Placentia Planning Commission Agenda

Regular Meeting
August 8, 2017
6:30 p.m.
Front Community Meeting Room
401 E. Chapman Avenue

Christine Schaefer
Chair

Frank Perez
Vice Chair

Heather Francine
Commissioner

Dennis Lee
Commissioner

James Schenck
Commissioner

Vic Tomazic
Commissioner

Claudia Keller
Commissioner

City of Placentia
401 E Chapman Avenue
Placentia, CA 92870

Phone: (714) 993-8124
Fax: (714) 528-4640
Website: www.placentia.org

Procedures for Addressing the Commission

Any person who wishes to speak regarding an item on the agenda or on a subject within the Planning Commission's jurisdiction during the "**Oral Communications**" portion of the agenda should fill out a "**Speaker Request Form**" and give it to the Commission Secretary BEFORE that portion of the agenda is called. Testimony for Public Hearings will only be taken at the time of the hearing. Any person who wishes to speak on a Public Hearing item should fill out a "**Speaker Request Form**" and give it to the Commission Secretary BEFORE the item is called.

The Commission encourages free expression of all points of view. To allow all persons the opportunity to speak, please keep your remarks brief. If others have already expressed your position, you may simply indicate that you agree with a previous speaker. If appropriate, a spokesperson may present the views of an entire group. To encourage all views, the Commission discourages clapping, booing or shouts of approval or disagreement from the audience.

PLEASE SILENCE CELL PHONES AND OTHER ELECTRONIC EQUIPMENT WHILE THE COMMISSION IS IN SESSION.

Special Accommodations

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at (714) 993-8231. Notification 48 hours prior to the meeting will generally enable City staff to make reasonable arrangements to ensure accessibility.
(28 CFR 35.102.35.104 ADA Title II)

Copies of all agenda materials are available for public review in the Office of the City Clerk, City Planning Division Counter, Placentia Library Reference Desk and the internet at www.placentia.org under the Planning Commission page. Persons who have questions concerning any agenda item may call the City Planning Division at (714) 993-8124 to make inquiry concerning the nature of the item described on the agenda.

In compliance California Government Code Section 54957.5, any writings or documents provided to a majority of the Planning Commission regarding any item on this agenda that are not exempt from disclosure under the Public Records Act will be made available for public inspection at the City Clerk's Office at City Hall, 401 East Chapman Avenue, Placentia, during normal business hours.

Study Sessions are open to the public and held in the City Council Chambers or City Hall Community Room.

REGULAR MEETING
6:30 p.m. – Front Community Meeting Room

CALL TO ORDER:

ROLL CALL:

Commissioner Keller
Commissioner Francine
Commissioner Lee
Commissioner Schenck
Commissioner Tomazic
Vice Chair Perez
Chair Schaefer

PLEDGE OF ALLEGIANCE:

ORAL COMMUNICATIONS:

At this time the public may address the Planning Commission concerning any agenda item, which is not a public hearing item, or on matters within the jurisdiction of the Planning Commission. There is a five (5) minute time limit for each individual addressing the Planning Commission.

CONSENT CALENDAR: None

PUBLIC HEARINGS:

1. **Applicant:** **Douglas Fenn – Tait Associates, Inc.**
   Project Location: **818 W. Orangethorpe Avenue (southeast corner of S. Placentia Avenue and W. Orangethorpe Avenue)**
   APN 344-121-01

   Use Permit (UP) 2017-04
   To permit the development, establishment, and operation of an approximately 2,081-square foot, 24-hour convenience market building and gas station, including the onsite sale of beer and wine for offsite consumption on property within the C-1 (Neighborhood Commercial) zoning district.

   Recommended Actions: It is recommended that the Planning Commission:

   a. Open the public hearing concerning Use Permit (UP) 2017-04 continued from the July 11, 2017, Planning Commission meeting;

   b. Receive the staff report and consider all public testimony;

   c. Close the public hearing;

d. Adopt Resolution PC-2017-12, a resolution of the Planning Commission of the City of Placentia, approving Use Permit No. 2017-04 and making findings to permit the development, establishment, and operation of an approximately 2,081-square foot, 24-hour convenience market and gas station, including the onsite sale of beer and wine for offsite consumption on property within the C-1 (Neighborhood Commercial) zoning district on property located at 818 W. Orangethorpe Avenue; and making findings that the project is categorically exempt pursuant to the California Environmental Quality Act (CEQA) set forth in Title 14 CCR § 15332 (Class 32 – Infill Development Projects) and the City of Placentia Environmental Guidelines.

2. **Applicant:** **Brianna Hursh, owner of Happy Flow Yoga**
Project Location: **1290 N. Kraemer Boulevard (southeast corner of N. Kraemer Boulevard and Morse Avenue)**
APN 339-012-01

Use Permit (UP) 2017-06
To permit the establishment and operation of an approximately 1,153-square foot Yoga Studio with a small (458-square foot) retail sales component within the T-C (Town Center) zoning district.

Recommended Actions: It is recommended that the Planning Commission:

a. Open the public hearing concerning Use Permit 2017-06;

b. Receive the staff report and consider all public testimony;

c. Close the public hearing;

d. Adopt Resolution PC-2017-14, a resolution of the Planning Commission of the City of Placentia, approving Use Permit No. 2017-06 and making findings to permit the development, establishment, and operation of an approximately 1,153-square foot, Yoga Studio, which includes a 639-square foot class studio floor and 458-square foot retail space within the T-C (Town Center) zoning district on property located at 1290 N. Kraemer Boulevard; and making findings that the project is categorically exempt pursuant to the California Environmental Quality Act (CEQA) set forth in Title 14 CCR § 15301 (Class 1 – Existing Facilities) and the City of Placentia Environmental Guidelines.

3. **Applicant:** **The Placentia TOD Project, LLC – Ed Galigher**
Project Location: **130-132 E. Crowther Avenue, Placentia CA 92870**
APN 339-012-01

Development Plan Review (DPR) 2017-01, Vesting Tentative Map (VTM) 18118 and Development Agreement (DA) 2017-01

The proposed project involves the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a 215-unit multi-family residential development, and a seven-level parking garage and related amenities on the 2.95-acre project site within the Transit Oriented Development Packing House District (TOD) Zone. The project involves a Vesting Tentative Tract Map for lot consolidation and condominium purposes and consideration of a Development Agreement between the City of Placentia and The Placentia TOD Project, LLC for the subject project pursuant to the procedures described in California Government Code § 65867. This project area is not included on lists of hazardous waste facilities identified by Section 65962.5 of the Government Code. The Planning Commission will be making a recommendation to the City Council regarding General Plan Amendment (GPA) 2017-03, Zone Change (ZC) 2017-03, and Zoning Code Amendment (ZCA) 2017-04.

Recommended Actions: It is recommended that the Planning Commission:

a. Open Public Hearing, concerning Development Plan Review (DPR) No. 2017-01, Vesting Tentative Tract Map (VTM) 18118 and Development Agreement 2017-01, receive the Staff Report and consider all Public Testimony, close the Public Hearing; and

b. Recommend to the City Council adoption of a Mitigated Negative Declaration for the project in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000-21177) and pursuant to §15063 of Title 14 of the California Code of Regulations (CCR); and

c. Adopt Resolution No. PC-2017-16, a Resolution of the Planning Commission of the City of Placentia, California, recommending to the City Council of the City of Placentia, approval of Development Plan Review (DPR) No. 2017-01, Vesting Tentative Tract Map (VTM) 18118 and approval of Development Agreement 2017-01 for the project located at 110 and 132 E. Crowther Avenue subject to the Conditions of Approval and Standard Development Requirements.

4. **Applicant:** **City of Placentia**

Project Location: **An approximately 7.3-acre (gross) project area located within the City of Placentia, comprised of eight (8) parcels bifurcated by the Burlington Northern Santa Fe (BNSF) railroad tracks that separate two (2) parcels to the north and six (6) parcels to the south of the tracks. The 7.3-acre project area is triangular in shape, bound by Crowther Avenue on the south, Placentia Avenue on the west, and State Route 57 (SR 57)/Orange Freeway on the east/north.**

General Plan Amendment (GPA) 2017-03, Zone Change (ZC) 2017-03, and Zoning Code Amendment (ZCA) 2017-04

The City of Placentia proposes a General Plan Amendment to change the existing land use designation of the project area from "Industrial" to "Commercial". The City also proposes a Change of Zone to alter the zoning for the project area from "Commercial Manufacturing" (C-M) and "Manufacturing" (M) to "Community Commercial" (C-2), including establishment of a Height Overlay with a 65-foot height maximum. Additionally, the City proposes a Zoning Code Amendment for the establishment of the Height Overlay. The Height Overlay would permit an increase in overall height limit from 35 feet to 65 feet. To accomplish this, the City is proposing to adopt a "Commercial" General Plan land use designation (General Plan Amendment (GPA 2017-03)); Zone Change to establish a "C-2" zoning district and 65-foot Height Overlay (Zone Change ZC 2017-03); and establish development standards for the Height Overlay (Zoning Code Amendment (ZCA 2017-04)).

Recommended Actions: It is recommended that the Planning Commission:

a. Open the Public Hearing, concerning General Plan Amendment (GPA) 2017-03, Zone Change (ZC) 2017-03, and Zoning Code Amendment (ZCA) 2017-04;

b. Receive the staff report and consider all public testimony; and

c. Close the public hearing; and

d. Adopt Resolution PC-2017-15, A Resolution of the Planning Commission of the City of Placentia, recommending that City Council approve General Plan Amendment 2017-03 to change the current land use designation from Industrial to Commercial for the project area; and, to approve Zone Change 2017-03, changing the existing zoning from Commercial Manufacturing (C-M) and Manufacturing (M) to Community Commercial (C-2), including establishment of a new Height Overlay District (H); and, to approve Zoning Code Amendment 2017-04 for the establishment of a new Height Overlay Districts zone with development standards for the project area; and, recommending the adoption of Mitigated Negative Declaration 2017-03 pursuant to the California

Environmental Quality Act Guidelines (CEQA) set forth in Title 14 CCR § 15074 and the City of Placentia Environmental Guidelines.

5. **Applicant:** **City of Placentia**
   Project Location: **Citywide**

   Zone Code Amendment ZCA 2017-05
   Consideration of an ordinance amending the City of Placentia Municipal Code whereby Chapter 23.83 would be added to Title 23 (Zoning) of the Municipal Code to regulate wireless telecommunications facilities within the public Right-of-Way.

   Recommended Actions: It is recommended that the Planning Commission:

   a. Open the Public Hearing, Concerning Zone Code Amendment ZCA 2017-05, Receive the Staff Report and Consider All Public Testimony, and Close the Public Hearing; and

   b. Adopt Resolution PC-2017-17, A Resolution of the Planning Commission of the City of Placentia, Recommending to the City Council Approval Of Zoning Code Amendment No. 2017-05, whereby Chapter 23.83 would be added to Title 23 (Zoning) of the Municipal Code to regulate wireless telecommunications facilities within the public Right-of-Way; and

   c. Recommend that the City Council find that adoption of Zoning Code Amendment No. 2017-05 is exempt from environmental review pursuant to the provisions of the California Environmental Quality Act (CEQA), Section 15061(b) (3) in that the proposed Code Amendments are not expected to create a negative impact on the physical environment and it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

OLD BUSINESS: None

NEW BUSINESS:

1. **Selection of Commission Chair and Vice Chair**
   Recommended Action:
   1) Nominate and elect one (1) Chair and one (1) Vice Chair for the Planning Commission

DEVELOPMENT REPORT:

DIRECTOR'S REPORT:

PLANNING COMMISSION REQUESTS

Commission members may make requests or ask questions of Staff. If a Commission member would like to have formal action taken on a requested matter, it will be placed on a future Commission Agenda.

ADJOURNMENT

The Planning Commissioners ADJOURN to the next regular meeting on September 12, 2017 at 6:30 p.m. in the Placentia City Hall Front Community Meeting Room located at 401 East Chapman Avenue, Placentia CA, 92870.

CERTIFICATION OF POSTING

I, Joseph M. Lambert, Secretary to the Planning Commission of the City of Placentia, hereby certify that the Agenda for the August 8, 2017 Regular Meeting of the Planning Commission of the City of Placentia was posted on August 3, 2017.

Joseph M. Lambert, Secretary

Placentia Planning Commission

AGENDA STAFF REPORT

TO: PLANNING COMMISSION

FROM: ANDREW GONZALES, SENIOR PLANNER

DATE: AUGUST 8, 2017

SUBJECT: **USE PERMIT 2017-04 (7-ELEVEN GAS STATION)**

RECOMMENDATION:

It is recommended that the Planning Commission take the following actions:

1. Open the public hearing concerning Use Permit (UP) 2017-04 continued from the July 11, 2017, Planning Commission meeting;

2. Receive the staff report and consider all public testimony;

3. Close the public hearing;

4. Adopt Resolution PC-2017-12, a resolution of the Planning Commission of the City of Placentia, approving Use Permit No. 2017-04 and making findings to permit the development, establishment, and operation of an approximately 2,081-square foot, 24-hour convenience market and gas station, including the onsite sale of beer and wine for offsite consumption on property within the C-1 (Neighborhood Commercial) zoning district on property located at 818 W. Orangethorpe Avenue; and making findings that the project is categorically exempt pursuant to the California Environmental Quality Act (CEQA) set forth in Title 14 CCR § 15332 (Class 32 – Infill Development Projects) and the City of Placentia Environmental Guidelines.

REQUEST:

The applicant, Douglas Fenn with Tait Douglas Inc., representing the property owner, is requesting to improve a site currently developed with a gas station pump canopy and convenience market building with a new approximately 2,081-square foot, convenience market building and 1,340-square foot gas pump canopy structure. The development includes three fueling pump islands and six pump stations, and various landscape and hardscape improvements at 818 W. Orangethorpe Avenue within the C-1 (Neighborhood Commercial) zoning district. The request also includes the onsite sale of beer and wine for offsite consumption.

PROJECT BACKGROUND AND DESCRIPTION:

The subject property is a corner lot located at the southeast corner of S. Placentia Avenue and W. Orangethorpe Avenue on an approximately ±0.47 acre (±20,473 square feet) site zoned C-1. The

project site is adjacent to commercial uses to the north (across Orangethorpe Avenue), residential uses to the south and east, and industrial/commercial uses to the west (across Placentia Avenue). Currently, the site is developed with an approximately 931-square foot gas convenience market building, an approximately 1,600-square foot gas pump canopy, and four pump islands with five self-service pump stations. A total of eight onsite parking spaces exist onsite. The property is presently accessible from four driveway approaches, two on Placentia Avenue and two on Orangethorpe Avenue.

The project applicant proposes to demolish the existing gas station and all existing buildings, remove underground storage tanks, and construct a gas station consisting of three gas pump islands with six self-service gas pumps, an approximately 1,340-square foot gas pump canopy structure, an approximately 2,081-square foot convenience market building, a total of nine onsite parking spaces, and various hardscape and landscape improvements. The self-service pump stations and gas canopy structure are to be located in the northwestern portion of the site, adjacent to Placentia and Orangethorpe Avenues. The height of the gas canopy will measure approximately 19 feet high and provide a minimum of 14 feet 7 inch clearance between the finished grade and bottom of the canopy. The convenience store is proposed to be located adjacent to the southerly and easterly property lines. The height of the convenience store building will vary between 19 feet 6 inches and 23 feet. Site improvements will result in additional landscaping around the perimeter of the site, which is an improvement over the sparse landscaping that presently exists.

Access onto the site from Placentia Avenue and Orangethorpe Avenue will remain; however, both driveways will be consolidated into a single, two-way drive approach along each thoroughfare. The driveways will allow oversize fuel trucks to safely traverse the site, park and refuel, and exit the site without significantly impacting onsite and offsite circulation patterns. A total of nine onsite parking spaces are provided adjacent to the convenience market storefront along the north end of the building, which faces both Placentia and Orangethorpe Avenues. Queuing of at least one vehicle will be provided at each end of the pump stations.

The convenience store will have a total of 12-14 full and part-time employees (3-4 per shift). The proposed hours of operation are seven days a week, 24 hours a day. The convenience store proposes the sale of packaged/sealed beer and wine for off-site consumption. The intended hours of alcohol sales will be prohibited between 2:00 AM and 6:00 AM in compliance with the provisions of the California Department of Alcoholic Beverage Control (ABC). ABC approval is necessary for the sale of alcoholic beverages.

Applicable Code Section – Placentia Municipal Code

The subject property is currently zoned C-1. The project will be required to comply with development standards and use requirements set forth in the Placentia Municipal Code (PMC) for projects within the C-1 zoning district. Pursuant to PMC Section 23.33.040, service stations (e.g., gas stations) and the onsite sale of alcoholic beverages for offsite consumption shall require a UP to be reviewed and approved at a noticed public hearing before the Planning Commission.

Subject Site and Surrounding Land Uses

The proposed gas station and convenience market will be located on a developed site on the south side of W. Orangethorpe Avenue, east of S. Placentia Avenue. The chart below shows surrounding existing land uses, zones, and General Plan Land Use Designations:

Surrounding Land Uses:

Location	Existing Land Use	Land Use Element General Plan Designation	Zoning Map Designation
Subject Site	Valero Gas Station	Commercial	C-1
North (across Orangethorpe Avenue)	Drive-Thru Restaurant & Auto Dealership	Commercial	Specific Plan 5 (SP5)
South	Mobile Home Park	Low Density Residential	Single Family Residential (Mobile Home Park) (R-1(MHP))
East	Mobile Home Park	Low Density Residential	R-1(MHP)
West (across Placentia Avenue)	Multi-tenant Office/ Retail/Industrial Park	City of Anaheim	City of Anaheim

ZONING COMPLIANCE ANALYSIS

Site Development Standards

The project is located within the C-1 zoning district. The proposed development, establishment, and operation of an approximately 2,081-square foot, 24-hour convenience market building and gas station, including the onsite sale of beer and wine for offsite consumption, is permitted with a UP subject to review and approval by the Planning Commission.

The proposed development and use complies with the base zoning district in terms of the maximum height limit, minimum setbacks, minimum onsite parking, and minimum landscaping requirements. Nearby residences will be buffered from the project by a 6-foot high decorative perimeter block wall, 10-foot wide landscape planter, and the convenience market building that will serve as a partial barrier for nearby residences. Onsite circulation will be improved to ensure safe and secure traffic flow for the proposed project.

Other Departments Concerns and Requirements

The Divisions of Planning and Building, Public Works Department, Police Department, as well as the Orange County Fire Authority have reviewed the application and submitted comments, but had

no major concerns with the proposal. All applicable code requirements and conditions of approval have been incorporated into a draft resolution for consideration and approval by the Planning Commission.

ISSUES ANALYSIS:

General Plan Consistency

The General Plan features goals and polices that promote quality design and distinctive character for all commercial developments. More specifically, the General Plan advocates for the continuation of existing uses and diversity of retail and service commercial uses that are oriented to the needs of local residents. Replacing an existing outdated gas station with a new gas station featuring enhanced design and incorporating the City's conditions of approval will promote compatibility with newer developments in the surrounding area. The design of the project will further the continued improvements in the surrounding area. Additionally the modernization of an existing gas station enlarged convenience market and enhanced architectural design will provide diversity to stimulate reinvestment and strengthen the economic vitality of the City.

PMC Consistency

Incorporation of the recommended conditions of approval will result in a project that complies with the provisions of the C-1 zoning district. The proposed project, with incorporation of the recommended conditions of approval, will meet or exceed the provisions of the C-1 zoning district and other applicable provisions of the PMC, including minimum parking requirements, minimum setbacks, minimum landscaping, and maximum building height.

Land Use Compatibility

The project represents a modification from the existing uses, which provides retail gas sales and light repair of vehicles. The development addresses compatibility concerns with adjacent residential uses by proposing a 6-foot high decorative (i.e., split face of slump stone) perimeter block wall (Condition No. 14.d), 10-foot wide landscape buffer, and an angular building orientation resulting in the storefront facing toward Placentia and Orangethorpe Avenues, away from nearby residences. The proposed project is a continuation of an existing gas station use, with enhancements that benefit the neighborhood and will result in a project that will improve mobility, visual blight, and reduce levels of noise and light spillover. It is anticipated that the proposed project will be a compatible continuation with surrounding uses and enhancement to the project area.

Alcohol Sales

The use is proposing beer and wines sales in conjunction with the operation of the business. Alcohol sales will be limited to beer and wine only. The consumption of alcoholic beverages will be for offsite consumption only. To mitigate any impacts associated with the sales of beer and wine, the Police Department is recommending several operational conditions of approval to address onsite security and prohibit alcohol sales between 2:00 AM and 6:00 AM to correspond

with the restrictions of ABC. Therefore, with the implementation of these provisions, it is not anticipated to generate any significant adverse impacts detrimental to the site and surrounding properties.

CEQA:

The proposed application was reviewed by staff in accordance with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.,* the State CEQA Guidelines, 14 C.C.R. §§ 15000 *et seq.,* and the Environmental Guidelines of the City of Placentia. Staff recommends that the Planning Commission exercise its independent judgment and find that UP 2017-04 is exempt from CEQA pursuant to State CEQA Guidelines § 15332 (Class 32 – Infill Development Projects) as the permit would be issued to an infill development project.

PUBLIC NOTIFICATION:

Legal notice was published in the Placentia News Times on July 28, 2017, and notices were sent to property owners of record within a 300-foot radius of the subject property on July 27, 2017. As of August 3, 2017, staff has received no comments in support or opposition of the request.

CONCLUSION:

The proposed project is consistent with the City's General Plan and meets the minimum development standards of the PMC. With the recommended conditions of approval, the proposed development, establishment, and operation of an approximately 2,081-square foot, 24-hour convenience market building and gas station, including the onsite sale of beer and wine for offsite consumption, will be compatible with adjacent land uses and will not result in any adverse impacts onto the surrounding area.

RECOMMENDATION:

The Planning Division recommends that the Planning Commission of the City of Placentia adopt the Resolution PC-2017-12 recommeding approval of UP 2017-04.

Prepared and submitted by:

Andrew A. Gonzales
Senior Planner

Review and approved by:

Joseph M. Lambert
Director of Development Services

Attachments:

1. Resolution No. 2017-12
2. Project Plans Dated and Received June 22, 2017
3. Colors and Materials Board Dated and Received May 18, 2017, and June 22, 2017

4. Statement of Use Submitted by the Applicant Dated and Received May 18, 2017
5. Site Photographs

ATTACHMENT 1
DRAFT PC RESOLUTION NO. 2017-12

RESOLUTION NO. PC-2017-12

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PLACENTIA APPROVING USE PERMIT NO. 2017-04 AND MAKING FINDINGS TO PERMIT THE DEVELOPMENT, ESTABLISHMENT, AND OPERATION OF A NEW 24-HOUR CONVENIENCE MARKET BUILDING AND GAS STATION, INCLUDING THE ONSITE SALES OF BEER AND WINE FOR OFFSITE CONSUMPTION ON PROPERTY LOCATED AT 818 WEST ORANGETHORPE AVENUE WITHIN THE C-1 (NEIGHBORHOOD COMMERCIAL) ZONING DISTRICT.

A. Recitals.

WHEREAS, Douglas Fenn, with Tait Associates, Inc. ("Applicant" hereinafter), representing the property owner, 7-Eleven, Inc. ("Property Owner" hereinafter), located at 818 W. Orangethorpe Avenue, filed an application for approval of Use Permit (UP) No. 2017-04, as described in the title of this Resolution. Hereinafter, in this Resolution, the subject Use Permit request is referred to as the "Application";

WHEREAS, the subject property is currently located within the C-1 (Neighborhood Commercial) zoning district;

WHEREAS, the subject site is designated as Commercial land use type by the City's General Plan;

WHEREAS, pursuant to the C-1 zoning district, approval of a Use Permit by the Planning Commission is required for the construction, establishment, and operation of a "Service Station" facility;

WHEREAS, pursuant to the C-1 zoning district, approval of a Use Permit by the Planning Commission is required for business establishments requesting the onsite sales of alcoholic beverages;

WHEREAS, on August 8, 2017, this Commission conducted a duly noticed public hearing, as required by law, and concluded said hearing prior to the adoption of this Resolution; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

B. Resolution.

NOW, THEREFORE, it is hereby found, determined and resolved by the Planning Commission of the City of Placentia as follows:

SECTION NO. 1: Based on the evidence presented and the findings set forth, Use Permit No. UP 2017-04 is hereby found to be consistent with the Placentia General Plan and the implementation thereof.

SECTION NO. 2: Based upon substantial evidence presented to this Commission during the public hearing conducted with regard to the Application, including written staff reports, verbal testimony and development plans, this Commission hereby specifically finds as follows:

a. The proposed use will not be: (1) detrimental to the health, safety or general welfare of the persons residing or working within the neighborhood of the proposed use or within the City, or (2) injurious to the property or improvements within the neighborhood or within the City. Subject to compliance with the attached Conditions of Approval and Standard Development Requirements (Attachment "A"), this use complies with all applicable code requirements and development standards of the C-1 zoning district and (3) it is anticipated that 24-hour convenience market building and gas station, including onsite sales of beer and wine for offsite consumption, will not generate any negative impacts onto surrounding land uses, including the adjacent residential uses to south and east of the subject property. Onsite activities shall be conducted within the enclosed convenience market building with all outside gas station services to be directed toward Placentia and Orangethorpe Avenues. Nearby sensitive land receptors will be buffered from the gas station use by a perimeter block wall, landscaped planter, and the convenience market building, which will assist in maintaining an environment free from objectionable noise, odor, or other nuisances, subject to compliance with the attached Special Conditions of Approval and Standard Development Requirements.

b. The proposed use is consistent with the City's General Plan. The General Plan Land Use designation for the subject site is Commercial, and the onsite improvements and continuation of an existing service station use, including the onsite sales of beer and wine for offsite consumption, does not involve any substantial change in the land use of the subject site.

c. The construction, establishment, and operation of a 24-hour convenience market building and gas station, including onsite sales of beer and wine for offsite consumption, subject to the attached Conditions of Approval and Standard Development Requirements (Attachment "A"), is consistent with the provisions of the Zoning Ordinance, or regulations applicable to the property. The existing gas station use is a conditionally permitted use in the C-1 in the City of Placentia. Approval of the Use Permit will be consistent with the zoning as it is continuation of an existing use with site upgrades that enhances the subject site and surrounding area, and other similar uses have been conditionally permitted within the C-1 zoning districts.

d. Conditions necessary to secure the purposes of this section, including guarantees and evidence of compliance with conditions are made part of the Use Permit approval. Attachment "A" contains Conditions of Approval and Standard Development Requirements specific to UP 2017-04 to ensure compliance with the Placentia Municipal Code (PMC).

SECTION NO. 3: Based upon the environmental review of the project, the Planning Commission finds that UP 2017-04 is exempt from the California

Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.,* the State CEQA Guidelines, 14 C.C.R. §§ 15000 *et seq.,* and the Environmental Guidelines of the City of Placentia pursuant to the State CEQA Guidelines § 15332 (Class 32 – Infill Development Projects) as the permit would be issued to an infill development project.

SECTION NO. 4: The Planning Commission hereby directs that, upon approval of UP 2017-04, that a Notice of Exemption shall be filed with the Orange County Clerk/Recorder.

SECTION NO. 5: Based upon the findings and conclusions set forth herein, this Planning Commission hereby approves UP 2017-04 as modified herein, and specifically subject to the conditions set forth in Attachment "A" attached hereto and by this reference incorporated herein.

