard	SB On Loop	PM	X		
SR-73	Campus Drive	NB On	PM	X		
SR-73	Jamboree Road	SB Off	AM/PM	X		
I-405	MacArthur Boulevard	NB Off	AM		X	
I-405	Bristol Street	SB Loop On	PM		X	
SR-55	Dyer Road	NB On Direct	PM		X	
I-405	Jamboree Road	NB Off	AM			X
SR-55	Dyer Road	NB Off	AM			X
SR-73	Campus Drive	SB Off	AM			X
			Sum	8	3	3
			Total Impacts (2010 Study)	11	Total Impacts (2015 Update)	6

MPAH and General Plan Amendment

The results of this Five-Year Update study indicate that no additional proposed changes are required to the City of Irvine General Plan or Countywide Master Plan of Arterial Highways (MPAH). Since the adoption of the 2010 Vision Plan, the City of Irvine General Plan has been amended with the following downgrades, per the 2010 Vision Plan:

- Barranca Pkwy between Red Hill Avenue and Jamboree Road (downgraded from 8-lane divided roadway to 7-lane divided roadway)
- Jamboree Road between Barranca Pkwy and McGaw Avenue (downgraded from a 10-lane divided roadway to a 8-lane divided roadway)
- Main Street between Red Hill and Harvard (downgraded from 6-lane divided arterial with 2 auxiliary lanes to 6-lane divided roadway)
- MacArthur Boulevard between Fitch and Main Street (downgraded from 8-lane divided roadway to 7-lane divided roadway)
- Red Hill Avenue between Barranca Pkwy and Main Street (downgraded from an 8-lane divided roadway to a 6-lane roadway)
- Alton Avenue between Red Hill Avenue and Jamboree Road (downgraded from a 6-lane divided roadway to 4-lane divided roadway)*
- Von Karman Avenue between Barranca Pkwy and Michelson (downgraded from 6-lane roadway to 4-lane roadway)*

The arterial segments of Alton Pkwy between Red Hill Avenue and Jamboree Road and Von Karman Avenue between Barranca Pkwy and Michelson Drive as identified with an asterisk in the list above, were also programmed into the County's Master Plan of Arterial Highways (MPAH) since the 2010 Vision Plan approval.

Although the 2010 Vision Plan Traffic Study stated that it was the City's intention to remove the Von Karman Avenue at the I-405 freeway HOV drop ramps, it was determined that the improvement was of regional significance and therefore remains part of the Post-2035 build-out baseline assumptions.

Consistent with the 2010 Vision Plan, the widening of Red Hill Avenue from four lanes to six lanes between MacArthur Boulevard and Main Street is assumed in the Post-2035 Build-out Baseline since it is the one missing roadway widening in IBC that is needed to fulfill the County's Master Plan of Arterial Highways (MPAH).

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?

No Change from Previous Analysis: The IBC EIR identified no impacts to air traffic patterns. The proposed project contains no features that would change this conclusion.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant: Project design features for new development were evaluated in the IBC EIR based on the City's Transportation Design Procedures (TDPs). As a result, no impacts to vehicle access were identified using the following design guidelines:

- TDP-1 (Turn-Lane Pocket Lengths)
- TDP-3 (Left-Turn In/Out Access)
- TDP-4 (Right-Turn Lanes at Uncontrolled Driveways)
- TDP-10 (Distance Between Driveways and Intersections)
- TDP-11 (Corner Clearance)
- TDP-14 (Driveway Lengths)
- TDP-15 (Gate Stacking)

Improvements identified by the project are required to utilize these design guidelines, therefore, impacts from the project would be less than significant.

e) Result in inadequate emergency access?

No Change from Previous Analysis: The IBC EIR requires all new development to comply with applicable IBC PPPs pertaining to fire, police, and medical emergency services and access. This includes compliance with: (1) all applicable OCFA codes, ordinances, and standard conditions regarding fire prevention and suppression measures, including fire access, access gates (PPP 11-1); (2) an executed Secured Fire Protection Agreement with the OCFA (City of Irvine Standard Condition) (PPP 11-2); (3) fire protection access easements approved by the OCFA and irrevocably dedicated in perpetuity to the City (City of Irvine Standard Condition) (PPP11-3); and (4) a "Click2Enter" radio frequency access system installed at vehicle and pedestrian access points controlled by privacy gates within the project area (PPP 11-4). Thus, with implementation of these IBC PPPs, adequate emergency access would be provided on the development sites. Therefore, similar to the findings of the IBC EIR, no impacts associated with emergency access would occur.

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?

No Change from Previous Analysis: The IBC EIR found that implementation of the IBC project would comply with adopted policies, plans, and programs for alternative transportation. Therefore, similar to the findings of the IBC EIR, no impacts associated with alternative transportation would occur.

Level of Significance of the Project After Mitigation

No Change from Previous Analysis: No new or substantially greater transportation and traffic impacts to the IBC- as evaluated in the IBC EIR and as modified with the proposed project- would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

5.17 Utilities and Service Systems

Summary of the IBC EIR Findings

The IBC EIR identified that development in accordance with the IBC Vision Plan would result in either less than significant or no impacts related to utilities and service systems.

Discussion of the Proposed Project

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Change from Previous Analysis: The project does not change land use assumptions or utility needs from the IBC EIR so impacts remain unchanged.

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?

and

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

and

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?

Water Treatment Facilities and Supply

No Change from Previous Analysis: The project does not change land use assumptions or utility needs from the IBC EIR so impacts remain unchanged.

Wastewater Treatment Facilities and Capacity

No Change from Previous Analysis: The project does not change land use assumptions or utility needs from the IBC EIR so impacts remain unchanged.

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?

No Change from Previous Analysis: The project does not change land use assumptions or utility needs from the IBC EIR so impacts remain unchanged.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

and

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Change from Previous Analysis: The project does not change land use assumptions or landfill facility needs from the IBC EIR so impacts remain unchanged.

Level of Significance of the Project After Mitigation

No Change from Previous Analysis: No new or substantially greater transportation and traffic impacts to the IBC- as evaluated in the IBC EIR and as modified with the proposed project- would occur. No new mitigation measures are required.

Applicable IBC EIR PPPs, PDFs, and/or MMs

No PPPs, PDFs, or MMs of the IBC EIR would be applicable to the project.

6.0 DETERMINATION

The Project here, being the proposed 2015-17 IBC Transportation Mitigation Fee Program Update, modifies the prior IBC Transportation Mitigation Fee Program analyzed in the IBC EIR. The 2015 Traffic Study Update, however, illustrates that while mitigation measures must be modified to reflect current traffic conditions, there are no new or more severe adverse environmental impacts or revisions requiring a subsequent EIR. In fact, the 2015 Traffic Study Update indicates that the change in traffic conditions will not cause new or more severe adverse environmental impacts or require major revisions to the project. This Addendum is thus the appropriate level of environmental review for this Project under CEQA. (CEQA Guidelines, § 15164(a).)

The 2015 Traffic Study Update analyzed the relevant change in traffic conditions by taking a “snapshot” of the current development activity today (as compared to the 2010 Vision Plan land use assumptions evaluated in the IBC EIR) and considering ambient regional growth to compare with the 2010 assumptions. In this way, the 2015 Traffic Study Update looks at new information because a number of real-world factors have changed between the original 2010 Vision Plan Study and Year 2015 Conditions that influence the traffic conditions and the number and location of impacts.

The updated study notes that the residential unit intensity cap has not increased since the 2010 study, and that there is a net overall result of fewer impacts compared to the 2010 Vision Plan Traffic Study. The impacts for the interim year forecast drop from 13 to 10, and for the buildout year forecast from 41 to 22. In addition, four intersections were impacted in the 2010 Traffic Study, whereas in the 2015 Traffic Study Update, only one intersection is impacted, and the number of intersections impacted in buildout fell from 15 to 10. The Project addresses deficient intersection through updated mitigation fees.

Additionally, the number of impacted freeway and other ramps dropped from 5 to 2, and 11 to 6, respectively, since 2010. Lastly, while there are some additional traffic impacts since 2010, there is no substantial evidence in the record that these increases will result in a more severe impact requiring major revisions necessitating a subsequent or supplemental EIR. For instance, four segments of the freeway mainline were impacted in the 2010 Traffic Study, whereas six locations are impacted under the 2015 Traffic Study Update. But during the buildout year, that number drops from 14 impacted segments in the 2010 Traffic Study to 5 locations impacted in the 2015 Traffic Study Update. The fact that the 2015 Traffic Study Update’s results indicate that no additional proposed changes are required to the City’s General Plan further supports the use of an addendum for the project.

Based on the information and analysis contained in the addendum, and pursuant to Section 15162 of the California Code of Regulations, the City has determined that:

1. There are no substantial changes proposed in the Project that would require major revisions of the previous EIR because of the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
2. Substantial changes have not occurred with respect to the circumstances under which the Project is undertaken which would require major revisions of the previous EIR because of the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

3. There is no 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, showing any of the following:
- A. The Project would have one or more significant effects not discussed in the previous EIR;
 - B. Significant effects previously examined would 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; and
 - 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.

Bill Jacobs Principal Planner
Name, Title

June 27, 2017
Date

Signature

City of Irvine
For

7.0 REFERENCES

1. Irvine Business Complex Vision Plan 2015 Traffic Study Update, prepared by Iteris and HDR, January 13, 2016
2. 2015 Update to Irvine Business Complex Vision Plan Traffic Fee Nexus Study, prepared by HDR and Iteris, June 7, 2017
3. Irvine Business Complex Vision Plan and Mixed Use Overlay Zoning Code Environmental Impact Report, Final EIR Executive Summary, July 2010

8.0 ORGANIZATIONS AND PERSONS CONSULTED

City of Irvine:

- Bill Jacobs, Principal Planner
- Kerwin Lau, Project Development Administrator
- Sun Sun Murillo, Supervising Transportation Analyst
- Lisa Thai, Senior Transportation Analyst

Appendix A

Irvine Business Complex Vision Plan 2015 Traffic Study
Update (Executive Summary),
prepared by Iteris and HDR,
January 13, 2016



ES EXECUTIVE SUMMARY

ES.1.1 Introduction

This 2015 IBC Vision Plan Five-Year Traffic Study Update fulfills requirements of the City of Irvine Zoning Ordinance, which was updated as part of the 2010 IBC Vision Plan approval to require the City to re-evaluate traffic conditions (and traffic impact locations) by way of a five-year traffic study update (amended to every two years in October 2015). This five-year update evaluates potential traffic impact locations and documents how development actually occurred over the past five years to determine how close the Vision Plan assumptions were to forecasting this condition. The update takes a “snapshot” of the development activity today and considers ambient regional growth to compare with the 2010 assumptions. If as a result of actual development the original traffic impacts are altered or changed, the City has the ability to revise the list of traffic mitigations and IBC fees accordingly within the umbrella of the adopted Vision Plan.

This IBC Vision Plan Five-Year Traffic Study Update analyzes the potential impacts on the circulation system based on updated conditions to the 2010 amendment to the City of Irvine General Plan that placed a 15,000 dwelling unit limit (plus a maximum of 2,038 density bonus units pursuant to state law) on the residential development in the IBC area. Based on approvals since 2010, the total number of density bonus units assumed for this update is reduced to 1,794 from 2,038. This reduction represents 2,038 assumed theoretical density bonus units in 2010 less 244 theoretical units removed due to reduction in units not associated with any planned project.

The analysis presents areas of deficiency in the existing circulation system and future circulation systems and offers recommended mitigations to allow for a return to acceptable levels of service (LOS) or to the pre-Vision Plan condition within the study area. The analysis focuses on the identification of updated potential traffic impacts on the current circulation system as it is transformed into a mixed-use community from its previous offerings of office, commercial, and industrial uses within the IBC area. This traffic study provides an assessment of the existing conditions in 2015, existing conditions with the updated Vision Plan assumptions, as well as future Interim Year (2020) and Buildout Year (post-2035) scenarios with and without the updated Vision Plan assumptions. A comparison of the impacted locations versus the impacted locations identified in the 2010 IBC Vision Plan Traffic Study is also performed.

To assess the impact of the land use changes since the implementation of the 2010 Vision Plan, a total of six scenarios were analyzed:

- Existing Conditions (using current traffic counts)
- Existing Conditions with updated assumptions of Vision Plan Buildout
- 2020 Cumulative Baseline (existing land uses on the ground within IBC area; cumulative growth outside the IBC area)
- 2020 Cumulative Baseline plus updated Vision Plan assumptions anticipated to be constructed by 2020
- Post-2035 Cumulative Baseline (existing land uses on the ground within IBC area; cumulative growth outside the IBC area)
- Post-2035 Cumulative Baseline with updated assumptions of Vision Plan Buildout

Table ES-1 shows the land use assumptions for each scenario



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Table ES.1.1 – Land Use Assumptions

SCENARIO	MULTI-FAMILY RESIDENTIAL (DU)	RETAIL MIX (TSF)	HOTEL (ROOM)	OFFICE MIX (TSF)	INDUSTRIAL MIX (TSF)	MINI-WAREHOUSE (TSF)	EXTENDED STAY HOTEL (ROOM)
2015 Existing	7,060	1,384	2,322	26,639	13,934	379	474
2015 With Update	16,795	1,690	2,653	34,286	12,339	549	1049
2020 Cumulative Baseline	7,060	1,384	2,322	26,639	13,934	379	474
2020 Cumulative With Update	16,671	1,405	2,535	27,750	13,240	883	1049
Post-2035 Cumulative Baseline	7,060	1,384	2,322	26,639	13,934	379	474
Post-2035 Cumulative Baseline With Update	16,795	1,690	2,653	34,286	12,339	549	1049

ES.1.2 Traffic Impacts & Fair Share

A number of agreements were signed between the City of Irvine and adjacent jurisdictions during the 2010 IBC Vision Plan effort which required the City of Irvine to provide specific dollar amounts of infrastructure funding to each adjacent jurisdiction. These agreements were premised on the understanding that the Vision Plan had no additional responsibilities toward improvements identified, provided the residential unit cap within the IBC is not exceeded. These agreements are included in **Appendix A**.

The residential unit intensity cap has not increased since the 2010 study. This traffic study update is intended only to analyze the change in traffic conditions since the 2010 approval. Except as otherwise specified in those existing agreements with adjacent jurisdictions, the Vision Plan is not responsible for mitigating the improvements identified in this study update within the cities of Tustin, Newport Beach, Santa Ana, or for improvements on Caltrans facilities.

For the sole purpose of providing a reference point for comparison with the 2010 study, a fair-share methodology was used to evaluate what the financial participation of mitigating IBC Vision impacts would be in the absence of the above-mentioned agreements. The following methodology is applied:

- For plan update impacts within the City of Irvine, the IBC Vision Plan is fully responsible.
- For plan update impacts outside the City of Irvine, the IBC Vision Plan would participate on a fair-share basis.

All impacts referenced in this study update represent impacts as defined in the City of Irvine's Traffic Impact Analysis (TIA) Guidelines, adopted August 2004, or for locations outside Irvine, per the performance criteria for each affected agency.

The cost of improvements will be presented in a supplemental nexus report. Under future forecast conditions there are a number of deficient intersections. **Table ES 1.2** demonstrates the deficiencies, impacts, and fair-shares under each future scenario.



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Table ES 1.2 – Intersection/Arterial Segment Impacts/Cumulative Deficiencies

ID	INTERSECTION	JURISDICTION	IBC VISION WITH UPDATE (2020)		IBC VISION WITH UPDATE (POST-2035)		FAIR-SHARE		
			CUMULATIVE DEFICIENCY	IMPACT	CUMULATIVE DEFICIENCY	IMPACT	2020 WITH UPDATE*	POST-2035 WITH UPDATE*	EXPECTED SHARE (VISION PLAN)
85	MacArthur Boulevard at Birch Street	Newport Beach				X		5.6%	No Share
723	Main Street at Segerstrom Avenue	Santa Ana				X		40.3%	No Share
728	Halliday East at Alton Parkway	Santa Ana				X		7.2%	No Share
36	Red Hill Avenue at El Camino Real	Tustin		X			10.7%		No Share
445	Tustin Ranch Rd at Warner Ave N	Tustin				X		15.7%	No Share
93	Tustin Ranch Road at Bryan Avenue	Tustin	X		X		0.3%	9.9%	No Share
111	Franklin Avenue at Walnut Avenue	Tustin	X		X		3.9%	3.5%	No Share
749	Park Ave at A Street	Tustin			X			1.5%	No Share
98	Von Karman Avenue at Alton Pkwy	Irvine				X			100.0%
144	Jamboree Road at I-405 SB Ramps	Irvine				X			100.0%
145	Jamboree Road at Michelson Drive	Irvine				X			100.0%
188	Harvard Avenue at Michelson Drive	Irvine				X			100.0%
229	Culver Drive at Alton Parkway	Irvine				X			100.0%
97	Von Karman Ave/Tustin Ranch Rd at Barranca Pkwy	Irvine				X			100.0%
234	Culver Drive at Michelson Drive	Irvine	X						No Share
135	Jamboree NB Ramps/Warner Ave	Irvine			X				100.0%
134	Loop Rd/Park Ave at Warner Ave	Irvine/Tustin	X		X				100.0%
ID	ARTERIAL SEGMENT	JURISDICTION	IBC VISION WITH UPDATE (2020)		IBC VISION WITH UPDATE (POST-2035)		FAIR-SHARE		
			CUMULATIVE DEFICIENCY	IMPACT	CUMULATIVE DEFICIENCY	IMPACT	2020 WITH UPDATE*	POST-2035 WITH UPDATE*	EXPECTED SHARE (VISION PLAN)
1326	Dyer Rd between SR-55 SB and SR-55 NB	Santa Ana		X		X	15.9%	21.3%	No Share

*Fair-share percentage is shown for informational and comparison purposes only

ES.1.3 Improvement Strategies

The IBC Vision Plan Traffic Study Update proposes improvements for all intersections (and one impacted arterial segment) within the study area that are identified as impacts as well as all forecast cumulative deficiencies. Due to the above-mentioned agreements with adjacent cities and Caltrans (other than in the City of Costa Mesa), contribution towards improvements identified at locations where the update has an impact outside the City of Irvine are provided for reference only. Improvement strategies have utilized other studies in adjacent jurisdictions and have been vetted through site analyses to propose improvements that are feasible and reasonable. **Table ES 1.3** displays the mitigation strategies for each deficient intersection within the IBC study area.

Table ES.1.3– Improvement Strategies

INTERSECTION ID #	INTERSECTION NAME	JURISDICTION	IMPROVEMENT STRATEGY
2020 Impacts and Cumulative Deficiencies			
234	Culver Drive at Michelson Drive (cumulative deficiency)	Irvine	Improve EB to 2,2,0
134	Loop Road/Park Ave at Warner Avenue (cumulative deficiency)	Irvine/Tustin	Add 3rd EBT and NBR overlap
36	Red Hill Avenue at El Camino Real (update impact)	Tustin	Reconfigure SB to 1.5,2.5,0**
93	Tustin Ranch Road at Bryan Avenue (cumulative deficiency)	Tustin	Add 4th SBT**



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INTERSECTION ID #	INTERSECTION NAME	JURISDICTION	IMPROVEMENT STRATEGY
111	Franklin Avenue at Walnut Avenue (cumulative deficiency)	Tustin	Add 3rd WBT**
1326*	Dyer Road between SR-55 SB and SR-55 NB (impact)	Santa Ana	Add 4 th EBT**
P-2035 Impacts and Cumulative Deficiencies			
98	Von Karman Avenue at Alton Parkway (impact)	Irvine	Add 3rd NBT
135	Jamboree NB Ramps/Warner Avenue (cumulative deficiency)	Irvine	Restripe EB to 2,2,0
144	Jamboree Road at I-405 SB Ramps (impact)	Irvine	Improve EB to 2.5,0,2.5
145	Jamboree Road at Michelson Drive (impact)	Irvine	Add 3rd EBL, 3rd SBL, and WBT***
188	Harvard Avenue at Michelson Drive (impact)	Irvine	Improve SB to 2,2,0
229	Culver Drive at Alton Parkway (impact)	Irvine	Improve EB to 2,3,0
97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway (impact)	Irvine	Add 3rd NBT and convert De Facto to Standard NBR
134	Loop Road/Park Ave at Warner Avenue (cumulative deficiency)	Irvine/Tustin	Add 3rd EBT and NBR overlap
85	MacArthur Boulevard at Birch Street (impact)	Newport Beach	Improve EB to 2 EBL and 2 EBT**
723	Main Street at Segerstrom Avenue (impact)	Santa Ana	Add 3rd NBT, De Facto NBR**
728	Halladay East at Alton Parkway (impact)	Santa Ana	Add 2nd EBT and 2nd WBT**
1326*	Dyer Road between SR-55 SB and SR-55 NB (impact)	Santa Ana	Add 4 th WBT**
93	Tustin Ranch Road at Bryan Avenue (cumulative deficiency)	Tustin	Add 4th SBT**
111	Franklin Avenue at Walnut Avenue (cumulative deficiency)	Tustin	Add 3rd WBT**
445	Tustin Ranch Road at Warner Avenue North (impact)	Tustin	Improve NB to 0,2.5,1.5**
749	Park Ave at A Street (cumulative deficiency)	Tustin	Add 2nd SBL and 2nd WBL**

* Arterial Segment

** Improvement strategy provided for information and planning purposes only.

*** Alternative improvement strategy is implementation of the Jamboree/Michelson pedestrian bridge across Jamboree.

ES 1.4 Comparison of Impacts to 2010 Traffic Study

Table ES 1.4 shows the net overall result of fewer future impacts compared to the 2010 Vision Plan Study. The number of interim year forecast impacts reduce from 13 to 10. The number of Buildout year forecast impacts reduces from 41 to 22. Additional details are provided in **Chapter 8**.

Table ES 1.4 - Comparison of Number of Impacted Locations between 2010 IBC Traffic Study and 2015 Update

Facility Type	Interim Year		Buildout Year	
	2010 Study	2015 Update	2010 Study	2015 Update
Arterial Segments	0	1	1	1
Intersections	4	1	15	10
Freeway Mainline	4	6	14	5
Freeway Ramps	5	2	11	6
Total	13	10	41	22

In the 2010 Traffic Study the Interim year was 2015 and Buildout year was Post-2030 whereas in the current update study, the Interim year is 2020 and the Buildout year is Post-2035.

ES 1.5 Arterial System Deficiencies

Individual arterial segments that operate at a deficient LOS under daily conditions within the City of Irvine are candidates for peak hour analysis to determine performance during the AM and PM peak hour. The peak hour analysis conducted for each of the forecast future scenarios revealed no arterial segments operating at a deficient level in either peak hour within the City of Irvine. For arterial segments within the Cities of Newport Beach, Costa Mesa, and Tustin, daily arterial segment LOS analysis is valuable for long-range planning purposes.



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but the Cities do not assess segment deficiencies under daily conditions. Deficiencies are assessed at intersections at either end of the arterial segment. Intersection deficiencies for the IBC Vision have been assessed and conclusions discussed in the next section. Hence, there are no deficiencies or impacts expected in future forecast scenarios for arterial segments within Newport Beach, Costa Mesa, and Tustin.

In the City of Santa Ana, daily arterial volume-to-capacity ratio (V/C) analysis is used to assess deficiencies in the arterial network. An increase of 0.01 or more of the daily V/C ratio constitutes an impact when compared with the Baseline conditions. There were no impacted arterial segments in the interim year in the 2010 Traffic Study within the City of Santa Ana while one arterial segment is impacted in the 2015 Update in the Interim year:

- Dyer Road between SR-55 NB ramps and SR-55 SB ramps

In the Buildout year in the 2010 Study one arterial location was impacted:

- MacArthur Boulevard between Main Street and SR-55 SB in the City of Santa Ana

This MacArthur Boulevard widening no longer appears to be needed as forecast volumes drop from 51,000 ADT to 39,000 ADT in the 2015 update. In the Buildout conditions of the 2015 update one arterial location was impacted (also impacted in 2020):

- Dyer Road between SR-55 NB ramps and SR-55 SB ramps

ES 1.6 Intersection Deficiencies and Impacts

Analysis of the intersections was conducted for all intersections within the defined IBC Vision study area. For each jurisdiction, the established and published criteria for evaluating impacts have been employed in this study. Plan update impacts are identified for the study area using the methodology for each respective jurisdiction.

Table ES-1.5 compares the impacted intersections in both traffic studies for the Interim year. In the 2010 study four intersections were impacted whereas in the 2015 Update only one intersection is impacted.