SECTION NO. 6: The Secretary to the Planning Commission shall:

a. Certify to the adoption of this Resolution; and

b. Forthwith transmit a certified copy of this Resolution, by certified mail, to the Applicant at the address of record set forth in the Application.

ADOPTED AND APPROVED this 8th day of August, 2017

_____
CHRISTINE J. SCHAEFER, CHAIR

I, Joseph M. Lambert, Secretary to the Planning Commission of the City of Placentia, do hereby certify that the foregoing Resolution was introduced at a regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August 2017, and was passed at this regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2017, by the following vote:

AYES:	COMMISSION MEMBERS:
NOES:	COMMISSION MEMBERS:
ABSENT:	COMMISSION MEMBERS:
ABSTAINED:	COMMISSION MEMBERS:

ATTEST:

_____
JOSEPH M. LAMBERT,
SECRETARY TO THE PLANNING COMMISSION

APPROVED AS TO FORM

_____

YOLANDA M. SUMMERHILL,
ASSISTANT CITY ATTORNEY

ATTACHMENT "A"

Attachment A
Special Conditions of Approval and Standard Development Requirements for Use Permit 2017-04
818 W. Orangethorpe Avenue

SPECIAL CONDITIONS

If the above referenced application is approved, applicant and/or property owner shall comply with the Special Conditions listed below and the Standard Development Requirements attached.

ALL OF THE FOLLOWING SPECIAL CONDITIONS OF APPROVAL AND STANDARD DEVELOPMENT REQUIREMENTS SHALL BE FULLY COMPLIED WITH TO CONTINUE IN GOOD STANDING FOR THE USE PERMIT TO DEVELOP, ESTABLISH, AND OPERATE A NEW 24-HOUR CONVENIENCE MARKET BUILDING AND GAS STATION, INCLUDING THE ONSITE SALE OF BEER AND WINE FOR OFFSITE CONSUMPTION.

DEVELOPMENT SERVICES DEPARTMENT – PLANNING DIVISION:

1. Use Permit (UP) 2017-04 is valid for a period of two (2) years from the date of final determination. If the use approved by this action is not established within such a period of time, this approval shall be terminated and shall be null and void, unless an extension is applied for and approved by the Director of Development Services.

2. Use Permit (UP) 2017-04 shall expire and be of no further force or effect if the use is discontinued or abandoned for a period of one (1) year.

3. Failure to abide by and faithfully comply with any and all conditions attached to this action shall constitute grounds for revocation of said action by the City of Placentia Planning Commission.

4. The applicant shall, as a condition of project approval, at its sole expense, defend, indemnify and hold harmless the City, its officers, employees, agents and consultants from any claim, action, proceeding, liability or judgment against the City, its officers, employees, agents and/or consultants, which action seeks to set aside, void, annul or otherwise challenge any approval by the City Council, Planning Commission, or other City decision-making body or City staff action concerning applicant's project. The applicant shall pay the City's defense costs, including attorney fees and all other litigation-related expenses, and shall reimburse the City for any and all court costs, which the City may be required to pay as a result of such defense. The applicant shall further pay any adverse financial award which may be issued against the City including but not limited to any award of attorney fees to a party challenging such

project approval. The City shall retain the right to select its counsel of choice in any action referred to herein. The City agrees to promptly notify the applicant of any such claim filed against the City and to fully cooperate in the defense of any such action.

5. Any changes or modifications to Use Permit (UP) 2017-04 shall be subject to review and approval by the Director of Development Services or designee, with substantial changes or modifications subject to Planning Commission review and approval.

6. Prior to the submittal for building permits, the following shall be completed:
   a. One set of project plans, revised pursuant to Conditional of Approval No. 14, shall be submitted for review, approval and inclusion in the entitlement file, to the Planning Division.
   b. Reductions of the approved resolution and conditions of approval shall be printed verbatim on one of the first three pages of all the working drawing sets used for issuance of building permits (architectural, structural, electrical, mechanical, and plumbing) and shall be referenced in the sheet index. The minimum font size utilized for printed text shall be 12 point.

7. There shall be no additional modifications to the approved plans with approval from the Director of Development Services or his/her designee other than those required by Conditional of Approval No. 14. Any additional changes to the approved plans, which has the effect of expanding or intensifying the present use, shall require a new Use Permit.

8. If at any time in the future, the Director of Development Services determines that a parking/circulation study is necessary to address parking and/or circulation issues relative to the use, the applicant, current business owner, and/or property owner, shall be responsible for the cost of a parking and/or circulation study prepared by a consultant selected by the City. The applicant, current business owner, and/or property owner shall also be responsible for the implementation costs of any mitigation measures deemed appropriate by the City based upon the findings of this study.

9. The applicant, current business owner, and/or property owner shall be responsible for maintaining the property, including the landscaped areas, walkways, and all paved surfaces, free from graffiti, debris and liter. Graffiti shall be removed by the applicant, current business owner, and/or property owner within 48 hours of defacement and/or upon notification by the City. The paint utilized to cover the graffiti must substantially match the existing structure. In the event that the paint finish of the abated area is noticeably distinguishable from the rest of the structure, the property owner shall paint additional portions of the building to minimize the disparity, subject to the approval of the Director of Development Services.

10. Any temporary signs or permanent signs shall be reviewed and approved by the City prior to fabrication and installation.

11. The applicant, current business owner, and/or property owner shall obtain approval of a Building and Zoning Compliance Application and shall obtain approval of a City Business License. The applicant, current business owner, and/or property owner shall maintain a valid City Business License at all times during operation of the business.

12. This Use Permit may be reviewed at the discretion of the Director of Development Services in order to determine if the business is operating in compliance with all required Special Conditions of Approval and Standard Development Requirements.

13. There shall be no special promotional events held on the property, unless a written request for such is received and approved by the City of Placentia Development Services Director and the Police Department's Administrative Lieutenant at least 14 days in advance.

14. The site plan, floor plans, and elevations approved by the Planning Commission shall be the conceptually approved design with the following modifications:

    a. All colors and materials reflected on the submitted colors and materials board dated received on May 18, 2017 and June 22, 2017, shall be reflected on the elevation drawings. The colors, materials, and any associated exterior finishes, shall be clearly depicted and specified within a legend key (e.g., 1,2,3) on the elevation plans as to the location(s) of the aforementioned doors, windows, light fixtures, architectural canopy, and all other exterior improvements. A copy of the manufacturer's brochure copied on the project plans may be provided in lieu of an illustrative detail of the exterior improvement. The brochure should identify the manufacturer's name, item serial number, item name, common name, and texture.

    b. The cornice element manufactured by Advanced Foam shall be revised to reflect a minimum quarter inch (1/4") thick polymer-modified cementitious wrap around the pressed foam material.

    c. Energy saving lamps shall be used for all outdoor lighting. All outside lighting shall be directed to prevent spillage onto adjacent properties. The type and location of all exterior lighting shall be on the site plan and elevations. Parking lot light standards shall not exceed a height of 20 feet. If any light standards are to be located within the parking lot area, the final design and location are to be approved by the Planning Division. If necessary, a detailed lighting plan with photometric information shall be required if the Planning Division determines that the proposed onsite lighting may result in the spillage of light onto nearby properties.

    d. Blockwall/fencing plans (including a site plan, section drawings, and elevations depicting the height and material of all walls and fences) shall be submitted to and approved by the Planning Division. Double walls shall be avoided to the greatest extent feasible. The applicant, current business owner, and/or property owner shall coordinate with the adjacent property owner(s) and make reasonable attempts to construct one common property line wall. If coordination

with the property owner(s) cannot be accomplished, the applicant shall construction up to an eight (8) foot high decorative wall (e.g., slump stone or split face) entirely within the subject property. Prior to construction of any new walls, a plan must be submitted identifying the removal of any existing walls located on the subject property. Any removal of walls on private property and construction of a new common wall shall include approval by the the adjacent property owner(s). The plan shall identify materials, seep holes, and drainage.

e. All bollards shall be constructed of durable material. Any metal bollards shall wrapped with a durable slipcover rather than a painted bollard.

f. All vehicular driveway entry areas shall be enhanced with decorative paving. The paving band material shall extend from the street to the first cross aisle. Paving materials shall complement the building's architectural design. Appropriate paving materials shall include brick, pavers, exposed aggregate, or colored concrete with saw cut line patterns.

g. Provide a green screen or other decorative concealing device that adequately screens the proposed "Healy Tank" and "Air and Water" dispenser from direct public view.

h. Landscaping located within the landscaped planter area along the south and east property line shall consist of a three tiered landscaping system of grass and/or ground cover, shrubs, vines, and trees. All trees shall be 36-inch box specimen trees located at a ratio of every 35 feet.

15. Prior to the issuance of building permits, landscape and irrigation plans shall be prepared by a licensed landscape architect and presented to the Planning Division for review and approval. Landscaping to include a variation of trees, shrubs, vines, and ground cover, shall be installed and permanently maintained in all common areas of the project site. The plans shall conform to the State Model Water Efficient Landscaping Ordinance per AB 1881, Section 23.78.130-Landscaping of the Placentia Municipal Code (PMC), and City of Placentia Policy No. 720 – Xeriscape and Landscape Water Conservation Standards.

16. The use shall comply with the following:

a. Prior to any changes to the days and hours of operation, the applicant shall obtain written approval from the Director of Development Services or his/her designee. The following are the specified days and hours of operation:

Sunday through Saturday: 24 hours

b. No vending machines of any kind shall be installed outdoors within the project site.

c. There shall be no public pay phones installed within or upon any portion of the premises.

d. No outside storage, including the display of vehicles within the parking lot area or displays shall be permitted at any time.

e. The use shall comply with all provisions of the PMC, including Chapter 23.76 Noise Control.

DEVELOPMENT SERVICES DEPARTMENT – BUILDING AND SAFETY DIVISION:

17. Prior to the submittal of building permits, the following shall be completed:
    a. The applicant shall obtain approval from the South Coast Air Quality Management District (SCAQMD) prior to the demolition of any onsite structures. The applicant shall follow all procedural requirements and regulations of the South Coast Air Quality Management District (SCAQMD) and any other local, state, or federal law regarding the removal and disposal of any hazardous material including asbestos, lead, and PCB's. These requirements include but are not limited to: survey, identification of removal methods, containment measures, use and treatment of water, proper truck hauling, disposal procedures, and proper notification to any and all involved agencies.
    b. Building plans (new store and steel frame canopy structure) shall be prepared and designed by a licensed California architect or civil/structural engineer.
    c. Landscape plans for approval for the overall site. Landscape plans shall be prepared and designed by a licensed California landscape architect.
18. Prior to the issuance of demolition permits, the following shall be completed:
    a. Obtain a building permit for the demolition of the existing 984-square foot convenience market building, gas pump canopy, and all associated gas station appurtenances.
19. Prior to the issuance of grading permits, the following shall be completed:
    a. The installation and removal of any underground storage tanks (UST) shall require the consultation and approval from Orange County Fire Authority (OCFA), Health Agencies, and Dig Alert.
    b. New grading plans shall be prepared and designed by a licensed California Civil Engineer. Soil remediation plans, if need, shall be approved by the Orange County Health Agency.
    c. Grading plans shall provide property line section details throughout the entire site to address if property line walls (south and east) require to be replaced with new 6 feet high concrete masonry walls.
20. Prior to issuance of building permits, the following shall be completed:
    a. Building plans shall be approved by both OCFA and Orange County Health Agency.
21. The structure cannot be occupied, the final building permit(s) cannot be approved, and utilities cannot be released until the following has been completed:
    a. A grease trap or interceptor shall be provided.

POLICE DEPARTMENT:

22. All exterior walking and driving surfaces are to be illuminated with a minimum maintained one foot-candle light during the hours of darkness.

23. The use shall comply with the following security measures prior to the commencement of the use:

    a. Submit to the Police Chief a Convenience Store Supplemental Security Plan (C-Store Security Plan) prepared to the Chief's satisfaction outlining implementation of the following measures, which shall be monitored by the Police Department. Said plan shall be incorporated into the plan set approved for building permits. At a minimum the security plan shall provide the following:

        i. A Closed Circuit Television System capable of viewing and recording events inside the premises as follows:

            1. A minimum of one color camera at each cash register that views the front of a customer, from the waist to the top of the head, mounted no higher than 8 feet from the floor.

            2. A minimum of one (1) color camera that views the full-length side of a customer at the cash register area.

            3. A color camera recorder capable of recording events on all cameras simultaneously.

            4. A tape or disc storage library of recorded cameras kept for a minimum of 60 days.

            5. If video tape is used, tapes cannot be taped over more than six (6) times.

            6. The recorder must be kept located in a cabinet within the office and not on the sales floor. The key to the cabinet must be accessible to employees on duty, but kept secured inside the office and not left in plain view.

        ii. A money drop safe capable of easily providing the cashier the ability to quickly deposit money into it.

        iii. Windows clear of any signs or other materials at all times, between 3 feet and 6 feet in height from ground level, consistent with the City's sign code.

        iv. Clearly distinguishable height markers or the interior side of the door jamb, or on the interior edge of a pair of doors used b the public to access the store. Horizontal marks, one inch (1") wide by three inches (3") long, in different colors, and in a contrasting color to the background, shall be placed every six inches (6") beginning at 5 feet and ending at 6 feet 6 inches. A standard marking system used by the applicant may be substituted subject to review and approval by the Police Chief.

v. A written policy of limiting cash in the case register and a procedure for placing excessive amounts of case into the safe.

vi. "No Loitering" signs placed on the building exterior conforming to California Penal Code Section 602.

b. All displays of alcoholic beverages shall be locked to prevent access to these beverages by the general public between the hours of 2:00 AM and 6:00 AM.

c. The plans shall clearly identify which areas of the convenience store's interior will be used to display alcoholic beverages. Subject to the review and approval by the Chief of Police or his designee, the plans shall show how these displays will be secured/locked to prevent access to these beverages by the general public between the hours of 2:00 AM and 6:00 AM.

d. A company person, who can operate the camera recorder and obtain video footage/pictures from the recorder, must be able to respond to the store within 30 minutes of an event where the Police Department needs access to the recorded cameras for investigative purposes.

e. Wine and other non-beer, malt liquor, wine cooler alcoholic beverages for which the premises is property licensed by the California Department of Alcoholic Beverage Control to sell shall not be sold in containers less than 750 milliliter size.

ORANGE COUNTY FIRE AUTHORITY (OCFA)

24. Prior to issuance of a precise grading permit or building permit, if a grading permit is not required, the following items shall be submitted to OCFA:

    a. Fire master plan (service code PR145).

    b. Methane investigation/mitigation (service codes PR172-PR176).

25. Prior to the issuance of a building permit, the following shall be submitted and approved by OCFA:

    a. Tanks storing hazardous material (service codes PR300-PR305).

    b. Hazardous materials compliance and chemical classification (service codes PR315-PR328).

ATTACHMENT 2
PROJECT PLANS

WALL TYPE LEGEND

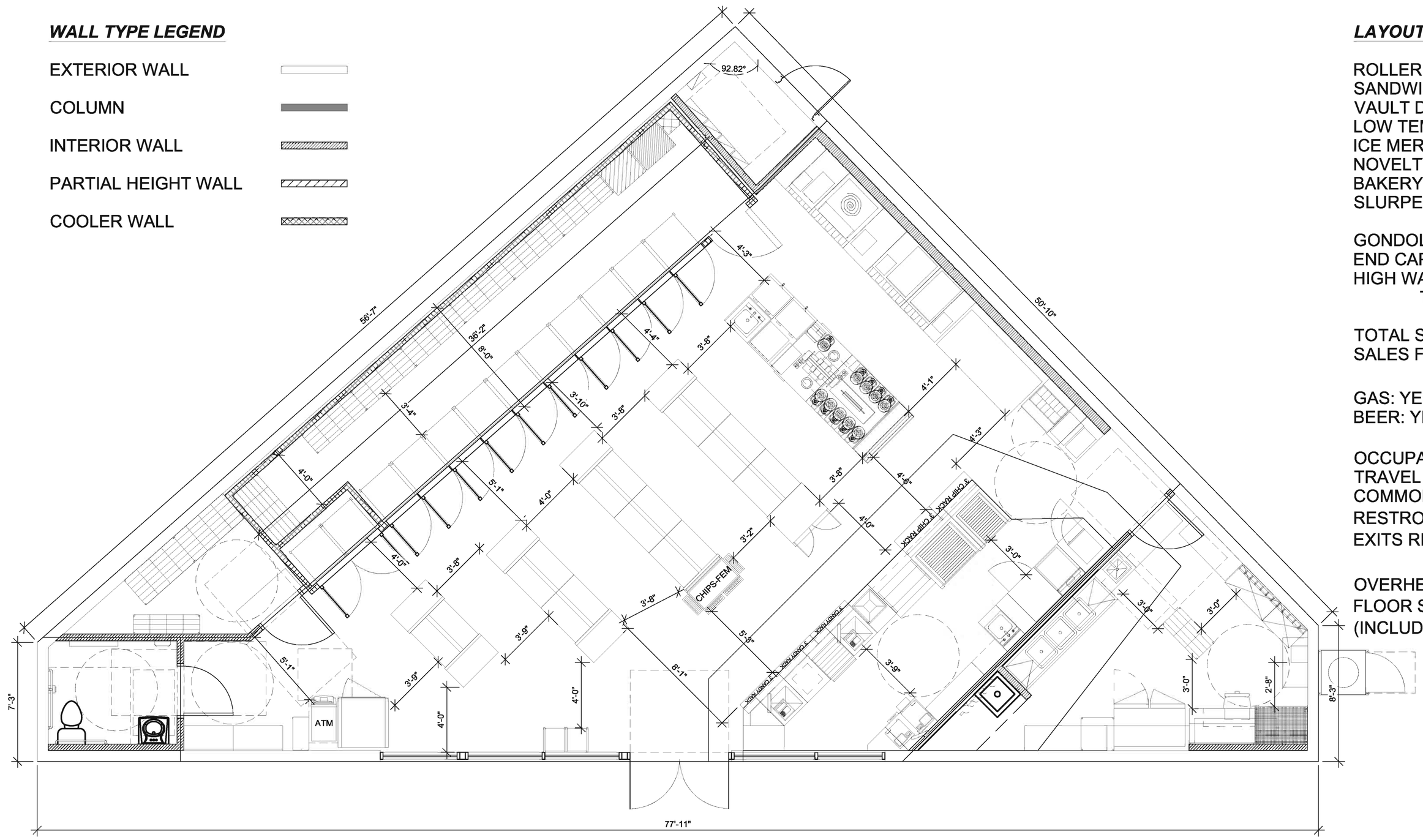
EXTERIOR WALL

COLUMN

INTERIOR WALL

PARTIAL HEIGHT WALL

COOLER WALL



LAYOUT INFORMATION

ROLLER GRILLS	2 (1 LG, 1 SM)
SANDWICH CASE	1
VAULT DOORS	10
LOW TEMP DOORS	2
ICE MERCH. DOORS	1
NOVELTY CASE	0
BAKERY CASE	1 (LG)
SLURPEE BARRELS	6
GONDOLA UNITS	18
END CAPS	07
HIGH WALLS	02
TOTAL	27
TOTAL SQ FT	= 2,041 SF
SALES FLOOR AREA	= 1,299 SF

GAS: YES LIQUOR: NO
BEER: YES WINE: YES

OCCUPANCY LOAD (>49) = 41
TRAVEL DISTANCE (<200) = 57'
COMMON PATH OF TRAVEL (<75) = N/A
RESTROOMS REQUIRED = 1
EXITS REQUIRED = 1

OVERHEAD SHELVES = 40 FT
FLOOR SHELVES = 25 FT
(INCLUDING LOCKABLE STORAGE AND BIBs)

OCCUPANCY CALCULATION

MERCHANDISE	1111 SF	/	30	=	37 PEOPLE
KITCHEN / SALES	188 SF	/	200	=	1 PEOPLE
STORAGE/ BACK ROOM	677 SF	/	300	=	3 PERSON
OFFICE	00 SF	/	100	=	0 PERSON
RESTROOM	66 SF	/	N/A	=	0 PEOPLE
			TOTAL	=	41 PEOPLE

1 DIMENSIONED FLOOR PLAN

SCALE: 1/4" = 1'-0"

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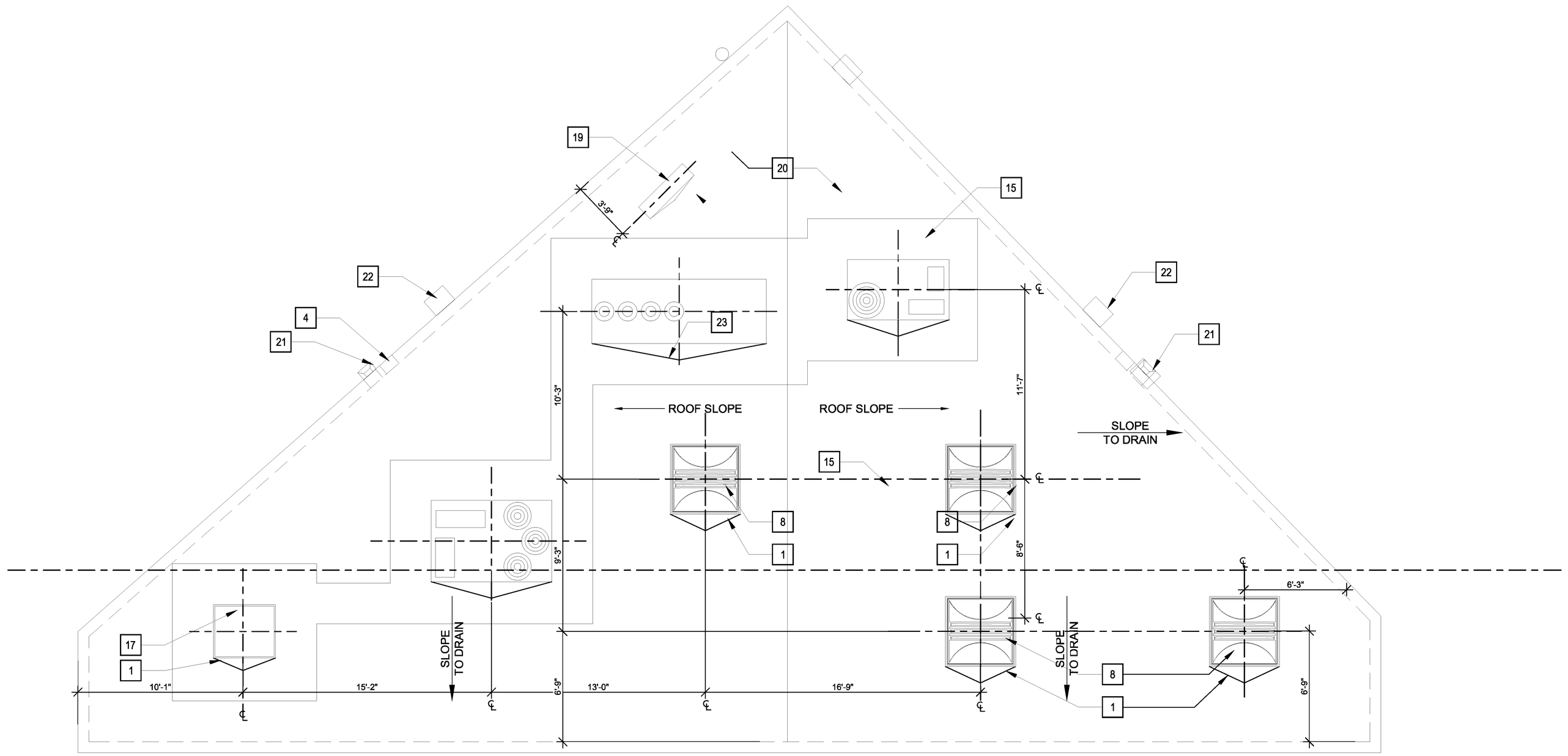
DRAWING NAME: SE1029 - A2.0 DIMENSIONED FLOOR PLAN AND INTERIOR WALL TYPES.DWG PRINT DATE: May 17, 2017 - 1:59pm



1 **ROOF PLAN**

SCALE: 1/4" = 1'-0"

ROOF NOTES

1. ROOF MATERIAL IS MINERAL SURFACE ROLL ROOFING. CLASS B FIRE RATING MINIMUM
2. NEW MECHANICAL CURBS SHALL BE A MINIMUM OF 8" HIGH PER DETAIL 2/-
3. MECHANICAL EQUIPMENT SHALL BE SET ON APPROVED CURBS OR PLATFORMS. IN LIEU OF CURBS OR PLATFORMS, EQUIPMENT MAY BE SET ON LEVEL REDWOOD SLEEPERS WHICH SPAN STRUCTURAL ROOF FRAMING MEMBERS. SLEEPERS SHALL BE SET INTO A FULL BED OF ROOFING MASTIC AND SECURED WITH LAG SCREWS INTO STRUCTURAL FRAMING MEMBERS. LAG SCREW HEADS SHALL BE COVERED WITH DOLLOP OF MASTIC.

KEYED NOTES

1	CRICKET W/ TAPERED INSULATION (TYP)
2	NEW PARAPET WALL
3	NEW LIGHT-WEIGHT CONCRETE TILE ROOF
4	NEW ROOF ACCESS HATCH WITH LADDER BELOW
5	PRIMATIC SKYLIGHT (TYP) REF EF1 SHEET
6	LINE OF EAVE/RAKE EDGE ABOVE
7	NEW ROOF DRAIN AND OVERFLOW - ROUTE THROUGH CHASE IN COLUMN
8	NEW MECHANICAL UNITS TO BE LOCATED IN THIS AREA - PROVIDE MECHANICAL CURB
9	NEW CONDENSER UNIT TO BE LOCATED IN THIS AREA - PROVIDE MECHANICAL CURB
10	NEW TRAFFIC PADS
11	NEW AWNING BY MAPES CANOPY
12	NEW MINERAL ROLL ROOFING
13	NEW PLUMBING VENT
14	PREFINISHED METAL OVERFLOW SCUPPER; (TYP OF 2)
15	PROVIDE MINIMUM 30" WALKING PAD AT ALL ROOFTOP EQUIPMENT
16	20 GA. PREFINISHED METAL CAP FLASHING - DARK BRONZE (TYP)
17	ROOF SCUTTLE W/ GRAB BARS INSTALLED BY GC REFERENCE MATERIAL SCHEDULE
18	RTU MEF MEP
19	REFRIGERANT PIPE PORTAL; REF. 12/A7.0)
20	SINGLE PLY ROOFING OVER SIP ROOF PANELS
21	PREFINISHED METAL DOWNSPOUT; (TYP OF 2)
22	WALL PACK REF. ELECTRICAL (TYP)
23	FLEXPACK REF MECHANICAL SHEETS

LEGEND

- SCOPE OF WORK
- ROOF HATCH
- ROOF DRAINAGE CRICKET
- ROOF DRAIN AND OVERFLOW DRAIN

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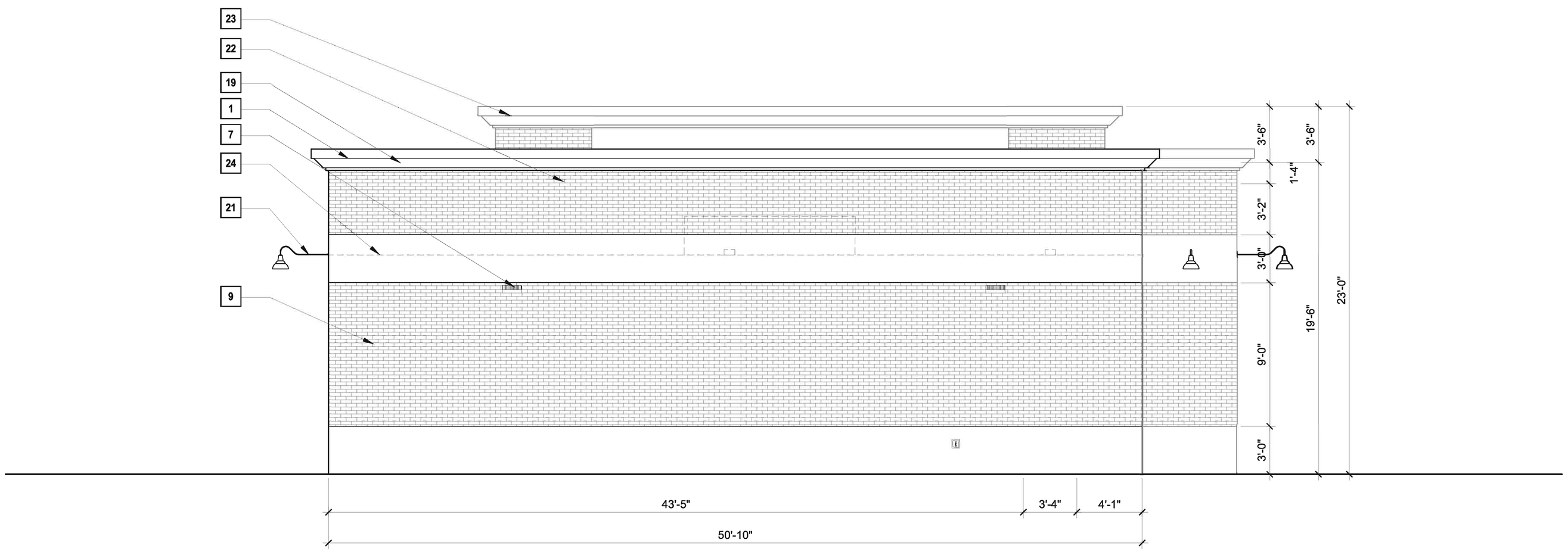
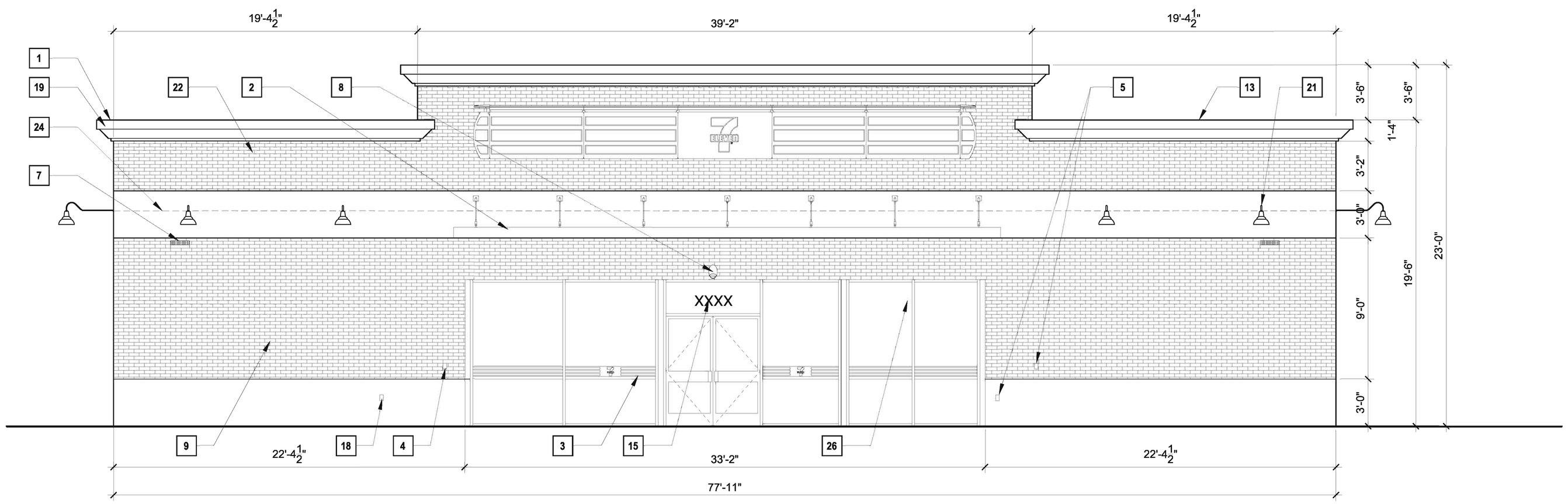


2 EXTERIOR ELEVATION - SOUTHEAST

SCALE: 1/4" = 1'-0"



1 EXTERIOR ELEVATION - NORTHWEST

SCALE: 1/4" = 1'-0"

KEYED NOTES

1. 20 GA. PREFINISHED METAL PARAPET CAP - DARK BRONZE
2. PREFINISHED METAL CANOPY - REF. MATERIAL SCHEDULE
3. 7-11 FILM STRIPING. APPLY PER SIGNAGE DRAWINGS (UNDER SEPARATE PERMIT)
4. EMERGENCY SHUT OFF FOR FUEL MTD @ 48" AFF
5. ALTERNATE LOCATION FOR EMERGENCY SHUT OFF FOR FUEL
6. INTERNALLY ILLUMINATED REMOTE CHANNEL LETTERS (UNDER SEPARATE PERMIT)
7. WALL PACK, TYP. - REF. ELECTRICAL
8. EMERGENCY EGRESS LIGHT
9. SHALE BROWN NICHIHA FIBER CEMENT PANEL
10. GAS METER
11. PREFINISHED DARK BRONZE OVERFLOW SCUPPER, TYP.
12. ELECTRICAL ROOM
13. IF NO CONNECTION TO STORM DRAINAGE SYSTEM PROVIDE 1'-0" x 2'-0" CONCRETE SPLASH BLOCKS AT EACH DOWNSPOUT
14. HVAC UNIT BEYOND
15. 6" WHITE VINYL STREET ADDRESS
16. WALL HYDRANT REF. PLUMBING @ 24" AFG
17. EMERGENCY EXIT DOOR
18. EXTERIOR OUTLET @ 24" AFF
19. APPLIED FOAM FASCIA STUCCO FINISH TO MATCH BUILDING
20. NOT USED
21. WAREHOUSE 9 1/2" H BARN GOOSENECK - OUTDOOR WALL LIGHT - BLACK
22. ALEXANDRIA RED BLUFF NICHIHA BRICK
23. ELEVATION BEYOND
24. ROOF LINE
25. AESTHETIC WHITE SW7035 - SHERWIN WILLIAMS PAINT
26. VISION GLASS WINDOW

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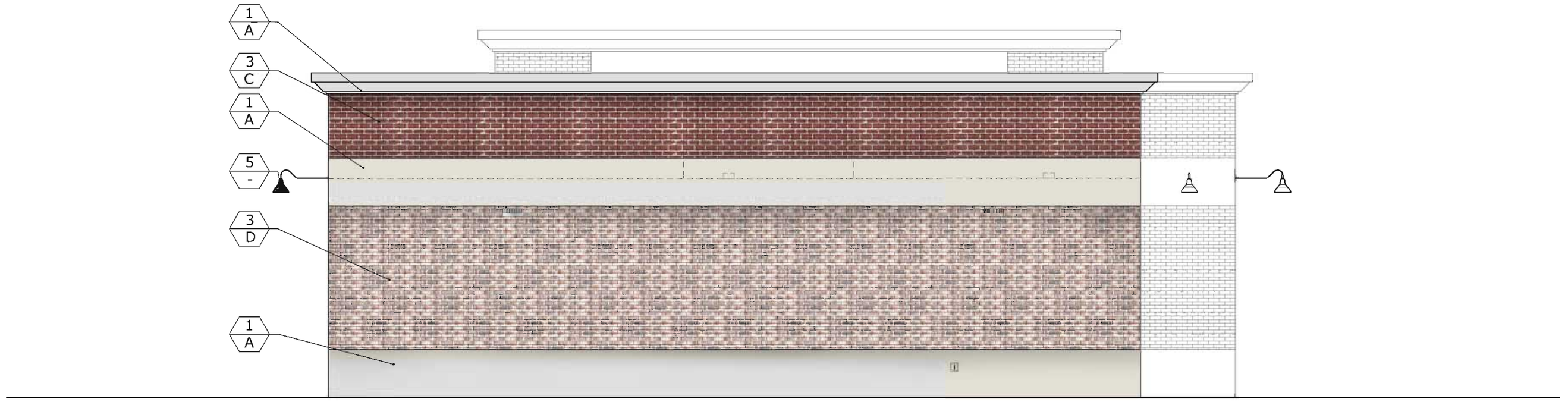
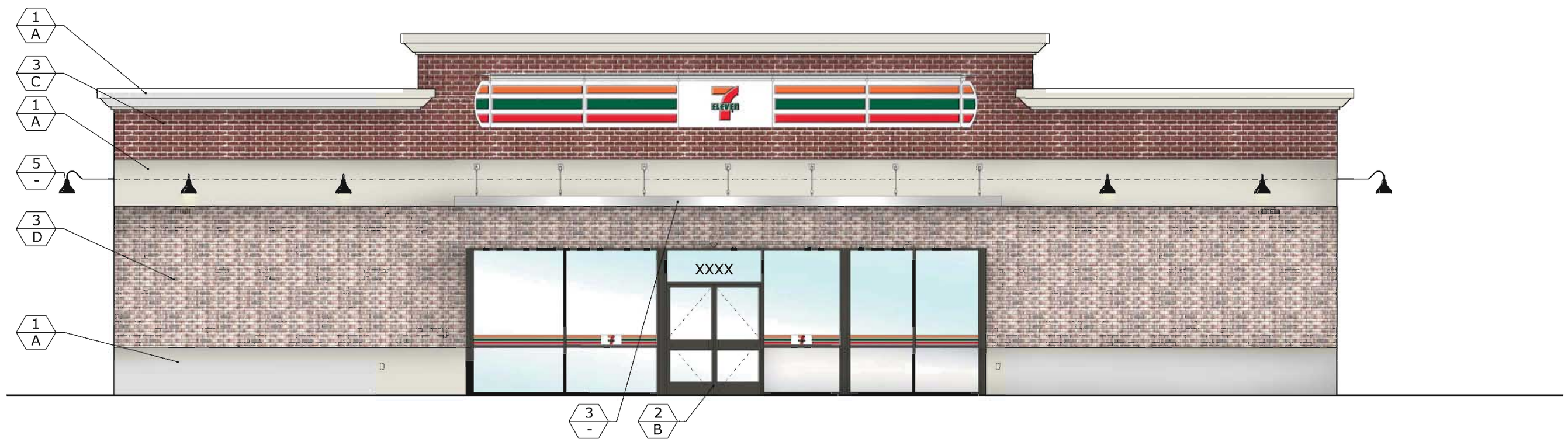


2 EXTERIOR ELEVATION - SOUTHEAST

SCALE: 1/4" = 1'-0"



1 EXTERIOR ELEVATION - NORTHWEST

SCALE: 1/4" = 1'-0"

MATERIAL SAMPLES

AESTHETIC WHITE SW7035
SHERWIN WILLIAMS

SHALE BROWN
NICHIHA FIBER CEMENT PANELS

SEALSKIN SW7675
SHERWIN WILLIAMS

ALEXANDRIA RED BUFF
NICHIHA FIBER CEMENT PANELS

FINISHES

1 - 7/8" EXTERIOR CEMENT PLASTER OVER 3.4# EXP. DIAMOND MESH OVER "TYVEK" COMMERCIAL WRAP OVER 15# BUILDING PAPERS
MANUFACTURER: LA HABRA STUCCO
A LIGHT DASH. MACHINE APPLY

2 - STORE FRONT
BY: KAWNEER
FINISH: BABY SEAL DE6361 - DUNN EDWARDS

3 - FIBER CEMENT PANEL
BY: NICHIHA

4 - MAPES LUMISHADE CANOPY - BRONZE BAKED ENAMEL W/ REAR GUTTER CONNECTIONS

5 - WAREHOUSE 9 ½" H BARN GOOSENECK - OUTDOOR WALL LIGHT - BLACK

PAINT

A - AESTHETIC WHITE SW7035
SHERWIN WILLIAMS

B - SEALSKIN SW7675
SHERWIN WILLIAMS

C - SHALE BROWN
NICHIHA FIBER CEMENT PANELS

D - ALEXANDRIA RED BUFF
NICHIHA FIBER CEMENT PANELS

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Date:	01/18/17	Checked By:	PM

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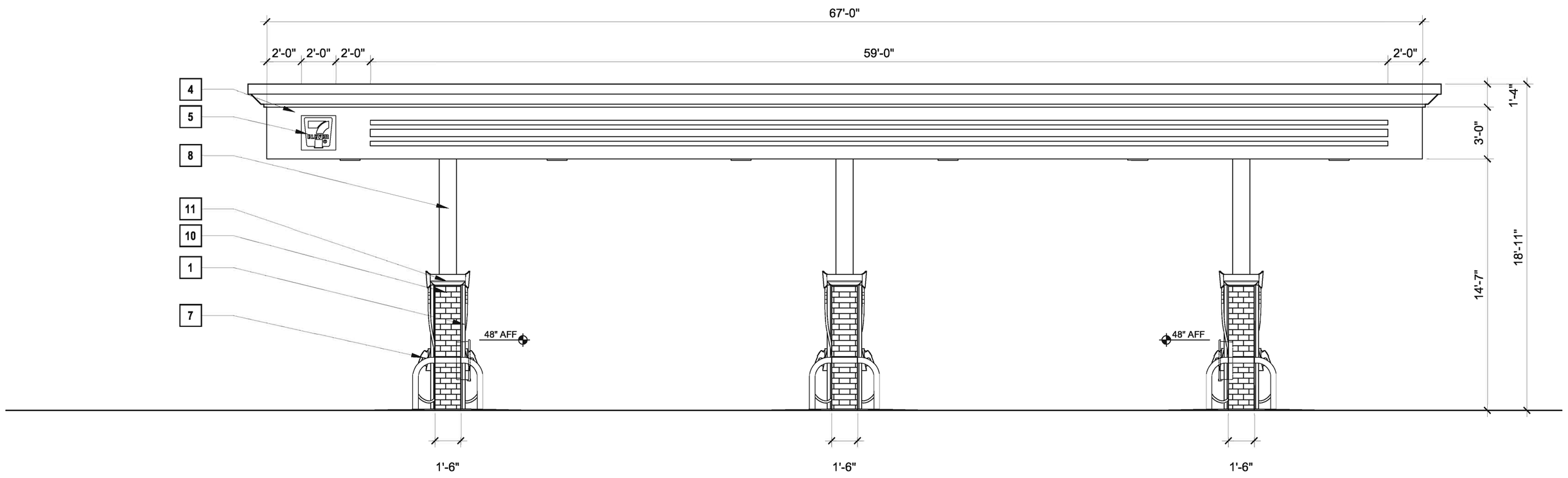
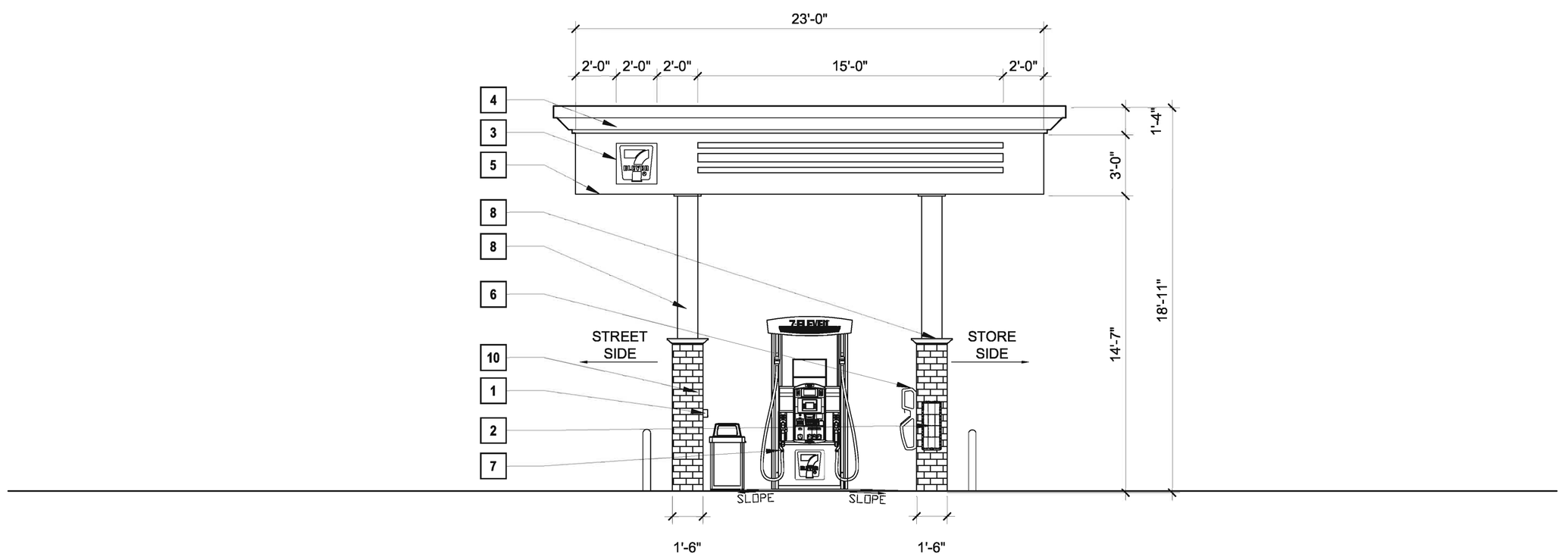
SHEET:
A3.0C

PRINTED BY: KJONES
DRAWING NAME: SE1029 - A3.0-3.1 EXTERIOR ELEVATIONS.DWG PRINT DATE: Jun 22, 2017 - 7:45pm



2 FUEL CANOPY ELEVATION - NORTHEAST

SCALE: 1/4" = 1'-0"



1 FUEL CANOPY ELEVATION - SOUTHEAST

SCALE: 1/4" = 1'-0"

KEYED NOTES

1. INTERCOM CALL BOX. MECHANICALLY FASTENED TO COLUMN. MOUNT AT 46" MAX. ABOVE SLAB TO BUTTON
2. FIRE EXTINGUISHER - ADA MOUTING HEIGHT TO BE MAX. 48" FROM GRADE TO PAPER TOWEL OPENING
3. ILLUMINATED LOGO SIGN UNDER SEPARATE PERMIT
4. ACM CANOPY FASCIA WITH TATEYAMA IMAGE TRI-STRIPE (NON-ILLUMINATED)
5. OVERFLOW PROTECTION AS REQUIRED. SEE CANOPY DRAWINGS AND SPECIFICATIONS
6. WASH BUCKET - ADA MOUNTING HEIGHT TO BE MAX. 48" FROM GRADE TO PAPER TOWEL OPENING
7. GAS DISPENSER
8. CANOPY COLUMN
9. GASOLINE CANOPY
10. SHALE BROWN NICHIHA FIBER CEMENT PANEL
11. PRE-CAST CONCRETE CAP. PAINT TO MATCH CANOPY.

Rev. #	Date	Description
1	05/15/17	PLAN CHECK REVISIONS

7-ELEVEN, INC.
ONE ARTS PLAZA, 1722 ROUTH STREET, DALLAS, TEXAS 75221

7-ELEVEN #37966
818 W. ORANGETHOREP AVE.
PLACENTIA, CA 92870

FUEL CANOPY ELEVATIONS

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SHEET:
A3.2

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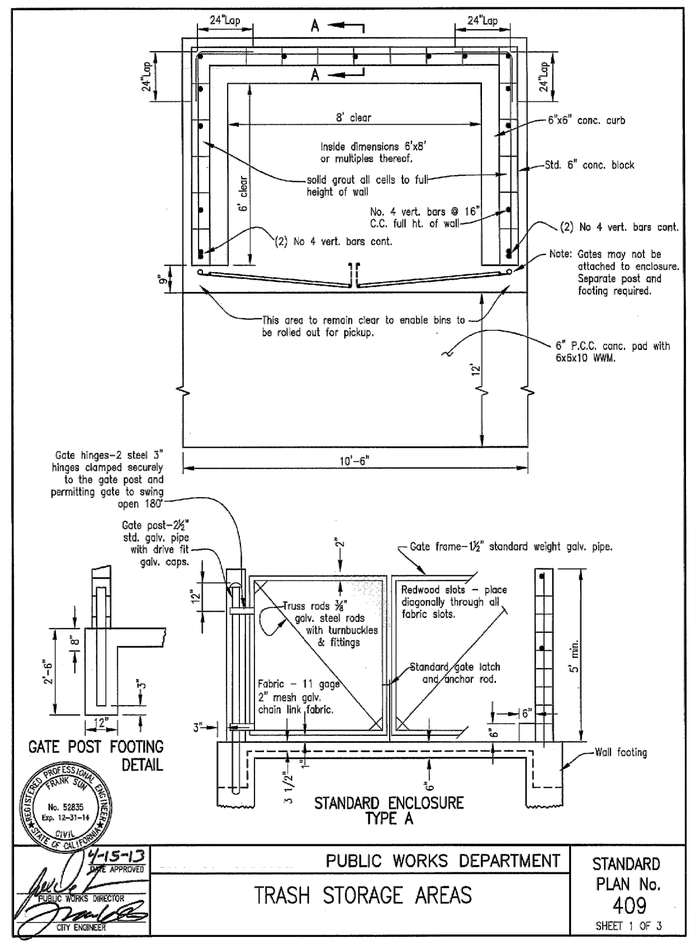
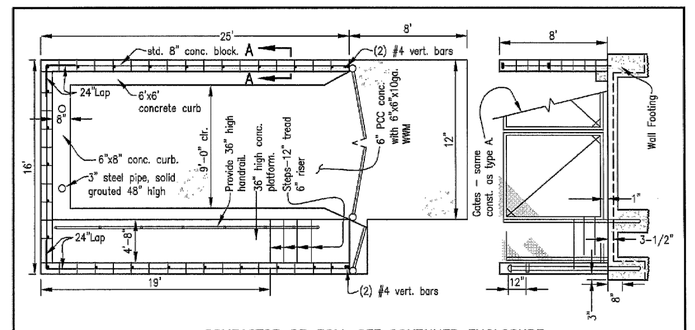
DRAWING NAME: SE1029 - A3.0-3.1 EXTERIOR ELEVATIONS.DWG PRINT DATE: Jun 22, 2017 - 7:38am



PUBLIC WORKS DEPARTMENT	STANDARD PLAN No. 409
TRASH STORAGE AREAS	SHEET 1 OF 3



COMPACTOR OR ROLL OFF CONTAINER ENCLOSURE TYPE B

NOTES:

1. Location and number of required trash areas to be specified and approved by the City Sanitation Supervisor.
2. All trash collection and storage areas shall be located clear of all structures and must be accessible to both deposit and collection.
3. Pad to be at ground or edge of pavement elevation.
4. Any variations from these standards must have prior approval of the Public Works Department.
5. This standard shall prevail in the event of any conflict between Architectural drawings and Grading plan
6. All compactors must be self contained.

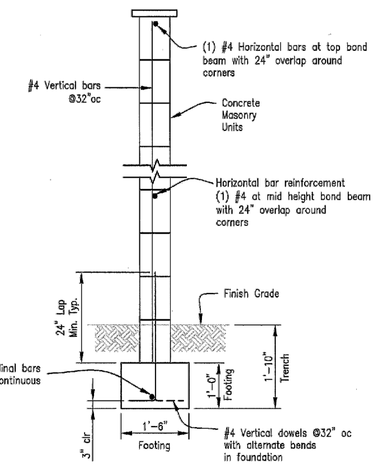
LOCATIONS:

1. All trash collection and storage areas shall have on site accessibility.
2. No trash collection or storage area for commercial or industrial use shall be located within 100 feet of any residential area.

REQUIREMENTS:

1. Residential: One standard enclosure per min 10 dwelling units.
2. Retail Commercial: One standard enclosure per min. 4,000 sq. ft. or commercial building area.
3. Commercial Office: Up to 50,000 sq. ft. – one standard enclosure per min. 4,000 sq. ft. of office space.
   Over 50,000 sq. ft. – compactor or roll off box required: contact Public Works Department for prior approval.
4. High rise Office/Hotel: Compactor or roll off box required: contact Public Works Department for prior approval.
5. Industrial: A. Manufacturing: Up to 50,000 sq. ft. – one standard enclosure per min. 5,000 sq. ft.
   Over 50,000 sq. ft. – compactor or roll off box required.
   B. Warehouse: one standard enclosure per 10,000 sq. ft.
6. Special project or circumstances: Contact Department of Public Works for approval of location, number, and type of enclosures required for project.

PUBLIC WORKS DEPARTMENT	STANDARD PLAN No. 409
TRASH STORAGE AREAS	SHEET 2 OF 3



SECTION A–A
BLOCK WALL AND FOOTING SECTION

NOTES:

1. Concrete footing shall be Class 520–C–2500.
2. Concrete masonry units shall conform to UBC Standard Number 21–4, Volume 3.
3. Reinforcing steel to be deformed and conform to ASTM specifications. A 615 Grade 40 or Grade 60.
4. Rebar shall be centered in the concrete masonry unit in which it is located.
5. Concrete masonry units are to be staggered.
6. Concrete masonry units to have vertical continuity of cells unobstructed. All cells containing reinforcing shall be solid grouted (vertical and horizontal reinforcement).
7. Mortar mix for concrete masonry units to be 1 part cement to ½ part lime to 4½ parts damp loose sand.
8. Grout mix for concrete masonry block wall to be 1 part cement to 3 parts sand to which may be added not more than ⅛ part lime. Sufficient water to be added to produce consistency for pouring without segregation of the constituents. The grout may contain 2 parts pea gravel, maximum size of ⅜".
9. Concrete block wall may be placed in the center of the 1'-0" type foundation and at either edge of 1'-6" type foundation.
10. First inspection to be after trenches are ready for concrete and all required steel are tied at full height, with vertical and horizontal steel, but not grouted.
11. Foundation must be poured against undisturbed soil with no appreciable slope of side walls on all types of foundations.
12. Concrete block wall over 3'-6" in height shall require building permit.
13. Height of concrete block walls shall comply with all provisions of the zoning code.
14. All concrete block walls shall be partially grouted.