Table ES-1-5 – Intersection Impacts - Interim Year (2010 Study vs. 2015 Update)

ID	LOCATION	JURISDICTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
145	Jamboree Rd at Michelson Dr	Irvine	PM	x		
234	Culver Drive at Michelson Drive	Irvine	PM			x*
62	Campus Dr at Bristol Street NB	Newport Beach	PM	x		
93	Tustin Ranch Rd at El Camino Real	Tustin	AM	x		
134	Loop Rd/Park Ave at Warner Ave	Irvine/Tustin	PM	x		x*
36	Red Hill Ave at El Camino Real	Tustin	PM			x
* Irvine cumulative deficiency			Sum	4	0	1
			Total Impacts (2010 Study)	4	Total Impacts (2015 Update)	1



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Table ES-1.6 shows that while 15 intersections were impacted in Buildout in the 2010 Study only 10 are impacted in the 2015 Update build-out condition. The following three locations were impacted in both studies:

- # 85 - MacArthur Boulevard at Birch Street in Newport Beach
- #145 - Jamboree Road at Michelson Drive in Irvine
- #723 - Main Street at Segerstrom Avenue in Santa Ana

Two of the 2010 Study impacted locations #135 Jamboree Road at Barranca Parkway and #141 Jamboree Road at Main Street have programmed improvements that are expected to be completed by 2020. As noted previously these improvements have been incorporated into analysis which results in a satisfactory level of service and no impacts under all scenarios studied in the 2015 Update.

Table ES-1.6 – Intersection Impacts - Buildout Year (2010 Study vs. 2015 Update)

INT ID	LOCATION	JURISDICTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
12	SR-55 Frontage Road SB at Baker Street	Costa Mesa	AM	x		
13	SR-55 Frontage Road NB at Baker Street	Costa Mesa	AM	x		
62	Campus Drive at Bristol Street NB	Newport Beach	PM	x		
85	MacArthur Boulevard at Birch Street	Newport Beach	PM(both)		x	
543	Bristol at Segerstrom	Santa Ana	PM	x		
723	Main Street at Segerstrom Avenue	Santa Ana	PM(both)		x	
728	Halladay East at Alton Parkway	Santa Ana	AM&PM			x
730	Grand Avenue at Warner Avenue	Santa Ana	PM	x		
754	Red Hill Avenue at Carnegie Avenue	Tustin/Santa Ana	PM	x		
24	Newport Avenue at Walnut Avenue	Tustin	AM	x		
93	Tustin Ranch Road at El Camino Real	Tustin	AM	x		
445	Tustin Ranch Road at Warner Avenue N	Tustin	PM			x
97	Von Karman Ave/Tustin Ranch Rd at Barranca Pkwy	Irvine/Tustin	PM			x
98	Von Karman Avenue at Alton Parkway	Irvine	PM			x
134	Loop Road/Park Ave at Warner Avenue	Irvine/Tustin	PM	x		x**
135	Jamboree NB Ramps/Warner	Irvine	PM			x**
136	Jamboree Road at Barranca Parkway*	Irvine/Tustin	PM	x		
141	Jamboree Road at Main Street*	Irvine	PM	x		
144	Jamboree Road at I-405 SB Ramps	Irvine	AM			x
145	Jamboree Road at Michelson Drive	Irvine	PM(both)		x	
188	Harvard Avenue at Michelson Drive	Irvine	PM	x **		x
229	Culver Drive at Alton Parkway	Irvine	PM			x
232	Culver Drive at I-405 NB Ramps	Irvine	PM	x		
* Improvement currently programmed			Sum	12	3	7
** Irvine cumulative deficiency			Total Impacts (2010 Study)	15	Total Impacts (2015 Update)	10

The completion of the Tustin Ranch Road extension seems to have had an effect on the location of impacted intersections. Compared to the 2010 Study, traffic is drawn away from Red Hill Avenue and Jamboree Road onto Von Karman Avenue/Tustin Ranch Road. A noticeable progression of impacted and deficient intersections can be seen in the PM peak period as traffic heads north from the heart of the IBC using Von Karman Avenue that becomes Tustin Ranch Road and eventually accesses the Jamboree Road Expressway at the Warner Avenue Ramp. The progression of impacted/deficient intersections is:

- Von Karman Avenue at Alton Parkway (Irvine)
- Von Karman Avenue at Barranca Parkway (Irvine)



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- Tustin Ranch Road at Warner Avenue North (Tustin)
- Loop Road/Park Avenue at Warner Avenue (Irvine/Tustin-Deficiency only)
- Jamboree Northbound Ramps at Warner Avenue (Irvine-Deficiency only)

ES.1.7 Freeway Mainline and Ramps

Table ES-1.7 compares the Interim Year impacted freeway mainline segments in both traffic studies. In the 2010 study four segments were impacted whereas in the 2015 Update six locations are impacted. Three of these locations all on I-405 between Jamboree Road and SR-55 are common in both studies.

Table ES-1.7 – Freeway Mainline Impacts - Interim Year (2010 Study vs. 2015 Update)

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road to MacArthur Boulevard	SB	PM	x		
I-405	Jamboree Road to MacArthur Boulevard	NB	AM		x	
I-405	MacArthur Boulevard to SR-55	NB	AM		x	
I-405	MacArthur Boulevard to SR-55	SB	PM		x	
I-5	North of SR-55	NB	AM			x
SR-55	Dyer Road to Edinger Avenue	NB	AM			x
SR-73	Campus Drive to SR-55	NB	AM			x
Sum				1	3	3
Total Impacts (2010 study)				4	Total Impacts (2015 Update)	6

Table ES-1.8 compares the Buildout year impacted freeway mainline segments in both traffic studies. In the 2010 study fourteen segments were impacted whereas in the 2015 Update only five locations are impacted. Two of these locations are common in both studies.

Table ES-1.8 – Freeway Mainline Impacts - Buildout Year (2010 Study vs. 2015 Update)

FREEWAY	SEGMENT	DIRECTION	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road to MacArthur Boulevard	SB	PM	x		
I-5	Jamboree Road to Tustin Ranch Road	NB	AM	x		
I-5	Jamboree Road to Tustin Ranch Road	SB	AM&PM	x		
I-5	Newport Avenue to SR-55	NB	AM	x		
I-5	North of SR-55	SB	AM	x		
I-5	Red Hill Avenue to Newport Avenue	NB	AM	x		
I-5	Tustin Ranch Road to Red Hill Avenue	NB	AM	x		
I-5	Tustin Ranch Road to Red Hill Avenue	SB	AM&PM	x		
SR-55	I-405 to MacArthur Boulevard	NB	AM&PM	x		
SR-55	I-405 to MacArthur Boulevard	SB	AM&PM	x		
SR-55	MacArthur Boulevard to Dyer Road	NB	PM	x		
SR-55	MacArthur Boulevard to Dyer Road	SB	AM	x		
I-405	Jamboree Road to MacArthur Boulevard	NB	AM		x	
SR-55	Dyer Road to Edinger Avenue	NB	PM		x	
I-405	MacArthur Boulevard to SR-55	NB	AM&PM			x
I-405	MacArthur Boulevard to SR-55	SB	AM&PM			x
SR-55	McFadden St/Sycamore Ave to I-5	NB	PM			x
Sum				12	2	3
Total Impacts (2010 Study)				14	Total Impacts (2015 Update)	5



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Table ES-1.9 compares the Interim year impacted freeway ramps in both traffic studies. In the 2010 study five ramps were impacted whereas in the 2015 Update only two locations are impacted. Both the 2015 Update ramps are on I-405 and were also impacts in the 2010 study.

Table ES-1.9 – Freeway Ramp Impacts - Interim Year (2010 Study vs. 2015 Update)

FREEWAY	LOCATION	RAMP	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Jamboree Road	NB Off	AM	x		
SR-55	Victoria Street	NB Direct On	AM	x		
SR-73	MacArthur Boulevard	NB On	AM	x		
I-405	Jamboree Road	SB Off	PM		x	
I-405	Bristol Street	SB Loop On	PM		x	
Sum				3	2	0
Total Impacts (2010 Study)				5	Total Impacts (2015 Update)	2

Table ES-1.10 compares the Buildout year impacted freeway ramps in both traffic studies. In the 2010 study eleven ramps were impacted whereas in the 2015 Update only six ramps are impacted. Three of the ramps impacted in the 2015 Update ramps are on I-405 and were also impacts in the 2010 study.

Table ES-1.10 – Freeway Ramp Impacts - Buildout Year (2010 Study vs. 2015 Update)

FREEWAY	LOCATION	RAMP	PERIOD	2010 STUDY ONLY	2010 STUDY & 2015 UPDATE	2015 UPDATE ONLY
I-405	Culver Drive	NB Off	AM	X		
I-405	MacArthur Boulevard	NB On	PM	X		
I-405	Jamboree Road	SB Off	AM/PM	X		
SR-55	Baker Street	NB Off	AM/PM	X		
SR-55	Baker Street	SB On	PM	X		
SR-55	MacArthur Boulevard	SB On Loop	PM	X		
SR-73	Campus Drive	NB On	PM	X		
SR-73	Jamboree Road	SB Off	AM/PM	X		
I-405	MacArthur Boulevard	NB Off	AM		X	
I-405	Bristol Street	SB Loop On	PM		X	
SR-55	Dyer Road	NB On Direct	PM		X	
I-405	Jamboree Road	NB Off	AM			X
SR-55	Dyer Road	NB Off	AM			X
SR-73	Campus Drive	SB Off	AM			X
Sum				8	3	3
Total Impacts (2010 Study)				11	Total Impacts (2015 Update)	6



Irvine Business Complex Vision Plan - 2015 Five-Year Traffic Study Update

ES.1.8 MPAH and General Plan Amendment

The results of this Five-Year Update study indicate that no additional proposed changes are required to the City of Irvine General Plan or Countywide Master Plan of Arterial Highways (MPAH). Since the adoption of the 2010 Vision Plan, the City of Irvine General Plan has been amended with the following downgrades, per the 2010 Vision Plan:

- Barranca Pkwy between Red Hill Avenue and Jamboree Road (downgraded from 8-lane divided roadway to 7-lane divided roadway)
- Jamboree Road between Barranca Pkwy and McGaw Avenue (downgraded from a 10-lane divided roadway to a 8-lane divided roadway)
- Main Street between Red Hill and Harvard (downgraded from 6-lane divided arterial with 2 auxiliary lanes to 6-lane divided roadway)
- MacArthur Boulevard between Fitch and Main Street (downgraded from 8-lane divided roadway to 7-lane divided roadway)
- Red Hill Avenue between Barranca Pkwy and Main Street (downgraded from an 8-lane divided roadway to a 6-lane roadway)
- Alton Avenue between Red Hill Avenue and Jamboree Road (downgraded from a 6-lane divided roadway to 4-lane divided roadway)*
- Von Karman Avenue between Barranca Pkwy and Michelson (downgraded from 6-lane roadway to 4-lane roadway)*

The arterial segments of Alton Pkwy between Red Hill Avenue and Jamboree Road and Von Karman Avenue between Barranca Pkwy and Michelson Drive as identified with an asterisk in the list above, were also programmed into the County's Master Plan of Arterial Highways (MPAH) since the 2010 Vision Plan approval.

Although the 2010 Vision Plan Traffic Study stated that it was the City's intention to remove the Von Karman Avenue at the I-405 freeway HOV drop ramps, it was determined that the improvement was of regional significance and therefore remains part of the Post-2035 build-out baseline assumptions.

Consistent with the 2010 Vision Plan, the widening of Red Hill Avenue from four lanes to six lanes between MacArthur Boulevard and Main Street is assumed in the Post-2035 Build-out Baseline since it is the one missing roadway widening in IBC that is needed to fulfill the County's Master Plan of Arterial Highways (MPAH).

Appendix B

2015 Update to Irvine Business Complex Vision Plan
Traffic Fee Nexus Study,
prepared by HDR and Iteris,
June 7, 2017

2015 Update to:

Irvine Business Complex Vision Plan Traffic Fee Nexus Study



June 07, 2017

Prepared for:





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Executive Summary

This five-year update (2015 IBC Traffic Fee Nexus Update) is consistent with the principles of the Irvine Business Complex (IBC) Vision Plan and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. The objective of this study is to update development fees to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

Pursuant to the requirements of AB 1600, this update ensures that it complies with the nexus determination requirement to:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:
 - The use of the fee and the type of development paying the fee;
 - The need for the traffic improvements and the types of development on which the fee is imposed; and
 - The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

The 2015 IBC Traffic Fee Nexus Study complies with all State legislative nexus requirements.

Table ES.1 summarizes the costs included in the 2015 IBC Traffic Fee Nexus Update. These costs are based on a combination of detailed cost estimates for specific fair-share improvements identified in the accompanying 2015 traffic study¹ (2015 IBC Traffic Study Update), obligations to fund specific improvements within adjacent jurisdictions as necessary to mitigate the impacts of the buildout of the IBC Vision Plan, and a continuing obligation to fund certain improvements identified in a prior fee program for the IBC adopted in 1992. Additionally, the costs include specific tasks required to implement and maintain the fee program consistent with the requirements of the IBC Vision Plan General Plan Amendment/Zoning Ordinance.

The proposed fee program assumes that development fees will fund up to 90% of identified improvement costs. It is assumed that the remaining 10% of the project costs will be covered by outside funding sources including federal, state, and county programs.

Table ES.2 summarizes a fee comparison between 1992 (at the onset of the IBC Fee Program), 2009 fees (developed through annual adjustments of the 1992 fee), 2010 fees (developed as part of the Vision Plan), 2016 fees (currently what the City charges developers – this is developed by applying annual adjustments to the 2010 fee) and proposed fees, effective beginning in the next FY 2017-18. Although the fees are significantly higher than the current 2016 fees, they still remain 31%-35% lower than 2009 fees.

¹ Irvine Business Complex Vision Plan, 2015 Five Year Traffic Study Update, Iteris with HDR, 2016



Table ES.1: 2015 Updated IBC Vision Plan Traffic Fee Program Breakdown

Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
<i>Irvine (90% of estimate assumed)</i>	\$18,006,327	
<i>Caltrans District 12</i>	\$6,585,299	
2015 IBC Traffic Study Update Improvements	\$24,591,626	\$24,591,626
Remaining Existing General Plan Improvements		
<i>Irvine (90% of estimate assumed)</i>	\$16,577,451	
<i>Improvements in Santa Ana</i>	\$52,670,912	
<i>Improvements in Costa Mesa</i>	\$28,970	
2015 Update - Remaining Existing General Plan Improvements	\$69,227,334	\$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		\$93,868,960
Existing IBC Traffic Funds Available		
<i>Current IBC Traffic Fund Balance**</i>	\$46,838,863	
<i>Capital Improvement Program funds that are currently appropriated for IBC Improvements ***</i>	(\$27,354,385)	
Subtotal: Existing IBC Funds to be applied to the 2015 Fee Program	(\$19,484,478)	(\$19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		\$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
<i>Transportation Management Systems (10% of total fee)</i>	\$7,438,448	
<i>IBC Program Administration (5% of total fee)</i>	\$3,719,224	
<i>Contingency (15% of total fee)</i>	\$11,157,672	
Subtotal: Additional Costs to the IBC Fee Program	\$22,315,345	\$22,315,345
Development Agreements (subject to fees identified in their agreements)		
<i>Park Place DA</i>	(\$2,769,591)	
<i>Central Park West DA</i>	(\$1,233,998)	
Subtotal: Existing Development Agreements	(\$4,003,589)	(\$4,003,589)
Subtotal: Total IBC Fees Required		\$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances

* Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund

*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive



Table ES.2: IBC Fee Comparison

Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential	DU	\$3,734	\$7,175	\$1,862	\$2,254	\$4,697	2.08
Extended Stay	Rooms	\$3,016	\$5,795	\$1,503	\$1,820	\$3,796	2.09
Hotel	Rooms	\$4,883	\$9,383	\$2,435	\$2,947	\$6,140	2.08
Retail Mix	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Office	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Industrial Mix **	Sq. Ft.	\$3.30	\$5.85	\$1.50	\$1.82	\$3.79	2.08
Mini Warehouse	Sq. Ft.	\$1.85	\$3.55	\$0.97	\$1.17	\$2.44	2.09

Source: HDR 2015, City of Irvine

* Includes Density Bonus Units charged fees consistent with Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018

The proposed fee is significantly higher than the 2010 fees and is attributable to the following factors:

- New improvement locations
- Significant increase in improvement costs between 2010 and 2015
- Fewer number of remaining development units (residential and non-residential) subject to fee
- Lesser remaining funds available from the IBC Traffic Fee Fund Balance, due to large payout to Cities of Newport Beach and Tustin (per 2009 and 2010 agreements respectively) and earmarked funds for improvements and payment to Caltrans (per 2011 agreement)



1 Introduction

1.1 Background

The City of Irvine established an Irvine Business Complex (IBC) Nexus Fee Program in 1992 (henceforth to be referred to as the 1992 Fee Program) to support the City's adoption of the more traffic intensive 1990 IBC Rezone General Plan Amendment (GPA) and Zone Code. The intent of the 1992 Fee Program was to support the implementation of specific improvements identified in a subsequent Environmental Impact Report (henceforth to be referred to as the 1992 EIR) prepared in conjunction with the 1992 rezoning actions. This approach is consistent with the City's General Plan Roadway Development Objective B-1 to "Plan, provide and maintain an integrated vehicular circulation system to accommodate projected local and regional needs."

In 2010, the City prepared the IBC Vision Plan (henceforth to be referred to as the Vision Plan), a GPA and Zone Change project to accommodate the ongoing shift in development patterns to improve the jobs-housing balance, and reduce vehicle miles travelled. In recent years, as development patterns within the IBC showed an increased demand for residential uses and a decreased demand for manufacturing and warehouse uses, The Vision Plan project, together with its accompanying EIR (Vision Plan EIR) were approved/certified by the Irvine City Council on July 13, 2010.

As part of the Vision Plan approval, the Zoning Ordinance was updated to require the City to re-evaluate traffic conditions (and traffic impact locations) and its impact on improvement needs, by way of a five-year traffic study update (amended to every two years in October 2015). In 2015, a five-year traffic study² (henceforth to be referred to as 2015 IBC Traffic Study Update) was completed to fulfil the requirements of the Zoning Ordinance. Based on the findings of the 2015 IBC Traffic Study Update, a new set of transportation improvements were identified. In this 2015 five-year fee/nexus update (henceforth to be referred to as 2015 IBC Traffic Fee Nexus Update), the fee structure and the nexus associated with the findings of the 2015 IBC Traffic Study Update, is being revised to accommodate the identified set of transportation improvements.

Subsequent to the completion of the Vision Plan, the City of Irvine entered into contractual agreements with the potentially affected jurisdictions/agencies (Caltrans District 12 and cities of Newport Beach, Santa Ana, Costa Mesa, and Tustin). Thus for this 2015 IBC Traffic Fee Nexus Update, only the fee associated with the findings of the 2015 IBC Traffic Study Update, were updated. The associated fair-shares and the nexus remained consistent with the 2010 Vision Plan Traffic Fee Nexus Study³ (henceforth to be referred as Vision Plan Traffic Fee Nexus Study). This 2015 five-year update takes a "snapshot" of the development activity from the inception of the Vision Plan in 2010 to July 31, 2015, to evaluate the changes in land uses and traffic patterns, and subsequent improvement needs, resulting in the development of a proposed fee to be imposed effective fiscal year (FY) 2017-2018.

In 2010, the Vision Plan established two overlay zoning districts:

- Urban Neighborhood, in which residential mixed use was encouraged; and
- Business Complex, in which the existing allowable mix of non-residential uses was maintained.

The Vision Plan allowed for the buildout of 15,000 residential base dwelling units (DU) within the Urban Neighborhood Overlay Zone District, with a potential maximum of 2,038 additional density bonus units, pursuant to state law. In order to achieve the maximum residential development intensity contemplated under the Vision Plan, the Plan adopted a "flexible zoning" mechanism under which non-residential development intensity could be exchanged for residential development

² Irvine Business Complex Vision Plan, 2015 Five Year Traffic Study Update, Iteris with HDR, 2016

³ Irvine Business Complex Vision Plan Traffic Fee Nexus Study, Parsons Brinckerhoff, 2011



intensity, thus achieving the maximum 15,000 DU (plus 2,038 DU pursuant to state law), by "offsetting" reduction of non-residential development intensity.

Based on approvals since 2010, the total number of density bonus units pursuant to state law assumed for this five-year update is reduced to 1,794 DU, down from the theoretical assumption of 2,038 DU in 2010. The accompanying 2015 IBC Traffic Study Update provided an assessment of existing, interim-year 2020 and buildout year Post-2035 with and without the updated land use conditions.

1.2 Purpose of the 2015 Update to the Vision Plan Nexus Study

Pursuant to requirements of the California Environmental Quality Act (CEQA), the City Council, as part of their approval of the Vision Plan in 2010, determined to make the City responsible to mitigate, where feasible, the impacts to the transportation system attributable to buildout of the Vision Plan. This 2015 IBC Traffic Fee Nexus Update is consistent with the principles of the Vision Plan Traffic Fee Nexus Study and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. Through equitable developer fees, the objective of this update is to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

California's Mitigation Fee Act (AB 1600, Cal. Gov. Code §§ 66000-66009) creates the legal framework for local governments to assess new fees toward future development. Such fees require new development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must take the following steps to establish a nexus between a proposed fee and project impacts:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:
 - The use of the fee and the type of development paying the fee;
 - The need for the traffic improvements and the types of development on which the fee is imposed; and
 - The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

These principles closely emulate two landmark US Supreme Court rulings that provide guidance on the application of impact fees. The first case, *Nollan v. California Coastal Commission* (1987) 107 S.Ct. 3141, established that local governments are not prohibited from imposing impact fees or dedications as conditions of project approval provided the local government establishes the existence of a "nexus" or link between the exaction and the interest being advanced by that exaction. The *Nollan* ruling clarifies that once the adverse impacts of development have been quantified, the local government must then document the relationship between the project and the need for the conditions that mitigate those impacts. The ruling further clarifies that an exaction may be imposed on a development even if the development project itself will not benefit provided the exaction is necessitated by the project's impacts on identifiable public resources.

The second case, *Dolan v. City of Tigard* (1994) 114 S.Ct. 2309, held that in addition to the *Nollan* standard of an essential nexus, there must be a "rough proportionality" between proposed exactions and the project impacts that the exactions are intended to provide benefit. As part of the *Dolan* ruling, the US Supreme Court advised that "a term such as 'rough proportionality' best encapsulates what we hold to be the requirements of the Fifth Amendment. No precise mathematical calculation is required, but the city (or other local government) must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."



The combined effect of both rulings resulted in the requirement that public exactions must be carefully documented and supported. This requirement was reiterated by the provisions of the State of California Mitigation Fee Act and subsequent rulings in the California Supreme Court (*Ehrlich v. City of Culver City* (1996) 12 C4th 854) and the California Court of Appeal (*Loyola Marymount University v. Los Angeles Unified School District* (1996) 45 Cal.App.4th 1256).

The Vision Plan Traffic Fee Nexus Study satisfied the requirements of the State of California Mitigation Fee Act. Thus this update is not intended to re-analyze the nexus or the purpose, but is to review and revise the fee program based on the needs determined by the 2015 IBC Traffic Study Update.