PUBLIC WORKS DEPARTMENT	STANDARD PLAN No. 409
TRASH STORAGE AREAS	SHEET 3 OF 3

GENERAL NOTES

KEYED NOTES

1 TRASH ENCLOSURE

1 TRASH ENCLOSURE STANDARDS

SCALE: 1" = 20'

Rev.#	Date	Description

7-ELEVEN, INC.
ONE ARTS PLAZA, 1722 ROUTH STREET, DALLAS, TEXAS 75221

7-ELEVEN #37966
818 W. ORANGETHORPE AVE.
PLACENTIA, CA 92870

TRASH ENCLOSURE STANDARDS

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Job#:	SE1029
Scale:	AS NOTED
Date:	04/20/17
Drawn By:	RD
Checked By:	PM

SHEET: A4

PRINTED BY: RDELAFUENTE
DRAWING NAME: SE1028 - A1.4 TRASH ENCLOSURE.DWG PRINT DATE: May 04, 2017 - 8:18am

PLANT PALETTE

Symbol	Botanical Name	Common Name	WUCOLS Region 3
EXISTING TREES			
EUC	Eucalyptus spp.	Eucalyptus	
QP	Syagrus romanzoffiana	Queen Palm	
TREES			
	Cercis occidentalis	Western Redbud	Low
	Koelreuteria bipinnata	Chinese Lantern Tree	Mod
	Lagerstroemia indica	Crape Myrtle	Mod
	Tristania conferta	Brisbane Box	Mod

Symbol	Botanical Name	Common Name	WUCOLS
SHRUBS/ GROUNDCOVERS			
	Agave species	Agave	Very Low
	Aloe species	Aloe	Low
	Anigozanthos flavidus	Kangaroo Paw	Mod
	Arctostaphylos e. 'Carmel Sur'	Little Sur Manzanita	Low
	Calliandra eriophylla	Fairy Duster	Very Low
	Callistemon v. 'Little John'	Dwarf Bottlebrush	Low
	Carissa m. 'Green Carpet'	Dwarf Natal Plum	Low
	Cistus purpureus	Orchid Rock Rose	Low
	Dianella revoluta	Little Rev Flax Lily	Low
	Dietes vegeta	Fortnight Lily	Low
	Festuca o. glauca	Blue Fescue	Low
	Hemerocallis hybrids	Daylily	Mod
	Lantana montevidensis	Trailing Lantana	Low
	Lavandula angustifolia 'Hidcote'	Pink English Lavender	Low
	Leucophyllum f. 'Compacta'	Texas Ranger	Low
	Ligustrum japonica 'Texanum'	Texas Privet	Mod
	Muhlenbergia rigens	Deer Grass	Low
	Myoporum parvifolium	Myoporum	Low
	Myrtus communis 'Compacta'	Dwarf Myrtle	Low
	Phormium tenax	Hybrid New Zealand Flax	Low
	Rhaphiolepis indica	India Hawthorn	Low
	Rosa 'Flower Carpet'	Groundcover Rose	Mod
	Rosmarinus o. 'Marjorca Pink'	n.c.n. (upright Rosemary)	Low
	Salvia clevelandii	Cleveland Sage	Very Low
	Salvia gregii 'Flame'	Furman's Red Autumn Sage	Low
	Westringia 'Blue Gem'	Blue Gem Coast Rosemary	Low

NOTES:

PLANT MATERIAL NOT LISTED MAY BE USED, SUBJECT TO APPROVAL BY THE CITY.

ALL LANDSCAPE PLANS AND INSTALLATIONS SHALL ADHERE TO CITY DESIGN GUIDELINES, CODES AND REGULATIONS.

ALL LANDSCAPE AREAS SHALL RECEIVE AUTOMATIC IRRIGATION SYSTEM.

TOTAL PERCENTAGE OF LANDSCAPING PER PARKING LOT AREA: 27%

VICINITY MAP N.T.S.

0' 10' 20' 40' 60'

SCALE: 1"=20'

north

CONCEPTUAL LANDSCAPE PLAN

7ELEVEN

PLACENTIA, CALIFORNIA

SHEET 1 OF 1

DATE: 03-06-17

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3195-C Airport Loop Dr, Studio One, Costa Mesa, CA 92626
T: 949.399.0870 F: 949.399.0882 www.cdpcinc.com

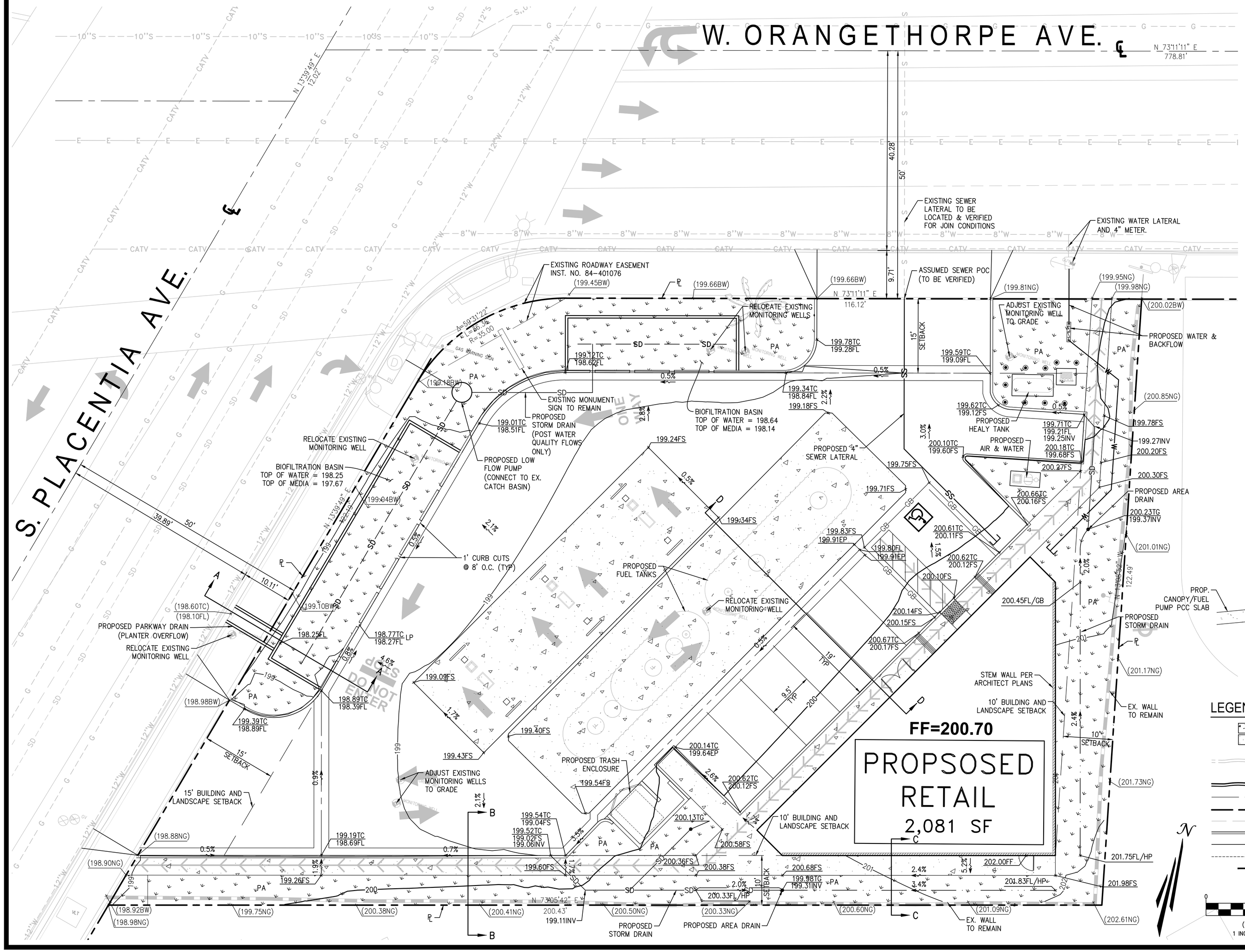
6659 Morro Road, Atascadero, CA 93422
T: 805.466.3385 F: 805.466.3204

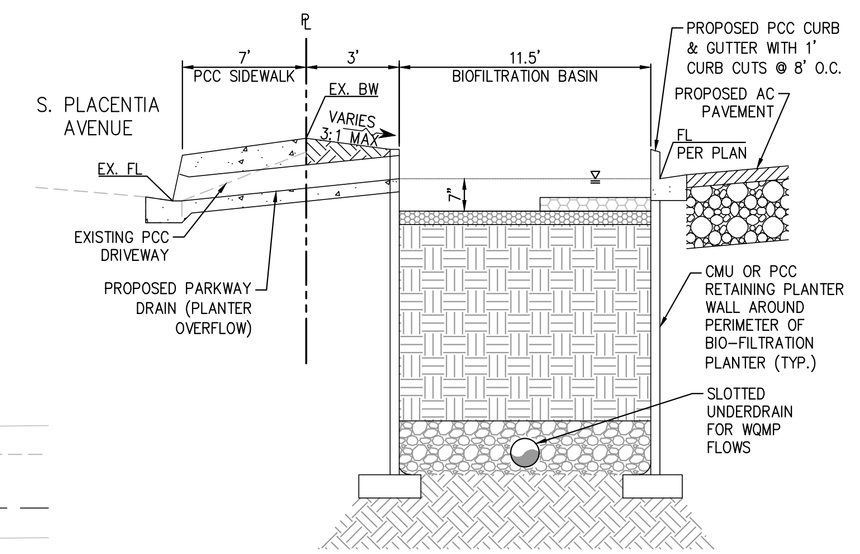
CDPC JOB#: 17020

IN THE CITY OF PLACENTIA, COUNTY OF ORANGE, STATE OF CALIFORNIA

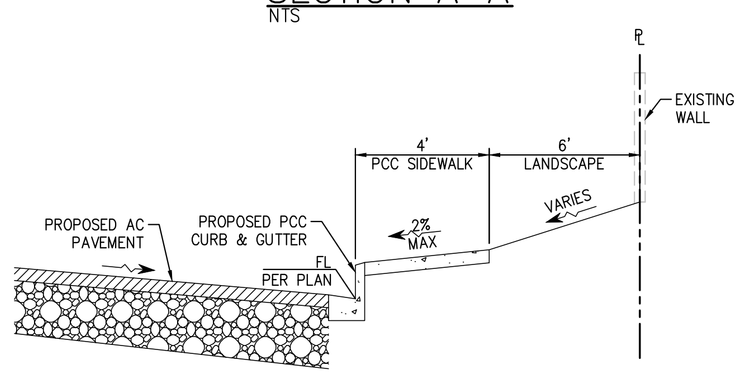
CONCEPTUAL GRADING PLAN
7-ELEVEN STORE #37966

PREPARED FOR:
7-ELEVEN, INC.
ONE ARTS PLAZA, 1722 ROUTH STREET
DALLAS, TEXAS 75221

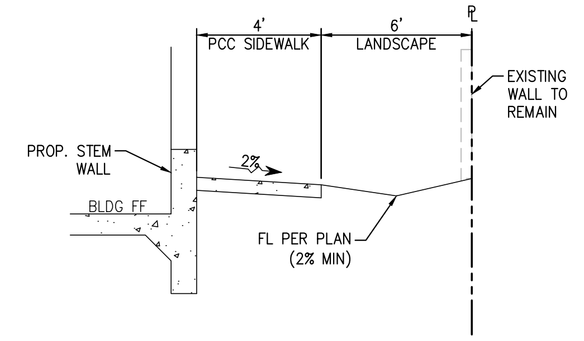




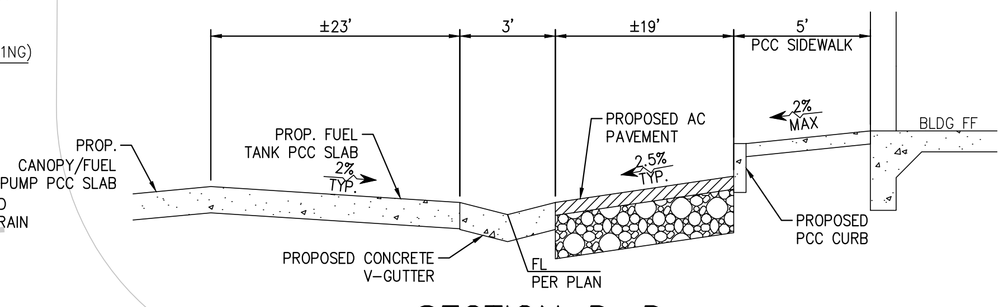
SECTION A–A
NTS



SECTION B–B
NTS



SECTION C–C
NTS



SECTION D–D
NTS

LEGEND

	PROPOSED PCC PAVEMENT/SIDEWALK
	PROPOSED LANDSCAPING
(679.3)	EXISTING SPOT ELEVATIONS
	EXISTING CONTOURS
679.3	PROPOSED SPOT ELEVATIONS
	PROPOSED CONTOURS
	CENTERLINE
	PROPERTY LINE/RIGHT-OF-WAY
	CITY EASEMENT LINE
	PROPOSED CURB & GUTTER
	PROPOSED CURB
R	RIDGE LINE/ GRADE BREAK
	PROPOSED PATH OF TRAVEL
PA	PLANITING AREA
PP	POWER POLE
FS	FINISHED SURFACE
FL	FLOWLINE
TC	TOP OF CURB
TG	TOP OF GRATE
HP	HIGH POINT
	EXISTING MONITORING WELL
	EXISTING POWER POLE
10"S	EXISTING 10" SEWER
SD	EXISTING STORM DRAIN
8"W	EXISTING 8" WATER
12"W	EXISTING 12" WATER
CATV	EXISTING TELEPHONE
G	EXISTING GAS

(IN FEET)
1 INCH = 10 FEET

NO	DESCRIPTION	BY	DATE	CHK
	REVISIONS			

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CONCEPTUAL GRADING PLAN

7-ELEVEN #37966
816 W. ORANGETHORPE AVENUE
PLACENTIA, CA 92870
7-ELEVEN, INC.
ONE ARTS PLAZA, 1722 ROUTH STREET
DALLAS, TX 75221

DRAWN: CC
DATE: 2/22/17
CHECKED: DS
DATE:
REVISION #:
DATE:
JOB NO.: SE1029

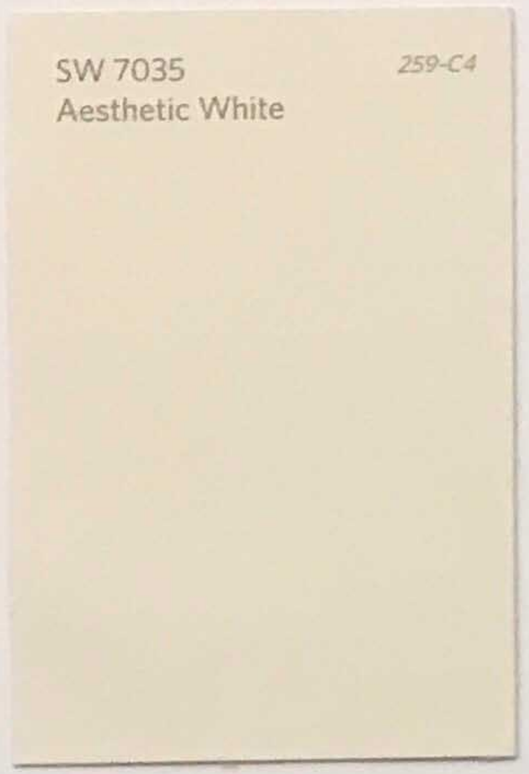
1 OF 1

K:\Drawings_7 Eleven\SE1029 0 – 37966 – S Placentia Ave @ W Orangethorpe Ave, Placentia (Valero Acquisition)\Eng\Conceptual Drawings\SE1029–Preliminary Grading.dwg
PLOTTED: 3/14/2017 7:33:57 AM BY David Soon PAGESETUP: ---- PLOTSTYLE: Tait2014.ctb

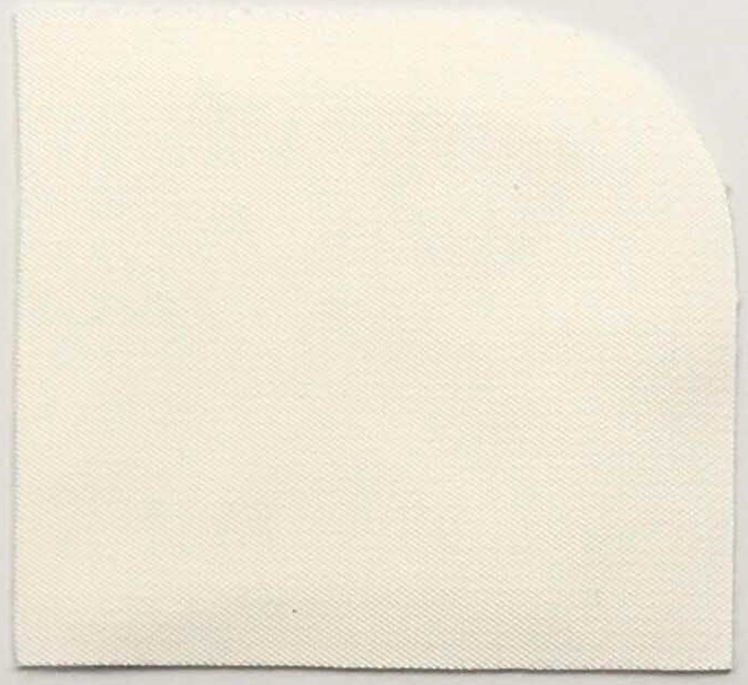
ATTACHMENT 3
COLORS & MATERIALS BOARD

COLOR BOARD

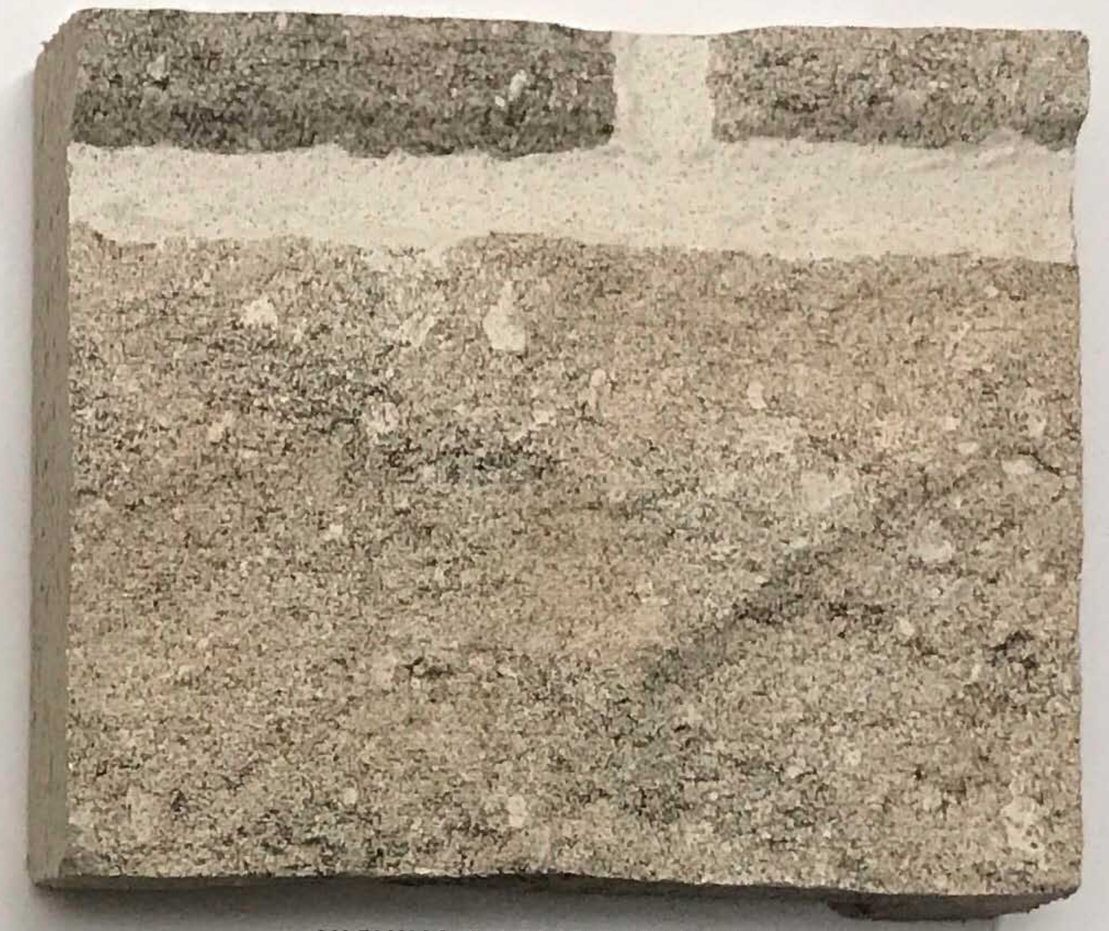
7-ELEVEN #37966
818 W. ORANGETHORPE AVE.
PLACENTIA, CA 92870



SHERWIN WILLIAMS
SW7035 AESTHETIC WHITE

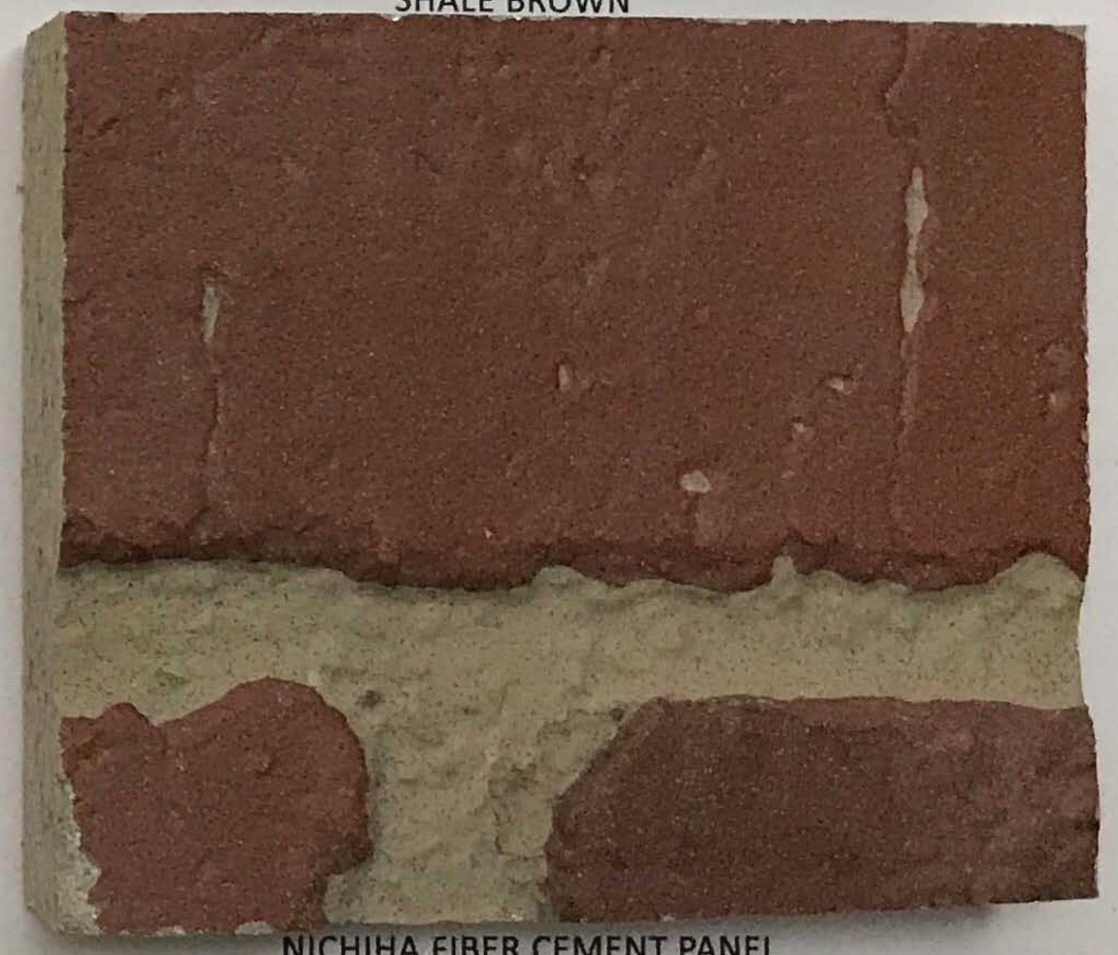


DURO-LAST ROOFING
WHITE - 40 MIL



NICHIHA FIBER CEMENT PANEL
SHALE BROWN

SHERWIN WILLIAMS
SW7675 SEALSKIN



NICHIHA FIBER CEMENT PANEL
ALEXANDRIA RED BUFF

RECEIVED
MAY 18 2017
PLANNING

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RISING TO THE CHALLENGE
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ELEVEN

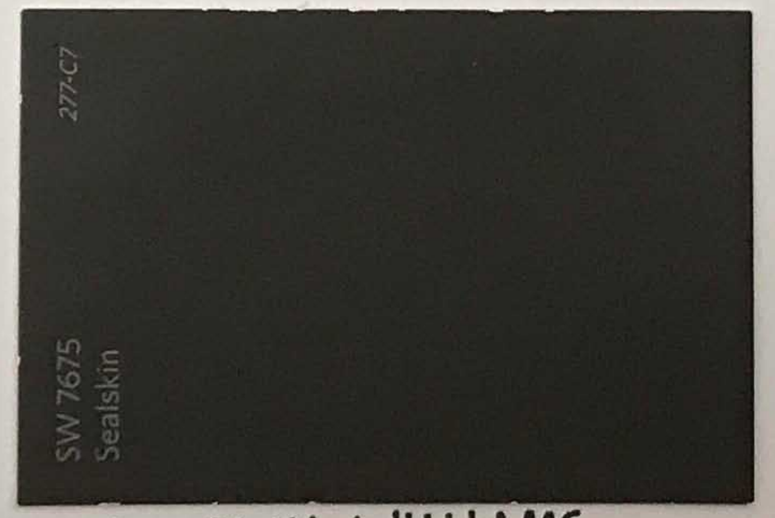
MATERIAL BOARD

7-ELEVEN #37966
818 W. ORANGETHOREP AVE.
PLACENTIA, CA 92870

ADVANCED FOAM
RT305 FOAM CORNICE PRECOATED
(SITE CONSTRUCTION MATERIAL WILL HAVE THICKER COATING)

MAPES
LUMISHADE CANOPY

KAWNEER FRAMING
DARK BRONZE



SHERWIN WILLIAMS
SW7675 SEALSKIN

MAPES
METALLIC/SILVER CANOPY
(BEST SEEN UNDER DIRECT SUNLIGHT)

GUARDIAN GLASS
ULTRACLEAR 6MM 4"X4"

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ELEVEN

ATTACHMENT 4
STATEMENT OF USE

7-11 – Placentia

PROJECT DESCRIPTION

The applicant requests that the Planning Commission approve a 2,000 square foot, twenty-four (24)-hour convenience store that includes the off-sale of beer and wine, Type 20 License. 7-Eleven is proposing to construct the store at the southeast corner of the site, relocated to the setbacks. There will be approximately 12-14 full and part-time employees members with an average 3-4 employees per shift. Typical various perishable and nonperishable items, fruit and vegetable, beverages, juices, energy, will be sold related to convenience stores. The proposed site is located at the southeast corner of S. Placentia Avenue and W. Orangethorpe Avenue ("Project") and consists of one (1) parcel approximately 0.471 acres, APN 344-121-01.

There is an existing Valero gas station with a 984 square-foot store on the subject site. Parcels located to the north are zoned SP-5, south and west are zoned MHP. The City of Anaheim has jurisdiction to the East of the site. As part of the proposed project, the existing building will be demolished.

7-Eleven will install new in-line Underground Storage Tanks, Fuel Canopy, Air & Water, Healy Tank and trash enclosure. The site plan proposes 8 store front stalls with an additional 1 spot to the east next to the Air & Water. The proposed drive cuts are as follows - two (2) drive cuts that lead to the site, one (1) on Placentia Avenue and one (1) on Orangethorpe Avenue.

Environmental

The project is an in-fill development project according to Section 15332, Class 32 of the California Environmental Quality Act, and complies with all subsections a-e. The site is consistent with the general plan designation and zoning regulations. The site is within the city limits and does not exceed five (5) acres. There is no significant endangered, rare or threatened species on the site, nor does the project result in any significant effects relating to traffic, noise, air, quality, or water quality.

Entitlement Requests

The Applicant hereby requests the following entitlements to permit the development of the proposed Project:

ATTACHMENT 5
SITE PHOTOGRAPHS

PHOTO MAP EXHIBIT

818 W. ORANGETHORPE

PLACENTIA, CA

TAIT

RISING TO THE CHALLENGE

W Orangethorpe Ave
E Orangethorpe Ave
W Orangethorpe Ave
W Orangethorpe Ave
E Orangethorpe Ave
S Placentia Ave
S Placentia Ave
Robin Ave
Valero Gas Station
Lark Ave
Lark Ave
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

(1)

(2)

(3)

(4)

(5)

(6)

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(8)

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(10)

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(12)

(13)

(14)

(15)

Placentia Planning Commission

AGENDA STAFF REPORT

TO: PLANNING COMMISSION

FROM: LESLEY WHITTAKER, ASSOCIATE PLANNER

DATE: AUGUST 8, 2017

SUBJECT: **USE PERMIT 2017-06 (HAPPY FLOW YOGA)**

RECOMMENDATION:

It is recommended that the Planning Commission take the following actions:

1. Open the public hearing concerning Use Permit (UP) 2017-06;
2. Receive the staff report and consider all public testimony;
3. Close the public hearing;
4. Adopt Resolution PC-2017-14, a resolution of the Planning Commission of the City of Placentia, approving Use Permit No. 2017-06 and making findings to permit the development, establishment, and operation of an approximately 1,153-square foot, Yoga Studio, which includes a 639-square foot class studio floor and 458-square foot retail space within the T-C (Town Center) zoning district on property located at 1290 N. Kraemer Boulevard; and making findings that the project is categorically exempt pursuant to the California Environmental Quality Act (CEQA) set forth in Title 14 CCR § 15301 (Class 1 – Existing Facilities) and the City of Placentia Environmental Guidelines.

REQUEST:

The applicant, Brianna Hursh, dba Happy Flow Yoga, is requesting a Use Permit for a yoga class studio within +/- 1,153 sq. ft. space within the (TC) Town-Center Zone, located at 1290 N. Kraemer Boulevard, Suite B. The applicant requests permission to operate yoga classes, with a maximum of 20 students per class, within +/- 639 sq.ft. studio floor. While, yoga classes are capped at 20 students, the applicant anticipates that a regular class size would consist of 6-12 students. In addition to offering yoga classes, the applicant intends to offer sales of taxable yoga-related products, within +/- 458 sq.ft. of the space. Section 23.27.040 (4) of the Placentia Municipal Code (PMC) allows for health clubs including, but not limited to, racquetball clubs. Swim clubs, tennis clubs and gymnasiums subject to the approval of a Use Permit. A yoga studio is similar in land use characteristics to a health club.

DISCUSSION:

Subject Site and Surrounding Land Uses:

Happy Flow Yoga is a proposed yoga studio within the Town-Center zone, located at 1290 N. Kraemer Boulevard, #B. Other uses within the center include State Farm Insurance and a hair salon. The chart below shows surrounding existing land uses, zones, and General Plan Land Use Designations.

Surrounding Land Uses:

Location	Existing Land Use	Land Use Element General Plan Designation	Zoning Map Designation
Subject Site	Happy Flow Yoga	Office	T-C (Town Center)
North (across Morse Avenue)	Citibank	Commercial	T-C
South	Detached, Single-Family Homes	Low Density Residential	R-1 (Single Family Residential)
East (Across Angelina Drive)	Detached, Single-Family Homes & Blessed Sacrament Church	Low Density Residential	R-1
West (across Kraemer Blvd)	Multiple-Family Housing	Medium Density Residential	R-G (Medium Density Residential)

ZONING COMPLIANCE ANALYSIS

Operational Characteristics

The applicant, Brianna Hursh dba Happy Flow Yoga, states the yoga studio will conduct business Monday-Saturday 6:00 AM to 9:00 PM and Sunday 12:00 PM to 8:00 PM and be staffed with a maximum of three (3) employees. Class sizes has been projected at 6-12 students, with a cap of 20 maximum students.

Access/Parking

The subject site has 21 parking spaces and two (2) driveways that provides access from N. Kraemer Boulevard and N. Angelina Drive. With a proposed class size maximum of 20 students,

the applicant has negotiated with the Episcopal Church of The Blessed Sacrament, across Morse Ave (northeast of the proposed yoga studio) and has offered 10 parking spaces for exclusive use by Happy Flow Yoga customers and employees. The parking agreement between the applicant and the church must be recorded on the church site to ensure the designated spaces will be maintained for Happy Flow Yoga in perpetuity. The church has 85 parking spaces, which is the minimum number of required parking spaces for the site. Sunday mornings are the busiest period for the church, where the parking demand is at its greatest. The proposed parking agreement is a recommendation by Staff to address concerns over the potential inadequacy of onsite parking. Section 23.78.030 of the Placentia Municipal Code (PMC) requires a minimum of five onsite parking spaces, which may not meet the parking demand of class sizes upward of 20 students. An analysis between the specified class size and anticipated parking demand for the proposed use by the City's Traffic Engineer determined that with inclusion of the parking agreement no adverse impacts to onsite parking will result, but a limitation on Sunday hours of operation will need to be adapted into the business hours (Condition # 21) to avoid potential shortages during peaks hours at the church site. Therefore, it is staff's recommendation that Happy Flow Yoga not conduct business any earlier than 12:00 PM on Sunday, when services are complete and the day's remaining activities are a lessoned impact on parking.

CEQA:

The proposed application was reviewed by staff in accordance with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.,* the State CEQA Guidelines, 14 C.C.R. §§ 15000 *et seq.,* and the Environmental Guidelines of the City of Placentia. Staff recommends that the Planning Commission exercise its independent judgment and find that UP 2017-06 is exempt from CEQA pursuant to State CEQA Guidelines § 15301 Class 1 Existing Facilities as it applies to the operation, repair, leasing or minor alteration of existing public or private structures, of facilities or features involving "negligible or no expansion of use".

PUBLIC NOTIFICATION:

Legal notice was published in the Placentia News Times on July 28, 2017, and notices were sent to property owners of record within a 300-foot radius of the subject property on July 27, 2017. As of the time the agenda and this staff report was posted, August 3rd, 2017, staff has received no comments in support or opposition of the request.

CONCLUSION:

The proposed project is consistent with the City's General Plan and meets the minimum development standards of the PMC. With the recommended conditions of approval, the proposed Yoga Studio use within an existing Town Center zone (TC) will be compatible with adjacent land uses and will not result in any adverse impacts onto the surrounding area.

RECOMMENDATION:

The Planning Division recommends that the Planning Commission of the City of Placentia adopt the Resolution PC-2017-14 recommending approval of UP 2017-06.

Prepared and submitted by:

Lesley Whittaker
Associate Planner

Review and approved by:

Joseph M. Lambert
Director of Development Services

Attachments:

1. Resolution No. 2017-14
2. Site Plan & Floor Plan
3. Statement of Use Submitted by the Applicant Dated and Received July 12, 2017
4. Parking Agreement letter from The Blessed Sacrament Church
5. Letter from Traffic Engineer

RESOLUTION NO. PC-2017-14

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PLACENTIA APPROVING USE PERMIT NO. 2017-06 AND MAKING FINDINGS TO PERMIT THE ESTABLISHMENT AND OPERATION OF AN APPROXIMATELY 1,153-SQUARE FOOT YOGA STUDIO, WITH ANCILLARY RETAIL SALES (458-SQUARE FOOT), WITHIN THE T-C (TOWN CENTER) ZONING DISTRICT, LOCATED AT 1290 NORTH KRAEMER BOULEVARD, SUITE B.

A. Recitals.

WHEREAS, Brianna Hursh, dba Happy Flow Yoga ("Applicant" hereinafter), located at 1290 N. Kraemer Boulevard, Suite B, filed an application for approval of Use Permit (UP) No. 2017-06, as described in the title of this Resolution. Hereinafter, in this Resolution, the subject Use Permit request is referred to as the "Application";

WHEREAS, on August 8, 2017, the Planning Commission conducted a duly noticed public hearing, as required by law, and after careful consideration of all pertinent testimony and the staff report offered in the case, the Planning Commission voted to approve UP 2017-06; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

B. Resolution.

NOW, THEREFORE, it is hereby found, determined and resolved by the Planning Commission of the City of Placentia as follows:

SECTION NO. 1: Based on the evidence presented and the findings set forth, Use Permit No. UP 2017-06 is hereby found to be consistent with the Placentia General Plan and the implementation thereof.

SECTION NO. 2: Based upon the evidence presented to this Commission during the public hearing conducted with regard to the Application, including written staff reports, verbal testimony and development plans, this Commission hereby specifically finds as follows:

a. The proposed yoga studio will not be: (1) detrimental to the health, safety or general welfare of the persons residing or working within the neighborhood of the proposed use or within the city, or (2) injurious to the property or improvements within the neighborhood or within the city. Subject to compliance with the attached Conditions of Approval and Standard Development Requirements (Attachment "A"), this use complies with all applicable code requirements and development standards of the T-C (Town Center) zoning district and (3) it is not anticipated that Happy Flow Yoga will generate any negative impacts on the adjacent neighborhood. All primary activities shall be conducted within the enclosed building, while maintaining an environment free from objectionable noise, odor, or other nuisances, subject to compliance with the attached Special Conditions of Approval and Standard Development Requirements.

Additionally, the proposed yoga studio meets the required parking requirements the parking on-site as well as the recordation of shared parking off-site at the Episcopal Church of The Blessed Sacrament.

b. The proposed use is consistent with the City's General Plan. The General Plan Land Use designation for the subject site is Office, and the modifications to the existing use does not involve any change in the land use of the subject site.

c. The operation of a yoga studio, subject to the attached Conditions of Approval and Standard Development Requirements (Attachment "A"), is consistent with the provisions of the Zoning Ordinance, or regulations applicable to the property. The existing use is a conditionally permitted use in the T-C zoning district in the City of Placentia. Approval of the Use Permit for the yoga studio will be consistent with the zoning as the site can accommodate the use, and other similar uses have been conditionally permitted within the T-C zoning districts.

d. Conditions necessary to secure the purposes of this section, including guarantees and evidence of compliance with conditions are made part of the Use Permit approval. Attachment "A" contains Conditions of Approval and Standard Development Requirements specific to UP 2017-06 to ensure compliance with the Placentia Municipal Code (PMC).

SECTION NO. 3: Based upon the environmental review of the project, the Planning Commission finds that UP 2017-06 is exempt from the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21000 *et seq.,* the State CEQA Guidelines, 14 C.C.R. §§ 15000 *et seq.,* and the Environmental Guidelines of the City of Placentia pursuant to the State CEQA Guidelines § 15301 (Class 1 – Existing Facilities) as the permit would be issued to an existing structure or facility.

SECTION NO. 4: The Planning Commission hereby directs that, upon approval of UP 2017-06, that a Notice of Exemption shall be filed with the Orange County Clerk/Recorder.

SECTION NO. 5: Based upon the findings and conclusions set forth herein, this Planning Commission hereby approves UP 2017-06.

SECTION NO. 6: The Secretary to the Planning Commission shall:

a. Certify to the adoption of this Resolution; and

b. Forthwith transmit a certified copy of this Resolution, by certified mail, to the Applicant at the address of record set forth in the Application.

ADOPTED AND APPROVED this 8th day of August, 2017

_____

CHRISTINE J. SCHAEFER, CHAIR

I, Joseph M. Lambert, Secretary to the Planning Commission of the City of Placentia, do hereby certify that the foregoing Resolution was introduced at a regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August 2017, and was passed at this regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2017, by the following vote:

AYES:	COMMISSION MEMBERS:
NOES:	COMMISSION MEMBERS:
ABSENT:	COMMISSION MEMBERS:
ABSTAINED:	COMMISSION MEMBERS:

ATTEST:

_____

JOSEPH M. LAMBERT,
SECRETARY TO THE PLANNING COMMISSION

APPROVED AS TO FORM

_____

YOLANDA M. SUMMERHILL,
ASSISTANT CITY ATTORNEY

ATTACHMENT “A”

Attachment A
Special Conditions of Approval and Standard Development Requirements for Use Permit 2017-06
1290 N Kraemer Boulevard, Suite B

SPECIAL CONDITIONS

If the above referenced application is approved, applicant and/or property owner shall comply with the Special Conditions listed below and the Standard Development Requirements attached.

ALL OF THE FOLLOWING SPECIAL CONDITIONS OF APPROVAL AND STANDARD DEVELOPMENT REQUIREMENTS SHALL BE FULLY COMPLIED WITH FOR THE USE PERMIT TO CONTINUE IN GOOD STANDING.

PLANNING DIVISION:

1. Use Permit (UP) 2017-06 is valid for a period of twelve (12) months from the date of final determination. If the use approved by this action is not established within such a period of time, this approval shall be terminated and shall be null and void, unless an extension is applied for and approved.

2. Use Permit (UP) 2017-06 shall expire and be of no further force or effect if the use is discontinued or abandoned for a period of one (1) year.

3. Failure to abide by and faithfully comply with any and all conditions attached to this action shall constitute grounds for revocation of said action by the City of Placentia Planning Commission.

4. The applicant shall, as a condition of project approval, at its sole expense, defend, indemnify and hold harmless the City, its officers, employees, agents and consultants from any claim, action, proceeding, liability or judgment against the City, its officers, employees, agents and/or consultants, which action seeks to set aside, void, annul or otherwise challenge any approval by the City Council, Planning Commission, or other City decision-making body or City staff action concerning applicant's project. The applicant shall pay the City's defense costs, including attorney fees and all other litigation-related expenses, and shall reimburse the City for any and all court costs, which the City may be required to pay as a result of such defense. The applicant shall further pay any adverse financial award which may issue against the City including but not limited to any award of attorney fees to a party challenging such project approval. The City shall retain the right to select its counsel of choice in any action referred to herein. The City agrees to promptly notify the applicant of any such claim filed against the City and to fully cooperate in the defense of any such action.

5. Any changes or modifications to Use Permit (UP) 2017-06 shall be subject to review and approval by the Director of Development Services or designee, with substantial changes or modifications subject to Planning Commission review and approval.

6. Prior to any changes to the days and hours of operation, the applicant shall obtain written approval from the Director of Development Services or his/her designee. The following are the specified days and hours of operation:

Monday through Saturday:	6:00 AM to 9:00 PM
Sunday:	12:00 PM to 8:00 PM

7. There shall be no additional modifications to the floor plan without prior written approval from the Director of Development Services or his/her designee. Any additional changes to the approved floor plan, which has the effect of expanding or intensifying the present use, shall require a new Use Permit

8. Prior to any modification of the floor plan that would affect parking as stipulated in the zoning code, the applicant shall obtain written approval from the Director of Development Services or his/her designee.

9. If at any time in the future, the Director of Development Services determines that a parking/circulation study is necessary to address parking and/or circulation issues relative to the use, the applicant and/or current business owner, shall be responsible for the cost of a parking and/or circulation study prepared by a consultant selected by the City. The applicant and/or current business owner shall also be responsible for implementing any mitigation measures as well as the implementation costs of any mitigation measures deemed appropriate by the City based upon the findings of this study.

10. The applicant/business owner shall be responsible for maintaining the property, including the landscaped areas, walkways, and all paved surfaces, free from graffiti, debris and liter. Graffiti shall be removed by the applicant/business owner within 48 hours of defacement and/or upon notification by the City. The paint utilized to cover the graffiti must substantially match the existing structure. In the event that the paint finish of the abated area is noticeably distinguishable from the rest of the structure, the property owner shall paint additional portions of the building to minimize the disparity, subject to the approval of the Development Services Director.

11. No outside storage or displays shall be permitted at any time.

12. There shall be no deliveries to or from the premises before 8:00 AM and after 10:00 PM, seven days a week.

13. Litter shall be removed daily from the premises, including adjacent public sidewalks and from all parking area under the control of the licensee. These areas shall be

swept or cleaned, either mechanically or manually, on a weekly basis, to control debris.

14. All trash bins shall be kept inside the trash enclosure, and gates closed at all times, except during disposal and pick-up. Trash pick-up shall be done on a regular basis.

15. The applicant shall comply with all provisions of the Placentia Municipal Code, including Chapter 23.76 Noise Control.

16. Any temporary signs or permanent signs shall be reviewed and approved by the City prior to fabrication and installation.

17. The establishment shall be operated as a Yoga Studio facility at all times. All activities shall be conducted within this enclosed tenant space, while maintain an environment free from objectionable noise, odor, or other nuisances.

18. The applicant/business owner shall obtain approval of a Building and Zoning Compliance Application and shall obtain approval of a City Business License. The applicant/business owner shall maintain a valid City Business License at all times during operation of the business.

19. No more than twenty (20) students and associated teachers/instructors shall convene at the subject commercial suite at any one time. In order to ensure that parking demands will not overlap, classes shall be scheduled and conducted such that each class shall end at least 15 minutes prior to the beginning of the next class in the subject suite.

20. Due to the 10-space parking allocation to Happy Flow Yoga, from The Blessed Sacrament Church, no classes will be held earlier than 12:00pm, during church services on Sunday.

21. Prior to the establishment of the use, a joint use parking agreement be entered into between the subject property owner(s) and The Blessed Sacrament Church. The legal instrument shall be submitted to the Planning Division a minimum of 30 days prior to submission of a "Building and Zoning Compliance" application. A copy of the legal instrument shall be approved by the City Attorney as to form and content and, when approved, shall be recorded in the office of the County Recorder. A copy of the recorded agreement shall be filed with the Planning Division. The recorded agreement shall remain in effect in perpetuity, except as modified or rescinded pursuant to the expressed written approval of the City of Placentia.

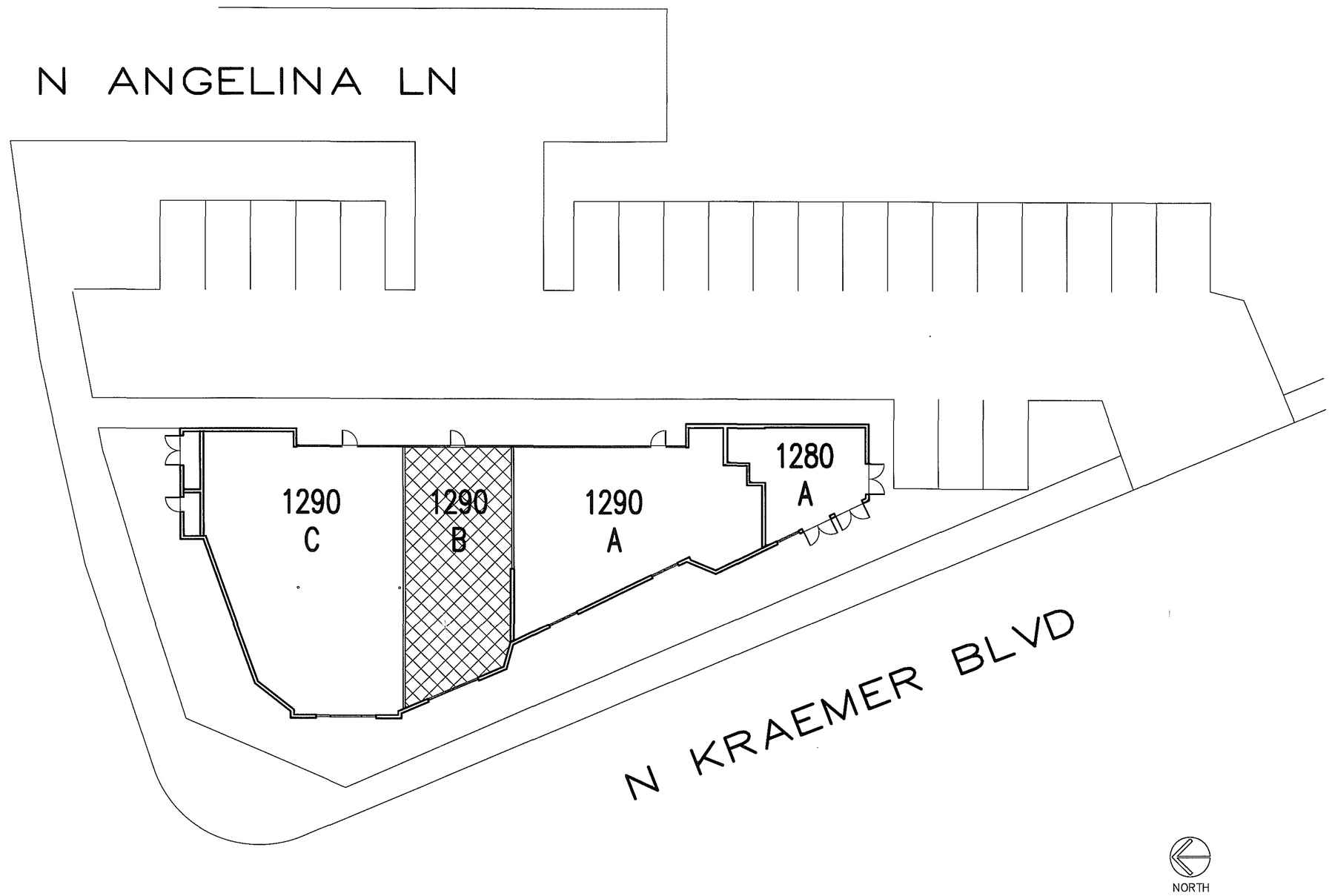
22. This use permit may be reviewed at the discretion of the Director of Development Services in order to determine if the business is operating in compliance with all required Special Conditions of Approval and Standard Development Requirements.

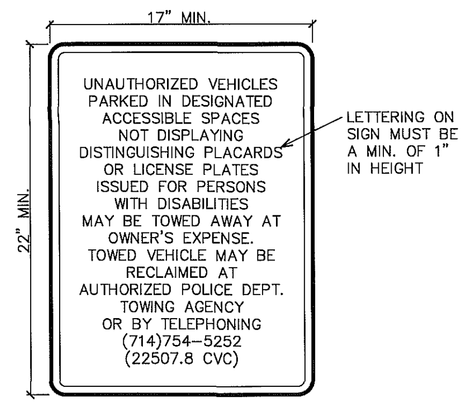
BUILDING DIVISION:

23. Future tenant improvements need a building permit. Provide detail architectural and building plans for review and approval prior to building permit issuance.

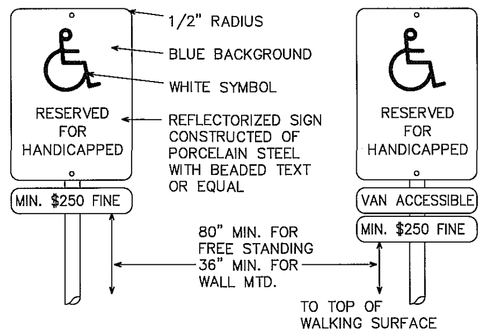
24. Existing restroom shall be a unisex restroom. Show all details in compliance with ADA latest regulations.

25. Maximum occupant load shall be less than 30 people. Occupant load signs shall be posted inside of this unit.





EXISTING SITE ENTRANCE SIGNAGE | A



NOTE: SIGN TO BE CENTERED @ THE INTERIROR END OF PARKING SPACE.
AREA OF SIGN TO BE A MIN. OF 70 SQ. IN.
DESIGNATE FOR "VAN ACCESSIBLE" WHERE APPROPRIATE.

EXISTING PARKING SPACE SIGNAGE | N.T.S. | B

D

SITE ACCESSIBILITY NOTES:

I. PARKING

1. THE LOCATION OF THE PARKING STALL(S) SHALL BE ON THE SHORTEST ACCESSIBLE ROUTE TO ACCESSIBLE ENTRANCE(S).
2. PROVIDE CURB CUTS AND RAMPS TO PATHWAYS.
3. PERSONS WITH DISABILITIES MUST NOT BE COMPELLED TO WHEEL OR WALK BEHIND PARKED CARS OTHER THAN THEIR OWN.
4. 36"x36" OUTLINED PROFILE VIEW OF WHEELCHAIR WITH OCCUPANT, IN WHITE ON BLUE BACKGROUND, VISIBLE TO TRAFFIC ENFORCEMENT OFFICER WHEN VEHICLE OCCUPIES SPACE.
5. SLOPE: MAX. 1 VERTICAL TO 50 HORIZONTAL IN ANY DIRECTION.
6. THE SURFACE MUST BE STABLE, FIRM & SLIP RESISTANT.
7. PROVIDE BUMPER OR CURB TO PREVENT CAR ENCROACHMENT ON WALKWAYS.
8. SIGNAGE: "VAN ACCESSIBLE" SIGN FOR VAN SPACES. REFLECTORIZED INTERNATIONAL SYMBOL OF ACCESSIBILITY AT EACH SPACE, MIN. 70" SQ. (MIN. 80" HIGH IN A PATH OF TRAVEL), & UNOBSTRUCTED BY PARKED VEHICLES.
9. PROVIDE TOW AWAY SIGN W/TELEPHONE # AT EACH ENTRANCE TO PARKING AREA OR ADJACENT TO ACCESSIBLE SPACES, MIN. 17"x22", 1" HIGH LETTERS.

II. ACCESSIBLE EXTERIOR ROUTES OF TRAVEL, ENTRANCES & EXITS

TO ALL ENTRANCES & EXTERIOR GROUND FLOOR EXITS; ALONG NORMAL PATH OF TRAVEL; BETWEEN BUILDINGS & ACCESSIBLE SITE FACILITIES; AT LEAST ONE EACH FROM PUBLIC TRANSPORTATION STOPS, ACCESSIBLE PARKING & PUBLIC STREETS OR SIDEWALKS TO THE ENTRANCE THEY SERVE.

III. EXTERIOR SIGNS & IDENTIFICATION

PROVIDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AT EVERY MAJOR JUNCTION IN THE ACCESSIBLE ROUTE; EVERY ACCESSIBLE ENTRANCE; AS REQ'D ALONG ROUTE, DIRECTING PERSONS TO ACCESSIBLE ENTRANCE.

IV. CURB RAMPS

1. PROVIDE CURB RAMPS WHERE PEDESTRIAN WAY CROSSES CURB; MIN. 48" WIDE, FINISH TO BE STABLE, FIRM SLIP RESISTANT & CONTRASTING WITH ADJACENT SIDEWALK.
2. SLOPE: MAX. 1:12 (FLARED SIDES MAX. 1:8).
3. SLOPE OF ADJOINING GUTTERS, ROAD SURFACE, ACCESSIBLE ROUTE: 1:20 FOR 4 FEET AT TOP & BOTTOM OF CURB.
4. TOP LANDING: 4 FEET DEEP OVER FULL WIDTH OR SLOPE OF FLARED SIDES MAX. 1:12.
5. GROOVED BORDER: AT LEVEL SURFACE OF SIDEWALK, ALONG TOP & EACH SIDE; 12" WIDE x 1/4" DEEP EVERY 3/4".

V. WALKS & SIDEWALKS

1. MUST BE A MIN. OF 48" IN WIDTH; MAX. 1:20 SLOPE (WHERE SLOPES EXCEED 1:20, WALKWAYS MUST MEET RAMP STANDARDS).
2. CHANGE IN LEVEL: MAX. 1/2", 1/4" - 1/2" BEVELED 1:2.
3. SURFACE MUST BE STABLE, FIRM & SLIP RESISTANT.
4. NO GRATINGS IF POSSIBLE.
5. LEVEL AREA BY DOORS & GATES: SWING SIDE 60"x60"; PUSH SIDE 48" WIDE x 44" DEEP; SWING SIDE STRIKE EDGE CLEARANCE MIN. 24".
6. PROVIDE WARNING CURBS (6" HIGH) AT ABRUPT CHANGES IN LEVEL (GREATER THAN 4" VERTICAL).
7. PROVIDE DETECTABLE WARNINGS (TRUNCATED DOMES) WHERE WALK CROSSES OR ADJOINS VEHICULAR WAY NOT SEPARATED BY A CURB.