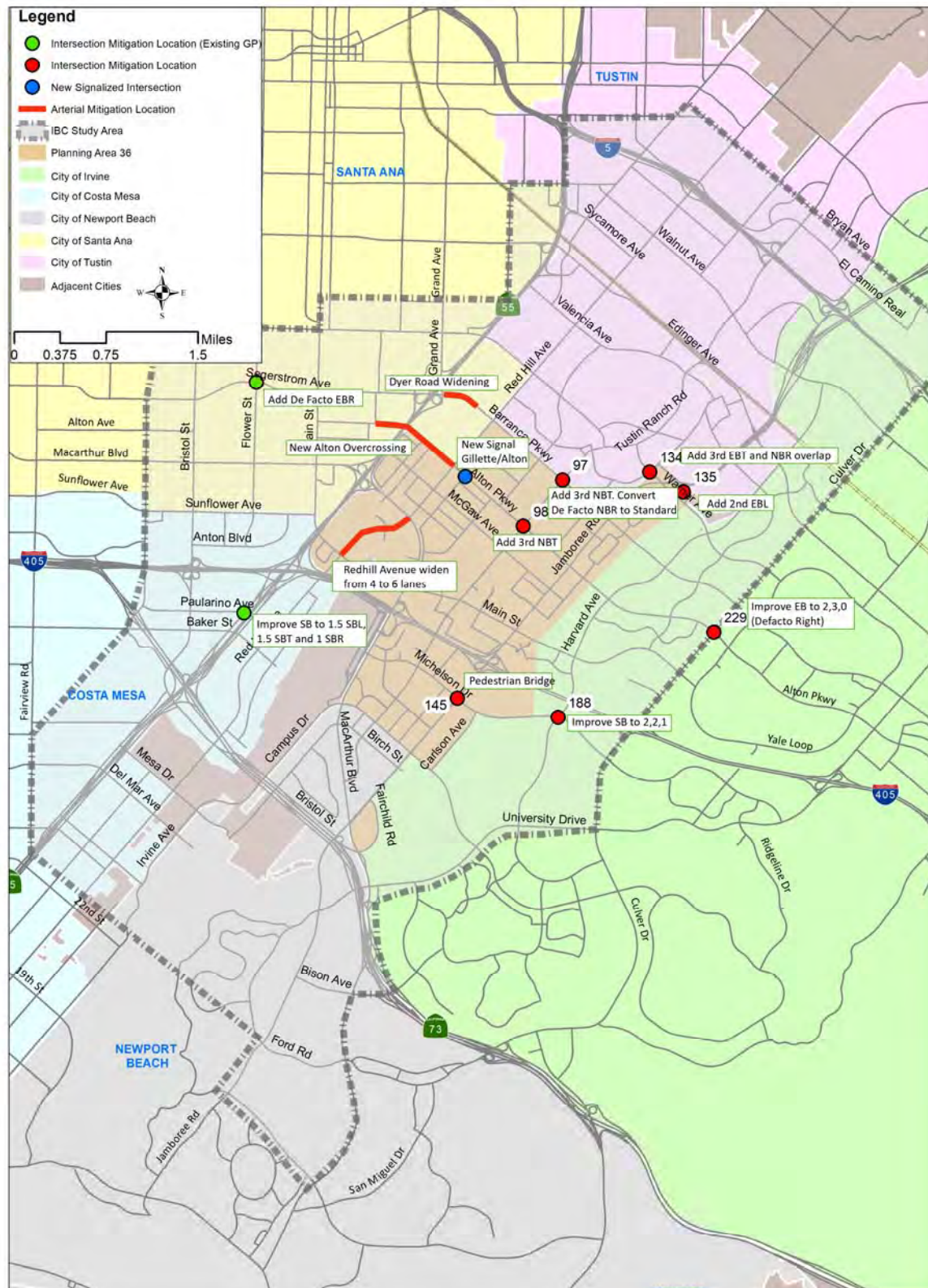
The 2015 IBC Traffic Study Update analyzed the project study area presented in **Figure 1.1**. All improvements identified under the interim year 2020 and buildout Post-2035 conditions are located within this defined project study area. Consistent with the methodology used in the 2010 IBC Vision Plan Traffic Study (henceforth referred to as Vision Plan Traffic Study), the 2015 IBC Traffic Study Update identified specific mitigation measure improvements that mitigate unacceptable level of service (LOS) E and F to acceptable LOS of A-D, per the City's Traffic Impact Analysis (TIA) Guidelines (adopted August 2004) and per the performance criteria for each affected agency (Caltrans District 12 and cities of Newport Beach, Costa Mesa, Santa Ana, and Tustin).

For locations within the City of Irvine, 90% of the improvement costs are included in the fee program. For locations not under the City of Irvine's jurisdiction, a fair-share methodology is applied that considers fair-shares of improvement costs. The proportionate fair-shares of improvement costs in the City of Costa Mesa and Santa Ana, associated with remaining improvements from the City of Irvine's General Plan, are included in the Fee Program. A 2011 amended agreement with the City of Santa Ana, replacing the 1992 agreement between the two cities, identified specific improvements for which the City of Irvine is either partially or fully responsible for certain improvement and those associated improvement costs were included in this update. In 2009 and 2010, respectively, the City of Newport Beach and the City of Tustin entered into settlement agreements with the City of Irvine, where City of Irvine made a one-time lump-sum payment to each of the cities, as its fair-share contribution towards transportation improvements and absolved itself from any future financial or implementation obligation related to the Vision Plan buildout.

Based on the findings from the 2015 IBC Traffic Study Update and existing agreements between the City of Irvine and the affected jurisdictions and agencies, **Figure 1.1** identifies the improvement locations and provides a brief description of each improvement.

Costs of improvements included in the fee program are based on 2016 dollars developed from Construction Cost Index (CCI), and recent relevant projects unit cost estimates for construction materials and labor, and right-of-way cost estimates. This is further discussed in **Section 2, IBC Vision Plan – 2015 Update Traffic Fee Program Cost**. **Section 3, Fee Methodology**, walks the reader through a step by step process of developing the proposed fee effective FY 2017-2018. **Section 4, Establishing Nexus** discusses in details of the nexus between a proposed fee and project impacts, and **Section 5, Conclusion** summarizes the findings of this update and provides recommendations.

Figure 1.1: IBC Vision Plan – 2015 Update – Location of Improvements



Source: HDR 2015



2 IBC Vision Plan – 2015 Update to Traffic Fee Program Cost

The 2015 IBC Traffic Fee Nexus Update includes costs required to implement physical improvements that achieve the following:

- Mitigate impacts identified through the 2015 IBC Traffic Study Update;
- Satisfy agreements with adjacent jurisdictions that require the construction of specific roadway improvements to diminish the impacts of the Vision Plan development on the roadway system; and
- Upgrade the roadway network to be consistent with the buildout of the City's General Plan Circulation Element.

All costs included as part of the 2015 IBC Traffic Fee Nexus Update comply with the City's policies and estimates based on the most recent aerial photography available, field reviews for determination of feasibility, recent unit costs from local projects, and CCI updates. For all improvements located within the City of Irvine, 90% of total costs are included in this update. It is assumed that the remaining 10% will come from outside funding sources, such as federal, state and county grants.

Consistent with the Vision Plan Traffic Fee Nexus Study, this update includes costs related to the management and implementation of the IBC Vision Plan Traffic Fee Program. These costs include implementing Transportation Management Strategies (TMS) to reduce vehicle volumes and associated impacts, IBC Vision Plan Traffic Fee Program administration and construction contingency costs. Incorporated into the mix are the fund amounts that are currently available in the fee program, which includes specific amounts that are earmarked for projects identified in the City's Capital Improvement Program (CIP) and Development Agreements (DAs) that are not subject to any fee update.

Table 2.1 presents the fees required by the traffic fee program to implement the IBC Vision Plan.

2.1 Agreement with the City of Newport Beach

Following the development of the Vision Plan, the City of Irvine entered a settlement agreement with the City of Newport Beach. Based on this agreement, executed on November 24, 2009, the City of Irvine paid a one-time sum of \$3,650,000 to the City of Newport Beach to be used exclusively for the engineering, design, and construction of Jamboree Corridor improvements and other traffic improvements located within the Vision Plan study area. Details of this agreement are presented in **Appendix A**. At the time of the agreement, the Cities of Irvine and Newport Beach agreed that the amount of \$3,650,000 constituted a fair-share obligation for the City of Irvine toward improvements in Newport Beach necessitated by the development of the Vision Plan. The agreement was drawn up on the premise that the City of Irvine will not be financially responsible for any mitigation caused by the buildout of the Vision Plan, provided the residential unit cap of 15,000 DUs (plus 2,038 DUs pursuant to state law) is not exceeded. Therefore no mitigation improvement costs were identified within the City of Newport Beach for inclusion in this fee update.



Table 2.1: 2015 Updated IBC Vision Plan Traffic Fee Program Breakdown

Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
Irvine (90% of estimate assumed)	\$18,006,327	
Caltrans District 12	\$6,585,299	
2015 IBC Traffic Study Update Improvements	\$24,591,626	\$24,591,626
Remaining Existing General Plan Improvements		
Irvine (90% of estimate assumed)	\$16,577,451	
Improvements in Santa Ana	\$52,670,912	
Improvements in Costa Mesa	\$28,970	
2015 Update - Remaining Existing General Plan Improvements	\$69,227,334	\$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		\$93,868,960
Existing IBC Traffic Funds Available		
Current IBC Traffic Fund Balance**	\$46,838,863	
Capital Improvement Program funds that are currently appropriated for IBC Improvements ***	(\$27,354,385)	
Subtotal: Existing IBC Funds to be applied to the 2015 Fee Program	(\$19,484,478)	(\$19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		\$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
Transportation Management Systems (10% of total fee)	\$7,438,448	
IBC Program Administration (5% of total fee)	\$3,719,224	
Contingency (15% of total fee)	\$11,157,672	
Subtotal: Additional Costs to the IBC Fee Program	\$22,315,345	\$22,315,345
Development Agreements (subject to fees identified in their agreements)		
Park Place DA	(\$2,769,591)	
Central Park West DA	(\$1,233,998)	
Subtotal: Existing Development Agreements	(\$4,003,589)	(\$4,003,589)
Subtotal: Total IBC Fees Required		\$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances

* Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund

*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive

2.2 Agreement with the City of Tustin

On July 13, 2010, following the development of the Vision Plan and through consultation with the City of Tustin, an agreement was executed between the Cities of Tustin and Irvine. The agreement stipulated that in lieu of City of



Irvine's fair-share of the estimated costs of traffic improvements located within the City of Tustin and identified as mitigation measures required for buildout of the Vision Plan, the City of Irvine would contribute 12% of the construction contract award amount or \$4,500,000, whichever was greater, and up to a maximum of \$6,500,000, for the Tustin Ranch Road extension roadway improvement between Walnut Avenue and Warner Avenue, including the grade separation and loop at Edinger Avenue. The improvements at Tustin Ranch Road, including the grade separation, were completed at the time of this update, however, the loop at Edinger Avenue is pending completion. Irvine's final contribution towards improvements in Tustin was \$4.5 million. **Appendix B** presents the 2010 Settlement Agreement between the City of Irvine and the City of Tustin. The agreement was drawn up on the premise that the City of Irvine will not be financially responsible for any mitigation caused by the buildout of the Vision Plan, provided the residential unit cap of 15,000 DUs (plus 2,038 DUs pursuant to state law) is not exceeded. Therefore no mitigation improvement costs other than costs for specific improvement locations shared with Irvine, were identified within the City of Tustin for inclusion in this fee update.

2.3 Agreement with City of Santa Ana

A 1992 agreement between the City of Irvine and the City of Santa Ana resulted from the 1992 EIR approval that identified Irvine as the responsible party for the following improvements:

- Full financial responsibility for the costs to widen Dyer Road from a six-lane divided arterial to an eight-lane divided arterial between Red Hill Avenue and the SR-55 northbound on-ramp, including the intersection of Red Hill Avenue at Dyer Road/Barranca Parkway. Consistent with all improvements for which the City of Irvine has sole financial responsibility, 90% of total costs for this improvement is included in the 2015 IBC Traffic Fee Nexus Update.
- 50% of the costs to build the Alton Parkway Overcrossing at SR-55 in the City of Santa Ana.

The need for these improvements, and the allocation of responsibility to fund the improvements, was created in part by the development contemplated in the 1992 IBC Zoning, and as such the improvements were included in the 1992 Fee Program. An amendment to the 1992 agreement was negotiated and signed between the cities on March 21, 2011 following the approval of the IBC Vision Plan. The agreement redefined the Alton Parkway Interchange at SR-55 as Alton Parkway Overcrossing at SR-55, and maintained the financial responsibility of the City of Irvine on the two above mentioned projects, consistent with the 1992 agreement. **Appendix C** presents detail of the 1992 Settlement Agreement and the subsequent amendment.

Preliminary engineering cost estimates indicate that the Dyer Road widening is expected to cost \$25,011,301. This cost includes estimates for Class II bikes lanes through the length of the project extent, consistent with the findings from the Project Report⁴. The total cost of the redefined Alton Parkway Overcrossing at SR-55 is estimated at \$60,184,755. This cost includes the following list of additional improvements identified as mitigation in an updated traffic study⁵ completed in 2010:

- Intersection #44: Red Hill Avenue at Alton Parkway;
- Signalization of the intersection of Halladay Street at Alton Parkway; and
- Signalization of the intersection of Daimler Street at Alton Parkway

For this update 90% of the cost of Dyer Road widening (\$22,510,171) is included in the fee update. Pursuant to the City of Irvine and City of Santa Ana agreement, 50% of the Alton Parkway Overcrossing at SR-55 project (\$30,092,378) is included in this update. Other than these two improvements, the only remaining Existing General Plan improvement per the cities' agreement included in this update is Intersection #719: Flower Street at Segerstrom Avenue that identifies a fair-share contribution of 9.6%, consistent with the Vision Plan Traffic Fee Nexus Study. City

⁴ Project Report for the Dyer Road/Barranca Parkway Improvements (State Route-55 to Aston Street), RBF Consulting, 2004

⁵ Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, KOA, 2010



of Irvine's fair-share for implementing improvements at the intersection of Flower Street at Segerstrom Avenue is \$68,364 (9.6% of \$712,124).

Hence, the 2015 IBC Traffic Fee Nexus Update includes a total of \$52,670,912 as funds that would be required to implement improvements within the City of Santa Ana.

Appendix D presents detailed layout and cost estimate worksheets for each improvement.

2.4 Agreement with City of Costa Mesa

Based on the existing agreement between the Cities of Irvine and Costa Mesa, executed in 1993 and presented in **Appendix E**, the fair-share contribution towards one remaining Existing General Plan improvement included in this update is SR-55 Frontage Road SB Ramps at Paularino Avenue that identifies a fair-share contribution of 2.4%, consistent with the Vision Plan Traffic Fee Nexus Study. City of Irvine's fair-share for implementing improvements at this location is \$28,970 (2.4% of \$1.2 Million).

Appendix D presents a layout and cost estimate worksheet for this location.

2.5 Agreement with Caltrans District 12

Following the development of the Vision Plan and through consultation with Caltrans District 12 (Caltrans), on January 25, 2011, the City of Irvine and Caltrans entered into an agreement that identified feasible strategies that Caltrans would employ as mitigation for traffic impacts caused by the project on Caltrans facilities. Based on the findings from the Vision Plan Traffic Fee Nexus Study, it was determined that the fair-share cost of implementing these improvements would be \$7,025,962 and it would constitute the City of Irvine's fair-share obligation as identified in the agreement. **Appendix F** presents the 2011 Traffic Mitigation Agreement between City of Irvine and Caltrans. Since the completion of the Vision Plan, the City of Irvine has collected and earmarked \$440,663 as payment towards Caltrans agreement. Hence, this 2015 IBC Traffic Fee Nexus Update rolls over \$6,585,299 (\$7,025,962 less \$440,663) from the Vision Plan Traffic Fee Nexus Study, as part of the funding need for implementing improvements associated with the buildout of the Vision Plan.

2.6 Transportation Improvements within the City of Irvine

2.6.1 Based on the 2015 IBC Traffic Study Update

The 2015 IBC Traffic Study Update identified the following eight deficient locations for which improvements were identified (refer to **Table ES1.2** in the 2015 IBC Traffic Study Update).

- Intersection #97: Von Karman Avenue/Tustin Ranch Road at Barranca Parkway;
- Intersection #98: Von Karman Avenue at Alton Parkway;
- Intersection #134: Loop Road/Park Avenue at Warner Avenue;
- Intersection #135: Jamboree NB Ramps at Warner Avenue;
- Intersection #144: Jamboree Road at I-405 SB Ramps;
- Intersection #145: Jamboree Road at Michelson Drive;
- Intersection #188: Harvard Avenue at Michelson Drive;
- Intersection #229: Culver Drive at Alton Parkway;



For the purpose of the fee update, cost estimates were developed at six of these locations. Cost estimates were not necessary for intersections #144 (Jamboree Road at I-405 SB Ramps) and #145 (Jamboree Road at Michelson Drive).

- Intersection #144 (Jamboree Road at I-405 SB Ramps) improvement costs were not included in the updated fee because this location is a Caltrans facility and is part of the \$7 million agreement with Caltrans. The specific improvement identified for #144 in the Vision Plan Traffic Fee Nexus Study called for widening of this off-ramp to add an approach lane resulting in two-left turn lanes and three-right turn lanes for an approach length of 500 feet, with the City's responsibility identified as 21.6% of a \$1.5 million project. The 2015 IBC Traffic Study Update recommended a slightly altered improvement that reassigns these approach lanes to provide two-left turn lanes, one-shared left/right turn lane, and two-right turn lanes, all within the previously determined ROW, hence minimally impacting project costs.
- Intersection #145 (Jamboree Road at Michelson Drive) improvement costs were not included in the updated fee as a specific line item cost because \$8,237,407 in CIP funding has been allocated from the IBC Traffic Fee Program Fund Balance to cover a portion of the estimated \$17.7 million total cost to implement the pedestrian bridge. The pedestrian bridge across the north leg of the southbound Jamboree approach was proposed as part of the Vision Plan EIR because lane addition improvements at the intersection were determined to be operationally infeasible.

In addition, the 2015 IBC Traffic Study Update identified the following three locations for signalization.

- Armstrong Avenue at McGaw Avenue;
- Gillette Avenue at Alton Parkway;
- Teller Avenue at Dupont Drive;

At the time this report was being prepared, signalization efforts at Armstrong Avenue at McGaw Avenue and at Teller Avenue at Dupont Drive were underway and therefore were not included in the updated fee calculations.

Consistent with the Vision Plan Traffic Fee Nexus Study, this update also assumes 90% of the total cost of improvements within the City of Irvine (\$20,007,030) or \$18,006,327. It is assumed that the remaining 10% may be funded with outside funding sources such as federal, state and/or county grants.

2.6.2 Existing General Plan Improvements

The remaining Existing General Plan improvement not yet built in the IBC is the widening of Red Hill Avenue between Main Street and MacArthur Boulevard from four lanes to six lanes.

Originally identified in the 1992 EIR and 1992 Fee Program as an improvement that widens the arterial from its existing four lanes to an eight-lane facility, the Vision Plan determined that widening of this segment of Red Hill Avenue from four lanes to six lanes provided adequate traffic circulation to accommodate project buildout. The 2015 IBC Traffic Study Update concurs with that finding and this widening improvement to six lanes is consistent with the City's General Plan Circulation Element updated as part of the Vision Plan effort. The 90% of the cost for this improvement is \$16,577,451 (or 90% of the total cost of \$18,419,390) is included in the fee program.

Appendix D presents detailed concept layouts and cost estimate worksheets for each improvement that is included in the fee update.

2.7 Existing IBC Fund Balance

The current IBC Traffic Fee Program fund balance is the combination of the remaining funds from the 1992 Traffic Fee Program, balance of funds collected through the Vision Plan implementation since 2010, and earmarked funds



(\$440,663 – refer **Section 2.5**) allocated for Caltrans improvements per the settlement agreement with Caltrans. At the time of this update (i.e., snapshot date of July 31, 2015), the overall combined IBC Vision Plan Traffic Fee Program funds were \$46,838,863.

As discussed in **Section 2.6.1**, \$8,237,407 from this fund is allocated towards the construction of the pedestrian bridge over Jamboree Road at Michelson Drive. In addition, the City's CIP had allocated \$4,766,978 towards the implementation of improvements at intersection #136 (Jamboree Road at Barranca Parkway) and intersection #141 (Jamboree Road at Main Street) from the IBC Traffic Fee Program fund. Subsequently, CIP funding for intersections #136 and #141 was augmented with an additional allocation of \$14,350,000 (\$5,030,000 for intersection #136 and \$9,320,000 for intersection #141), bringing the total funding earmarked for these two intersections to \$19,116,978. As these two intersection improvements were identified in the Vision Plan Traffic Study and 2010 Traffic Fee Nexus Study, and implementation was underway, these improvements were assumed to be constructed in terms of traffic analysis. Backing out the allocated funds for these committed improvements, the remaining IBC Traffic Fee Program funds available equaled \$19,484,478 and this amount is applied towards this fee update. **Table 2.2** summarizes the IBC fund balance applied towards this fee update.

Table 2.2: IBC Traffic Fee Funds applied towards 2015 Update*

Funds / Projects	Amount
IBC Vision Plan Traffic Fee Program funds	\$46,838,863
Allocated funds for Jamboree/Michelson pedestrian bridge (included in CIP)	(\$8,237,407)
Allocated fund balance for Jamboree Road at Barranca Parkway, and Jamboree Road at Main Street improvements (included in CIP)	(\$19,116,978)
TOTAL	\$19,484,478

*as of snapshot date of July 31, 2015

Source: City of Irvine

2.8 Other IBC Vision Plan Traffic Fee Program Costs

Consistent with the Vision Plan Traffic Fee Nexus Study, costs associated with Transportation Management Systems (TMS) are included in this update and will be reevaluated as part of the next two-year update. The TMS costs are estimated at 10% of the effective total costs of improvements (\$74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, or approximately \$7.44 million. As documented in the Vision Plan EIR, Project Design Feature (PDF 13-1) addresses the goals and objectives of the TMS as follows:

- Monitor travel demand at employment sites and provide reports on trip generation to the City;
- Offer employers and property owners assistance with transportation services on a voluntary basis;
- Deliver transportation services to commuters including a) ride-matching, transit/Metrolink information, b) inform commuters of incentives that may be available from public agencies, c) formation of vanpools;
- Represent the IBC in local transportation matters; and
- Oversee and fund the implementation and expansion of the i-Shuttle.

Program Administration costs are assumed in the fees as 5% of the effective total costs of improvements (\$74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, for an amount of approximately \$3.72 million to cover the next two years of staff and consultant time for administering annual fee updates, monitoring/updating the IBC database, inter-departmental and inter-agency coordination, reassessment of land use assumptions and reassessment of the Vision Plan and improvement list as required every two years, starting from this update cycle. Administration costs will also be reevaluated with the next two-year update.



Contingency costs (a standard practice in the industry to cover inflation rates and unforeseen costs) over the 20-year period are estimated at 15% of the effective total costs of improvements (\$74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, for an amount of approximately \$11.16 million.

The summation of these other IBC Vision Plan Traffic Fee Program costs for this update equals \$22,315,345.

2.9 Development Agreement Cost Reduction

Development Agreements (DAs) currently exist between the City and the following five developments located in the IBC:

- Park Place;
- Central Park West;
- Hines;
- Avalon Apartments; and
- Alton Condominiums

The DAs specify the fees that were locked-in at the time of approval of each specific project. Consistent with the Vision Plan Traffic Fee Nexus Study, it is assumed for this update that two of the developers (Park Place and Central Park West) will continue to pay fees identified in their DAs. Therefore their related fees in the amount of approximately \$4 million (\$2,769,591 for Park Place and \$1,233,998 for Central Park West) and the land use intensity associated with these fees were deducted from the calculation of the proposed updated fees. The intensity and related fees for the remaining three DAs (Hines, Avalon Apartments and Alton Condo) were included in the calculation of the updated fee.



3 Fee Methodology

The methodology used for this fee update is consistent with the Vision Plan Traffic Fee Nexus Study and each step for fee calculations is discussed in detail in the following sections.

3.1 Step 1: Identify Traffic Improvements and the IBC Fair-share

The mitigation measure improvements identified in the 2015 IBC Traffic Study Update to be included for the 2015 IBC Traffic Fee Nexus Update, are presented in **Table 3.1**. The improvements address project-related impacts based on thresholds of significance described in the traffic study. Improvements in Newport Beach and Tustin, with whom the City of Irvine has separate agreements are excluded from **Table 3.1**. As discussed previously in **Section 2.3** and **Section 2.4**, select improvements in Santa Ana and Costa Mesa are included.

Table 3.1: Updated IBC Vision Plan Improvement List

Int ID	Intersection / Arterial Location	Jurisdiction	Improvement Strategy
97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway *	Irvine	Add 3rd NBT and convert de facto right-turn to standard NBR
98	Von Karman Avenue at Alton Parkway *	Irvine	Add 3rd NBT
134	Loop Road/Park Avenue at Warner Avenue	Irvine	Add 3rd EBT and NBR overlap
135	Jamboree NB Ramps/Warner Avenue	Irvine	Add 2nd EBL
188	Harvard Avenue at Michelson Drive	Irvine	Widen SB to 2,2,1
229	Culver Drive at Alton Parkway	Irvine	Improve EB to 2,3,0 (de facto right)
	Red Hill Avenue between Main Street and Mac Arthur Boulevard	Irvine	Widen from 4 lanes to 6 lanes.
	Gillette Avenue at Alton Parkway	Irvine	New traffic signal (T-intersection)
	Alton Overcrossing at SR-55	Santa Ana**	SR-55/Alton Parkway Overcrossing Project plus the following improvements: <ul style="list-style-type: none"> • Intersection #44: Red Hill / Alton (Add 1 NBR, convert de facto SBR to 1 SBR, add 2nd EBL, convert 1 WBR to free WBR) • Signalization and widening of Halladay Street / Alton Parkway • Signalization at Daimler Street / Alton Parkway
	Dyer Road widening between SR-55 NB on ramp and Red Hill Avenue (Phase 2)	Santa Ana**	Dyer Road widening from SR-55 to Red Hill Avenue (consistent with Barranca-Dyer Project Report)
719	Flower Street and Segerstrom Avenue	Santa Ana	Add eastbound de facto lane
10	SR-55 Frontage Road SB Ramps at Paularino	Costa Mesa	Improve Southbound to 1.5 Left, 1.5 Through, 1 Right.