PROJECT DATA

THIS BUILDING IS:

OCCUPANCY: B
CONSTRUCTION TYPE: V-B, NON-SPRINKLERED
1-STORY RETAIL BUILDING

ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE:

2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA ELECTRIC CODE
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA ENERGY CODE

SCOPE OF WORK:

TENANT IMPROVEMENT - INTERIOR ALTERATION 1,153 SF
NEW ACCESSIBLE RESTROOM

UP 2017-06
1290 Kraemer Boulevard #B
Happy Flow Yoga

REVISIONS

SPECTRUM SPACE DESIGN
1800-D EAST MIRALOMA AVENUE
PLACENTIA, CALIFORNIA 92870
714.486.4185 • FAX.223.0663

CLIENT APPROVAL

DATE

HAPPY FLOW YOGA
1290 KRAEMER BLVD. #B
PLACENTIA, CALIFORNIA

CALIFORNIA COUNCIL FOR INTERIOR DESIGN CERTIFICATION
CCIDC
JUANITA FOTHERINGHAM
CERTIFIED INTERIOR DESIGNER
10304 EXPIRES 10-23-17

DRAWN BY
JF

DATE
6-2-17

SCALE
AS NOTED

JOB NO.
17-023

SHEET NO.
A-1
OF SHEETS

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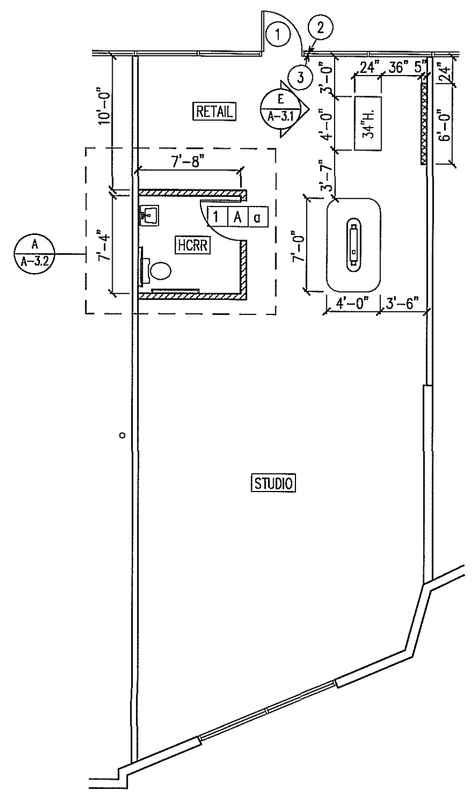
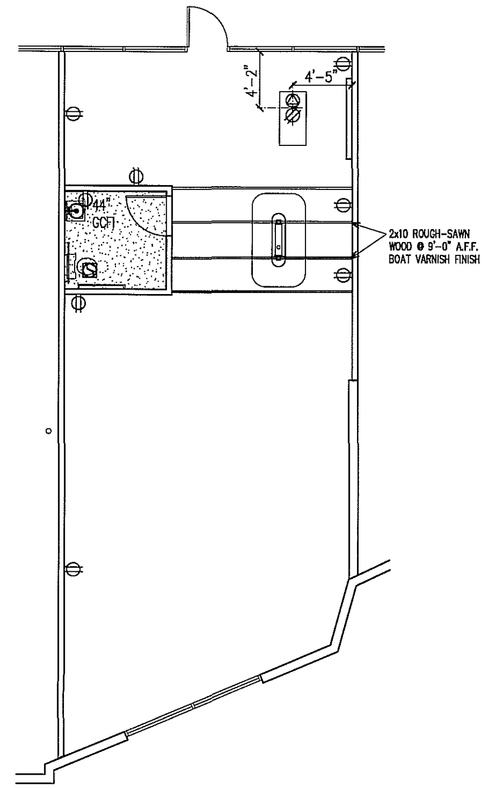


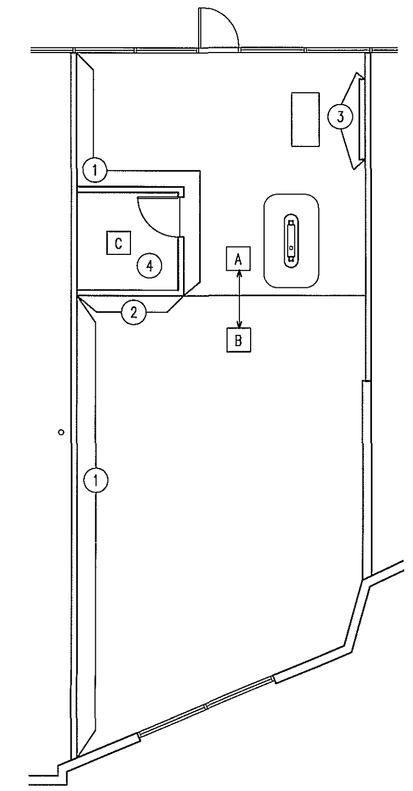
NORTH

CONSTRUCTION PLAN

1,153 SF



TELEPHONE & ELECTRIC PLAN



FINISH PLAN

DOOR LEGEND

1 A a

- DOOR NUMBER
- DOOR TYPE:
  A 3'-0"x7'-0", SOLID CORE, PAINT GRADE, INTERIOR DOOR.
  SET-IN WESTERN INTEGRATED FRAME, CLEAR ANODIZED ALUMINUM
- HARDWARE TYPE:
  a LEVER LATCHSET BY SCHLAGE #D10S, 'SPARTA', BRUSHED CHROME
  b LEVER LOCKSET BY SCHLAGE 'SPARTA', BRUSHED CHROME.
  c LEVER PRIVACY LOCKSET BY SCHLAGE 'SPARTA', BRUSHED CHROME..

1. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON DOORS & GATES THAT ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING OR TWISTING OF THE WRIST. (11B-309.4). OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34" MI. & 44" MAX. ABOVE THE FINISH FLOOR OR GROUND (11B-404.2.7). THE FORCE REQUIRED FOR PUSHING OR PULLING OPEN A DOOR OR GATE SHALL BE MAX. 5lbs FOR HINGED, SLIDING OR FOLDING DOORS. REQUIRED FIRE DOOR SHALL BE 15lbs.
2. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32"min. SWINGING DOORS CLEAR OPENING SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR & THE STOP, WITH THE DOOR OPEN 90 DEGREES. OPENING MORE THAN 24" DEEP SHALL BE 36"min. (11b-404.2.3).
3. AT LEAST ONE OF THE ACTIVE LEAVES OF DOORWAYS WITH TWO LEAVES, SHALL PROVIDE A CLEAR WIDTH OF 32"min. WITH THE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM THE CLOSED POSITION. SWINGING DOORS & GATES MANEUVERING CLEARANCES, COMPLYING WITH TABLE 11B-404.2.4.1, SHALL EXTEND THE FULL WITH OF THE DOORWAY & THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE. (11B-404.2).
4. FLOOR OR GROUND SURFACES WITHIN REQUIRED DOOR MANEUVERING CLEARANCES SHALL BE STABLE, FIRM, & SLIP RESISTANT. SURFACES SHALL BE LEVEL WITH A SLOPE NOT STEEPER THAN 1:48. CHANGES IN LEVEL ARE NOT PERMITTED EXCEPT AT THRESHOLDS. OPENING IN FLOOR SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER. (11B-302.2 & 11B-404.2.4.4).
5. THE FRONT APPROACH LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF THE DOOR SWING OF AT LEAST 60" & THE LENGTH OPPOSITE THE DIRECTION OF THE DOOR SWING OF 48" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN THE CLOSED POSITION. (11B-404.2.4.1 & TABLE 11B-404.2.4.1)
6. RECESSED DOORS MANEUVERING CLEARANCES FOR FORWARD APPROACH, SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18" OF THE LATCH SIDE OF THE DOORWAY, OR WITHIN 24" OF THE LATCH SIDE OF AN EXTERIOR DOORWAY, PROJECTS MORE THAN 8" BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE. (11B-404.2.4.3 & FIGURE 11B-404.2.4.3

NOTES

1. EXISTING STOREFRONT DOOR TO REMAIN. PROVIDE SIGN OVER DOOR, IN 1" HIGH LETTERS STATING: "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS
2. PROVIDE INTERNATIONAL SYMBOL OF ACCESSIBILITY, NEXT TO DOOR, CENTERLINE @ 48" A.F.F.
3. PROVIDE TACTILE EXIT SIGN PER DETAIL 'F/A-3.2', CENTERLINE @ 48" A.F.F.

PARTITION LEGEND

- EXISTING PARTITION TO REMAIN.
- NEW 10'-0" HIGH PARTITION, SEE DETAIL 'B/A-3.1'.
- FURR-OUT WALL TO 8'-0" HIGH & COVER WITH PALLET WOOD, LIGHTLY SANDED LEAVING EXISTING RUSTIC LOOK, SEAL W/VARNISH.

TELEPHONE & ELECTRIC LEGEND

- 120V/20A DUPLEX ELECTRIC OUTLET. MOUNT CENTERLINE @ 15" AFF, UNLESS OTHERWISE NOTED.
- 120V/20A 4-PLEX ELECTRIC OUTLET. MOUNT CENTERLINE @ 15" AFF, U.O.N.
- 120V/20A DUPLEX ELECTRIC OUTLET. DEDICATED CIRCUIT. MOUNT CENTERLINE @ 15"A.F.F., U.O.N.
- 120V/20A 4-PLEX ELECTRIC OUTLET, DEDICATED CIRCUIT. MOUNT CENTERLINE @ 15" AFF, U.O.N.
- 120V/20A 4-PLEX ELECTRIC OUTLET. FLOOR MONUMENT.

  220V FOR LASER
  MOUNT CENTERLINE @ 18" A.F.F.

- TELE/DATA OUTLET. 3/4" CONDUIT IN WALL TO TOP OF PARTITION & J-BOX @ 15" AFF, U.O.N.
- TELE/DATA OUTLET. 3/4" CONDUIT. MOUNT FLUSH W/FLOOR.

LIGHTING LEGEND

- OPEN CEILING. WHITE VINYL BACKED, R-30 INSULATION UNDERSIDE OF ROOF.
- DRYWALL CEILING @ 9'-0" A.F.F.
- WALL SCONCE BY ALL MODERN 'HOWELLS 1-LIGHT WALL SCONCE', ANTIQUE NICKEL, CLEAR GLASS GLOBE
  INSTALL WITH 3W LED BULB. BOTTOM @ 7'-0" A.F.F.
- EXHAUST FAN

FINISHES

- A — POLISHED CONCRETE FLOOR
  4" WOOD BASE, SEMI-GLOSS ENAMEL, DUNN EDWARDS #DEW340, WHISPER..
- B — WOOD FLOOR
  4" WOOD BASE, SEMI-GLOSS ENAMEL, DUNN EDWARDS #DEW340, WHISPER..
- C — TILE FLOOR
  6"x6" COVED CERAMIC TILE BASE, WHITE.
- 1 — PAINT, EGGSHELL FINISH, BY DUNN EDWARDS #DE6228, PLAY ON GRAY
- 2 — PAINT, EGGSHELL FINISH, BY DUNN EDWARDS #DEC727, VALLEY FLOWER.
- 3 — PAINT WALL DARK GRAY BEFORE INSTALLING PALLET WOOD PER ELEVATION
- 4 — CERAMIC TILE FROM FINISHED FLOOR TO 48" A.F.F., SPEC TO FOLLOW
  PAINT, SEMI-GLOSS ENAMEL, FROM 48" A.F.F. TO CEILING, SPEC TO FOLLOW
  CEILING TO BE PAINTED DUNN EDWARDS #DEW340, WHISPER.

ALL AREAS NOT OTHERWISE SPECIFIED, TO BE PAINTED EGGSHELL FINISH, DUNN EDWARDS #DEW340, WHISPER.

UP 2017-06
1290 Kraemer Boulevard #B
Happy Flow Yoga

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SPECTRUM
SPACE DESIGN
1800 E. MIRALOMA AVE #D
PLACENTIA, CA 92870
714.495.4185 • FAX.223.0863

CLIENT APPROVAL

DATE

HAPPY FLOW YOGA
1290 KRAEMER BLVD #B
PLACENTIA, CALIFORNIA

CALIFORNIA COUNCIL FOR INTERIOR DESIGN CERTIFICATION
CCIDC
JUANITA FOTHERINGHAM
CERTIFIED INTERIOR DESIGNER
0304 EXPIRES 10-23-17

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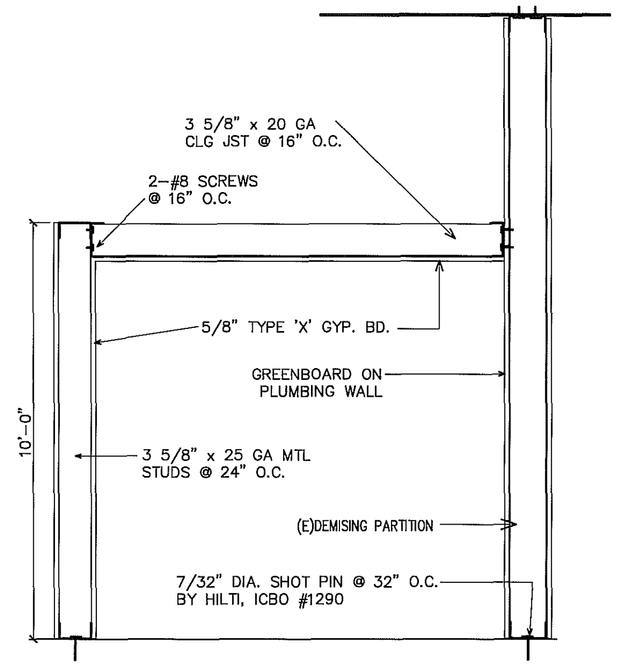
A-2
OF SHEETS



RESTROOM WALLS & CEILING | N.T.S. | B

GENERAL NOTES:

1. NOT USED
2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE: 2016 CALIFORNIA BUILDING CODE 2016 CALIFORNIA MECHANICAL CODE 2016 CALIFORNIA PLUMBING CODE 2016 CALIFORNIA ELECTRIC CODE
3. THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A CLEAN, ORDERLY CONDITION – FREE OF DEBRIS AND LITTER. EACH SUB-CONTRACTOR, IMMEDIATELY UPON COMPLETION OF EACH PHASE OF HIS WORK, SHALL REMOVE ALL TRASH AND DEBRIS CREATED AS A RESULT OF HIS OPERATION.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. S.S.D. SHALL BE NOTIFIED OF ANY DISCREPANCY BEFORE STARTING WORK. (THIS NOTE PERTAINS TO ALL SUB-CONTRATORS AS WELL). ALL WORK SHALL BE COORDINATED WITH RELATED AND/OR ADJECENT WORK.
5. NO HAZARDOUS MATERIALS, LIQUIDS, OR CHEMICALS SHALL BE STORED OR USED WITHIN THE SUBJECT BUILDING AS TO REQUIRE A HAZARDOUS CLASSIFICATION PER THE CALIFORNIA BUILDING CODE.
6. ALL INTERIOR WALLS AND PARTITIONS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST ALL LOADS TO WHICH THEY ARE SUBJECT, BUT NOT LESS THAN A FORCE OF 5 POUNDS PER SQUARE FOOT APPLIED PERPENDICULAR TO THE WALL.
7. LIGHT, VENTILATION, AND SANITATION SHALL COMPLY WITH SECTION 1203, 1204, 1205 & 1210 OF THE CALIFORNIA BUILDING CODE.
8. PROVIDE ADDRESS NUMBERS AT LEAST SIX INCHES HIGH WHICH SHALL BE PLAINLY VISIBLE FROM THE ROADWAY. (FRONT & REAR).
9. ALL DAMAGED WORK SHALL BE PATCHED OR REPAIRED BY THE CONTRACTOR. ALL REPAIRED SURFACES SHALL BE EQUAL TO NEW.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO INSURE THAT THE INSTALLATION METHODS AND MATERIALS CONFORM TO ALL BUILDING CODE REQUIREMENTS. THE MATERIALS SPECIFIED ARE INTENDED TO MEET CODE. ANY DISCREPENCY BETWEEN BUILDING CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF SPECTRUM SPACE DESIGN BY THE CONTRACTOR PRIOR TO PROCEEDING WITH ANY WORK.
11. ALL NEW AREAS AND FACILITIES SHALL BE ACCESSIBLE TO THE PHYSICALLY HANDICAP PER THE STATE OF CALIFORNIA ARCHITECTURAL BARRIERS, TITLE 24 CODE/LAW.
12. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS, OR OTHER SUPPORT FOR ALL FIXTURES, EQUIPMENT, CABINETRY, FURNISHINGS AND ALL OTHER ITEMS REQUIRING THE SAME.
13. SUBSTITUTIONS OF ANY ITEM SPECIFIED WITHIN THE CONSTRUCTION DOCUMENTS, EXCEPT BUILDING STANDARD ITEMS, WILL REQUIRE WRITTEN APPROVAL BY SPECTRUM SPACE DESIGN PRIOR TO INSTALLATION.
14. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, MATERIALS AND SERVICES NECESSARY FOR THE COMPLETION OF ALL WORK SHOWN, DESCRIBED OR REASONABLY IMPLIED, BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS.
15. ANY ELECTRICAL, MECHANICAL, OR PLUMBING WORK REQUIRES A SEPARATE PLAN CHECK AND PERMIT.
16. CONTRACTOR SHALL PROVIDE AND LOCATE ACCESS PANELS AS REQUIRED AFTER INSTALLATION OF MECHANICAL DUCTS, PLUMBING AND ELECTRICAL WORK.
17. THE WALL & CEILING FINISH MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATION OF CBC TABLE 803.9.
18. PER CBC 1B-404, THE MAX. EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 lbs

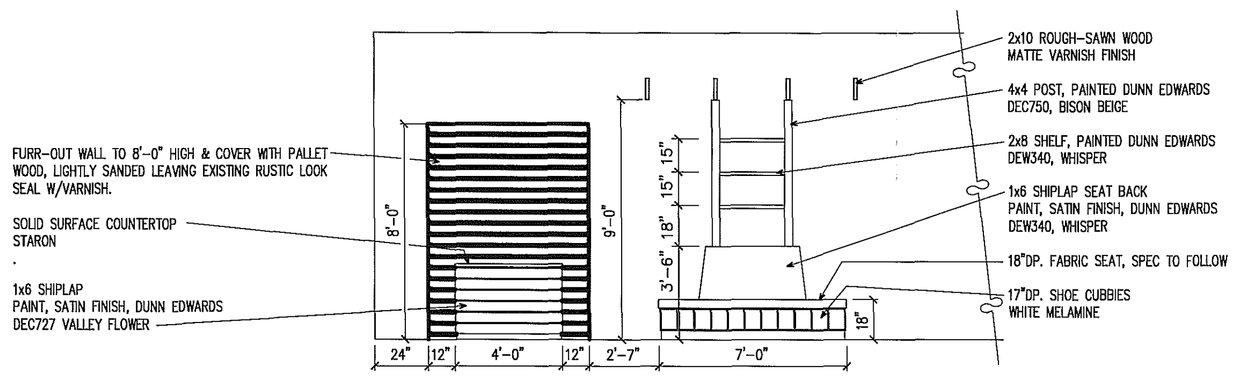
EXIT NOTES:

1. ALL EXIT CORRIDOR WALLS AND CEILINGS SHALL BE ONE-HOUR RATED CONSTRUCTION, WHEN REQUIRED BY CBC, TABLE 7021
2. DOORS IN THE PATH OF TRAVEL SHALL BE OPENABLE WITH A SINGLE EFFORT WITHOUT REQUIRING GRASPING.
3. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
4. DOOR THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT.
5. EXIT SIGNS SHALL BE IN BLOCK LETTERS A MINIMUM OF SIX INCHES HIGH. LUMINANCE OF FACE OF SIGN SHALL BE 50 LUX.

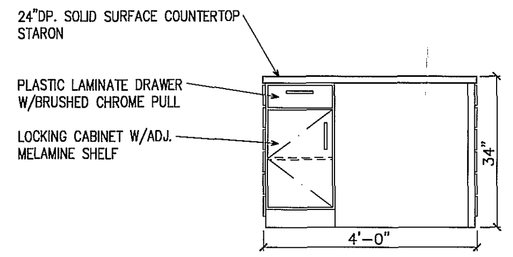
FIRE NOTES:

1. PROVIDE ADDITIONAL 2A 10BC MINIMUM RATED FIRE EXTINGUISHERS AS REQUIRED BY THE FIRE DEPARTMENT. WITHIN 75 FEET OF TRAVEL DISTANCE FROM ALL AREAS.
2. STORAGE, DISPENSING, OR USE OF ANY FLAMMABLE OR COMBUSTIBLE LIQUIDS, FLAMMABLE GASES, AND HAZARDOUS CHEMICALS SHALL COMPLY WITH THE UNIFORM FIRE CODE REQUIREMENTS.
3. HIGH PILED COMBUSTIBLE STOCK, (COMBUSTIBLE MATERIALS IN CLOSELY PACKED PILES MORE THAN 15 FEET IN HEIGHT OR ON PALLETS IN RACKS MORE THAN 12 FEET IN HEIGHT, RUBBER TIRES, PLASTICS, AND SOME FLAMMABLE LIQUIDS MORE THAN 6 FEET IN HEIGHT) SHALL COMPLY WITH THE UNIFORM FIRE CODE AND N.F.P.A. REGULATIONS.
4. FIRE SPRINKLER SYSTEMS, PER N.F.P.A. STANDARD 13, SHALL BE PROVIDED.
5. ALL UNDERGROUND FIRE LINES AND OVERHEAD SPRINKLER LINES SHALL BE HYDROSTATICALLY TESTED FOR TWO HOURS AT 200 PSI. ALL UNDERGROUND FIRE LINES SHALL BE FLUSHED CLEAR. ALL TESTS AND FLUSHING SHALL BE WITNESSED BY A FIRE DEPARTMENT REPRESENTATIVE.
6. PLANS OF FIRE SPRINKLER SYSTEM SHALL BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO INSTALLATION OF SYSTEM. SUBMIT 2 SETS OF PLANS TO THE BUILDING DEPARTMENT FOR APPROVAL.

N.T.S. | A



CHECK–IN COUNTER ELEVATION | 1/4"=1'-0" | E



EMPLOYEE SIDE OF CHECK–IN COUNTER | F

UP 2017-06
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Happy Flow Yoga

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DRAWN BY: JF
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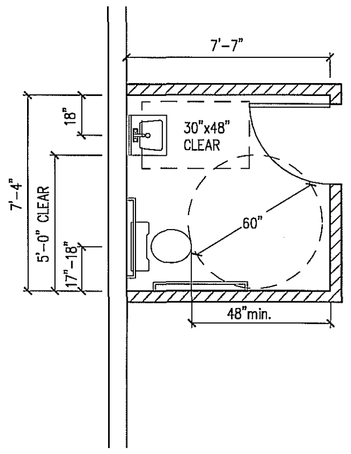
JOB NO.: 17-023
SHEET NO.: A-3.1
OF SHEETS



A ADA TOILET BY KOLHER 'HIGLINE' #K76301 W/SEAT #K-4636 CURVE PLASTIC SEAT, WHITE & ROYAL FLUSHOMETER #111ES-S 1.6 GAL. VALVES W/HANDS-FREE FLUSHING.

B WALL MOUNTED LAVATORY

C WALL MTD. SOAP DISPENSER W/LEVER @ 40" MAX A.F.F.

D RECESSED PAPER TOWEL DISP. & WASTE RECEPTACLE BY BOBRICK #B-369

E BOBRICK SURF. MTD TOILET TISSUE DISPENSER #B-288, OR EQ.

F BOBRICK SURF. MTD TOILET SEAT COVER DISP. #B-221, OR EQ.

G 1-1/2" DIA. x 36" LONG, GRAB BAR.

H 1-1/2" DIA. x 42" LONG, GRAB BAR.

J 24"W x 36"H, MIRROR.

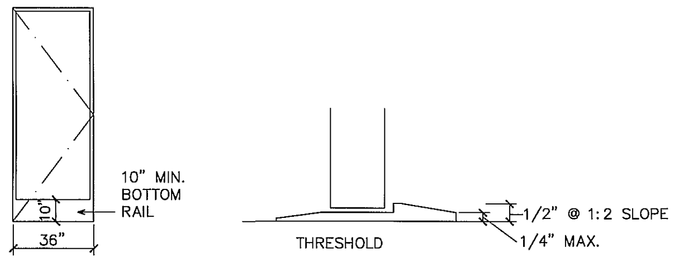
RESTROOM FINISHES:

FLOOR: .
BASE: 6" HIGH COVED TILE BASE
WALLS: FROM FIN. FLOOR TO 48" A.F.F. TILE SPEC TO FOLLOW
FROM 48" A.F.F. TO & INCLUDING CEILING, PAINT, SEMI-GLOSS ENAMEL

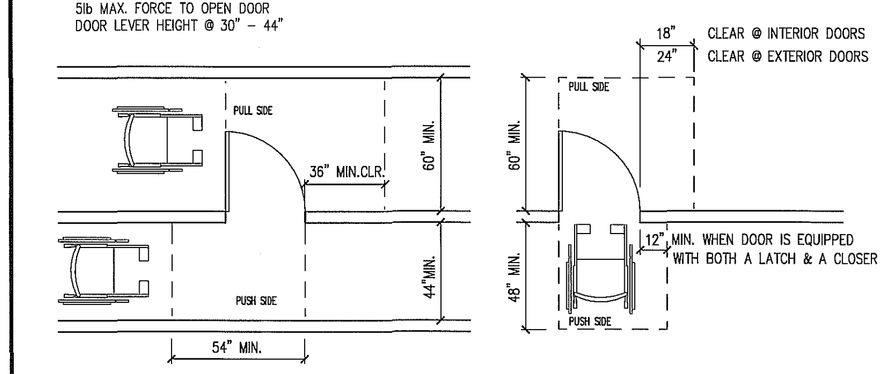
RESTROOM PLAN | 1/4"=1'-0" | A

11B-303
CHANGES IN LEVEL GREATER THAN 1/2" IN HEIGHT SHALL BE RAMPED & SHALL COMPLY WITH THE REQUIREMENTS OF 11B-405 RAMPS OR 11B-406 CURB RAMPS AS APPLICABLE

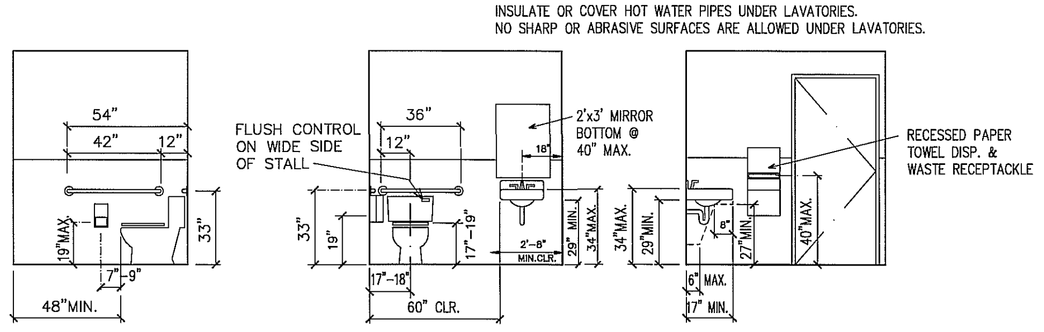
11B-303.5
ABRUPT CHANGES IN LEVEL EXCEEDING 4" IN A VETICAL DIMENSION BETWEEN WALKS, SIDEWALKS OR OTHER PEDESTRIAN WAYS & ADJACENT SURFACES OR FEATURES SHALL BE IDENTIFIED BY WARNING CURBS AT LEAST 6" IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE OR BY GUARDS OR HANDRAILS WITH A GUIDE RAIL CENTERED 2"min. & 4"max. ABOVE THE SURFACE OF THE WALK OR SIDEWALK. THESE REQUIREMENTS DO NOT APPLY BETWEEN A WALK OR SIDEWALK & AN ADJACENT STREET OR DRIVEWAY.