Source: HDR 2015

* Due to close proximity of improvements, for cost development, these two locations were combined and treated as one contiguous corridor on Von Karman Avenue between Alton Parkway and Barranca Parkway/Tustin Ranch Road.

**Agreement with Santa Ana.



3.2 Step 2: Estimate Total Cost to Implement 2015 IBC Improvement List

In order to implement the improvements identified in the 2015 IBC Traffic Study Update, a total cost of \$92,696,238 (see **Table 2.1**) must be programmed into this fee update effort. This cost includes the cost of the improvements, roll over from the Caltrans agreement (see **Section 2.5**), deduction of the available fund balance from the IBC Traffic Fee Program (see **Table 2.2**), project soft costs (see **Section 2.8**) and deduction of fees related to the two existing Development Agreements (see **Section 2.9**).

Based on the preliminary engineering and cost estimates, the cost of the needed improvements is \$93,868,960 and includes the following:

- 90% of costs related to improvements within City of Irvine and Santa Ana (widening of Dyer Road per agreement between City of Santa Ana and Irvine);
- Fair-share obligation to improvements in Santa Ana and Costa Mesa (remaining GP improvements); and
- Roll over of fair-share obligations pursuant to the Caltrans agreement from 2010.

Table 3.2 presents the list of improvement locations, along with project cost for each, City of Irvine's share and cost of improvements included in the 2015 IBC Traffic Fee Nexus Update.

Preliminary engineering layouts and detailed cost estimates were developed for each improvement. All improvement strategies identified to mitigate traffic impacts caused by the buildout of the Vision Plan were vetted through a review process with City of Irvine planning and engineering staff and were determined to be feasible. The following section discusses in detail the methodology for developing cost estimates.

3.2.1 Development of Improvement Costs

For the purpose of developing planning level cost estimates for each of the improvements, unit costs and planning level concept plans were developed. The concept level plans were based off most recent aerial imagery and field reconnaissance.

Unit Cost Development

Unit costs including ROW costs were reviewed and updated based on Caltrans cost data for 2015 and bid data provided by the City between 2013 and 2015. The 2015 unit costs were compared to the 2010 unit costs for reasonability and the following changes were made to the soft cost:

- ROW support costs were increased from 5% to 10% of construction costs
- Minimum Project Development cost was increased from \$200,000 to \$300,000



Table 3.2: Updated IBC Vision Plan Improvement List and Associated Cost for Fee Calculation

Int ID	Intersection / Arterial Location	Jurisdiction	Cost	Fair Share	Cost included for Fee Calculation
97 *	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway ¹	Irvine	\$7,558,713	90%	\$6,802,842
98 *	Von Karman Avenue at Alton Parkway ¹	Irvine		90%	
134	Loop Road/Park Avenue at Warner Avenue ¹	Irvine	\$5,411,023	90%	\$4,869,921
135	Jamboree NB Ramps/Warner Avenue ¹	Irvine	\$2,592,998	90%	\$2,333,698
188	Harvard Avenue at Michelson Drive ¹	Irvine	\$2,752,766	90%	\$2,477,489
229	Culver Drive at Alton Parkway ¹	Irvine	\$1,204,030	90%	\$1,083,627
	Red Hill Avenue between Main Street and Mac Arthur Boulevard ²	Irvine	\$18,419,390	90%	\$16,577,451
	Gillette Avenue at Alton Parkway ¹	Irvine	\$487,500	90%	\$438,750
	Alton Overcrossing at SR-55 ³	Santa Ana	\$60,184,755	50%	\$30,092,378
	Dyer Road widening between SR-55 NB on ramp and Red Hill Avenue (Phase 2) ³	Santa Ana	\$25,011,301	90%	\$22,510,171
719	Flower Street and Segerstrom Avenue ⁴	Santa Ana	\$712,124	9.6%	\$68,364
10	SR-55 Frontage Road SB Ramps at Paularino ⁵	Costa Mesa	\$1,207,101	2.4%	\$28,970
Cost of Improvements					\$87,283,661
Caltrans agreement roll over **					\$6,585,299
2015 Update IBC Vision Plan Improvement Cost					\$93,868,960

Source: HDR 2015

* Due to close proximity of improvements, for cost development, these two locations were combined and treated as one contiguous corridor on Von Karman Avenue between Alton Parkway and Barranca/Tustin Ranch Road

** Caltrans D12 agreement with City of Irvine (\$7,025,962 minus \$440,663 set aside as Caltrans Subfund)

¹ Irvine improvements - full financial responsibility to be funded at 90% through IBC Traffic Fee Program funds

² Irvine improvements - remaining Irvine General Plan improvement to be funded at 90% through IBC Traffic Fee Program funds

³ Santa Ana improvements - full or financial responsibility per agreement

⁴ Santa Ana improvements - remaining Irvine General Plan improvement for which City of Irvine has a fair share

⁵ Costa Mesa improvements - remaining Irvine General Plan improvement for which City of Irvine has a fair share financial responsibility

Concept Development and Cost Estimates

Planning level concepts were developed based on publicly available "off the shelf" current aerial imagery. Utility identification, including sewer and overhead electrical lines, were determined to the extent possible from publicly available aerial photography. Length of turn pockets where needed was determined based on traffic data where appropriate. Consistent with the Vision Plan Traffic Fee Nexus Study, cost estimates included provisions for the following:

- Preliminary Project Development
- ROW Management
- Design Engineering/Administration Cost
- Construction Engineering Costs/Administration



- Construction Contingency

3.3 Step 3: Identify Remaining IBC Traffic Fund Revenues and Soft Costs to Determine Total Fee for 2015 Update

Based on the discussion in **Section 2.7** and data presented in **Table 2.2**, an amount of \$19,484,478, (effective IBC Traffic funds available to be applied toward the 2015 Fee Program) was subtracted from the total needs cost of \$93,868,960 shown in **Table 3.2**.

Other IBC Traffic Fee Program costs, estimated at \$22,315,345 and discussed in detail in **Section 2.8** were added to the difference between improvement cost needs and the existing available IBC Traffic Fee Program Fund balance (\$74,348,482). Finally, fees paid and those that will be paid by developers pursuant to their Development Agreements (DAs) in the amount of \$4,003,589, were subtracted from the total value. **Table 3.3** summarizes the value for each of the items that determine the final amount of \$92,696,238 that must be programmed into this fee update effort.

Table 3.3: Summary of IBC Traffic Fee Update Cost Elements

Items	Cost
2015 Update IBC Vision Plan Improvement Cost*	\$93,868,960
Existing IBC Traffic Fee Program Funds (amount to be subtracted)	(\$19,484,478)
(Effective) 2015 Updated IBC Vision Plan Improvement Cost	\$74,384,482
Other IBC Traffic Fee Program (Transportation Management Systems, IBC Program Administration, Contingency)	\$22,315,345
Development Agreements (amount to be subtracted)	(\$4,003,589)
Total Amount to be programmed for the 2015 Fee Update	\$92,696,238

* includes Caltrans roll over

Source: HDR 2015

3.4 Step 4: Estimate the Remaining Development subject to 2015 Traffic Fee Update

Based on a thorough review of the City of Irvine IBC database records and Development Agreements (DAs), the remaining developable land uses under the Vision Plan buildout condition were quantified to define appropriate land use fees to fund the transportation improvements identified for this update.

Existing land uses as of the July 31, 2015 snapshot and forecast Year 2035 Vision Plan buildout land uses were applied in the determination of the land use specific traffic impact fees. Consistent with the underlying approach behind the development of the Vision Plan, increases in residential density throughout the IBC result in an overall reduction of non-residential uses (i.e., manufacturing, warehouse and mini-warehouse uses). The Vision Plan approved a residential cap of 15,000 base units plus a maximum potential of 2,038 density bonus units pursuant to state legislation. Based on approvals since 2010 and consistent with the 2015 IBC Traffic Study Update, the total number of density bonus units equals 1,794 DU, less than the 2,038 DU maximum, bringing the total number of DUs to 16,794 DUs, instead of 17,038 DUs assumed in 2010. The 2015 Traffic Fee Nexus Update also assumed that all remaining density bonus units will be charged fees consistent with the market-value base units.



In determining the remaining development subject to traffic impact fees, previous DAs and prepaid fees were considered. In 2005, the City of Irvine included an option for developers to prepay fees for projects under consideration to avoid updated fee adjustments that might occur subsequent to the 2005 update. Developers took advantage of this option and fees were paid for DUs and office equivalency square footage (SF). While there may be prepayment for specific projects that did not move forward based on the past fluctuating economic climate, the prepayment remains valid for future development projects for those identified parcels. As a result, these units and office equivalency SF were excluded from this update. In addition, for the following three developments, fees were paid after the “snap-shot” date for this update (July 31, 2015). Hence, the quantities associated with these developments were included for the 2015 update, however, the prepaid fees from these developments will remain valid and these developments will not be subject to new fees developed through this update.

- 16103 Derian Avenue (formerly 17275 Derian Avenue)
- 360 Fusion (formerly Murphy Apartments, 2852 McGaw Avenue, 17321-17351 Murphy Avenue)
- Main and Jamboree Apartments (2699-2719 White Road, 2772 Main Street)

3.4.1 Dwelling Unit Distribution – 2015 Update

This section presents the status of the maximum allowable dwelling units (DUs) within IBC. The land use assumption for the 2015 IBC Traffic Study Update assumes a total of 7,060 DUs (6,676 base DUs plus 384 density bonus DUs) on the ground in 2015, and 16,794 DUs (15,000 base DUs plus 1,794 density bonus DUs) in buildout Year 2035. **Table 3.4** presents a status breakdown of the remaining DUs between Year 2035 and Year 2015. At the time of this update, 122 DUs (60 base DUs and 62 density bonus DUs) did not have a status reported, i.e. were not under construction nor approved or pending. The table indicates that for much of the remaining IBC DUs, fees were prepaid, hence only a few developments remain that will be subject to the updated fees developed as part of this update effort.

Table 3.5 presents the breakdown of land use quantities that will be subject to the updated fee, and **Appendix G** presents details of developments by parcel.



Table 3.4: IBC Dwelling Unit Summary

Base Units	Density Bonus Units	Total	Details
15,000	1,794	16,794	Maximum allowable DUs allowed for IBC Vision Plan Traffic Program
6,676	384	7,060	DUs on the ground in 2015
4,065	23	4,088	<i>DUs Existing at time of approval of Vision Plan</i>
2,611	361	2,972	<i>DUs Existing (on the ground) between 2010 and 2015</i>
Breakdown of Remaining Units between Year 2035 and Year 2015			
Base Units	Density Bonus Units	Total	Details
8,324	1,410	9,734	Remaining DUs between Year 2015 and Year 2035
8,264	1,348	9,612	Total DUs: under construction/approved/pending
2,020	323	2,343	<i>Units Under Construction accounted between 2010 and 2015</i>
836	228	1,064	<i>Units Approved – IBC fees paid between 2010 and 2015</i>
600	148	748	<i>Units Approved – IBC fees paid after 07/31/15 snapshot date</i> <i>16103 Derian Avenue</i> <i>360 Fusion</i> <i>Main and Jamboree Apartments</i>
2,887	312	3,199	<i>Units Approved – no IBC fees paid</i>
8	0	8	<i>Units Approved - fees paid prior to 2010</i>
1,913	337	2,250	<i>Units In Process / Pending - no fees paid</i>
60	62	122	DUs not associated with known projects*

*as of the snapshot date of July 31, 2015

Source: City of Irvine



Table 3.5: Future Land Use Intensity Subject to the Updated Traffic Fee

	Base (DU)	Density Bonus (DU) *	TOTAL (DU)	Extended Stay (Rooms)	Hotel (Rooms)	Retail Mix (Sq. ft.)	Office (Sq. ft.)	Industrial Mix (Sq. ft.)	Mini Ware-House (Sq. ft.)
2010 Baseline (for reference)	4,779	232	5,011	174	2,322	1,341,002	174	14,700,922	348,056
2015 Baseline (on the ground conditions) ¹	6,676	384	7,060	474	2,322	1,384,000	26,639,000	13,934,000	379,000
2035 Buildout Cumulative with Project	15,000	1,794	16,794	1,049	2,653	1,690,000	34,286,000	12,339,000	549,000
Remaining Development (2015 to 2035)	8,324	1,410	9,734	575	331	306,000	7,647,000	-1,595,000	170,000
Central Park West and Park Place Development (not subject to updated fee per their individual DAs)	2,277	128	2,405	0	0	149,250	2,674,820	0	0
ADJUSTED Remaining Development between 2015 and 2035 (quantities reflect subtraction of intensity related to Central Park West and Park Place DAs) ²	6,047	1,282	7,329	575	331	156,750	4,972,180	-1,595,000	170,000
Other Developments with prepaid fees prior to 07/31/15 snapshot date	1,987	423	2,410	161	0	3,224	0	0	0
REMAINING DEVELOPMENT SUBJECT TO UPDATED TRAFFIC FEE ³	4,060	859	4,919	414	331	153,526	4,972,180	-1,595,000	170,000
LAND USE BREAKDOWN									
DEVELOPMENT AGREEMENTS									
Central Park West									
Existing (Fees Paid)	646	0	646	0	0	0	0	0	0
Under Construction (Fees Paid)	16	0	16	0	0	0	0	0	0
Approved (Fees not paid)	613	0	613	0	0	26,688	0	0	0
TOTAL	1,275	0	1,275	0	0	26,688	0	0	0
Park Place									
Existing (Fees Paid)	1,442	232	1,674	0	190	0	0	0	0
Under Construction (Fees Paid)	861	128	989	0	0	0	0	0	0
Approved (Fees not paid)	787	0	787	0	0	122,562	2,674,820	0	0
TOTAL	3,090	360	3,450	0	190	122,562	2,674,820	0	0



Table 3.5: Future Land Use Intensity Subject to the Updated Traffic Fee

	Base (DU)	Density Bonus (DU) *	TOTAL (DU)	Extended Stay (Rooms)	Hotel (Rooms)	Retail Mix (Sq. ft.)	Office (Sq. ft.)	Industrial Mix (Sq. ft.)	Mini Ware-House (Sq. ft.)
OTHER DEVELOPMENTS (INCLUDES HINES, AVALON BAY, ALTON CONDOS DAs)									
<i>Approved (Fees Paid prior to 2010)</i>	8		8						
<i>Existing (Fees Paid)</i>	523	129	652	290	0	0	415,696	40,753	257,525
<i>Under Construction (Fees Paid)</i>	1,143	195	1,338	161	0	3,224	0	0	0
<i>Approved (Fees Paid)</i>	836	228	1,064	0	0	0	0	0	0
<i>Demolished/Pending Demo (Fees not paid)</i>	0	0	0	0	0	0	41,609	248,246	0
<i>In Process / Pending (Fees not Paid)</i>	1,913	337	2,250	0	0	0	0	0	0
<i>Approved (Fees Paid after 07/31/15) ⁴</i>	600	148	748	0	0	0	0	0	0
<i>Approved (Fees not paid)</i>	1,487	312	1,799	0	0	15,500	785,000	0	0
TOTAL	6,510	1,349	7,859	451	0	18,724	1,242,305	288,999	257,525

Source: City of Irvine

* Density Bonus Units will be charged fees consistent with the market value

¹ Quantities includes land use that was on the ground prior to 2015² Backing out quantities for CPW and Park West (only "Under Construction" and "Approved")³ Obtained by subtracting quantities that are either "Under Construction" or "Approved" for which fees are already paid⁴ Developments that paid fees after the July 01, 2015 deadline. Hence the fees and associated LU intensity will be included in the fee calc, but these developments will not be subject to new 2017 fees

The remaining quantities of land use subject to the updated fees were determined based on the following procedures, with an example provided in **Table 3.6** relating to the residential base units:

- 1: Calculate difference in land use quantities between Year 2015 and Year 2035.
- 2: Calculate land use quantities for Central Park West and Park Place DAs (see **Section 2.9** for discussion) to be subtracted from the first procedure above.
- 3: Calculate quantities of land use from other developments where the developer has prepaid IBC fees within the "snap shot" period for this update, for subtraction from the second procedure above. For the three developments where fees were paid after the "snap shot" deadline, the quantities were included for the calculation, but these developments will not be subject to new fees.
 - Any quantities designated as "existing" in **Table 3.5** and **Table 3.6** were not subtracted because they were included in the quantities that represent Year 2015 on the ground conditions.



Table 3.6: Example Procedures to Determine Land Use Subject to Updated Fee

Procedure	Land Use Description	Quantities	Calculation
1.	Residential Land Use considered for 2015 Baseline	6,676 DU	15,000 – 6,676 = 8,324 DU
	Residential Land Use considered for 2035 Buildout	15,000 DU	
2.	Development Agreements (note: “existing” quantities were not subtracted because these are already included in the 2015 on the ground conditions (Baseline))		
	<u>Central Park West: 1,275</u> <i>Existing: 646 (not included in this calculation)</i> <i>Under Construction: 16</i> <i>Approved: 613</i> <u>Park Place: 3,090</u> <i>Existing: 1,442 (not included in this calculation)</i> <i>Under Construction: 861</i> <i>Approved: 787</i>	(16+613) + (861+787) = 2,277 DU	8,324 – 2,277 = 6,047 DU
3.	Other Developments (note: “existing” quantities were not subtracted because these are already included in the 2015 on the ground conditions (Baseline); developments that paid fees after the 07/31/15 snapshot date were not subtracted)		
	<i>Approved (fees paid prior to 2010): 8</i> <i>Existing: 523 (not included in the calculation)</i> <i>Under Construction (Fees Paid): 1,143</i> <i>Approved (Fees Paid): 836</i> <i>Demolished/Pending Demo (Fees not paid): 0</i> <i>In Process / Pending (Fees not Paid): 1,913</i> <i>Approved (Fees Paid after 07/31/15): 600</i> <i>Approved (Fees not paid): 1,487</i>	8+1,143+836 = 1,987 DU	6,047 – 1,987 = 4,060 DU

Source: City of Irvine, HDR

3.5 Step 5: Estimate of Total Development Intensity Value (DIV)

Since 1992, the IBC study area has had provisions in place to allow for Transfers of Development Rights (TDRs) through the creation of a Development Intensity Value (DIV) budget system in which an allocation of AM, PM and ADT DIVs are assigned to each property in the IBC. These DIVs must be transferred in blocks (AM, PM and ADT) to other properties through a conditional use permit process and accompanying traffic study. The total DIVs associated with the remaining development required for full buildout of the Vision Plan was calculated by applying the IBC trip generation rates to the land use quantities.

Table 3.7 presents the established DIV rates applied in this update and is consistent with those used for the Vision Plan Traffic Fee Nexus Study. Based on the remaining development subject to the updated traffic fee determined in Section 3.4, Step 4, multiplied by the IBC DIV rates, the total DIVs equate to 10,263 (refer to Table 3.8). Consistent with the methodology used for the Vision Plan Traffic Fee Nexus Study and previous IBC fee reports, the PM peak hour DIV rates were applied for all land uses because for a majority of the land uses, the PM peak hour rate is the maximum DIV rate. The PM peak hour rates represent the maximum DIV rate for all IBC land use categories with the exception of industrial and mini-warehouse uses; however for those uses, the DIV rates are significantly less in comparison to the other land uses.



Table 3.7: IBC Land Use DIV Rates

Trip Rate	Residential (per DU)	Extended Stay (per Room)	Hotel (per Room)	Retail Mix (per sq. ft.)	Office (per sq. ft.)	Industrial Mix (per sq. ft.)	Mini Warehouse (per sq. ft.)
PM Peak Hour	0.52	0.42	0.68	0.00696	0.00138	0.00042	0.00027

Source: City of Irvine, ITE, Table 4, IBC Vision Plan Traffic Fee Nexus Study, January 2011

The Vision Plan utilizes a flexible zoning concept, meaning that to account for the planned increase in residential units under the Vision Plan, quantities of planned land uses from other categories such as manufacturing and their associated development intensity would be reduced. This is the reason for the negative quantities (see row "Remaining Development (2015 to 2035)") identified in **Table 3.5** and **Table 3.8**. If the quantities of land uses that were assumed to be developed under the IBC Vision Plan do not develop as planned, the PM peak hour trips associated with those land uses will be available for use for other types of development.

The Vision Plan is an overlay zone that allows for flexibility in land use development. Once the development intensity available in the IBC (identified in Chapter 9-36 of the Zoning Ordinance) is exhausted, no additional development can take place without a General Plan Amendment that intensifies the IBC planning area. The City of Irvine continues to monitor the development patterns in the IBC annually to evaluate how the Vision Plan is taking shape, to ensure that there is sufficient development intensity for the maximum assumed residential and mixed-use development. Subsequent to this update, the reassessment of the IBC Vision Plan Traffic Study will be conducted every two years, with the next update commencing in Fall 2017.

3.6 Step 6: Normalization of Retail and Office Land Uses

In accordance with established precedent in the City and consistent with the mixed-use vision, to encourage additional commercial and retail development in the IBC, the office and retail mix land uses have been normalized in the calculation of remaining developments subject to fee. Because the retail mix land use PM peak hour trip rate is significantly higher (over 5 times higher – 0.00696 for retail mix; 0.00138 for office) than the office land use, the fees for retail mix development are normalized, creating a fee structure in which retail mix and office square footage cost is equivalent. **Table 3.8** identifies the normalization of DIVs and land use for office and commercial land uses.

3.7 Step 7: Estimate Cost per DIV

The cost associated per DIV to implement the Vision Plan improvements was calculated by dividing the total program cost by the total number of normalized DIVs that must participate in the funding program. **Table 3.9** estimates that the cost per DIV will be \$9,032.09. **Table 3.10** presents the maximum development fees for each land use category through application of the cost per DIV to the normalized DIVs associated with each category.



Table 3.8: IBC Total DIVs

Land Use	Unit	Remaining Development Subject to Updated Fee	DIVs (rounded)	Remaining Development Subject to Updated Fee (normalized quantities)	Normalized DIVs (rounded)
Residential *	DU	4,919	2,558	4,919	2,558
Extended Stay	Rooms	414	174	414	174
Hotel	Rooms	331	225	331	225
Retail Mix	Sq. Ft.	153,526	1,069	2,562,853	3,965
Office	Sq. Ft.	4,972,180	6,862	2,562,853	3,965
Industrial Mix **	Sq. Ft.	-1,595,000	-670	-1,595,000	-670
Mini-Warehouse	Sq. Ft.	170,000	46	170,000	46
TOTAL DIVs			10,263		10,263

Source: HDR

* includes Base and Density Bonus Units, since Density Bonus Units will be charged as market (Base) units

** includes manufacturing and warehouse sq. ft.

Table 3.9: Cost Estimate per DIV

Total Traffic Fee Program Cost	\$92,696,238
Total number of DIVs generated	10,263
Cost per DIV	\$9,032.08

Source: HDR

**Table 3.10: Traffic Fee Estimates for each Land Use Category**

Land Use	Unit	Remaining Development Subject to Updated Fee (normalized quantities) *	Cost per DIV (rounded)	Normalized DIVs (rounded)	Development Fees (Maximum)
Residential	DU	4,919	\$9032.08	2,558	\$23,104,061
Extended Stay	Rooms	414	\$9032.08	174	\$1,571,582
Hotel	Rooms	331	\$9032.08	225	\$2,032,218
Retail Mix	Sq. Ft.	2,562,853	\$9032.08	3,965	\$35,812,197
Office	Sq. Ft.	2,562,853	\$9032.08	3,965	\$35,812,197
Industrial Mix ***	Sq. Ft.	-1,595,000	\$9032.08	-670	-\$6,051,494
Mini Warehouse	Sq. Ft.	170,000	\$9032.08	46	\$415,476
TOTAL				10,263	\$92,696,238

Source: HDR

* Obtained from Table 3.8

** includes Base and Density Bonus Units, since Density Bonus Units will be charged as market (Base) units

*** includes manufacturing and warehouse sq. ft.

3.8 Step 8: Estimate Cost per Development Unit

To establish the cost per development unit, the maximum fees associated with each land use determined in **Section 3.7, Step 7** are divided by the quantity associated with each land use category. **Table 3.11** represents the fee per measurable unit for each land use category.