DOOR THRESHOLD | G



LEVEL MANEUVERING CLEARANCE @ DOORS | | H



ACCESSIBLE RESTROOM ELEVATIONS | 1/4"=1'-0" | B

ACCESSIBILTY NOTES:

1. RESTROOM ENTRY DOOR TO BE 32" MIN. CLR. OPENING W/COMPLYING LEVER DOOR OPENING HARDWARE & A MAX. 5LB OPENING FORCE.
2. WATER CLOSET FLUSH CONTROL OPERATE W/ONE HAND, MAX. 44" AFF & DOES NOT REQUIRE TIGHT GRASPING OR TWISTING OF THE WRIST. MAX. 5LB FORCE TO ACTIVATE CONTROLS.
3. GRAB BARS SHALL HAVE A 1 1/2" SPACE BETWEEN THE BAR & WALL & SHALL NOT ROTATE WITHIN THEIR FITTINGS & BE DESIGNED FOR A 250LB FORCE
4. LAVATORIES SHALL HAVE A CLEAR KNEE SPACE OF 29" HIGH MAX. x 30" WIDE MIN. EXTENDING 8" UNDER LAVATORY & A MIN. 30"W x 8"H x17" DP. TOESPACE. INSULATE/COVER HOT WATER & DRAIN PIPES UNDER LAV. FAUCET SHALL OPERATE W/ONE HAND, NOT REQUIRING TIGHT GRASPING OR TWISTING OF THE WRIST, MAX. 5LB OPERATING FORCE (SELF-CLOSING VALVE TO REMAIN OPEN MIN. 10 SECONDS). LEVER, PUSH & ELECTRONIC TYPES ACCEPTABLE.
5. LOCATE TOILET TISSUE DISPENSER ON WALL WITHIN 12" OF TOILET FRONT, MIN. 19" AFF (MIN. 3" BELOW GRAB BAR) & MUST HAVE A CONTINUOUS PAPER FLOW.
6. CLOTHES HOOKS ARE MOUNTED MAX. 48" AFF.
7. LIGHT SWITCHES ARE 36" – 48" AFF. ELEC. OUTLETS BTWN 15" – 48" AFF. IF A REACH OVER 20", CONTROLS FOR LIGHTING, APPLIANCES OR ENVIRONMENTAL EQUIP. 36" – 44" AFF. CONTROLS & MECHANISM SHALL OPERATE W/ONE HAND & NOT REQUIRING TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. A MAX. 5LB OPERATING FORCE.
8. AFFIX AN INTERNATIONAL ACCESSIBILITY SYMBOL (WHITE FIGURE ON A BLUE BACKGROUND) ON ACCESSIBLE ENTRANCE TO FACILITIES. BLUE COLOR IS EQUAL TO #15090 IN FEDERAL STANDARDS 595a.
9. COMPLYING SIGNAGE & TACTILE SIGNAGE TO HAVE A CHARACTER WIDTH TO HEIGHT RATIO BTWN 3:5 – 1:1 W/A 1:5 & 1:10 STROKE WIDTH TO HEIGHT RATIO. CONTASTING COLOR CHARACTERS & SYMBOLS ON A MATTE FINISHED BACKGROUND. SANS SERIF LETTERS, CHARACTERS & BRAILLE SYMBOLS RAISED 1/32", 5/8" TO 2" HIGH ON PERMANENT SIGNAGE IDENTIFYING ROOMS OR SPACES. A 1/4" CHARACTER STROKE WIDTH. PLACE SIGNAGE IDENTIFYING ROOMS/SPACES ON WALL NEXT TO LATCH SIDE OF ENTRY DOOR 60" AFF, +/– 6". LETTERS ARE MIN. 3" HIGH ON SIGNS TO BE READ AT A DISTANCE OR POSTED ABOVE THE FLOOR. PICTOGRAMS MUST INCLUDE LETTERING & A 6"x6" BACKGROUND.
10. A MIN. 36" WIDE AISLE ON EMPLOYEE & CUSTOMER SIDE OF SALES/CHECK-OUT STATIONS UNLESS OTHERWISE MODIFIED IN THE CODE. CASHWRAP INCLUDING SERVICE COUNTERS REQUIRING A SURFACE FOR TRANSACTIONS REQUIRE A MIN. 36" WIDE SURFACE MAX. 34" AFF.
11. ALL ENTRANCES & EXTERIOR GOUND-FLOOR EXIT DOORS TO BUILDING & FACILITIES SHALL BE ACCESSIBLE TO PERSONS W/DISABILITIES. AFFIX AN INT'L ACCESSIBILITY SYMBOL ON ALL ACCESSIBLE ENTRANCES. ENTRY DOOR TO BE A MIN. 3'W x 6'-8"H W/ A 32" MIN. CLR. OPENING W/DOOR OPENED 90 DEGREES, MEASURED FROM THE FACE OF THE DOOR & OPPOSITE STOP. FOR ALL PASSAGE DOORS, SINGLE PANELS OF PAIRS OF DOORS OR AUTOMATIC DOORS. – A MAX 1/4" VERTICAL HIGH THRESHOLD OR UP TO 1/2" IF BEVELED MAX. 1:2.
LEVER, PUSH-PULL, OR DOOR OPENING HARDWARE NOT REQUIRING TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST & A MAX. 8.5LB OPERATING FORCE FOR EXTERIOR DOOR, INSTALLED 30" – 44" AFF.
A 10" HIGH SMOOTH SURFACE ON BOTTOM OF PASSAGE DOORS/GATES & ONE PANEL OF DOUBLE DOORS, EXCEPT AUTOMATIC DOORS.

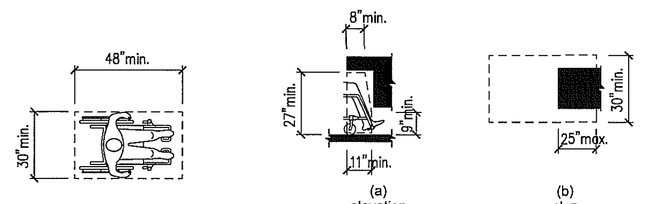


Figure 305.3
Clear Floor or Ground Space

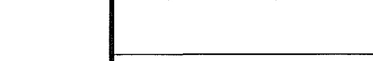
Figure 306.3
Knee Clearance

CLEAR FLOOR OR GROUND SPACE | 1/4"=1'-0" | J

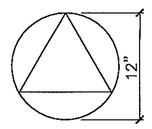
1/4"=1'-0" | K

1/4"=1'-0" | .

1/4"=1'-0" | .

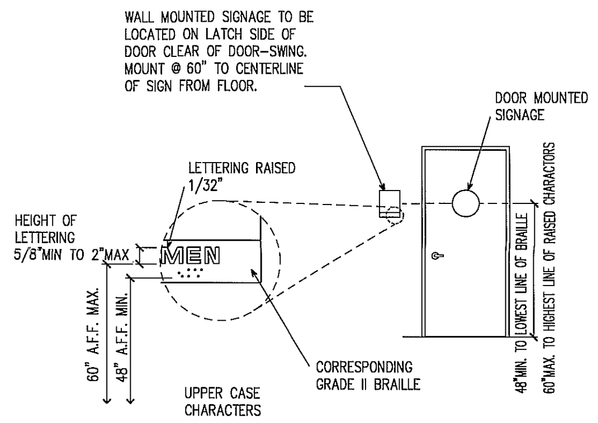


WALL MOUNTED SIGNAGE

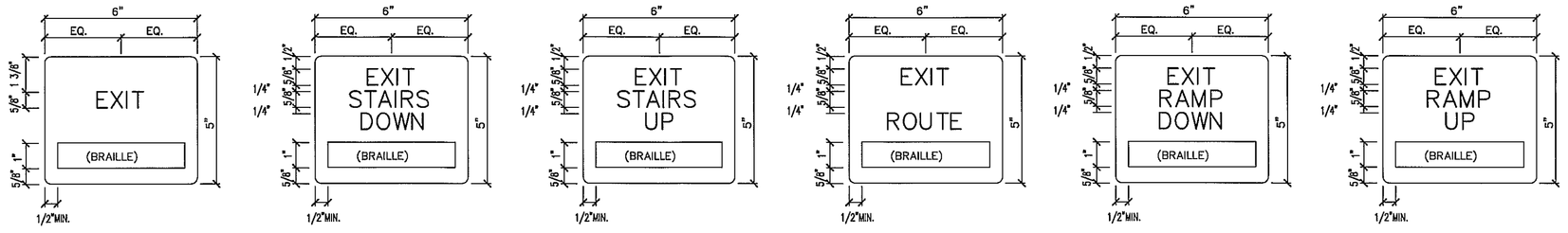


DOOR MOUNTED SIGNAGE

PICTOGRAMS &/OR LETTERING ARE NOT REQUIRED ON DOOR-MOUNTED SIGNAGE.



ACCESSIBLE RESTROOM DOOR SIGNAGE | D



EACH GRADE-LEVEL EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE SIGN WITH THE WORD "EXIT".

EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF A STAIRWAY OR RAMP SHALL BE IDENTIFIED BY A TACTILE SIGN WITH THE FOLLOWING WORDS AS APPROPRIATE.

EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE SHALL BE IDENTIFIED WITH A TACTILE SIGN WITH THE WORD "EXIT ROUTE".

LETTERS & NUMBERS ON SIGNS SHALL BE RAISED OR RECESSED 1/32" MIN. & SHALL BE SAN-SERIF UPPERCASE CHARACTORS ACCOMPANIED BY GRADE 2 BRAILLE.

RAISED CHARACTORS OR SYMBOLS SHALL BE A MIN. OF 5/8" HIGH (MAX. 2").

CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE SYMBOLS ARE SPECIFCALLY REQUIRED IN OTHER PORTIONS OF THESE REGULATIONS. DOTS SHALL BE 1/10" ON CENTER IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS. DOTS SHALL BE RAISED A MIN. OF 1/40" ABOVE THE BACKGROUND.

TACTILE EGRESS SIGNAGE | N.T.S. | F

UP 2017-06
i2-10 **Kraemer Boulevard #B**
Happy Flow Yoga

REVISIONS

SPECTRUM
SPACE DESIGN
1800-D EAST MIRALOMA AVENUE
PLACENTIA, CA 92870
714.496.4185 • FAX:223.0663

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HAPPY FLOW YOGA
1290 KRAMER BLVD #B
PLACENTIA, CALIFORNIA

● CALIFORNIA COUNCIL FOR INTERIOR DESIGN CERTIFICATION
CCIDC
JUANITA FOTHERINGHAM
CERTIFIED INTERIOR DESIGNER
0304 EXPIRES 10-23-17

DRAWN BY: JF
DATE: 6-2-17
SCALE: AS NOTED
JOB NO.: 17-023
SHEET NO.: A-3.2
OF SHEETS

1290 N KRAEMER UNIT B, PLACENTIA - 714.356.2549

HAPPY FLOW YOGA

July 12, 2017

City Of Placentia
Developmental Services Department
401 E Chapman Ave
Placentia, CA 92832

RE: Conditional Use Permit
Happy Flow Yoga
1290 N Kraemer Blvd Unit B, Placentia

Happy Flow Yoga is a Yoga Studio that will be providing yoga classes to yoga students. Located on the north-east side of Kraemer Blvd, between Yorba Linda Blvd and Morse Ave. 1290 N Kraemer Blvd Unit B is 1,153 sq. ft. total.

Yoga Services to include:

- Studio floor for classes = 639 sq. ft.
- Restroom for students and staff = 56 sq. ft.
- Retail and check in area = 458 sq. ft.

Happy Flow Yoga is a positivity based business where we want our students to come in no matter what type of day they are having and leave with a full and happy heart. Happy Flow Yoga is planning on changing lives through the practice of Yoga. The classes are being capped full at 20 students but we for-see 6-12 students in the building for hour long classes. There are multiple classes a day only indoors, Monday-Sunday. The business being staffed 12 hours a day with a maximum of three employees at one given time. Given the amount of parking spaces in our lot and the amount of students we expect to be coming and going every hour, we do not expect to have to use the lot across the street. Just in case, please see the attached letter from Blessed Sacrament Church acknowledging the parking agreement between Happy Flow Yoga And Blessed Sacrament Church.

Spectrum Space Design is proving a site floor plan showing the location of the suite, and the proposed layout. The site is located between industrial building to the North and South. As indicated on our floor plan, the indoor studio offers a warm and welcoming service for patron of Happy Flow Yoga and the surround businesses and residences. We have no plans of changing the exterior of the site.

Sincerely yours,

Brianna Hursh, Owner
Happy Flow Yoga

THE EPISCOPAL CHURCH OF
THE BLESSED SACRAMENT
IN THE DIOCESE OF LOS ANGELES

1314 N. Angelina Drive, Placentia, California 92870-3412
714-528-2995
FAX: 714-528-2997
e-mail: Office@BSCPlacentia.com
WWW.BlessSac.org

The Rev. Dr. Michael Lamon,
Priest in Charge

July 14, 2017

City of Placentia
401 E. Chapman Avenue
Placentia, CA 92870

Attn: Planning Department

Reference: Happy Flo Yoga Studio, 1290 N. Kraemer, Unit B, Placentia, CA 92870

To Whom It May Concern:

Per the request of Mike Lowery, Senior Advisor Retail Leasing -Sales at SVN Vanguard Commercial Real Estate Advisors, the Episcopal Church of the Blessed Sacrament, 1314 N. Angelina, Placentia, CA is offering ten (10) parking spaces for use, during business hours, by customers and employees of the Happy Flo Yoga Studio.

If you should have any questions about this agreement, please contact the church at 714-528-2995 and ask for Ned Bergert Sr. Warden, or Teri Niebuhr, Jr. Warden.

Sincerely,

Teri Niebuhr

Teri Niebuhr

The People are the City

Mayor
CRAIG S. GREEN

Mayor Pro Tem
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401 East Chapman Avenue – Placentia, California 92870

July 27, 2017

Andrew Gonzales
Senior Planner
City of Placentia

SUBJECT: **Happy Flow Yoga Parking**

Dear Andrew:
I have reviewed the request by Happy Flow Yoga to open a studio at 1290 N. Kraemer Blvd. in regards to available parking. It is my opinion that if the studion meets the following stipulations the proposed site should not have an issue with providing adequate parking for patrons.

- only one class will be held at one time and they will be scheduled with sufficient time inbetween classes to allow one class to leave the facility before the next arrives.
- That no single class size will exceed 20 students.
- That a signed agreement be obtained between Happy Flow Yoga and the Episcopal church located on the northeast corner of Angelina Dr. and Morse Ave. to allocate a minimum of 10 parking space in the church parking lot.
- That yoga classes will not be held on Sundays during normal church services or at other times that the church has a recurring event that may have parking requirments that would conflict with the additional spaces that are allocated to the Happy Flow Yoga studio.

Sincerely,

Rusty Beardsley, T.E.
Traffic Engineer

cc: Leslie Whittaker, Associate Planner

Placentia Planning Commission

AGENDA STAFF REPORT

TO: PLANNING COMMISSION

FROM: JOSEPH M. LAMBERT, DIRECTOR OF DEVELOPMENT SERVICES

DATE: AUGUST 8, 2017

SUBJECT: **DEVELOPMENT PLAN REVIEW (DPR) 2017-01, VESTING TENTATIVE TRACT MAP (VTTM) 18118 AND DEVELOPMENT AGREEMENT (DA) 2017-01 FOR 110 AND 132 E. CROWTHER AVENUE (THE PLACENTIA TOD PROJECT, LLC C/O ED GALIGHER)**

RECOMMENDATION

It is recommended that the Planning Commission take the following action:

1) Open Public Hearing, concerning Development Plan Review (DPR) No. 2017-01, Vesting Tentative Tract Map (VTM) 18118 and Development Agreement 2017-01, receive the Staff Report and consider all Public Testimony, close the Public Hearing; and

2) Recommend to the City Council adoption of a Mitigated Negative Declaration for the project in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000-21177) and pursuant to §15063 of Title 14 of the California Code of Regulations (CCR); and

3) Adopt Resolution No. PC-2017-16, a Resolution of the Planning Commission of the City of Placentia, California, recommending to the City Council of the City of Placentia, approval of Development Plan Review (DPR) No. 2017-01, Vesting Tentative Tract Map (VTM) 18118 and approval of Development Agreement 2017-01 for the project located at 110 and 132 E. Crowther Avenue subject to the Conditions of Approval and Standard Development Requirements.

DISCUSSION

The applicant, The Placentia Tod Project, LLC, requests approval of a Development Plan Review, a Vesting Tentative Tract Map, and a Development Agreement to allow the construction of a 215-unit, multi-family residential development at 110 and 132 E. Crowther Avenue. This project, if approved, will be the first development entitled in the newly designated Transit Oriented Development (TOD) zone near Placentia's Old Town. The 2.95 gross acres site is situated at the southeast corner of Crowther Avenue and the extension of Bradford Avenue across from the future Metrolink train station. In keeping

with the goals of the new TOD zone, this will be one of the most dense projects approved in the City. It will likely be the catalyst to more development in the zone, thus implementing the City's vision as this area to encourage high quality, transit-oriented development and to create a compact pattern of development that is conducive to walking, bicycling, and using public transportation.

PROJECT CHARACTERISTICS

Subject Site and Surrounding Land Uses

The table below illustrates the site and surrounding existing land uses, General Plan Land Use designation and zoning:

	Existing Land Use	Land Use Element General Plan Designation	Zoning Map Designation
Existing	Industrial uses	TOD	TOD
Proposed	256,482 s.f. of residential building plus 179,800 s.f. of residential garage building, with 394 spaces.	TOD	TOD
North	Across Crowther Avenue, a surface parking lot	TOD	TOD
South	Industrial uses	Industrial	M
East	Industrial uses	Industrial	M (PMD)
West	Industrial uses	TOD	TOD

The TOD zone replaces the industrial zoning in this area. This project, meeting the development standards of the TOD zone, is appropriately located in this area and will not impact the industrial uses to the south and east of the property.

Project Description

The proposed project involves the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a 215-unit multi-family residential development with rooftop amenities and two interior courtyards. A seven story parking structure occupies the rear portion of the site.

The overall density of 72.9 dwelling units per acre is below the maximum allowable density of 95 dwelling units per acre permitted in the TOD zone. The project's amenities include: two landscaped courtyards (with recreational features including fire tables, BBQs, and water features), a pool/club house and fitness center located on the rooftop terrace (7th level) of the parking structure. The rooftop area contains a BBQ, fire table, lounge, cabana and spa facilities. The project also contains a dog run, a dog spa, and pedestrian walkways. The proposed residential facilities include 100 one-bedroom units and 115 two-bedroom units and there are ten model designs with square footages ranging between 734 and 1,185 square feet. The total gross square footage of the residential building is 256,482 square feet, which includes balconies, corridors, storage, stairs, and elevators. A 2,400-SF leasing office would also be located on the ground floor residential level, near the northeastern corner of the development. While the proposed residential sites would

initially be offered as rental units, the project approval would include an option for future conversion or sales as condominiums. See attached project plans.

Access and Parking

Access for residents and guests would be provided through the primary site entry located east of the leasing office, and would extend along the eastern site boundary to the proposed parking structure. The parking lot entrance will be landscaped and is decorated with concrete pavers to create an attractive vehicular access point. This proposed access road includes an automatic gate that would open via entry codes and/or remote control openers to be provided to on-site residents, as well as a fire turn-around/pullout located near the parking structure. An additional fire access corridor would be located along the northwestern site boundary, with associated use to be limited to emergency vehicles.

A series of internal pedestrian walkways and corridors is proposed to accommodate resident/guest access to units and recreational amenities. The proposed parking structure would include 179,800 gross square feet with seven levels, including the rooftop terrace and a basement level encompassing a maintenance shop and bicycle storage in addition to vehicle parking. A total of 394 parking spaces would be provided on site, including 388 within the noted structure and 6 surface spaces located near the leasing office. This would equate to approximately 1.8 parking spaces per unit (the minimum requirement is 316 parking spaces or approximately 1.5 spaces per unit), including a minimum of 100 spaces for the one-bedroom units, 173 spaces for the two-bedroom units, and 43 spaces for guest parking.

Landscaping

Proposed landscaping for the project will include a mix of native and ornamental varieties along much of the site perimeter, the on-site courtyards, and rooftop terrace, as well as an enlarged planting area at the main site entry. Tree plantings would occur along the northern property boundary with East Crowther Drive and other applicable portions of the site perimeter and interior, and would include varieties such as oaks, sycamores, palms, and other native/ornamental species. Artificial turf would be installed in portions of the courtyard, along with accent vegetation and architectural features to provide screening and separation between active (e.g., games) and passive (lounge) recreational areas. The attractive landscaping plan will meet the requirements of the MWELO (Model Water Efficient Landscape Ordinance) as required by the City's code.

Development Plan Review

This project is the first entitled under the new TOD zoning and is therefore considered the "catalyst site" under the allowable land uses in Section 23.111.030.D.14 (Table 1) of that Zoning. After this project, all other developments must be mixed use or meet other sections of the Zoning, such as those having a parcel size of under 20,000 sf. The key development standards from Table 2 of Section 23.111.040, Development Standards, and how the project meets these standards are shown in the table below:

Standard	Project
Height 3 stories minimum, 35' minimum, 5 stories maximum, not to exceed 68' Note: Building height is measured from finished pad height to the top of the roof for building height measurements. Projections, including rooftop amenities, permitted up to 16 feet above the 68-foot building height limit.	Building heights vary across the site but overall the height requirement is met with an allowable projection for the rooftop amenities. The 5th floor of units contains a loft space, which creates a 6th story. However, the loft space is a partial floor and does not create a full level within the unit, and therefore does not count as a full story. The garage has 7 levels, but these are not habitable stories.
Setbacks Front Yard Setback - 3 ft. min./15 ft. max. Side Yard Setback - 0 feet min. Rear Yard Setback - 10 ft. min.	Front: 12 ft. West Side Yard: 10 ft and 25+ ft - Fire Access on west side; East Side Yard: 25+ ft - Driveway on east side. Rear: 10-20 ft.
Density 65 dwelling unit/acre minimum and 95 dwelling units/acre maximum	73 dwelling units per acre
Parking This project was required to provide between 316 and 445 spaces based on the following: Spaces per 1 bed unit-1 min./1.5 max. Spaces per 2 bed unit-1.5 min./2 max. Guest spaces per 10 units-2 min./3 max.	394 spaces
Minimum Lot Size: 20,000 sf	128, 502 sf
Common Open Space: 50 sf/unit: 10,750 sf required. Common Open Space: • must be fully landscaped; • 50% of rooftop amenities may count towards total common open space requirement; and • roof top amenities shall be setback from the building edge such that no more than 20% of the rooftop structure can be visible from the primary public right of way.	17,600 sf

Private Open Space 64 sf/unit: 13,760 sf required.	15,132 sf
Bicycle Parking 43 Bike Parking Spaces required based on: 1 resident bicycle parking space for every 5 residential units. **Bicycle Storage** 47 Bike Storage Spaces required based on: 2 bicycle storage units for every 5 dwelling units for the first 20, and 1 for every 5 additional units.	44 bicycle parking spaces. Due to the importance of bicycle riding in a transit-oriented zone, a condition has been added to require these spaces to be better located across the site, providing locations that convenient to the cyclists and where they are not isolated in areas that are not used by pedestrians or motorists. 48 Bicycle Storage Spaces
Electric Vehicle Charging 39 Level 2 stations or 20 Fast Charging Stations based on a minimum 10% of project's parking spaces must provide EV Level 2 charging stations. Alternatively, 5% of total spaces if installing DC Fast Charging Stations.	Electric vehicles (EV) are increasingly driven, especially in Southern California. Providing charging facilities for EV is crucial for sustainability and for promoting the use of EV. As such, EV charging stations are required in the TOD zone. A Condition of Approval has been added that requires the applicant to actually install the charging units, not just reserve an area in the parking structure where they could eventually be installed. A total of 39 fully operable, electrical vehicle (EV) parking spaces are required. All spaces must be wired according to the specifications of the level II charger requirements. Twenty of these spaces must also contain the actual Level II charging unit, and be completely operable. Installation of the remaining 50% (or 19) of the charging units can be deferred until the building is 75% leased or until one year after certificate of occupancy, whichever comes first. The applicant may also consider installing DC Fast Charging Stations, instead of Level II charging stations, the requirement for these stations is 5% of total parking spaces.
Public Art- required with any development agreement with projects of 20 or more units.	Will be provided pursuant to the development agreement.

Vesting Tentative Map (VTTM) 18118

The applicant has also filed for a Vesting Tentative Map (subdivision) as part of the entitlement package for the subject project. The intent of this action is to consolidate the existing parcels and allow for a future conversion to condominiums. Note that a parking management plan will be required as a deal point in the Development Agreement to ensure that onsite parking is adequate and maintained in an orderly fashion whether the project is for lease or for sale in the future.

Architecture, Materials and Color Palette

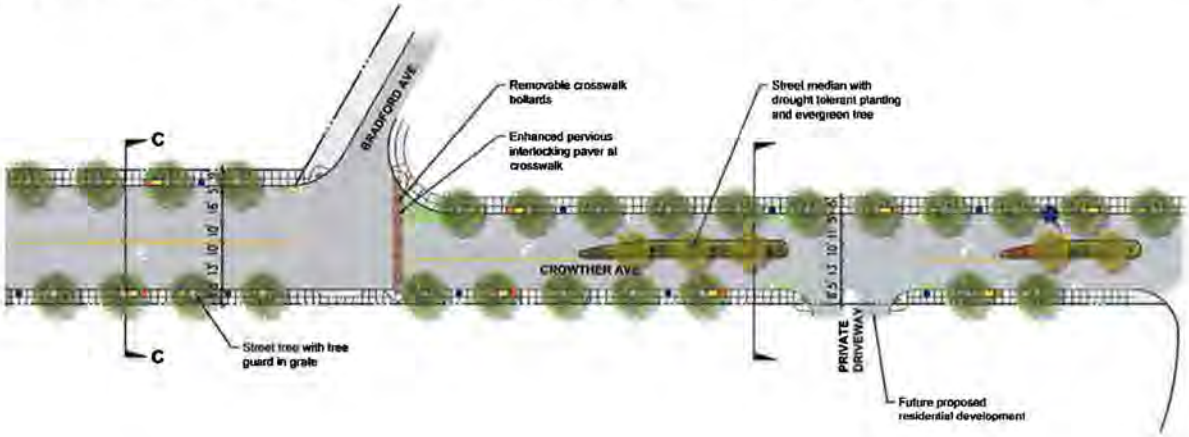
The applicant has defined the architectural style of the project as follows: "The style of this project is inspired by rational architecture as experienced through a contemporary filter. (Rational architecture proposes reasonable and buildable responses to design problems drawing on order in the urban fabric rather than typology and decoration.) The mass, bulk, and scale of the building is defined by the purpose of the structure, but still influenced by geometric forms and ideal proportions which are applied in a fresh way, especially through the use of materials and colors.