Table 3.11: Traffic Fee Summary

Land Use	Unit	Remaining Development Subject to Updated Fee	Remaining Development Subject to Updated Fee (normalized quantities)	Development Fees (Maximum)	Updated Fee ***
Residential	DU	4,919	4,919	\$23,104,061	\$4,697
Extended Stay	Room	414	414	\$1,571,582	\$3,796
Hotel	Room	331	331	\$2,032,218	\$6,140
Retail Mix	Sq. Ft.	153,526	2,562,853	\$35,812,197	\$13.97
Office	Sq. Ft.	4,972,180	2,562,853	\$35,812,197	\$13.97
Industrial Mix **	Sq. Ft.	-1,595,000	-1,595,000	-\$6,051,494	\$3.79
Mini-Warehouse	Sq. Ft.	170,000	170,000	\$415,476	\$2.44
				\$92,696,238	

Source: HDR 2015

* Includes Density Bonus Units that will be charged fees at the same rate as Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018



Table 3.12 presents a fee comparison between the 1992 fees (at the onset of the IBC Traffic Fee Program), 2009 fees (developed through annual adjustments of the 1992 fee), 2010 fees (developed as part of the Vision Plan), 2016 fees (currently what the City charges developers – this is developed by applying annual adjustments to the 2010 fee) and proposed updated fees.

Table 3.12: IBC Fee Comparison

Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential	DU	\$3,734	\$7,175	\$1,862	\$2,254	\$4,697	2.08
Extended Stay	Rooms	\$3,016	\$5,795	\$1,503	\$1,820	\$3,796	2.09
Hotel	Rooms	\$4,883	\$9,383	\$2,435	\$2,947	\$6,140	2.08
Retail Mix	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Office	Sq. Ft.	\$10.70	\$20.28	\$5.45	\$6.60	\$13.97	2.12
Industrial Mix **	Sq. Ft.	\$3.30	\$5.85	\$1.50	\$1.82	\$3.79	2.08
Mini Warehouse	Sq. Ft.	\$1.85	\$3.55	\$0.97	\$1.17	\$2.44	2.09

Source: HDR 2015, City of Irvine

* Includes Density Bonus Units charged fees consistent with Base Units

** Includes manufacturing and warehouse SF

*** Effective FY 2017-2018

As can be seen in **Table 3.12**, the proposed fee is significantly higher than the 2010 and 2016 fees. There are a few reasons behind this increase: (a) new improvements and increases to cost of improvements, (b) fewer developments remaining that are subject to updated fees, and (3) lower remaining funds in the IBC Traffic Fee Program.

Significant Increase in Improvement Costs between 2010 and 2016

- Unit costs have increased moderately between 2010 and 2016 (when the cost estimates were developed), contributing to increase of project cost.
- Increase of right of way (ROW) support costs from 5% to 10% of construction costs, based on current trends in ROW acquisitions, have significantly increased the costs for improvements that require ROW acquisitions.
- New improvements were identified in the 2015 IBC Traffic Study Update that had not been identified in the Vision Plan Traffic Study including:
 - Von Karman/Tustin Ranch Road at Barranca Parkway and Von Karman Avenue at Alton Parkway: Although identified as two separate deficient intersections, based on the geometrics of improvements, the proximity of these adjacent intersections and the efficiency of traffic flow between them, the cost estimate considered this improvement as a corridor improvements that considered widening of Von Karman Avenue between Barranca Parkway and Alton Parkway.
 - Loop Road/Park Avenue at Warner Avenue
 - Jamboree northbound ramps at Warner Avenue
 - Culver Drive at Alton Parkway



- Increases in costs were identified for a few improvements previously identified in the 2010 IBC Traffic Fee Nexus Study. These are briefly discussed below:
 - Alton Overcrossing at SR-55: The Vision Plan Traffic Fee Nexus Study included an estimate of \$17.5 million (50% of a total \$35 million cost) as the City of Irvine's fair-share contribution pursuant to the agreement with Santa Ana. However, for this update, the total cost has increased to \$60 million, resulting in City of Irvine's fair-share contribution of \$30 million (50% of the total \$60 million cost). This approximate two-fold increase in cost is attributable to the project's current definition which includes additional improvements that must be included as part of the City of Santa Ana's Alton Overcrossing at SR-55 Capital Improvement Program (CIP) project based on an updated traffic study⁶ conducted by the City of Santa Ana in 2010. The cost estimate for this Overcrossing project (without the additional improvement costs) was updated in 2014 and was estimated at \$55.5 million. As part of the 2015 IBC Traffic Fee Nexus Update, the cost estimate at this location was developed considering the \$55.5 million estimated cost plus the cost of the additional improvements resulting from Santa Ana's 2010 traffic study including improvements at intersection #44: Red Hill Avenue at Alton Parkway; signalization and widening of Halladay Street at Alton Parkway; and signalization at Daimler Street at Alton Parkway).
 - Widening of Dyer Road between SR-55 NB on-ramp and Red Hill Avenue: The cost included in the Vision Plan Traffic Fee Nexus Study was \$9 million (90% of a total estimated \$10 million) based on the Barranca Parkway/Dyer Road Project Report⁷ prepared in 2004. With this update, the cost for this improvement increased significantly to \$22.5 million (90% of a total cost of \$25 million). The Project Report was revisited to ensure that the cost estimates reflected the continuation of the Class II bike lanes on either side of Dyer Road/Barranca Parkway between Red Hill Avenue and the SR-55 NB on-ramp. The necessary widening of Barranca Parkway/Dyer Road will result in partial takes of three properties located (1) west of the railroad tracks and south of Dyer Road; (2) west of Pullman Street and south of Dyer Road; and (3) west of Pullman Street and north of Dyer Road. The partial takes of these properties and the cost for Class II bike lanes add significant costs to the project.
 - Widening of Red Hill Avenue between Main Street and MacArthur Boulevard: For this update, the cost estimate for this improvement (90% of cost) is significantly higher (\$18.4 million in 2016, vs. \$8.7 million in 2010) due to higher ROW costs, and is attributable to the inclusion of the bike lanes on either side of Red Hill Avenue.

Fewer number of Remaining Development Units and Square Footage Subject to Fee

- As the Vision Plan gets implemented, the number of developable units remaining decreases, resulting in fewer quantities of land use subject to updated fees.
- Since 2005, developers have been taking advantage of the option of prepayment of fees for projects under consideration (see discussion in **Section 3.4**), thereby further reducing the developable units (residential and non-residential) subject to fee. A comparison with the Vision Plan Traffic Fee Nexus Study shows that the total number of DIVs in 2010 were 17% higher than in 2015, or in other words, the quantity of remaining

⁶ Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, KOA Corporation, 2010

⁷ Project Report for the Dyer Road/Barranca Parkway Improvements (State Route 55 to Aston Street), RBF Consulting, 2004



developable units and square footage in 2010 was greater than in 2015. The combination of developable units subject to fee and the higher cost of improvements contribute towards higher fees.

Lesser Remaining Available IBC Traffic Fund Balance

- The Vision Plan Traffic Fee Nexus Study recommended removal of several improvements originally identified in 1992 because they were deemed unnecessary. This resulted in a significant reduction of fees as can be seen in **Table 3.12** (2009 vs. 2010). Hence between 2010 and 2015, the rate at which fees were imposed was lower than the pre-2010 years.
- Subsequent to the adoption of the Vision Plan, large sums of payouts were made to the Cities of Newport Beach (\$3.65 million) and Tustin (\$4.5 million), per the agreements between the Cities and City of Irvine (see **Section 2.1** and **Section 2.2**).
- In addition, a sizeable amount of IBC Traffic Fee funds (\$27.4 million – see **Table 2.2**) are allocated to implement CIP projects identified in the Vision Plan Traffic Study (improvements at the intersections of Jamboree Road at Main Street, Jamboree Road at Barranca Parkway, and the pedestrian bridge at the intersection of Jamboree Road at Michelson Drive). Lower collection rates and a higher allocation of funds to the CIP projects have led to a significantly smaller amount (\$19.5 million) of remaining available Vision Plan Traffic Fee Program funds rolled over in this update as compared to 2010. Although the updated fee is higher than 2010, it still remains about 31%-35% lower than what was being charged in 2009.



4 Establishing Nexus

Section 1, Introduction discussed the requirement for a fair-share nexus between the mitigation requirements of the EIR and the traffic fees associated with the necessary mitigation improvements. The introduction further indicated a requirement to substantiate this nexus based on the adopted State legislation to ensure that fees collected are associated with development impacts and the physical improvements. The following statements fulfill the nexus requirements.

4.1 Identify the Purpose of the Impact Fee

The purpose of the 2015 IBC Traffic Fee Nexus Update is to:

- Clearly identify a fee rate to mitigate project related impacts within the IBC study area to an acceptable level of service.
- Mitigate the traffic impacts of new development within the IBC Vision Plan area under the expected buildout commensurate with the EIR Traffic Impact Mitigation Measures under CEQA and other agreements through which a fair-share of improvement costs have been contractually identified in an arms length negotiation.

The 2015 IBC Traffic Study Update evaluated the circulation system of the IBC study area under With and Without Project conditions. The study accounted for approved and pending projects within the IBC study area and forecast regional growth in both interim-year 2020 and Post-2035 buildout conditions. The Without Project conditions for each scenario assumed existing 2015 on-the ground development. The With Project conditions for each scenario included expected development within the IBC area, including the addition of residential DUs through the conversion of non-residential office equivalency square footage as identified in the traffic study.

Utilizing the intersection capacity utilization (ICU) analysis that measures peak hour intersection capacity and performance to assess impacts, the 2015 IBC Traffic Study Update identified project impacts at locations within and outside the City of Irvine, based on the City's TIA guidelines (2004) and those set by each of the affected jurisdiction/agencies (Caltrans and the cities of Newport Beach, Tustin, Santa Ana, Costa Mesa). For details on project-related thresholds, refer to the 2015 IBC Traffic Study Update⁸. As the traffic impacts are the responsibility of the project under CEQA, it is the responsibility of the project to mitigate the project impacts or contribute its fair-share towards each improvement. Thus, the Vision Plan is responsible for mitigating all the project traffic impacts to an acceptable level of service or to existing conditions performance levels. All future development under the Vision Plan will contribute to future circulation system impacts identified in the traffic study and will pay for the necessary improvements to deliver an acceptable level of service.

4.2 Identify the Use of the Impact Fee

The use of the proposed fee is the following:

- To fund the Vision Plan circulation improvements within the City of Irvine.
- To fund improvements to the State Highway System that will contribute to enhanced operations.
- To compensate adjacent jurisdictions for traffic impacts as a result of implementation of the Vision Plan.

The traffic fee will be used to mitigate traffic impacts from the buildout of the Vision Plan both within Irvine and in neighboring jurisdictions/agencies. The fee will be used to pay for improvements that accommodate residential

⁸ *Irvine Business Complex Vision Plan – 2015 Five-Year Traffic Study Update, Iteris, HDR, 2016*



intensity increases within the IBC. Without the improvements, the project impacts would not be mitigated as necessary.

4.3 Determine Reasonableness Relationships

As discussed in **Section 1.2, Purpose of the 2015 Update to the Vision Plan Nexus Study**, California's Mitigation Fee Act creates the legal framework for local governments to assess new fees toward future development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must establish a "nexus" or reasonable relationship between a proposed fee and the impacts attributable to the developments paying the fee:

4.3.1 Reasonableness Between **Use** of Fee and the Type of Development on which the Fee is imposed

- IBC fees will be applied directly to the funding needs for each identified improvement within the City of Irvine and towards any pending financial obligation determined through existing agreements with adjacent jurisdictions regarding Vision Plan traffic impacts.
- IBC fees are collected from new development within the IBC that directly increases traffic on IBC study area roadways and impacts the circulation system component identified in the 2015 IBC Traffic Study Update.
- The 2015 IBC Traffic Study Update identifies the additional traffic volumes generated by new IBC development.
- Project-related fair-shares developed as part of the 2015 IBC Traffic Fee Nexus Update document the proportional responsibility of the project to traffic impact funding requirements.

The fees will be used to construct the improvements that will enable the circulation system to function at acceptable levels of service in Irvine and in adjacent jurisdictions.

4.3.2 Reasonableness Between **Need** for the Improvements and the Type of Development on which Fee is imposed

- As the IBC continues to develop, increasing traffic will necessitate improvements throughout the study area to maintain efficient circulation.
- Without implementation of project-related improvements, the circulation system will continue to deteriorate as new development compounds traffic operations deficiencies on the roadway network.

The fee collected is based on the forecasted number of trips the proposed development will generate at buildout. The need for the improvements is based on the analysis presented in the 2015 IBC Traffic Study Update. The fee is associated directly with new development within the IBC and the number of total peak hour trips that the new development is expected to generate. As the Vision Plan area develops, fees will be collected and improvements constructed to keep pace with new development, providing a circulation system throughout the IBC that operates at an acceptable level of service.

4.3.3 Reasonableness Between **Amount** of the Fee and Cost of Public Good (IBC Transportation Needs) attributable to the Type of Development

- Development fees have been defined based on funding of the City of Irvine's fair-share responsibility of the Vision Plan improvements outside the City within the Vision Plan study area, and 90% of the City of Irvine's responsibility for improvements within the City of Irvine. It is assumed that outside funding sources, including federal, state and county grants, can supplement the remaining 10% of development fees to implement improvements within the City of Irvine.



- The fee is supported by all new development at a rate that reflects the relative traffic impact of that development.
- The amount of the fee is directly related to the level of development associated with each new IBC project. The calculation of the impact fee is based upon the recognition that differing types of developments generate differing amounts of trips. The fee is based on the forecasted number of peak trips generated by the proposed development projects.

The total fee includes a program administration fee. This administration fee is required to ensure that the program functions properly and the traffic improvements are implemented appropriately.

To further demonstrate reasonableness of the fees, the updated IBC Transportation fees were compared with another major activity center in Orange County, the Platinum Triangle in Anaheim, California. **Table 4.1** compares traffic fees imposed on developments within the Platinum Triangle with those proposed for IBC, in this update.

Table 4.1: Traffic Fee Comparison between Platinum Triangle and IBC

Land Use	Unit	Anaheim Citywide Fee *	Platinum Triangle Supplemental Fee *	Platinum Triangle Total Fee	IBC Updated Traffic Fee **
Residential	DU	\$2,029	\$3,702	\$5,731	\$4,697
Extended Stay	Room				\$3,796
Hotel	Room	\$1,474		\$1,474	\$6,140
Retail Mix	Sq. Ft.	\$5.50	\$50.00	\$55.50	\$13.97
Office	Sq. Ft.	\$3.67	\$12.00	\$15.67	\$13.97
Industrial Mix **	Sq. Ft.	\$1.42	\$3.00	\$4.42	\$3.79
Mini-Warehouse	Sq. Ft.				\$2.44

Source: HDR 2015, City of Anaheim

* City of Anaheim Fee Schedule (<http://www.anaheim.net/DocumentCenter/View/202>)

** Effective FY 2017-2018



5 Conclusion

This 2015 IBC Traffic Fee Nexus Update has been prepared to reiterate the “nexus” for the development fees needed to fund necessary improvements to the circulation system. The updated traffic fee rates will be effective in the upcoming FY 2017-18. As noted in the Vision Plan EIR, there are overriding considerations for jurisdictional circulation system improvements outside the City of Irvine. As these improvements are not under the City of Irvine’s jurisdiction, the City cannot guarantee that these improvements are implemented. However, it is the responsibility to contribute fair-share to the improvements through traffic impact fees in order to fund the improvements within these adjacent jurisdictions. During the development of the IBC Vision Plan, the City reached agreements with Newport Beach, Tustin and Caltrans, and amended an existing agreement with Santa Ana regarding its financial responsibilities to mitigate traffic impacts in each jurisdiction due to the buildout of the Vision Plan.

Since 2010, through the agreements with the Cities of Newport Beach and Tustin, the City of Irvine paid Tustin and Newport Beach a combined amount of \$8.15 million as its fair-share, and thereby, has been absolved from any future fair-share contribution provided the City does not exceed its maximum cap on residential units of 15,000 base dwelling units (plus 1,794 density bonus dwelling units pursuant to state law.) For Caltrans, the City of Irvine is obligated to provide, through IBC fee collection, a total amount of \$7,025,962, when the agency proceeds with the implementation of improvements at its impacted facilities. Currently the IBC fund has earmarked \$440,663 towards that payment. Based on the amended agreement with Santa Ana, the City of Irvine is obligated to contribute \$52,670,912 towards three improvements in Santa Ana (widening of Dyer Road, Alton Parkway Overcrossing at SR-55, and Flower Street at Segerstrom Avenue). The agreement with Costa Mesa was not revised and the City of Irvine, through the proposed fee, will collect an amount of \$28,970 to contribute towards the improvement at SR-55 Frontage Road SB Ramps at Paularino Avenue.

Based on this update, the proposed fees are significantly higher than the current 2016 fees due to several factors which include additional improvement locations, significant increases in improvement costs between 2010 and 2015, fewer number of remaining developments that will share the cost of the improvements and a lesser amount of remaining available IBC funds that can be applied towards the improvements. However, even with the increased fees, they remain about 30%-35% lower than the 2009 IBC traffic fees, in-place prior to the adoption of the Vision Plan in 2010.

Appendix C

Mitigation Monitoring and Reporting Plan
from 2010 IBC Vision Plan EIR

*MITIGATION
MONITORING
PROGRAM*

IRVINE BUSINESS

COMPLEX VISION PLAN

AND MIXED USE

OVERLAY ZONING CODE

ENVIRONMENTAL

IMPACT REPORT

SCH #2007011024



prepared for:

CITY OF IRVINE

*Contact:
Bill Jacobs, AICP,
Principal Planner*

prepared by:

THE PLANNING CENTER

*Contact:
William Halligan, Esq.
Vice President,
Environmental Services*

JULY 2010

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COI-21.0E

JULY 2010

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1. Introduction

1.1 PURPOSE OF MITIGATION MONITORING PROGRAM

This Mitigation Monitoring Program has been developed to provide a vehicle by which to monitor mitigation measures and conditions of approval outlined in the Recirculated Draft Environmental Impact Report (RDEIR) State Clearinghouse No. 2007011024. The Mitigation Monitoring Program has been prepared in conformance with Section 21081.6 of the Public Resources Code and City of Irvine Monitoring Requirements. Section 21081.6 states:

(a) When making the findings required by paragraph (1) of subdivision subsection (a) of Section 21081 or when adopting a mitigated negative declaration pursuant to paragraph (2) of subdivision (c) of Section 21080, the following requirements shall apply:

(1) The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

(2) The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.

(b) A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other public project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.

(c) Prior to the close of the public review period for a draft environmental impact report or mitigated negative declaration, a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit the authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

The Mitigation Monitoring Program will serve to document compliance with adopted/certified mitigation measures which are formulated to minimize impacts associated with the construction of the proposed project.

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1.2 PROJECT LOCATION

The approximately 2,800-acre Irvine Business Complex (IBC) comprises Planning Area 36 in the City of Irvine, in south/central Orange County. More specifically, the IBC is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north, the San Diego Creek channel to the east, John Wayne Airport and Campus Drive to the south and State Route 55 (SR-55) to the west. The San Diego Freeway (I-405) traverses the southern portion of the IBC, and the Santa Ana Freeway (I-5) is to the north and east. The IBC is bordered by the cities of Newport Beach to the south, Santa Ana and Costa Mesa to the west, and Tustin to the north. 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. Adjacent to the IBC, on the north, is the City of Tustin and the former MCAS Tustin, currently being redeveloped with residential and commercial uses as part of the Tustin Legacy Specific Plan. A 40-acre parcel of the IBC is detached and to the south of the main IBC boundary area, and bounded by Jamboree Road, Fairchild Road, Macarthur Boulevard, and the San Joaquin Marsh, and adjacent to the City of Newport Beach. The most prominent land use in the IBC is office, with substantial amounts of industrial/warehouse uses and 4,779 medium- and high density residential units and 232 density bonus units for a total of 5,011 dwelling units existing within the IBC.

1.3 PROJECT SUMMARY

As shown on Table 1-1, the IBC Vision Plan and Mixed Use Overlay Zoning Code (proposed project) would allow for an increase in total units in the IBC from 9,015 units to 15,000 units, a difference of 5,985. This increase is a reallocation of existing intensity within current intensity limitations. 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 current General Plan allows for 53,125,389 square feet of nonresidential intensity in Planning Area 36. The additional units would be offset by a reduction of 2,399,626 of office square footage and 1,602,526 of industrial square footage (for a total of 4,002,152 square feet, or 2,887,307 square feet of office equivalency). Upon adoption of the IBC Vision Plan, the total nonresidential intensity allowed by the adopted General Plan would be 48,787,662 square feet. The individual components of the proposed project are outlined in Table 1-1.

1. Introduction

Table 1-1
IBC Development Summary

Residential					
	Existing General Plan			Proposed Project	
	Existing	Under Construction	Approved	Pending ¹	Potential ²
Base Units	4,779	1,814	2,422	2,035	3,950
Density Bonus Units ³	232	78	130	215	1,383
Subtotal	5,011	1,892	2,552	2,250	5,333
Total	9,455			7,583	
Total Cap for the IBC				15,000	
Total IBC Units at Buildout including Density Bonus				17,038	
Nonresidential					
	Existing General Plan		Proposed Project		
	Existing Development	Remaining Buildout Potential	Remaining Buildout Potential		
Nonresidential Square Footage	42,771,000	10,354,389	6,016,662		
Total Nonresidential	53,125,389		48,787,662		
Hotel Rooms					
	Existing General Plan		Proposed Project		
	Existing Development	Remaining Buildout Potential	Remaining Buildout Potential		
	2,496	610	372		
Total Hotel Rooms	3,106		3,478		

¹ Pending units are those for which development applications are currently on file with the City.

² Potential units are those remaining to reach the 15,000-unit cap. No development applications have been received for these units.

³ Density bonus units are exempt by state law from local regulatory limitations on development intensity but are included and analyzed in this DEIR.



The proposed project consists of the following components:

1.3.1 IBC Vision Plan

The IBC Vision Plan outlines 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's General Plan. The framework for the IBC Vision Plan provides the land use and urban design structure by which new residential development would be organized. The IBC Vision Plan Framework would facilitate the development of high-quality, sustainable neighborhoods, and a balanced mix of uses. Several infrastructure improvements would be proposed throughout the IBC Vision Plan area. The locations of the proposed improvements, such as bridge crossings, are generalized in nature, as specific locations have not yet been evaluated in detail. The proposed bridge widenings are intended to improve pedestrian and bicycle access. No additional vehicular travel lanes are proposed.

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 program calls for the installation of sidewalks to fill the gaps in the IBC sidewalk system and provides for the installation of a five- to eight-foot-wide sidewalk behind eight feet of landscaped parkway.

The proposed project includes a new per-unit fee program to be assessed against new residential or residential mixed-use development in the IBC to fund these proposed improvements. Existing developments would be exempt from this fee program. This fee program is proposed to be adopted in conjunction with the Vision Plan and its components. A separate

1. Introduction

fee program is also proposed to be adopted in conjunction with the Vision Plan to augment the current IBC Transportation Mitigation Fee program to reflect current mitigation.

1.3.2 IBC Districts

The IBC was originally planned as a business complex and at present there is little distinctiveness between its different areas. The IBC Vision Plan attempts to address this by creating two districts, to identify both a proposed mixed-use core and maintain a distinct core for existing businesses, each with its own unique identity and character, within the Mixed Use Overlay Zone.

Urban Neighborhood (UN)

The Urban Neighborhood District would include the mixed-use core IBC (generally between Jamboree Road and Von Karman Avenue) and allows a range of land uses and buildings at varying heights. Generally, these neighborhoods are envisioned to be primarily residential with retail, offices, and restaurants allowed on the first floor.

Business Complex (BC)

The Business Complex District would be applied to portions of the IBC characterized by existing, longstanding industrial and other commercial uses that are expected to remain. This district accommodates new industrial and other commercial uses and an expansion of existing uses.

1.3.3 Subsequent Development Pursuant to the Proposed Project

The 2,250 pending units identified in Table 1-1 include the proposed projects summarized in Table 1-2, for which applications are currently on file with the City. It is anticipated that following the certification of this RDEIR, the City will proceed with the processing of the discretionary applications associated with each of these projects, without further need for a General Plan Amendment, Zone Change, or EIR so long as the project substantially conforms to the description in this RDEIR.

<i>Table 1-2</i> <i>Summary of Pending IBC Residential Development Projects</i>				
Project Name	Location	Base Units	Density Bonus Units	Total Units
Martin Street Condos	2301 Martin Street	82	—	82
2851 Alton	Northwest corner of Alton and Murphy	170	—	170
Avalon Jamboree II	16901 Jamboree	144	35	179
Irvine Technology Center	Northwest corner of Jamboree and Campus	1,000	—	1,000
Kilroy	17150 Von Karman	347	122	469
Alton/Millikan Apartments	16952 Millikan	126	30	156
2852 Kelvin	2852 Kelvin	166	28	194
Total		2,035	215	2,250

1.3.4 General Plan Amendment

The General Plan Amendment would incorporate Vision Plan policies and objectives into a new General Plan Element and establish a cap of 15,000 dwelling units for the IBC area (excluding density bonus units granted pursuant to state law), with a corresponding reduction of nonresidential office equivalency square footage in Table A-1, Maximum Intensity Standards by Planning Area, of the City's General Plan, to accommodate future units under the cap that have not yet been approved. As described on Table 1-1, the General Plan/Zoning cap for the IBC is currently set at 9,015

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residential units; therefore, a unit cap of 15,000 units would create potential for 5,985 additional dwelling units (of which 2,035 are pending) in the IBC beyond those already existing or approved. The details (location, timing, density, and design) of 3,950 potential units are unknown because there are no currently pending applications. In addition to the 15,000-unit cap, this RDEIR and related traffic study address the potential for 2,038 additional density bonus units, listed below, which are excluded from local intensity limitations by state law:

- 232 existing (built) density bonus units
- 208 density bonus units approved or under construction
- 215 known density bonus units from pending projects
- A theoretical maximum of 1,383 density bonus units, assuming the remaining 3,950 units are built with a maximum allowable additional density bonus of 35 percent

The current General Plan allows for 53,125,389 square feet of overall nonresidential development in Planning Area 36, which may vary according to the totals of individual land uses over time. The total 5,985 additional new units (either potential or in process) remaining under the 15,000-unit cap would be offset by a reduction of 4,337,727 square feet of nonresidential intensity square feet. With the additional nonresidential land use optimization discussed in this DEIR, the overall nonresidential intensity in the General Plan would be 48,787,662 square feet, with the reduction resulting primarily from the conversion of higher quantities of older industrial square footage to lower quantities of office square footage. Construction of the 1,892 units in process, along with the pending and approved nonresidential projects, are assumed to be completed by 2015. The remaining 3,950 units, along with the proposed nonresidential land use optimization, would be completed at City buildout, post-2030. The General Plan Amendment would also add new policy language to the current Land Use Element text and add the IBC Vision Plan framework as a new Land Use Element Figure A-3 (IBC) to incorporate the IBC Vision Plan.



As a part of General Plan Amendment, the existing IBC density cap of 52 dwelling units per acre would be removed from the Land Use Element Table A-1 and a minimum of 30 units per acre would be added as a density level. As a result, future residential projects would not have a restriction on maximum density, but would have to comply with a minimum density of 30 units per acre to ensure the benefit of higher-density housing necessary to establish a vibrant mixed-use community.

1.3.5 Zoning Ordinance Amendment

The Zoning Ordinance Amendment would add new Chapter 5-8 to adopt the IBC Mixed Use Overlay Zone, which would define regulatory zoning districts for properties within the IBC and outline a process for analysis of compatibility of residential development with adjacent businesses. The amendment would also revise the statistical analysis outlined in Section 9-36-5, Statistical Analysis, of the City's Zoning Ordinance, to establish a residential cap of 15,000 dwelling units for the IBC area (excluding density bonus units pursuant to state law), with an offsetting reduction of nonresidential square footage, for units under the cap not yet approved, consistent with the proposed General Plan Amendment. Furthermore, the amendment would also update the Chapter 9-36, Planning Area 36 (Irvine Business Complex), provisions regarding the IBC traffic mitigation fee program. This amendment would also include clarifications of code language relating to Transfer of Development Rights (TDR). The Zoning Ordinance Amendment would also include other minor amendments to other sections of zoning code to maintain internal consistency.

1.3.6 Municipal Code Amendment

The Municipal Code Amendment would revise Chapter 10, Dedications, of Division 5, Subdivisions, of the City's Municipal Code, by adding a section to incorporate new urban park standards into the City's park dedication requirements for the IBC. The City's Park Standards Manual would also be updated to address urban open space in the

1. Introduction

IBC. Section 5-5-1004D(1) will also be revised to remove a 50-unit per acre density cap for determining persons per household..

1.3.6.1 Design Criteria

To ensure a consistent standard of residential design quality throughout the IBC, a set of design criteria from the IBC Vision Plan that would be applicable to residential and residential mixed-use projects in the IBC would be adopted. These criteria are intended to guide the physical development of any residential or mixed-use project that contains a component of residential use within the boundaries of the IBC. They are intended to assist in ensuring that the design of each development remains true to the principles established in the IBC Vision Plan. The criteria would also provide standards and criteria for new construction and for remodels or additions. The new design criteria would only be applicable to residential and mixed-use development.

1.3.6.2 Amendments to the City's Circulation Element

The City of Irvine General Plan Circulation Element identifies certain roadway configurations that are no longer needed as determined in the IBC Vision Plan; therefore a General Plan Amendment subsequent to the approval of the IBC Vision EIR will downgrade arterial roadways as needed. The City of Irvine intends to downgrade the following arterial segments as a subsequent General Plan Amendment to the Circulation Element:

- Barranca Parkway between Red Hill Avenue and Jamboree Road (downgrade from 8-lane divided roadway to 7-lane divided roadway)
- Jamboree Road between Barranca Parkway and McGaw Avenue (downgrade from a 10-lane divided roadway to a 8-lane divided roadway)
- Main Street between Red Hill and Harvard (downgrade from 6-lane divided arterial with 2 auxiliary lanes to 6-lane divided roadway)
- MacArthur Boulevard between Fitch and Main Street (downgrade from 8-lane divided roadway to 7-lane divided roadway)
- Red Hill Avenue between Barranca Parkway and Main Street (downgrade from an 8-lane divided roadway to a 6-lane roadway)
- Alton Parkway between Red Hill Avenue and Jamboree Road (downgrade from a 6-lane divided roadway to 4-lane divided roadway)
- Von Karman Avenue between Barranca Parkway and Michelson (downgrade from 6-lane roadway to 4-lane roadway)

The arterial segment of Alton Parkway between Red Hill Avenue and Jamboree Road as well as the segment of Von Karman Avenue between Barranca Parkway and Michelson Drive are programmed into both the City of Irvine's General Plan and the Orange County Master Plan of Arterial Highways (MPAH). Both roadways are currently 4-lane roadways and expected to remain as 4-lane roadways in the future. Both the City's General Plan and the Orange County MPAH currently have these two segments programmed as 6-lane divided arterials in the buildout condition. The IBC Vision Plan traffic study has determined that 6 lanes are unnecessary for both of these roadway segments under buildout conditions. Thus, the City of Irvine will initiate an MPAH Amendment by entering into a cooperative study with the Orange County Transportation Authority (OCTA) to determine the feasibility of downgrading both Alton Parkway and Von Karman Avenue. In order for the City of Irvine to maintain eligibility for Measure M funding, prior to amending the City's General Plan to downgrade both Alton Parkway between Red Hill Avenue and Jamboree Road and Von Karman

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Avenue between Barranca Parkway and Michelson Drive, the City and OCTA will work to prepare amendments to the County MPAH to be approved by the OCTA Board of Directors. If the MPAH is approved by the OCTA Board, the City can move forward with downgrading the arterial segments.

Additionally, the City of Irvine intends to remove the following interchange improvements:

- Alton Parkway overcrossing at the SR-55 freeway with High Occupancy Vehicle (HOV) drop ramps
- Von Karman Avenue at the I-405 freeway HOV drop ramps

These interchange improvements are programmed in the Orange County MPAH as buildout improvements. However, the IBC Vision Plan traffic study has determined that these interchanges are unnecessary under buildout conditions. The City of Irvine will initiate an MPAH Amendment by entering into a cooperative study with OCTA and the affected local agencies to determine the feasibility of removing these interchange improvements from the MPAH.

1.3.7 Additional Changes

The name of the IBC may also be changed as directed by the Irvine City Council. Although not required under CEQA, it is included for informational purposes.

1.4 ENVIRONMENTAL IMPACTS

The City of Irvine determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) and Initial Study on January 8, 2007, to the State Clearinghouse, responsible agencies, and interested parties. Comments received during the January 8, 2007, through February 22, 2007, NOP review period are also contained in Appendix A. The project description was subsequently revised to reduce the number of dwelling units and project details were refined. A new NOP was circulated between September 19, 2008, and October 20, 2008.



1.4.1 Impacts Considered Less Than Significant

The following environmental topical sections were found to be less in the Initial Study.

- Agricultural Resources
- Mineral Resources

1.4.2 Potentially Significant Adverse Impacts That Can Be Mitigated, Avoided, or Substantially Lessened

The following have been identified as potentially resulting in significant adverse impacts that can be mitigated, avoided, or substantially lessened:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services

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- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Global Climate Change

1.4.3 Unavoidable Significant Adverse Impacts

The DEIR identifies three significant and unavoidable adverse impacts, as defined by CEQA that would result from implementation of the proposed project:

- Air Quality
- Noise
- Transportation and Traffic

2. Mitigation Monitoring Process

2.1 MITIGATION MONITORING AGREEMENT

The Mitigation Monitoring Agreement will be provided through the City conditions of approval process, and reference compliance with this monitoring program.

Provisions are included in the Agreement specifying monitoring and reporting requirements, scheduling, qualifications of mitigation monitors and specialists, agency fees, right of site access, dispute resolution, and penalties. The Agreement will include enforcement provisions and sanctions for more severe infractions, such as stop work orders, loss of further entitlement or restoration. The landowner would agree that the agency has the right to impose these sanctions pursuant to the contract and hold the agency harmless in enforcement of its provisions.

The lead agency may also require that Mitigation Monitoring Agreements be executed between the landowner and appropriate responsible or trustee agencies.

The use of Mitigation Monitoring Agreements will clarify the assignment of responsibility, and have the added benefit of improving the citizenry's confidence that agencies are committed to take actions to protect their environment.

2.2 MITIGATION MONITORING PROGRAM ORGANIZATION

Overall mitigation monitoring program management is the responsibility of the City of Irvine Community Development Department. The Mitigation Monitoring Committee—composed of the landowner, construction manager, and the environmental monitor—is responsible for program implementation and reporting requirements. The technical consultants (EIR consultant, geologist/environmental assessor, project engineer, noise consultant, and traffic consultant) will perform related monitoring tasks under the direction of the environmental monitor (if contracted by the City).

In the event of disputes regarding matters for which the City is the final authority, The Director of Community Development will be final arbiter in the event of a dispute.

2.3 CITY OF IRVINE COMMUNITY DEVELOPMENT DEPARTMENT

The City of Irvine Community Development Department will serve as the program administrator, responsible for overall program management, mitigation monitoring clearances and coordination of the arbitration committee/responsible agencies, and the mitigation monitoring committee. The Department is responsible for review of all monitoring reports, enforcement actions, and document disposition.

2.4 MITIGATION MONITORING COMMITTEE

The mitigation monitoring committee is responsible for the day-to-day monitoring activities and reporting, and includes a representative from the landowner, construction manager, and the mitigation monitor. The monitoring committee holds regularly scheduled meetings to coordinate mitigation measure implementation, review compliance reports, and resolve in-field disputes. Unresolved disputes are forwarded to the arbitration committee.

2.5 MITIGATION MONITORING TEAM

The mitigation monitoring team, consisting of the environmental monitor manager and technical subconsultants (EIR consultant, geologist/environmental assessor, project engineer, biologist, noise consultant, traffic consultant, and archaeologist), is responsible for monitoring the implementation/ compliance with all adopted mitigation measures and conditions of approval. A major portion of the team's work is in-field monitoring and compliance report preparation. Implementation disputes are brought to the committee for resolution by the monitor, and if required, to the arbitration committee.

2. Mitigation Monitoring Process

The following summarizes key positions in the monitoring program and their respective functions:

Monitoring Team

- **Technical Advisors:** Responsible for monitoring in respective areas of expertise (EIR consultant, geologist/environmental assessor, project engineer, noise consultant, and traffic consultant). Directly reports to the environmental monitor.
- **Monitoring Committee:** Responsible for report review, and first phase of dispute resolution.
- **Irvine Community Development Department:** Principal manager of the monitoring program. Responsible for coordination of mitigation monitoring committee, technical consultants, report preparation, and dispute resolution. Responsible for overall program administration, participation on arbitration committee and document/report clearinghouse.
- **Irvine Department of Public Works:** Responsible for review of final engineering plans in conformance with the Tentative maps, technical support, and compliance report preparation.
- **City Council:** Responsible for implementation of corrective action, stop work orders and final arbitrator of disputes.

2.6 *RECOGNIZED EXPERTS*

The use of recognized experts, as a component of the monitoring team and arbitration committee, is required to ensure compliance with scientific and engineering based mitigation measures. While the mitigation monitoring teams recognized experts assess compliance with required mitigation measures, responsible agency recognized experts consult with the arbitration committee regarding disputes.

2.7 *ARBITRATION/DISPUTE RESOLUTION*

If the mitigation monitor identifies a mitigation measure which, in the opinion of the monitor, has not been implemented, or has not been implemented correctly, the problem will be brought for resolution before the mitigation monitoring committee for resolution. If the problem cannot be satisfactorily resolved by the committee, it will be brought before the Director of Community Development for resolution. The decision of the Director of Community Development is final, unless appealed to the Director or Planning Commission. The Director of Community Development, acting through a final vote of the City Council, will have the authority to issue stop work orders until the dispute is resolved. In the case of situations involving potential risk of safety or other emergency conditions, the Director of Community Development is empowered to issue temporary stop work orders until such time as Planning Commission or City Council review of the particular stop work matter becomes final.

2.8 *ENFORCEMENT*

Public agencies may enforce conditions of approval through their existing police power, using stop work orders, fines, infraction citations, loss of entitlement, refusal to issue building permits or certificates of use and occupancy, or, in some cases, notice of violation for tax purposes. Criminal misdemeanor sanctions could be available where the agency has adopted an ordinance requiring compliance with the monitoring program, similar to the provision in many zoning ordinances which state the enforcement power to bring suit against violators of the ordinance's provisions.

Additional enforcement provisions could include required posting of a bond or other acceptable security in the amount of the required mitigation measures. In the event of non-compliance, the City could call the bond and complete the required mitigation measures.

2. Mitigation Monitoring Process

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3. Mitigation Monitoring Requirements

3.1 PRE-MITIGATION MEETING

A pre-monitoring meeting will be scheduled to review mitigation measures, implementation requirements, schedule conformance, and mitigation monitoring committee responsibilities. Committee rules are established, and the entire mitigation monitoring program is presented and any misunderstandings resolved.

3.2 CATEGORIZED MITIGATION MEASURES/MATRIX

Project-specific design features, existing plans, policies, and procedures, and mitigation measures have been categorized in matrix format, as shown in Table 3-1. As shown, the matrix identifies the environmental factor, specific mitigation measures, project design features, and existing plans, policies, and procedures, schedule, and monitor. The mitigation matrix will serve as the basis for scheduling the implementation of, and compliance with, all mitigation measures, project design features, and existing plans, policies, and procedures.

3.3 DATA BASE MANAGEMENT

All mitigation monitoring reports, letters, memos, shall be prepared utilizing Microsoft Word software on IBM compatible PC (currently in use by the Irvine Community Development Department).

3.4 COORDINATION WITH CONTRACTORS

The construction manager is responsible for coordination of contractors, and is responsible for contractor completion of required mitigation measures.

3.5 LONG-TERM MONITORING

Long-term monitoring relating to several mitigation measures may be required.

3. Mitigation Monitoring Requirements

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3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs		Responsible for Monitoring	Date Completed
5.1 AESTHETICS				
Existing Plans, Programs and Policies				
Prior to the issuance of building permits	PPP 1-1	City of Irvine Zoning Ordinance Chapter 3-16- Lighting: As required by Chapter 3-16, Lighting, of the City's Zoning Ordinance, outdoor lighting shall be designed and installed so that all direct rays are confined to the site and adjacent properties are protected from glare. The level of lighting on the site shall comply with the requirements of the City's Uniform Security Code.	Community Development Department	
Prior to the issuance of building permits	PPP 1-2	City of Irvine Standard Condition 3.6: Prior to the issuance of building permits, the applicant shall demonstrate, through the submittal of an electrical engineer's photometric survey, prepared to the satisfaction of the Director of Community Development, that lighting requirements as set forth in the Irvine Uniform Security Code (Irvine Municipal Code, Title 5, Division 9, Chapter 5) are met.	Community Development Department	
Project Design Features				
Prior to the issuance of building permits	PDF 1-1	City of Irvine Zoning Ordinance Chapter 5-8-4.A.1: For specific development projects that are proposing high-rise office or residential uses within 100 feet of the San Joaquin Freshwater Marsh or the San Diego Creek, in order to minimize the frequency of birds flying into the building surface, the project applicant shall reduce the reflectivity of building surface materials by using angles that are not highly reflective, or through the incorporation of building surface materials that reduce reflectivity.	Community Development Department	
5.2 AIR QUALITY				
Existing Plans, Programs and Policies				
Prior to the issuance of grading permits	PPP 2-1	SCAQMD Rule 201 – Permit to Construct: 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.	South Coast Air Quality Management District	
Prior to the issuance of grading permits	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).	South Coast Air Quality Management District	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Prior to the issuance of grading permits and during construction activities	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.	South Coast Air Quality Management District consultation with the Construction Contractor	
Prior to the issuance of grading permits and during construction activities	PPP 2-4 SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities: 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.	South Coast Air Quality Management District consultation with the Construction Contractor	
Project Design Features			
Prior to the issuance of building permits	PDF 2-1 City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.f: As described in the proposed zoning for the project and based on the recommended buffer distances of the California Air Resources Board, for all residential or residential mixed-use projects within the distances to industrial uses outlined below, the Project Applicant shall submit a health risk assessment (HRA) prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District (SCAQMD) to the Community Development Director prior to approval of any future discretionary residential or residential mixed use project. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05), or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, scrubbers at the industrial facility, or installation of Minimum Efficiency Reporting Value (MERV) filters rated at 14 or better at all residential units: <ul style="list-style-type: none"> • 1,000 feet from the truck bays of an existing distribution center that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units, or where transport refrigeration unit operations exceed 300 hours per week. • 1,000 feet from an existing chrome plating facility or facility that uses hexavalent chromium. • 300 feet from a dry cleaning facility using perchloroethylene using one machine and 500 feet from a dry cleaning facility using perchloroethylene using two machines. • 50 feet from gas pumps within a gas-dispensing facility and 300 feet from gas pumps within a 	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	gasoline-dispensing facility with a throughput of 3.6 million gallons per year or greater.		
Prior to the issuance of building permits	<p>PDF 2-2 City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.e: As described in the proposed zoning for the project, applicants for new residential developments in the Irvine Business Complex within 500 feet of Interstate 405 shall be required to install high efficiency Minimum Efficiency Reporting Value (MERV) filters of MERV 10 or better in the intake of residential ventilation systems. A MERV 10 filter creates more resistance to airflow because the filter media becomes denser as efficiency increases. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV 10 filter. To ensure long-term maintenance and replacement of the MERV 10 filters in the individual units, the following shall occur:</p> <ul style="list-style-type: none"> a) Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk from I-405 for all affected units. b) For rental units within 500 feet of the I-405, the owner/property manager shall maintain and replace MERV 10 filters in accordance with the manufacture's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates from I-405 or SR-55 when windows are open. c) For residential owned units within 500 feet of I-405, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV 10 filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowner's of increased risk of exposure to diesel particulates from I-405 when windows are open. 	Community Development Department	
Prior to the issuance of building permits	<p>PDF 2-3 City of Irvine IBC Design Criteria Section 2.0.B 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.</p>	Community Development Department	
Prior to the issuance of grading permits and during construction activities	<p>PDF 2-4 City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.g: For all residential projects located within 1,000 feet of an industrial facility which emits toxic air contaminants, the Project Applicant shall submit a health risk assessment prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District to the Community Development Director prior to approval of any future discretionary residential or mixed-use project. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05), or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to,</p>	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	scrubbers at the industrial facility, or installation of Minimum Efficiency Reporting Value filters rated at 10 or better at all residential units.		
Prior to the issuance of grading permits and during construction activities	<p>PDF 2-5</p> <p>City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.h.: For all residential projects located within 1,000 feet of an industrial facility that emits substantial odors, which includes but is not limited to:</p> <ul style="list-style-type: none"> • wastewater treatment plants • composting, greenwaste, or recycling facilities • fiberglass manufacturing facilities • painting/coating operations • coffee roasters • food processing facilities, <p>The Project Applicant shall submit an odor assessment to the Community Development Director prior to approval of any future discretionary action that verifies that the South Coast Air Quality Management District (SCAQMD) has not received three or more verified odor complaints. If the Odor Assessment identifies that the facility has received three such complaints, the applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs) are capable of reducing potential odors to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, scrubbers at the industrial facility, or installation of Minimum Efficiency Reporting Value (MERV) filters rated at 10 or better at all residential units.</p>	Community Development Department	
Prior to the issuance of grading permits and during construction activities	<p>Exhaust PDF 2-6</p> <p>City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.a and 9-36-20.3: 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:</p> <ul style="list-style-type: none"> • year 2006 or newer construction equipment for engines rated equal to 175 horsepower (hp) and greater; 	Community Development Department in consultation with the Construction Contractor	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

<i>Timing</i>	<i>PPPs, PDFs, and MMs</i>	<i>Responsible for Monitoring</i>	<i>Date Completed</i>
	<ul style="list-style-type: none"> • 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 <p>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.</p>		
Prior to the issuance of grading permits and during construction activities	<p>PDF 2-7</p> <p>City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.b: 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.</p>	Community Development Department in consultation with the Construction Contractor	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Prior to the issuance of grading permits and during construction activities	<p>Fugitive Dust PDF 2-8</p> <p>SCAQMD Rule 403 – Fugitive Dust (PM₁₀ and PM_{2.5}), City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.c: 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:</p> <ul style="list-style-type: none"> • 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. 	Community Development Department in consultation with the Construction Contractor	

3. Mitigation Monitoring Requirements

Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Prior to the issuance of grading permits and during construction activities	Architectural Coatings PDF 2-9 City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.d: Applicants for new developments in the Irvine Business Complex shall require that the construction contractor 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.	Community Development Department in consultation with the Construction Contractor	
5.3 BIOLOGICAL RESOURCES			
Existing Plans, Programs and Policies			
Prior to the issuance of grading permits	PPP 3-1 U.S. Clean Water Act, Section 404: Prior to any installation of any new storm drain connections to and/or discharges into the San Diego Creek or San Joaquin Marsh, the City or other project applicants shall 1) obtain a permit or other authorization from the US Army Corps of Engineers pursuant to Section 404 of the Clean Water Act; 2) obtain a Section 401 Water Quality Certification from the California Regional Water Quality Control Board, Santa Ana Region, pursuant to Section 401 of the federal Clean Water Act, which requires any applicant for a federal permit, such as a Clean Water Act Section 404 permit, to provide the licensing agency a certification from the California Regional Water Quality Control Board that the project will comply with adopted water quality standards; and 3) provide notification to the California Department of Fish and Game (CDFG) of the project pursuant to Section 16-2 of the Fish and Game Code and comply with any further actions required by CDFG.	US Army Corps of Engineers (Section 404 Permit), Santa Ana Regional Water Quality Control Board (Section 401 Permit), California Department of Fish and Game (Section 16-2)	
Prior to issuance of grading permits	PPP 3-2 City of Irvine Municipal Code Section 5-7-410(c): 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).	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs		Responsible for Monitoring	Date Completed
Project Design Features				
Prior to approval of the design for the San Diego Creek Trail improvements/extension	PDF 3-1	City of Irvine Zoning Ordinance Chapter 5-8-4.D.2.a: Prior to approval of the design for the San Diego Creek Trail improvements/extension, the City shall examine alternative locations of the proposed trail and methods that could be used to minimize potential impacts (e.g., fencing and buffers). The design shall consider an alternative that excludes a trail segment along the most sensitive part of San Diego Creek (the northwestern side of the creek between Campus Drive and MacArthur Boulevard).	Community Development Department	
Prior to issuance of grading permits	PDF 3-2	City of Irvine Zoning Ordinance Chapter 5-8-4.D.2.b: Prior to issuance of grading permits for the San Diego Creek Trail, a note shall be placed on all grading plans that construction activities involving the use of heavy equipment are prohibited during the bird nesting season (March 15 to September 15). If minor construction activities are carried out during the bird nesting season, a qualified biologist shall conduct a preconstruction survey in the off-site habitat to determine the location of any active bird nests in the area, including but not limited to raptors and least Bell's vireo. The survey should begin not more than three days prior to the beginning of construction activities. The wildlife agencies shall be notified if any nesting least Bell's vireo are found. During construction, active nesting sites shall be monitored to ensure that construction levels do not exceed 60 dBA L _{eq} . Should these noise levels be exceeded, the City shall implement noise attenuation measures, potentially including the erection of temporary noise curtains sufficient to reduce noise levels at occupied nesting sites to acceptable levels. Nest monitoring should continue until fledglings have dispersed or the nest has been determined to be a failure, as approved by the wildlife agencies.	Community Development Department	
Prior to issuance of building permits	PDF 3-3	City of Irvine Zoning Ordinance Chapter 5-8-4.A.1.a: Prior to issuance of building permits for high-rise buildings within 100 feet of the San Joaquin Marsh or San Diego Creek, the project applicant shall demonstrate that architectural plans prohibit the use of highly reflective glass widows, and utilize angles that are not highly reflective in order to reduce light and glare impacts on the marsh and creek environment and to reduce the incidence of bird collisions, to the satisfaction of the Community Development Director.	Community Development Department	
Prior to approval of final landscape plans for areas located within 100 feet of the San Joaquin Marsh or San Diego Creek	PDF 3-4	City of Irvine Zoning Ordinance Chapter 5-8-4.A.1.b: Prior to approval of final landscape plans for areas located within 100 feet of the San Joaquin Marsh or San Diego Creek, the project applicant shall ensure that development landscaping does not include exotic plant species that may be invasive to native habitats. Exotic plant species not to be used include those species listed on Lists A and B of the California Invasive Plant Council's (Cal-IPC) list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999." A copy of the complete list can be obtained from Cal-IPC's web site at http://www.cal-ipc.org .	Community Development Department	

3. Mitigation Monitoring Requirements

Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
5.4 CULTURAL RESOURCES			
<i>Existing Plans, Programs and Policies</i>			
Prior to the issuance of the first preliminary or precise grading permits	<p>PPP 4-1 City of Irvine Modified Standard Condition 2.5: 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.</p>	Community Development Department, Archaeologist/ Paleontologist, and Construction Contractor	
Prior to issuance of grading permits	<p>PPP 4-2 City of Irvine Modified Standard Condition 2.5: 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:</p> <ol style="list-style-type: none"> 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, 	Public Works Department and Archaeologist/ Paleontologist	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	<p>with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.</p> <p>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:</p> <ul style="list-style-type: none"> • 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]) 		
5.5 GEOLOGY AND SOILS			
Existing Plans, Programs and Policies			
On-going during grading	PPP 5-1 City of Irvine Municipal Code Title 5, Division 10 and City Grading Manual: Revegetation of cut and fill slopes shall be required in accordance with the City of Irvine Grading Code and Grading Manual.	Public Works Department and Construction Contractor	
On-going during grading	PPP 5-2 City of Irvine Municipal Code Title 5, Division 10 and City Grading Manual: All grading operations and construction will be conducted in conformance with the applicable City of Irvine Grading Code 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.	Public Works Department and Construction Contractor	
Prior to issuance of grading permits	PPP 5-3 City of Irvine Municipal Code Title 5, Division 10 and City Grading Manual: In accordance with the City of Irvine Grading Code 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	Public Works Department, Construction Contractor, and Geotechnical Consultant	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	shall review the rough grading plan to ensure conformance with recommendations contained in the reports.		
On-going during grading	PPP 5-4 City of Irvine Municipal Code Title 5, Division 10 and City Grading Manual: In accordance with the City of Irvine Grading Code 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.	Public Works Department , Construction Contractor, and Civil Engineer	
On-going during grading	PPP 5-5 City of Irvine Municipal Code Title 5, Division 10 and City Grading Manual: In accordance with the City of Irvine Grading Code 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.	Public Works Department, Construction Contractor, and Engineering Geologist	
Prior to issuance of building permits	PPP 5-6 City of Irvine Building Code and the most recent Uniform Building Code and/or California Building Code: 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.	Public Works Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

<i>Timing</i>	<i>PPPs, PDFs, and MMs</i>	<i>Responsible for Monitoring</i>	<i>Date Completed</i>
5.6 HAZARDS AND HAZARDOUS MATERIALS			
Existing Plans, Programs and Policies			
Prior to issuance of grading permits	PPP 6-1 California Health and Safety Code, Sections 25280 through 25299: 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.	Orange County Health Care Agency (OCHCA)	
During demolition, grading, and excavation	PPP 6-2 California Code of Regulations Section 1532.1, California Health and Safety Code: 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.	Public Works Department and Construction Contractor	
Prior to approval of a conditional use permit	PPP 6-3 OCFA Guideline B-09 (Fire Master Plans for Commercial and Residential Development): Prior to approval of a conditional use permit, project applicants shall prepare a Fire Master Plan for submittal to the Orange County Fire Authority (OCFA) consistent with OCFA Guideline B-09 (Fire Master Plans for Commercial and Residential Development).	Community Development Department and Orange County Fire Authority	
Prior to issuance of demolition permits and during demolition activities	PPP 6-4 Rule 29, Code of Federal Regulations (CFR) Part 1926, California Code of Regulations, Title 17, Division 1, Chapter 8: 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	Public Works Department and Construction Contractor	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	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.		
Prior to issuance of demolition permits and during demolition activities	PPP 6-5 SCAQMD Rule 1403 – 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.	Public Works Department and Construction Contractor	
During site decommissioning and demolition activities	PPP 6-6 Title 22, Division 4.5 of the California Code of Regulations: 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.	Public Works Department	
During demolition, grading, and excavation	PPP 6-7 California Code of Regulations, Section 1529: 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.	Public Works Department	

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Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Project Design Features			
Prior to issuance of building permits	PDF 6-1 City of Irvine Zoning Ordinance Chapter 5-8-4.C.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 per Airport Environs Land Use Plan for John Wayne Airport.	Community Development Department	
Prior to issuance of building permits	PDF 6-2 City of Irvine Zoning Ordinance Chapter 5-8-4.A.3: As described in the proposed zoning related to residential disclosures, all discretionary applications for residential or residential mixed use shall include a condition of approval for disclosure to residents clearly outlining the issues associated with living in a mixed-use environment. The language for this disclosure shall be as specified by the Community Development Director. Copies of each signed disclosure shall be made available for review upon written request by the City.	Community Development Department	
During site decommissioning and demolition activities	PDF 6-3 City of Irvine Zoning Ordinance Chapter 5-8-4.A.6 As described in the proposed zoning code related to hazardous material standards, individual development sites may have existing facilities, such as transformers or clarifiers, that would be demolished as part of a proposed development. To mitigate any hazardous-materials-related impacts during the removal of such facilities, the Director of Community Development, in conjunction with the Orange County Fire Authority, shall include specific project conditions of approval as part of the discretionary review process for the proposed development.	Community Development Department and Orange County Fire Authority	
In conjunction with submittal of a development application (e.g., Conditional Use Permit)	PDF 6-4 City of Irvine Zoning Ordinance Chapter 5-8-4.A.2: As required by the proposed zoning code, applications for new residential and/or residential mixed-use development shall submit data to the Director of Community Development, 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, soil/groundwater contamination, heliports/helistops and John Wayne Airport compatibility. Structures that penetrate the 100:1 Notification Surface shall file a Form 7460-1 Notice of Proposed Construction or Alteration with Federal Aviation Administration. Residential land uses shall be prohibited in Safety Zone 3.	Community Development Department	
In conjunction with submittal of a development application (e.g., Conditional Use Permit)	PDF 6-5 City of Irvine Zoning Ordinance Chapter 5-8-4.A.4.g: For all residential projects located within 1,000 feet of an industrial facility which emits toxic air contaminants, the Project Applicant shall submit a health risk assessment prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District to the Community Development Director prior to approval of any future discretionary residential or mixed-use project. If the HRA shows that the incremental cancer risk exceeds one in	Community Development Department	

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Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
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Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	one hundred thousand (1.0E-05), or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, scrubbers at the industrial facility, or installation of Minimum Efficiency Reporting Value filters rated at 10 or better at all residential units.		
Included in adopted zone change	PDF 6-6 Residential development shall not be permitted within a one-parcel buffer surrounding the property at 17451 Von Karman, based on existing parcelization as of the date of the certification of the Environmental Impact Report. The area within the one parcel buffer is depicted in Figure 1 in the City of Irvine Zoning Code Chapter 5-8.		

5.7 HYDROLOGY AND WATER QUALITY

Existing Plans, Programs and Policies

Prior to the issuance of precise grading permit	PPP 7-1 City Standard Condition A.6: 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: 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 postdevelopment 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.	Public Works Department	
Prior to the issuance of precise grading permit	PPP 7-2 City Standard Condition 2.2: Prior to the issuance of precise grading permits, the applicant shall submit a groundwater survey of the entire site. The analysis shall be prepared by a geotechnical engineer versed in groundwater analysis and shall include the following information and analysis:	Public Works Department	

3. Mitigation Monitoring Requirements

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Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	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 feet of the bottom of the footings.		
Prior to the issuance of preliminary or precise grading permits	PPP 7-3 City Standard Condition 2.12: This project will result in soil disturbance of one or more acres of land that has not been addressed by an underlying subdivision map. Prior to the issuance of preliminary or precise grading permits, the applicant shall provide the City Engineer 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:	Public Works Department	
Prior to the issuance of preliminary or precise grading permits	PPP 7-4 City Standard Condition 2.13: Prior to the issuance of precise grading permits, the applicant shall submit, and the Director of Community Development shall have approved, a project water quality management plan (WQMP). The WQMP shall identify the best management practices that will be used on the site to control predictable pollutant runoff.	Community Development Department	

5.9 LAND USE AND PLANNING

Project Design Features

In conjunction with submittal of a development application (e.g., Conditional Use Permit)	PDF 8-1 IBC Design Criteria: To ensure a consistent standard of residential mixed-use design quality throughout the IBC, the City of Irvine has established a set of Residential Mixed-Use Design Criteria. These Design Criteria are intended to guide the physical development of any residential or mixed-use project that contains a component of residential use located within the boundaries of the IBC. This document establishes the framework through which design continuity can be achieved while accommodating varying tastes, materials, and building methods. It provides standards and criteria for new construction and for remodels or additions.	Community Development Department	
In conjunction with submittal of a development application (e.g., Conditional Use Permit)	PDF 8-2 City of Irvine Zoning Ordinance Chapter 5-8-4.A.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 Department	

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Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Permit)	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.		
5.9 NOISE			
Existing Plans, Programs and Policies			
On-going during construction	PPP 9-1 City of Irvine Municipal Code Section 6-8-205(a), 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.	Public Works Department	
Prior to issuance of building permits	PPP 9-2 City Standard Condition 3.5: 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	Director of Community Development	
Project Design Features			
Prior to issuance of grading permits and on-going through construction activities	Construction PDF 9-1 City of Irvine Zoning Ordinance Chapter 5-8-4.A.5.b: As described in the proposed zoning for the project, applicants for individual projects that involve vibration-intensive construction activities, such	Community Development Department and Construction Contractor	

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Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	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).		
Prior to issuance of grading permits and on-going through construction activities	<p>PDF 9-2 City of Irvine Zoning Ordinance Chapter 5-8-4.A.5.a: 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.</p> <ul style="list-style-type: none"> • 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. • 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. 	Community Development Department and Construction Contractor	
Prior to issuance of certificate of occupancy	<p>Noise Compatibility</p> <p>PDF 9-3 City of Irvine Zoning Ordinance Chapter 5-8-4.A.5.c: 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.</p>	Community Development Department	
Prior to issuance of building permits	<p>PDF 9-4 City of Irvine Zoning Ordinance Chapter 5-8-4.C: 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</p>	Director of Community Development	

3. Mitigation Monitoring Requirements

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Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	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 L _{max} (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.		
5.10 POPULATION AND HOUSING			
<i>Existing Plans, Programs and Policies</i>			
On-going	PPP 10-1 City of Irvine Housing Element: Compliance with the City's Housing Element policies, which provide a strategic blueprint to ensure the siting of new very low, low, and moderate income housing units in future development projects to help the City continue to meet its state fair share housing requirements.	Community Development Department	
5.11 PUBLIC SERVICES			
<i>Fire Protection and Emergency Services</i>			
<i>Existing Plans, Programs and Policies</i>			
On-going	PPP 11-1 Orange County Fire Authority Rules and Regulations: 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.	Community Development Department	
Prior to the issuance of the preliminary grading permits	PPP 11-2 Orange County Fire Authority Rules and Regulations: 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	Community Development Department	
Prior to issuance of building permits	PPP-11-3 Orange County Fire Authority Rules and Regulations: 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	Community Development Department	

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Timing	PPPs, PDFs, and MMs		Responsible for Monitoring	Date Completed
Project Design Features				
Prior to issuance of building permits	PDF 11-1	IBC Infrastructure Improvement Program: Installation of an Opticom traffic light control system at signalized intersections through the proposed IBC Infrastructure Improvement Program.	Public Works Department	
Prior to issuance of building permits	PDF 11-2	City of Irvine Zoning Ordinance Chapter 5-8-4.B.2.c: A Click2Enter radio frequency access system shall be installed at any vehicle and pedestrian access point controlled by privacy gates within the project area.	Community Development Department	
Police Protection				
Existing Plans, Programs and Policies				
In conjunction with submittal of a development application (e.g., Conditional Use Permit)	PPP 11-5	City of Irvine Municipal Code Title 5, Division 9, Chapter 5: The project applicant shall comply with all applicable requirements of the City of Irvine Uniform Security Code	Community Development Department	
Project Design Features				
In conjunction with submittal of a development application (e.g., CUP)	PDF 11-2	City of Irvine Zoning Ordinance Chapter 5-8-4.B.1.b: 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.	Community Development Department	
School Services				
Existing Plans, Programs and Policies				
Prior to certificate of occupancy to the issuance of building permits	PPP 11-6	California Government Code Section 65995: Pursuant to Government Code Section 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	Community Development Department and School District	

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	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.		
Library Services			
<i>Project Design Features</i>			
Prior to the issuance of building permits	PDF 11-3 City of Irvine Zoning Ordinance Chapter 5-8-4.D.1: In the event that a Citywide library impact fee is adopted and in force, each developer shall pay this fee prior to issuance of building permits for new development.	Community Development Department	
5.12 RECREATION			
Existing Plans, Programs and Policies			
Prior to the issuance of building permits	PPP 12-1 City of Irvine Municipal Code Section 5-5-1004.E.2: All park fees shall be paid directly to the City cashier prior to issuance of any residential building permits for the building site or sites from which fees are to be derived. These fees are to be used only for the purpose of developing new or rehabilitating existing park or recreational facilities to serve the subdivision.	Community Development Department	
Prior to the issuance of preliminary or precise grading permits	PPP 12-2 City Standard Conditions 2.1, 2.16: This development includes public trails as identified in the City's General Plan. Prior to the issuance of the first preliminary or precise grading permit, an irrevocable offer of dedication for the nonexclusive easements for public use of any public trails shall be recorded. Improvements and dedication of public trails shall be subject to the approval of the Director of Community Services	Community Development Department	
5.13 TRAFFIC AND CIRCULATION			
Existing Plans, Programs and Policies			
Prior to the issuance of building permits	PPP 13-1 IBC Development Fee Program: 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	Community Development Department	

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	payable at the time the building permit is issued.		
Project Design Features			
Ongoing	<p>PDF 13-1 City of Irvine Zoning Code Chapter 9-36-21, Transportation Management Association: The City shall pursue formation of a Transportation Management Association (TMA) for the Irvine Business Complex. The goals and objectives of the TMA are as follows:</p> <ul style="list-style-type: none"> • Monitor travel demand at employment sites and provide reports on trip generation to the City of Irvine. • Offer employers and property owners assistance with transportation services on a voluntary basis. • Deliver transportation services to commuters. Services include: <ul style="list-style-type: none"> a. Provide ridematching, transit and Metrolink information b. Inform commuters of incentives that may be available from public agencies c. Formation of vanpools • Represent the IBC in local transportation matters • Oversee and fund the implementation and expansion of The i Shuttle, a clean fuel rubber tire shuttle system. 	Public Works Department	
Mitigation Measures			
Prior to the issuance of the first building permit	<p>MM 13-1 Prior to the issuance of the first building permit pursuant to the proposed project, the City of Irvine shall prepare a "nexus" study that will serve as the basis for requiring development impact fees under AB 1600 legislation, as codified by California Code Government Section 66000 et seq, for the Irvine Business Complex to support General Plan and Zoning changes under consideration for the Irvine Business Complex Vision Plan. The established procedures under AB 1600 require that a "reasonable relationship" or nexus exist between the traffic improvements and facilities required to mitigate the traffic impacts of new development pursuant to the proposed project. The following traffic improvements and facilities are necessary to mitigate project impacts and shall be included, among other improvements, in the AB 1600 nexus study:</p> <p>Costa Mesa</p> <p>Intersection #12: SR-55 Southbound Frontage Road at Baker Street: Improve the southbound approach to one left turn lane, one shared through left, one through lane, and one right turn lane.</p>	Public Works Department	

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	<p>Restripe the eastbound approach to two through lanes and a shared through right turn lane.</p> <p>Intersection #13: SR-55 Northbound Frontage Road at Baker Street: Restripe the eastbound approach to include a single left turn lane, three through lanes, and no right turn lane, plus the addition of a northbound defacto right turn lane. Addition of second southbound left-turn lanes.</p> <p>Irvine</p> <p>Intersection #141: Jamboree Road and Main Street: Improve the northbound and southbound approaches to 2 left turn lanes, 5 through lanes, and 1 right turn lane. Additionally, as part of this improvement, convert the westbound free right turn lane to a single right turn lane.</p> <p>Intersection #188: Harvard Avenue and Michelson Drive: Add a second southbound left turn lane.</p> <p>Intersection #232: Culver Drive and I-405 Northbound Ramps: Restripe the westbound approach of this intersection to one left turn lane and two right-turn lanes.</p> <p>Intersection #136: Jamboree Road and Barranca Parkway: Convert the existing free northbound right-turn lane to a standard right turn lane and add a fifth northbound through lane.</p> <p>Newport Beach</p> <p>Intersection #62: Campus Drive at Bristol Street NB: In 2015, the required improvement is the implementation of the already planned addition of a fifth westbound through lane, consistent with the City of Newport Beach's General Plan buildout. For the buildout scenario, an additional improvement of a third southbound right turn lane is required. Implementation of the identified improvements results in acceptable operations under both scenarios and the mitigation appears to be physically feasible although potentially cost prohibitive due to potential impacts to a structure adjacent to the intersection. The addition of a 5th westbound through lane was identified by the City of Newport Beach as part of the Newport Beach General Plan Update Traffic Study (Urban</p>		

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	<p>Crossroads, 2006). The addition of a 3rd southbound right turn lane was identified in the John Wayne Airport (JWA) Improvement Program as an ancillary improvement to support the growth of the Airport.</p> <p>Intersection #85: MacArthur Boulevard and Birch Street: Improve the eastbound approach to two eastbound left-turn lanes and two eastbound through lanes.</p> <p>Santa Ana</p> <p>Intersection #543 Bristol Street and Segerstrom Avenue: Two alternative improvements are proposed and outlined below. The City of Irvine shall coordinate with the City of Santa Ana to determine the most appropriate future improvement at this location.</p> <ul style="list-style-type: none"> • Alternative 1: Add 3rd eastbound through and westbound through lanes on Segerstrom Avenue • Alternative 2: Add 4th northbound through and southbound through lanes on Bristol Street <p>Intersection #723 Main Street and Dyer Road (Segerstrom): Add a third northbound through lane and a defacto northbound right-turn lane.</p> <p>Intersection #730 Grand Avenue and Warner Avenue: Add a third westbound through lane.</p> <p>Arterial #1884 MacArthur Blvd. from Main Street to SR-55 Widen from 6 to 8 Lanes</p> <p>Tustin</p> <p>Intersection #24: Newport Avenue and Walnut Avenue: Add a defacto westbound right turn lane and defacto northbound right turn lane.</p>		

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Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	<p>Intersection #93: Tustin Ranch Road and El Camino Real: Add a fourth southbound through lane and restripe the eastbound approach to one left turn lane, a shared through right turn lane and a right turn lane.</p> <p>Intersection #134: Loop Road/Park Avenue at Warner Avenue: Add a third eastbound through lane.</p> <p>Intersection #754: Red Hill Avenue at Carnegie Avenue/A Street: This intersection has a project impact under the Post-2030 scenario. The project impact is largely due to heavy traffic on the northbound through movement. Widening the northbound approach to provide a fourth northbound through lane on Red Hill. This intersection is expected to be substantially expanded as a result of development of the Tustin Legacy project and shall be monitored to observe if any additional improvements are warranted when that project nears buildout.</p>		
Prior to the issuance of the first building permit	<p>MM 13-2 Prior to the issuance of the first building permit pursuant to the proposed project, the City of Irvine shall update the IBC Development Fee program pursuant to the AB 1600 Nexus Study identified in Mitigation Measure 5.13-1. The IBC Development Fee program was established to fund area-wide circulation improvements within the IBC and adjoining areas. The improvements are required due to potential circulation impacts associated with buildout of the IBC. 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 applied toward circulation improvements and right-of-way acquisition in the IBC and adjoining areas. 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. The City will use the IBC development fees to, among other things, fund construction (or to recoup fees advanced to fund construction) of the transportation improvements identified in Mitigation Measure 5.13-1.</p>	Public Works Department	
Prior to the issuance of the first building permit	<p>MM 13-3 Prior to issuance of the first building permit pursuant to the proposed project, the City shall update the Irvine Business Complex Land Use and Trip Monitoring Data base (IBC Database) to reflect the land use changes associated with the proposed project. The City maintains this database for tracking development intensity within the IBC. This data base is an important tool to help ensure the circulation system serving the IBC area is adequate and to ensure roadway improvements are provided at the appropriate time. The data base tracks the amount of square footage built (Existing),</p>	Public Works Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	the available square footage (Additional Zoning Potential and/or Remaining Approval) and the maximum amount of square footage allocated (Total Development Potential and/or Buildout + Existing) to each parcel within the IBC.		
Prior to adoption of the AB 1600 nexus study identified in MM 13-1	MM 13-4 Prior to adoption of the AB 1600 nexus study identified in MM 13-1, the City and Caltrans shall jointly identify feasible operational and physical improvements and the associated fair-share funding contribution necessary to mitigate project-related impacts to state transportation facilities. The City shall fund said improvements on pro-rata "fair-share" basis in accordance with the terms and conditions of an Agreement to be prepared and agreed to by both agencies. These fair-share contributions for feasible improvements shall be included in the AB 1600 nexus study	Public Works Department	

5.14 UTILITIES AND SERVICE SYSTEMS

Water Service

Existing Plans, Programs and Policies

Prior to the issuance of grading permits	PPP 14-1 IRWD Rules and Regulations, Requirement to Use Recycled Water: 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 water service to the customer is feasible and authorizes such use.	Irvine Ranch Water District	
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3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Prior to the issuance of grading permits	PPP 14-2 IRWD Rules and Regulations, Connection Fees: Future project applicants in the IBC 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.	Irvine Ranch Water District	
Prior to the issuance of grading permits	PPP 14-3 IRWD Rules and Regulations, Fire Flow Analysis: In accordance with IRWD requirements, each redevelopment project in the IBC 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.	Public Works Department	
Sewer Services			
<i>Existing Plans, Programs and Policies</i>			
	Refer to PPP 14-2 above.		
Solid Waste			
<i>Existing Plans, Programs and Policies</i>			
Prior to the issuance of precise grading permits	PPP 14-4 City of Irvine Standard Condition 3.7: 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	Community Development Department	
Utility Demands			
<i>Existing Plans, Programs and Policies</i>			
Prior to the issuance of building permits	PPP 14-5 2008 Building and Energy Efficiency Standards (CCR Title 24): 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	Public Works Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	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.		
5.15 GLOBAL CLIMATE CHANGE			
Existing Plans, Programs and Policies			
During construction and demolition	PPP 15-1 City of Irvine Municipal Code Title 6 Division 7, Construction and Demolition (C&D) Debris Recycling and Reuse: 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.	Community Development Department	
Prior to the issuance of building permits for residential, commercial, or office structures	PPP 15-2 2008 Building and Energy Efficiency Standards (CCR Title 24): 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.	Community Development Department	
During design and construction of projects approved for development in the IBC	PPP 15-3 Title 24 Code Cycles: Net-Zero Buildings (Residential & Non-Residential): 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).	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Ongoing	<p>PPP 15-4 California SB 107 Renewable Portfolio Standard: CARB's Renewable Portfolio Standard (RPS) is a foundational element of the State's emissions reduction plan. In 2002, Senate Bill 1078 established the California RPS program, requiring 20 percent renewable energy by 2017. In 2006, Senate Bill 107 advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II. On September 15, 2009, Governor Arnold Schwarzenegger signed Executive Order S-21-09 directing CARB to adopt regulations increasing RPS to 33 percent by 2020. These mandates apply directly to investor-owned utilities, in this case Southern California Edison (SCE).</p>	Community Development Department	
Ongoing	<p>PPP 15-5 California Exec Order S-1-07 Low Carbon Fuel Standard: On January 18, 2007, Governor Arnold Schwarzenegger issued Executive Order S-1-07 requiring the establishment of a Low Carbon Fuel Standard (LCFS) for transportation fuels. This statewide goal requires that California's transportation fuels reduce their carbon intensity by at least 10 percent by 2020. Regulatory proceedings and implementation of the LCFS have been directed to CARB. The LCFS has been identified by CARB as a discrete early action item in the Scoping Plan. CARB expects the LCFS to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Scoping Plan work in tandem with one another. To avoid the potential for double-counting emission reductions associated with AB 1493 (Pavley), the Scoping Plan has modified the aggregate reduction expected from the LCFS to 9.1 percent.</p>	Community Development Department	
Ongoing	<p>PPP 15-6 Federal Corporate Average Fuel Economy (CAFE) Standards: The 2007 Energy Bill creates new federal requirements for increases in fleetwide fuel economy for passenger vehicles and light trucks. The federal legislation requires a fleetwide average of 35 miles per gallon (mpg) to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase in requirements to achieve this goal. Analysis by CARB suggests that this will require an annual improvement of approximately 3.4 percent between 2008 and 2020.</p>	Community Development Department	
Ongoing	<p>PPP 15-7 California Assembly Bill 1493 – Pavley Standards: On July 22, 2002, Governor Gray Davis signed Assembly Bill 1493 requiring CARB to develop and adopt regulations designed to reduce greenhouse gases emitted by passenger vehicles and light-duty trucks beginning with the 2009 model year. The standards set within the Pavley regulations are expected to reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016. California had petitioned the USEPA in December 2005 to allow these more stringent standards and California executive agencies have repeated their commitment to higher mileage standards. On July 1, 2009, the USEPA granted California a waiver that will enable the state to enforce stricter tailpipe</p>	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

<i>Timing</i>	<i>PPPs, PDFs, and MMs</i>	<i>Responsible for Monitoring</i>	<i>Date Completed</i>
	emissions on new motor vehicles.		
Ongoing	PPP 15-8 California SB 375: SB 375 requires the reduction of GHG emissions from light trucks and automobiles through land use and transportation efforts that will reduce vehicle miles traveled (VMT). In essence, SB 375's goal is to control GHGs by curbing urban sprawl and through better land use planning. SB 375 essentially becomes the land use contribution to the GHG reduction requirements of AB 32, California's global warming bill enacted in 2006. The proposed project is consistent with SB 375 strategies to reduce VMT and associated GHG emissions in that it represents a compact, mixed-use development, improves jobs/housing balance in the City and Orange County Council of Governments Subregion, and provides access to mass transit. According to the 2008 Regional Comprehensive Plan, SCAG's Land Use and Housing Action Plan can be expected to result in a 10 percent reduction in VMT in 2035 when compared to current trends.	Community Development Department	
Ongoing	PPP 15-9 Transit Service to LAX: Although the City of Irvine is serviced by John Wayne Airport, Los Angeles International Airport (LAX) is the regional air transportation hub. Providing direct transit service from the City to LAX can reduce single passenger trips to this destination. The Los Angeles World Airports operates three Flyaway shuttles that provide nonstop airport service to and from Westwood, Van Nuys, and Downtown Los Angeles via the Flyaway program. Since November 16, 2009, a Flyaway shuttle from the Irvine Metrolink Station to LAX provides nonstop service. Based on the ITAM model, a 0.25 percent reduction in VMT is achieved through implementation of this program.	Community Development Department	
Ongoing	PPP 15-10 Comprehensive Signal Retiming and Coordination Program: Emissions are highest at the lowest travel speeds. The City is currently retiming and coordinating signals throughout Irvine under its ITEMS (Irvine Traffic Engineering System) program. The City plans to enhance signal coordination in the IBC area by the end of 2011. A program to retime and coordinate traffic signals would produce more even traffic flows, so that vehicles are not staring and stopping constantly. These types of programs can improve vehicular level of service (LOS), thereby decreasing emissions for the same volume of vehicles. Based on the ITAM model, a 1 percent citywide reduction in VMT is achieved through implementation of this program.	Public Works Department	
Ongoing	PPP 15-11 Additional Fixed Route Shuttle System to Complement The i Shuttle: In March 2008, the City introduced The i Shuttle service, which complements regional bus service and provides direct express transportation to and from the nearby Tustin Metrolink Station, John Wayne Airport, and throughout the IBC. The i Shuttle currently operates 12 fully accessible, compressed natural gas (CNG) buses and is funded by the City of Irvine and the Orange County Transportation Authority. The City's shuttle system has the potential to further decrease VMT in the City by encouraging	Public Works Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	employees not living in the IBC to commute to work using mass transit. Fehr & Peers is currently preparing a comprehensive study of additional local shuttles designed to complement the existing fixed route bus service operated by OCTA and the existing The i Shuttle . This report (Irvine Transit Vision, June 2009) identified six new shuttle routes for within the City of Irvine that would connect from either the Irvine Metrolink Station or the Tustin Metrolink Station to various destinations in Irvine. The City will provide additional shuttle service using the Irvine Transit Vision as a guide.		
Ongoing	PPP 15-12 Energy Efficient Traffic Lights: New traffic signals installed within the Irvine Business Complex will have light emitting diodes. The City is implementing a program to convert all traffic lights in the City to traffic light emitting diodes.	Public Works Department	
Ongoing	PPP 15-13 California AB 939 Waste Reduction: The City adopted a Zero Waste program in 2007 to approach waste management. The City recovers approximately 66 percent of its waste for recycling and composting, which exceeds the state's AB 939 waste diversion goals. Furthermore, waste haulers establish rate schedules according to bin size and frequency of collection. Commercial customers that subscribe to smaller bins (e.g., 2 cubic-yard bins) are routinely charged less by haulers. This pricing structure encourages waste reduction and recycling, and tends to minimize hauler pickups.	Public Works Department	
Ongoing	PPP 15-14 City of Irvine Renewable Energy and Existing Buildings Retrofit Program: Pursuant to City Council Resolution 09-52, the City has received federal funding from the U.S. Department of Energy to establish a Renewable Energy and Existing Retrofit Program. Retrofitting is designed to improve a building's energy consumption by using cost-effective measures that do not require extensive remodeling work. The City of Irvine is proposing to use the "whole building approach" meaning that the City will look at the following: <ul style="list-style-type: none"> • Thermal envelope (i.e. the shell insulation and air leakage) • Mechanical systems (i.e. HVAC and domestic hot water) • Appliances and lighting that may need replacing <p>The approach will evaluate these areas and their interaction given usage rates, building site, and climate to assess the building's overall energy efficiency and performance and to make targeted recommendations for improvement and ultimately reduce residential demand. The City of Irvine will create a financing district to help property owners finance energy efficiency improvements and renewable energy installations. The City of Irvine is forming a Property Assessed Clean Energy (PACE) District under the Mello-Roos Community Facilities Act of 1982 and its powers as a charter city. Eligible improvements may include energy efficiency, water conservation, and renewable</p>	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

<i>Timing</i>	<i>PPPs, PDFs, and MMs</i>	<i>Responsible for Monitoring</i>	<i>Date Completed</i>
	energy improvements to privately owned buildings or property. Potential funding for initial improvements may come from various sources including American Recovery and Reinvestment Act grants, taxable bonded indebtedness, other external financing arrangements, or City funds.		
Ongoing	PPP 15-15 Safe Route to Schools: The Safe Routes to School program is a federal and state grant program intended to increase the percentage of students walking or cycling to school. Funding is awarded to cities to construct engineering improvements and to start educational, encouragement, and enforcement programs. The City of Irvine has been successful in obtaining grant funding to implement a citywide program that includes walking school buses—groups of students who meet at a designated location and walk to school together, with a parent at the front and back of the group. This encourages students to walk to school and assuages parents' fears of traffic and crime safety risks that are impediments to walking alone. Based on the ITAM model, a 0.2 percent reduction in VMT is achieved through implementation of this program.	Public Works Department	
Ongoing	PPP 15-16 Circulation Phasing Analysis: The amount of emissions increase exponentially as arterial travel speeds decrease. As is the case with many cities in Southern California, there are often defined congestion locations (such as the major intersections along Jamboree Road) where a majority of congestion and delay occurs. The City currently has a Circulation Phasing Analysis program in place. They collect traffic counts at congested locations on a bi-annual basis and monitor locations every three years. The results of the analysis are used to determine future Capital Improvement Projects.	Public Works Department	
Project Design Features			
During preparation of construction bids for, and construction of, new developments	PDF 15-1 City of Irvine Zoning Code Chapter 9-36-20.1, Alternate Transportation Incentives: As described in the proposed zoning for the project, 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.	Community Development Department	
During design of new developments	PDF 15-2 City of Irvine Zoning Code Chapter 9-36-20.2, Recycled Materials: As described in the proposed zoning for the project, 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	Community Development Department	

3. Mitigation Monitoring Requirements

Table 3-1
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Mitigation Measures (MMs) and Level of Significance after Mitigation

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	City.		
Ongoing	PDF 15-3 City General Plan Element N, Compact/Mixed-Use Development: 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 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.	Community Development Department	
Ongoing	PDF 15-4 City General Plan Element N, High Rate of Internal Trip Capture: 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.	Community Development Department	
Ongoing	PDF 15-5 City of Irvine Zoning Code Chapter 9-36-20.7, Office/Commercial Development Heat Island Standards: New parking lots serving retail and office developments shall include tree plantings designed to result in 50 percent shading of parking lot surface areas within 15 years. These shading requirements shall apply to all impervious surfaces on which a vehicle can drive, including parking stalls, driveways, and maneuvering areas within parking areas. Commercial developments shall provide landscapes with drought-resistant species and groundcovers, rather than pavement, to reduce heat reflection. Additionally: 1) Buildings are encouraged to be oriented to the south or southwest, where feasible; 2) deciduous trees are encouraged to be planted on the west and south sides of structures.	Community Development Department	
Ongoing	PDF 15-6 City General Plan Element N, Urban Infill Near Multiple Transit Modes: The project would develop high-density housing in an area being served by at least two modes of transit. On March 31, 2008, The i Shuttle , 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, <i>The i Shuttle Route</i>). 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-	Community Development Department	

3. Mitigation Monitoring Requirements

*Table 3-1
Summary of Impacts, Existing Plans, Programs, and Policies (PPPs), Project Design Features (PDFs),
Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
	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.		
During design and operation of new commercial, office, and retail developments	PDF 15-7 City of Irvine Zoning Code Chapter 9-36-21, Transportation Management Association (TMA): The City anticipates establishment of a TMA for the IBC by Spring 2010. Based on the ITAM model, establishment of the TMA for the IBC Vision Plan area would result in a reduction of 8 percent of projected VMT.	Community Development Department	
Ongoing	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 Creekwalk 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.	Public Works Department	
Ongoing	PDF 15-9 City General Plan Element N, Bicycle Improvements: The IBC would provide linkages to the City regional bicycle trail system. Currently continuous on-street bicycle lanes exist only along Main Street. Bicycle lanes are proposed along parts of Jamboree Road, Red Hill Avenue, Von Karman Avenue, Michelson Avenue, Carlson Avenue, Barranca Parkway, and Alton Parkway. Furthermore, the sidewalk system would be shared between pedestrians and bicycles. As part of the Vision Plan, bicycle connections to the San Marco Park, adjacent to the San Diego Creek, would be improved with a new pedestrian bridge. Also refer to PDF 13-1 and PDF 15-7, which allow for creation of a Transportation Management Association (TMA) for the IBC area.	Public Works Department	
Prior to issuance of building permits	PDF 15-10 City of Irvine Zoning Code Chapter 9-36-20.4: Ultra-Low-Flow Fixtures: 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.	Community Development Department	

3. Mitigation Monitoring Requirements

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Mitigation Measures (MMs) and Level of Significance after Mitigation*

Timing	PPPs, PDFs, and MMs	Responsible for Monitoring	Date Completed
Prior to issuance of building permits	PDF 15-11 City of Irvine Zoning Code Chapter 9-36-20.5: Landscaping and Irrigation Systems: 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.	Community Development Department	
Ongoing	PDF 15-12 City of Irvine Zoning Code Chapter 9-36-20.6: Use of Reclaimed Water on All Master Landscaped Areas: If recycled water service is determined by IRWD to be feasible (see PPP 14-1), 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.	Irvine Ranch Water District	
Ongoing	PDF 15-13 City of Irvine Zoning Code Chapter 9-36-20.8: 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, greenwaste (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.	Community Development Department	
Prior to issuance of building permits	PDF 15-14 City of Irvine Zoning Code Chapter 5-8-4.A.7: GreenPoint Rated Residential Buildings: Applicants for new residential developments in the Irvine Business Complex shall submit evidence to the satisfaction of the Director of Community Development that proposed buildings are designed and constructed 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.	Community Development Department	

3. Mitigation Monitoring Requirements

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<i>Timing</i>	<i>PPPs, PDFs, and MMs</i>	<i>Responsible for Monitoring</i>	<i>Date Completed</i>
Prior to issuance of building permits	PDF 15-15 City of Irvine Zoning Code Chapter 9-36-20.9: Designed to Earn the Energy Star Non-Residential Buildings: Applicants for new non-residential developments in the Irvine Business Complex shall submit evidence to the satisfaction of the Director of Community Development that proposed buildings are designed and constructed to achieve the 'Designed to Earn the Energy Star' rating. In order achieve the 'Designed to Earn the Energy Star' rating, the architect/design firm must demonstrate that the final estimate of the building's energy use corresponds to a rating of 75 or better using the US EPA's Energy Performance Rating from the Internet-based tool, Target Finder.	Community Development Department	

4. Mitigation Monitoring Reports

Mitigation monitoring reports are required to document compliance with the Mitigation Monitoring Program, and dispute arbitration enforcement resolution. Specific reports include:

- Field Check Report
- Plan Check Conformance Reports
- Implementation Compliance Report
- Arbitration/Enforcement Report

4.1 FIELD REPORTS

Field reports are required to record in-field compliance and conditions.

4.2 PLAN CHECK CONFORMANCE REPORTS

Plan check conformance reports are completed by the Community Development Department, the Department of Public Works and the mitigation monitor to evaluate final engineering compliance with mitigation measures outlined in the Final EIR.

4.3 IMPLEMENTATION COMPLIANCE REPORT (ICR)

The ICR is prepared to document the implementation of mitigation measures on a phased basis and is shown in Table 3-1. The report summarizes implementation compliance including mitigation measures and date completed.

4. Mitigation Monitoring Reports

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CITY COUNCIL RESOLUTION NO. 17-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRVINE, CALIFORNIA, ADOPTING THE UPDATED IRVINE BUSINESS COMPLEX (PA 36) TRANSPORTATION MITIGATION PROGRAM, INCLUDING THE UPDATE TO THE DEVELOPMENT IMPACT FEE PROGRAM FOR THE IRVINE BUSINESS COMPLEX, PURSUANT TO SECTION 9-36-14 OF THE ZONING ORDINANCE

WHEREAS, at Public Hearings on July 13 and July 27, 2010, the City Council of the City of Irvine adopted a General Plan Amendment (00497846-PGA) and Zone Change (00497861-PZC) for the Irvine Business Complex (IBC) Vision Plan Project; and,

WHEREAS, the IBC Vision Plan Program Environmental Impact Report (EIR) (SCH No. 2007011024) was prepared and certified by the Irvine City Council as adequate on July 13, 2010; and

WHEREAS, in 2017 an Addendum to the IBC Vision Plan Program EIR (SCH No. 2007011024) was prepared to analyze the potential environmental impacts associated with a 2015 update to the 2015 IBC Vision Plan EIR Traffic Study and associated nexus study; and

WHEREAS, the IBC Traffic Mitigation Fee Program, its intent, basis, applicability, requirements and procedures are contained in Section 9-36-14 of the Zoning Ordinance; and

WHEREAS, the nexus study prepared in conjunction with 2015 IBC Vision Plan EIR Traffic Study includes cost estimates for circulation improvements; identification of funding sources for necessary improvements, including provisions of the updated IBC Development Fee Program; an assessment of the estimated funding shortfall; identification of funding sources to fill the estimated shortfall;

WHEREAS, these provisions include establishing final fees for implementation of circulation improvements.

WHEREAS, the City Council has considered information presented by the applicant, the Community Development Department, and other interested parties at a public meeting held on June 27, 2017; and

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. An Addendum to the IBC Vision Plan Program Environmental Impact Report (SCH No. 2007011024) has been prepared pursuant to Section 15164 of the CEQA Guidelines, and concluded that the proposed project is not anticipated to have a significant effect on the environment.

SECTION 3. Pursuant to Section 15162 of the CEQA Guidelines, the following has been determined:

- A. There are no substantial changes to the project that will require major revisions to the EIR due to new, significant environmental effects or a substantial increase in the severity of impacts identified in the previous EIR.
- B. Substantial changes have not occurred in the circumstances under which the project is being undertaken that will require major revisions of the EIR to disclose new, significant environmental effects or a substantial increase in the severity of the impacts identified in the EIR.
- C. There is no new information of substantial importance not known at the time the EIR was certified that shows any of the following:
 - 1. The project will have any new significant effects not discussed in the EIR.
 - 2. There are impacts that were determined to be significant in the EIR that will be substantially increased.
 - 3. There are additional mitigation measures or alternatives to the project that would substantially reduce one or more of the significant effects identified in the EIR.
 - 4. There are additional mitigation measures or alternatives that were rejected by the project proponent that are considerably different from those analyzed in the EIR that would substantially reduce any significant impact identified in the EIR.
- D. Mitigation measures identified in the IBC Vision Plan and Mixed Use Overlay Zoning Ordinance EIR as refined through the Addendum have been incorporated into the project, or have been previously applied. These measures mitigate any potential significant environmental effects thereof.

SECTION 4. Pursuant to Section 15164 of the CEQA Guidelines, the previously certified IBC Vision Plan Program EIR (SCH No. 2007011024) and the 2017 Addendum prepared for the subject project both adequately address the proposed project's

environmental impacts. The previous EIR will cover the effects of the project and all feasible mitigation measures and alternatives developed in the EIR will be incorporated into this project. Based on independent judgment, the City Council hereby determines that no new mitigation measures are required. The previous EIR and the 2017 Addendum have been determined to be adequate to serve this project and satisfies all requirements of CEQA.

SECTION 5. In accordance with Section 15164 of the State CEQA Guidelines, the City Council finds that, based upon the substantial evidence in the entire record, an Addendum to the IBC Vision Plan Program Environmental Impact Report (SCH No. 2007011024) is appropriate because some changes or additions are necessary (The 2015 Traffic Study Update indicates that the change in traffic conditions will not cause new or more severe adverse environmental impacts or require major revisions to the project) and none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent EIR or negative declaration have occurred with respect to the proposed 2015 IBC Traffic Study and corresponding fee update and nexus study.

SECTION 6. Pursuant to Fish and Game Code Section 711.4, all required Fish and Game filing fees have been paid subsequent to certification of the IBC Vision Plan and Mixed Use Overlay Zoning Ordinance EIR, which includes Planning Area 36 (SCH No. 2007011024).

SECTION 7. Based on the above, the City Council adopts the 2015-17 IBC Transportation Mitigation Program including the corresponding 2017-18 fee update, as described in this section and detailed in the 2015 Update to Irvine Business Complex Vision Plan Traffic Fee Nexus Study (dated June 7, 2017), to raise revenue for the construction of area-wide circulation improvements needed to serve the IBC as development occurs.

- A. Boundaries of the final fee district: All property within the IBC, as outlined in Exhibit A, is included in the final fee district.
- B. Final fee schedule: The Zoning Ordinance for the IBC specifies the maximum allowable development intensity of land-uses throughout the IBC. The fees are based on a fair share payment as calculated by the level of development intensity “trips” generated by each land use category. The fees to be paid are as follows:

Residential (Dwelling Unit)	\$4,697
Commercial (Square Foot)	\$3,796
Hotel (Room)	\$6,140
Ext Stay Hotel (Room)	\$13.97
Office (Square Foot)	\$13.97
Manufacturing (Square Foot)	\$3.79

Mini-Warehouse (Square Foot)	\$2.44
Transfer of Development Rights: Hour Trip	\$500.00 per PM Peak

- C. Administration of Program: All administration fees shall be used solely for the implementation of the area-wide circulation mitigation program identified in the Final Program Environmental Impact Report for the IBC Vision Plan. Any use of fees by City of Irvine staff or consultants shall be for administering annual fee updates, monitoring/updating the IBC database, inter-departmental and inter-agency coordination, transportation demand management strategies to reduce demand on the IBC roadway system, and reassessment of land use assumptions and reassessment of the IBC Vision Plan EIR Traffic Study and improvement list as noted in Section 9 of this resolution.
- D. The proposed fees shall apply to all residential and non-residential development, including density bonus units, for which building permits are issued following the adoption of this resolution.

SECTION 8. Resolution No. 93-35 shall continue to apply only to development projects that are not subject to the payment of fees pursuant to this Resolution.

SECTION 9. The findings required by State law regarding justification of development fees for public facilities as a result of this project approval are satisfied as follows:

- A. The purpose of the fees has been identified. The fees are intended to fund area-wide circulation improvements within the project boundary. These improvements are required due to circulation impacts associated with buildout of the project.
- B. The public facilities to be implemented as a result of this development project have been identified. Arterial and Intersection improvements necessary to accommodate this project are identified in the Circulation and Traffic Study prepared as part of the certified EIR for the IBC Vision Plan and the 2015 IBC Traffic Study Update.
- C. There is a reasonable relationship between the fees use and the type of development project on which the fee is imposed. The fees imposed in the IBC Transportation Mitigation Program apply to all types of future non-vested traffic-generating development, and are calibrated based on the level of development intensity associated with each different development type.
- D. There is a reasonable relationship between the need for the public facilities and the type of development for which the fee is imposed. The circulation improvements identified in the IBC Transportation Mitigation Program are required to mitigate traffic impacts directly attributable to the General Plan and

Zoning development intensity authorized by General Plan Amendment 00497846-PGA and Zone Change 00497861-PZC. Implementation of the circulation improvements proposed within the 2015 IBC Traffic Study Update and calibrated based on the level of development intensity associated with each different development type.

- E. 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. There is a direct correlation between the fee amounts per square foot (or unit) of development and the costs of the circulation improvements and associated administrative costs. A Nexus Study which establishes the relationship between the amount of the fees, the cost of the facilities and the amount attributable to development within the IBC has been prepared as part of the 2015 IBC Traffic Study update process.

SECTION 10. 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 hearing held on the 27th day of June 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 on the 27th day of June 2017, by the following vote:

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

CITY CLERK OF THE CITY OF IRVINE



Irvine Business Complex Boundary

5.1

RECEIVED
CITY OF IRVINE
CITY CLERK'S OFFICE

2017 JUN 20 PM 12: 20

RECEIVED

JUN 20 2017

CITY OF IRVINE
CITY MANAGER'S OFFICE

Memo

To: Sean Joyce, City Manager
From: Councilmember Shea
Date: June 20, 2017
Re: **Substation Public Hearing**

This memo is to confirm our conversation whereby I requested you to keep the "public hearing" about alternative sites for the Spectrum area substation on the June 27, 2017, agenda. That hearing is to include the same scope and parameters as was originally contemplated by the Council at its May 9, 2017, meeting.

In your email to the Council, dated June 19, 2017, you indicated that this item was being removed because you "suspected" that keeping it on the agenda "...would halt any progress in the search for another site." I disagree.

To remove this matter from the agenda, I feel, would seriously undermine the Council's credibility with the public, and would not be in the best interests of our residents, and the business owners, who have expressed a keen interest in this issue. Additionally, the public seems very interested in hearing directly from Southern California Edison and the Irvine Company as to their intentions to find an alternative site for the substation.

cc: City Council
City Attorney
City Clerk