In the proposed design, massing breaks, both vertical and horizontal, as well as the pronounced geometric forms of the projected lofts were based on the function of the building, and the accent materials and colors are strategically applied to reinforce the underlying geometries. The character of the design combines elements of classical architecture (horizontal layering; elements of colossal order) and urbanism (sharp geometries, industrial materials) as a response to its specific site and context in both the environmental and historical sense.

Sheathed primarily in functional exterior plaster, the building is accented with rustic fiber-reinforced cement siding and open metal balcony railings. Fenestration consists mainly of compound compositions of vinyl windows, with storefront systems in select locations."

Streetscape and Street Improvements

This project will be the first to begin implementing the Streetscape Master Plan for the TOD zone, which calls for the improvement of the sidewalk curb and gutter, the roadway in front of the project, and the sidewalk amenities such as new street trees, benches, lights and trash receptacles. An excerpt from the Master Plan is below:



Planning & Economic Development Ad Hoc Committee

Under the new TOD zoning, all projects require review by the Planning & Development Ad Hoc Committee. The Committee reviewed this project on June 20, 2017. In general, the project was well received. The Committee did ask the applicant to make some minor changes, all of which were addressed in the revised plans:

1. Reduce the orange color on the exterior; and
2. Address the entrance into the garage with either stamped concrete or pavers; and
3. Entrance into the garage should either be landscaped or contain art.

Consistency with the General Plan

The City's General Plan was recently amended to include a Transit-Oriented Development Designation in this TOD zone. This project is consistent with the intent of this new General Plan designation, which reads as follows:

> **Transit Oriented Development (TOD) -** This designation permits transit oriented development. Transit-oriented development, or TOD, is a type of community development that includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation. Typically, this type of development is characterized by high density residential development (65 to 95 dwelling units/acre), lower parking standards, enhanced pedestrian environment, active streetscape, and enhanced amenities for bikes and buses. In TOD areas, the pedestrian and transit rider are given priority over the motorist.

Development Agreement

Under the terms of the Development Agreement the applicant is granted certain vested rights and the amount of the development fees, including, but not limited to, application fees, street and streetscape improvements, processing fees, development fees, impact fees, mitigation fees, public art fees, park fees, storm drain fees, sewer fees, and development project mitigation fees. The Development Agreement is currently being finalized and will be forwarded to the City Council for approval.

CEQA

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000-21177) and pursuant to §15063 of Title 14 of the California Code of Regulations (CCR), the City of Placentia, acting in the capacity of Lead Agency, is required to undertake the preparation of an Initial Study to determine if the proposed Project would have a significant environmental impact. This Initial Study was conducted relying on findings from the Initial Study/Mitigated Negative Declaration (IS/MND) approved for the re-zoning of this area from manufacturing to TOD. A separate IS/MND was conducted on this project and on the basis of this initial evaluation the City finds that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the

Summary of Mitigation Measures on pages 72-75 of the Initial Study have been added as conditions of approval. The Mitigation Measures were established to ensure any potential impact is less than significant with the implementation of the identified mitigation measures. Mitigation Measures were established for Aesthetics, Cultural Resources, Hazards and Hazardous Materials, Transportation, and Utilities. A Mitigated Negative Declaration (MND) And Mitigation Monitoring and Reporting Program have been prepared and are provided as attachments to this report.

CONCLUSION

Located just opposite of the proposed new Metrolink station, the Crowther Avenue project is an exciting first development in the newly formed TOD zone and will likely prove to be a catalyst for other high quality developments in this zone, setting the tone and igniting excitement for this vision of the City's TOD zone. The developer has worked closely with City staff to provide attractive architecture, lush landscaping, resident amenities and to maximize the site and to provide a high quality housing project to the City. Staff recommends approval of this project.

Prepared and submitted by:

JL FOR

Jennifer Davis
Contract Planner

Review and approved by:

Joseph M. Lambert
Director of Development Services

ATTACHMENTS:

1. Resolution No. PC-2017-16 recommending City Council approval of DPR 2017-01, VTM 18118 and DA 2017-01
2. Conditions of Approval
3. Project Plans including the Vesting Tentative Map, Site Plan, Conceptual Grading Plan, Preliminary Landscape Plan, Building Elevations and colored renderings
4. Draft Development Agreement
5. Initial Study, Mitigated Negative Declaration and Mitigation Monitoring & Reporting Program

RESOLUTION NO. PC-2017-16

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PLACENTIA RECOMMENDING TO THE CITY COUNCIL OF THE CITY OF PLACENTIA, CALIFORNIA, ADOPTION OF A MITIGATED NEGATIVE DECLARATION AND APPROVAL OF DEVELOPMENT PLAN REVIEW (DPR) NO. 2017-01, VESTING TENTATIVE TRACT MAP (VTM) 18118 AND DEVELOPMENT AGREEMENT (DA) 2017-01 ON A +/- 2.95 GROSS ACRES SITE AT 110 AND 132 E. CROWTHER AVENUE, (THE PLACENTIA TOD PROJECT, LLC C/O ED GALIGHER)

A. Recitals.

(i). On August 8, 2017, the Planning Commission of the City of Placentia conducted, and concluded, a duly noticed public hearing, as required by law, to recommending to the City Council of the City of Placentia, adoption of a Mitigated Negative Declaration, approval of Development Plan Review (DPR) No. 2017-01, Vesting Tentative Tract Map (VTM) 18118 and approval of Development Agreement (DA) 2017-01 for the project located at 110 and 132 E. Crowther Avenue.

(ii). The Planning Commission heard testimony, received a report and other relevant information from City staff and members of the public regarding The Placentia Tod Project, LLC C/O Ed Galigher application for Development Plan Review, Vesting Tentative Map and Development Agreement applications.

(iii). All other legal prerequisites to the adoption of this Ordinance have occurred.

B. Resolution.

NOW, THEREFORE, the Planning Commission of the City of Placentia recommends to the City Council the following:

Section 1. Development Plan Review. The development meets the overall requirements of PMC Section 23.111 of the Zoning Code (TOD District Development Standards) and PMC Section 23.75 (Development Plan Review). As such, the Planning Commission finds as follows:

a. The project meets or exceeds the criteria established in PMC Section 23.75.020; and

b. Conditions of Approval have been prepared as necessary to prevent: (A) detriment to the health, safety or general welfare of the persons residing or working within the neighborhood of the proposed development or within the city, or (B) injurious to the property or improvements within the neighborhood or within the city, and;

c. The proposed development will be consistent with the latest adopted general plan; and

Attachment 2
Special Conditions of Approval, Standard Development Requirements and Mitigation Measures for
Development Plan Review 2017-01
110 and 132 Crowther Avenue

SPECIAL CONDITIONS

If the above referenced application is approved, applicant and/or property owner shall comply with the Special Conditions and Mitigation Measures listed below and the Standard Development Requirements attached.

ALL OF THE FOLLOWING SPECIAL CONDITIONS OF APPROVAL AND STANDARD DEVELOPMENT REQUIREMENTS SHALL BE FULLY COMPLIED WITH FOR THE DEVELOPMENT PLAN REVIEW TO CONTINUE IN GOOD STANDING.

CITY PLANNING DIVISION:

1. Development Plan Review 2017-01 is valid for a period of twelve (12) months from the date of final determination. If the use approved by this action is not established within such a period of time, this approval shall be terminated and shall be null and void, unless an extension is applied for and approved.

2. Development Plan Review 2017-01 shall expire and be of no further force or effect if the use is discontinued or abandoned for a period of one (1) year. *One (1) year after issuance of Certificate of Occupancy for the project, staff shall conduct a review of the project for compliance with these conditions of approval and findings of said review shall be placed on a Planning Commission Agenda as a non-Public Hearing item as a "receive and file" action.*

3. Failure to abide by and faithfully comply with any and all conditions attached to this action shall constitute grounds for revocation of said action by the City of Placentia Planning Commission.

4. The applicant shall, as a condition of project approval, at its sole expense, defend, indemnify and hold harmless the City, its officers, employees, agents and consultants from any claim, action, proceeding, liability or judgment against the City, its officers, employees, agents and/or consultants, which action seeks to set aside, void, annul or otherwise challenge any approval by the City Council, Planning Commission, or other City decision-making body or City staff action concerning applicant's project. The applicant shall pay the City's defense costs, including attorney fees and all other litigation-related expenses, and shall reimburse the City for any and all court costs, which the City may be required to pay as a result of such defense. The applicant shall further pay any adverse financial award which may issue against the City including but not limited to any award of attorney fees to a party challenging such project approval. The City

shall retain the right to select its counsel of choice in any action referred to herein. The City agrees to promptly notify the applicant of any such claim filed against the City and to fully cooperate in the defense of any such action.

5. Any modifications to the approved floor plan/site plan and any modifications which will change, expand or intensify the use shall be subject to review and approval by the Director of Development Services. The Director of Development Services or his or her designee may determine if such modifications require approval by the Placentia Planning Commission or may be approved administratively by City staff.

6. Prior to issuance of building permits, except as otherwise noted, the site plans shall be submitted for the review and certification of the Director of Development Services and shall include the following information:

    a. All Special Conditions of Approval and Standard Development Requirements of Development Plan Review (DPR) 2017-01.

    b. Include any project revisions on the site plan. Additionally, include separate sheets with approved Special Conditions of Approval, Standard Development Requirements.

    c. Typical cross section views and details through the property and across each property line as directed by the Director of Development Services.

    d. Full site plan notes, details and dimensions.

    e. Location of transformers, meters and other aboveground appurtenances.

7. Prior to any modification of the floor plan that would affect parking as stipulated in the zoning code, the applicant shall obtain written approval from the Director of Development Services or his/her designee.

8. All trash bins shall be kept inside trash enclosures, and gates closed at all times, except during disposal and pick-up. Trash pick-up shall be done on a regular basis.

9. All mechanical equipment shall be screened from public view to the satisfaction of the Development Services Director.

10. Prior to certificate of occupancy, an (eight) 8-foot high decorative wall with an anti-graffiti coating and oversized decorative cap shall be constructed adjacent to the easterly property line and a portion of the southerly property line.

11. The applicant/business owner shall be responsible for maintaining the property, including the landscaped areas, walkways, and all paved surfaces, free from

graffiti, debris and liter. Graffiti shall be removed by the applicant/business owner within 72 hours of defacement and/or upon notification by the City.

12. A total of 39 fully operable, electrical vehicle (EV) parking paces are required. Prior to Certificate of Occupancy, all spaces must be wired in order to accommodate and according to the specifications of the level II charger requirements. Twenty of these spaces must also contain the actual Level II charging unit, and be completely operable. Installation of the remaining 50% (or 19) of the charging units can be deferred until the building is 75% leased or until one year after certificate of occupancy, whichever comes first. The applicant may also consider installing DC Fast Charging Stations, instead of Level II charging stations, the requirement for these stations is 5% of total parking spaces.

13. Prior to issuance of building permits, applicant shall submit color and materials board.

14. Prior to issuance of building permits, the dimensioned projections shall be shown on the elevation drawings.

15. Prior to issuance of building permits, the applicant must follow the procedure for approval under the MWELO for the proposed landscaping. A MWELO procedure and approval package is available from the front counter in Development Services.

16. Bicycle parking is required 43 spaces. These spaces are defined as in the TOD Development Standards as: a fixture to which one or more bicycles can be securely locked, generally for 2 hours or less. Prior to issuance of building permits, the proposed bicycle parking spaces should be relocated on the plans to locations where they are most likely to be used and not in remote locations on the site. In the TOD zone, bicycles and bicycle facilities are important they should be located in areas that are convenient to the users, either the residents of the project or visitors to the project. They should not be located in isolated areas that are not used by pedestrians or motorists.

17. Prior to the issuance of any building permits, submit the following for the approval of the Director of Development Services:

    a. An exterior lighting plan showing location, type and design of fixtures and areas of illumination (photometric). Lighting shall neither negatively impact adjacent properties nor the public right-of-way.

    b. Complete landscape and irrigation plans.

    c. Postmaster approval of the location and design of the mailboxes, if applicable.

d. Samples of all colors, textures and materials.

e. A detailed site plan showing the location where building related-equipment, facilities and materials will be stored during construction.

f. A detailed timeline outlining the course of drilling, grading/construction work that will take place on the property.

h. A detailed site plan showing how pedestrians will be protected during construction.

18. **MITIGATION MEASURES**

Aesthetics

Aes-1 Nighttime construction or security lighting, if required, shall be shielded, selectively placed, and directed toward the project site, so that light will not spill beyond the boundary of the project site onto off-site sensitive receptors, such as drivers, residents, or train operators.

Aes-2 Building design and/or lighting features shall be incorporated into the final project design to minimize glare, in conformance with the TOD District, such as: (1) overhangs and recessed windows to reduce potential glare from reflective windows; (2) landscaping near the buildings, such as trees along the street frontage, which would shade the building and reduce the potential for drivers to be affected by glare from reflective windows; and/or (3) non-reflective building materials.

Aes-3 Permanent lighting associated with the proposed development shall conform to the TOD District development standards and applicable City Municipal Code requirements. Examples of standard requirements include: (1) lighting along walkways, on exterior signage, within landscaped areas and in parking areas must be appropriately directed and shielded to reflect light away from the public right-of-way and from any adjoining residential premises; (2) lighting is not to blink, flash, flutter, or change light intensity, brightness, or color; and (3) neither direct nor reflected light from primary light sources shall create hazards for pedestrians or operators of motor vehicles. The developer shall submit a detailed lighting plan to the City for approval, prior to issuance of a building permit.

Cultural Resources

Cul-1 Construction monitoring and reporting shall be conducted by a qualified Archaeologist and a Native American monitor in all areas proposed for excavation/disturbance. At the monitors' discretion, monitoring may be reduced or eliminated if there is no indication that cultural resources are present. In the

event that an unanticipated discovery of cultural material is made during project construction, all earth-disturbing work within the vicinity of the find must be temporarily suspended or redirected until the monitor has evaluated the nature and significance of the find. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of archaeological materials that might be discovered during site development shall be in accordance with all applicable laws and regulations.

Hazards and Hazardous Materials

Haz-1 If hazardous substances are encountered during project grading, work shall cease and an immediate evaluation shall be conducted and appropriate remediation actions undertaken. The associated assessment and remediation/removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of OCHCA. If additional contamination is identified, an application would be submitted to OCHCA for review and comment under OCHCA's VICP. A mitigation plan would be prepared detailing the mitigation of on-site soils impacted by PCE and/or other contaminants, as applicable. The plan would be submitted to the OCHCA with the VICP application. Once approved, the mitigation plan would be implemented to the satisfaction of the OCHCA. Potential feasible measures could include, but are not limited to, on-site treatment or stabilization or removal of contaminated soil and disposal at an approved off-site location.

Haz-2 Prior to renovating and/or demolishing the on-site structures, the developer shall conduct a survey at the site to evaluate the extent of lead-based paint (LBP) and asbestos-containing materials (ACM) within those structures. All associated remediation and removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the appropriate regulatory agency.

Noise

Noi-1 Interior noise levels shall not exceed the Title 24 interior noise standard of 45 Community Noise Equivalent Level (CNEL) for residences. The following building materials shall be used in the construction of all units facing East Crowther Avenue and the railway to reduce interior noise to acceptable levels:

- Exterior walls shall have an STC 46 rating
- Windows shall have an STC 31 rating
- Exterior doors shall have an STC 28 rating
- Glass doors shall be at least 0.5 inch thick

Noi-2 The following measures shall be implemented during construction:

- Contractor shall establish a noise complaint response program and shall respond to any noise complaints received for future specific project by measuring noise levels at the affected receptor site. If the noise level exceeds an CNEL of 60 dBA exterior or an CNEL of 45 dBA interior at the sensitive receptor, the applicant will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.

- All construction equipment shall be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities. Equipment not in use for five minutes shall be shut off.

- Equipment shall be maintained and operated such that loads are secured from rattling or banging.

- Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.

- Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

- No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.

- Public notice shall be given 10 days prior to initiating construction. This notice shall be provided to all property owners and residents within 300 feet of the project site and shall be provided to property owners/residents at least one week prior to initiating construction. The notice shall identify the dates of construction and the name and phone number of a construction supervisor (contact person) in case of complaints. One contact person shall be assigned to the project. The public notice shall encourage the adjacent residents to contact the supervisor in the case of a complaint. Residents would be informed if there is a change in the construction schedule. The supervisor shall be available 24/7 throughout construction by mobile phone. If a complaint is received, the contact person shall take all feasible steps to remove or attenuate the sound source causing the complaint.

Traffic

Tra-1 The project contractor would be required to prepare and implement a construction traffic control plan to the satisfaction of the City Traffic Engineer and in compliance with Manual of Uniform Traffic Control Devices (MUTCD) guidelines. The traffic control plan should include ingress and egress to and from

the project site, as well as designated haul routes and construction staging areas, and must address the applicable construction traffic control measures listed in the adopted IS/MND for the approved TOD District, as listed below:

- Construction hours will be in accordance with the City Municipal Code.
- Construction traffic will utilize designated driveways along Crowther Avenue and will yield to public traffic when entering and exiting the project site.
- Parking for construction equipment and vehicles will be on the project site or within an approved nearby temporary use site. Such equipment and vehicles will utilize approved driveways to enter the site(s). Construction staging will also be on the site or another approved property, and not within the public streets.
- Trucks transporting equipment and materials to and from the site will use the designated truck routes along Placentia Avenue, Crowther Avenue, Melrose Street, and Orangethorpe Avenue, and will yield to public traffic at all times.
- All construction work within the public right-of-way, will be conducted in compliance with City standards and the construction site shall be posted with the name, company, and a phone number of a person to call for complaints.
- The developer will be responsible for repair of damages to public facilities caused by the hauling or transporting of construction related materials.

<u>Utilities and Service Systems</u>

Uti-1 The project shall incorporate relatively small areas of low water use landscaping, as well as water-conserving features/measures to meet or exceed the current building code requirements. The project applicant shall consult with the City and local water purveyor to determine project design measures that would provide an adequate offset of increased water consumption. Specifically, these may include the following types of standard industry efforts: (1) use of low-flow/water efficient fixtures and appliances; (2) use of native/drought-tolerant landscaping varieties and/or artificial turf, wherever feasible, and using mulch in landscaped areas; (3) use of drip, micro-spray and/or other water-efficient irrigation systems, as well as capture/reuse systems and devices such as rain barrels; (4) use of “smart irrigation” technology where appropriate, such as pertinent watering schedules to reflect local plant/soil/climate conditions, moisture/precipitation and leak/pressure sensors, and automatic shut-off valves for applicable associated events/conditions such as precipitation and leaks; (5) use of recycling/closed water systems for features such as fountains and pools, and regular inspection/maintenance for all water-related features such as irrigation systems and water lines; and (6) provision of educational materials to residents/employees regarding reduction of water use for household and other applications (e.g., limiting washing machine use to full loads, reducing shower

time, turning off water while brushing teeth, and using dry methods [sweeping] rather than a hose to clean paved areas).

ENGINEERING DIVISION:

19. All improvement and grading plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer or other registered/licensed professional as required.

20. Prior to issuance of Certificate of Occupancy or building final, all existing and new utilities including electric power, telephone, and cable TV in the street adjacent to and on-site shall be placed underground in accordance with City of Placentia ordinances.

21. Prior to issuance of a Certificate of Occupancy, the engineer of record shall submit all approved project plans on a DFX (AutoCAD) formatted Compact Disc (CD) to the Public Works Department. If the required files are unavailable, the developer shall pay a scanning fee to cover the cost of scanning the as-built plans.

22. The developer shall monitor, supervise and control all construction and construction related activities to prevent them from causing a public nuisance, including but not limited to, insuring strict adherence to the following:
    a) Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

Grading

28. Prior to the issuance of a grading permit, the applicant shall prepare a Low Impact Development (LID) specifically identifying the Best Management Practices (BMP's) that will be used on site to control predictable pollutant runoff. The plan shall identify the types of structural and/or non-structural measures to be used. The plan shall comply with the Orange County Drainage Area Management Plan (DAMP) and LID Implementation Guideline. Website available at (http://ocwatersheds.com/publiced/residents/glltd) Particular attention should be addressed to the appendix section "Best Management Practices for priority redevelopment." The LID shall clearly show the locations of structural or Nonstructural BMP's, and assignment of long term maintenance responsibilities. The plan shall be prepared to the general form and content and submitted to the Director of Public Works/City Engineer for review and approval.

29. Prior to the issuance of a grading permit, the applicant shall prepare a Water Quality Management Plan (WQMP) specifically identifying the Best Management Practices (BMP's) that will be used on site to control predictable pollutant runoff. The plan shall identify the types of structural and non-structural measures to be used. The plan shall comply with the Orange County Drainage Area Management Plan (DAMP). Particular attention should be addressed to the appendix section

"Best Management Practices for Development." The WQMP shall clearly show the locations of structural BMP's, and assignment of long term maintenance responsibilities (which shall also be included in the Maintenance Agreement). The plan shall be prepared to the general form and content shown in the County of Orange's WQMP Template and shall be submitted to the City Engineer for review and approval.

30. Prior to the issuance of grading permits, the applicant shall prepare and submit a precise grading plan prepared by a licensed civil engineer to the Engineering Division of the Public Works Department showing building footprints, new and revised pads and elevations of finished grades, drainage routes, retaining walls, erosion control, slope easements, structural best management practices (BMPs) conforming to the approved water quality management plan, and other pertinent information. The project development shall accept and make provisions for the existing surface water that are the natural flows from the BNSF lands immediately abutting to the north of the development site.

31. Prior to approval of the final design plans and issuance of a grading permit, the applicant shall conduct a site-specific geotechnical investigation for the entire site and prepare a report that fully assesses the geologic and soil conditions of the site. As part of the report preparation, soil sampling and any geotechnical testing will be completed at each location where structures are to be erected. The report shall provide grading and structural design recommendations for avoiding liquefaction, subsidence or collapse for each of the proposed structures. The recommendations shall be implemented by the Applicant.

32. Prior to the issuance of a grading permit, erosion control plans and notes shall be submitted and approved by the Engineering Division of Public Works Department.

33. Prior to the issuance of a grading permit, the applicant shall demonstrate to the City Engineer that coverage has been obtained under the California's General Permit for Discharge of Storm Water Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number to the City Engineer. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. Prior to the issuance of a grading permit, the applicant shall submit to the City Engineer for review and approval a Stormwater Pollution Prevention Plan (SWPPP). A copy of the approved SWPPP shall be kept at the project site and available for review upon request.

34. All private slopes of 5 feet or more in vertical height and of 5:1 or greater slope, but less than 2:1 slope, shall be, at minimum, irrigated and landscaped with appropriate ground cover for erosion control. Slope planting required by this section shall include a permanent irrigation system to be installed by the

developer prior to occupancy.

35. The development site shall be graded to drain surface water to the existing City storm drain system with no cross lot drainage permitted. Drainage shall be indicated on the precise grading plans.

36. The precise grading plan, appropriate certifications and compaction reports shall be completed, submitted, and approved by the Building and Safety Official and City Engineer prior to the issuance of building permits.

37. Surety and agreement guaranteeing completion of all on-site drainage and grading operations shall be posted and executed to the satisfaction of the City Engineer prior to the issuance of grading permits.

38. The applicant shall prepare and submit a preliminary title report no older than 90 days and/or lease agreement signed by the Orange County Flood Control District (OCFCD) for the use of the Flood Control District's property prior to issuance of grading permit.

Public Improvements and Construction

1. All improvement and grading plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch Mylar and signed by a registered civil engineer or other registered/licensed professional as required.

2. Prior to issuance of Certificate of Occupancy or building final, all existing and new utilities including electric power, telephone, telecommunication fiber and/or cable TV in the street adjacent to and on-site shall be placed underground in accordance with the City of Placentia standards and ordinances. This includes, taking down the three existing utility poles currently located in the sidewalk adjacent to the Crowther parking lot and directly across the street from the project site.

3. Prior to recordation of the final map, the public improvement plans as required shall be prepared and signed by the City Engineer.

4. Prior to issuance of a Certificate of Occupancy, the engineer of record shall submit all approved project plans on an AutoCAD DWG and DFX formatted Compact Disc (CD) to the Public Works Department. If the required files are unavailable, the applicant shall pay a scanning fee to cover the cost of scanning the as-built plans.

5. Title of tentative map needs to clarify whether the application is for Apartment Complex or Condominium. If apartment, please erase a word "CONDOMINIUM".

6. All new street and public improvements shall comply and follow the requirements

of the City's Transit Oriented Development (TOD) Streetscape Masterplan. Please see attached reference drawings for the TOD Streetscape Masterplan requirements.

Demolition

1. Provide a full set of plans for demolition of the existing facilities and utilities, including above ground and underground structures, footings, utilities, vaults, fences, walls, sewer lines, storm drain pipes, waterlines, etc,. Plans shall address conditions and procedures, as are necessary, to show that the demolition work will be conducted without creating a hazardous conditions, when excavating next to other existing footings, walls and slopes. A separate demolition permit is required from the Building Department, prior to performing any kind of demolition on site.

2. A copy of the Grant deed and owner's permission on the application for demolition is required at the time of issuance of the permit.

3. The existing sanitary sewer line has to be removed and caped at the property line. The sewer cap shall be inspected, and shall not be covered until an inspection has been made by the Department of Public Works Inspector. This inspection shall be requested at least 24 hours before the inspection is needed.

4. Provide AQMD Rule 1403 permit number, prior to starting any demolition work.

5. It is the applicant's responsibility to notify all utility companies and the City of Placentia for disconnection and removal of the existing utilities, vaults and meters. It is also the applicant's responsibility to insure applicant notifies the Building Inspection Division that these utilities have been properly disconnected.

6. Provide an erosion control, Storm Water Pollution Prevention Plans (SWPPP) for protection of the site during and post demolition and excavation activities.

Grading

1. Prior to the issuance of a grading permit, the applicant shall prepare a Low Impact Development (LID) specifically identifying the Best Management Practices (BMP's) that will be used on site to control predictable pollutant runoff. The plan shall identify the types of structural and/or non-structural measures to be used. The plan shall comply with the Orange County Drainage Area Management Plan (DAMP) and LID Implementation Guideline. Website available at (http://ocwatersheds.com/publiced/residents/glltd) Particular attention should be addressed to the appendix section "Best Management Practices for priority redevelopment." The LID shall clearly show the locations of structural or Nonstructural BMP's, and assignment of long term maintenance responsibilities. The plan shall be prepared to the general form and content and submitted to the Director of Public Works/City Engineer for review and approval.

2. Prior to the issuance of a grading permit, the applicant shall prepare a Water Quality Management Plan (WQMP) specifically identifying the Best Management Practices (BMP's) that will be used on site to control predictable pollutant runoff. The plan shall identify the types of structural and non-structural measures to be used. The plan shall comply with the Orange County Drainage Area Management Plan (DAMP). Particular attention should be addressed to the appendix section "Best Management Practices for Development." The WQMP shall clearly show the locations of structural BMP's, and assignment of long term maintenance responsibilities (which shall also be included in the Maintenance Agreement). The plan shall be prepared to the general form and content shown in the City of Placentia's WQMP Template and shall be submitted to the City Engineer for review and approval. Website available at (http://www.placentia.org/index.aspx?nid=262)

3. Prior to the issuance of a grading permit, the applicant shall demonstrate to the City Engineer that coverage has been obtained under the California's General Permit for Discharge of Storm Water Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number to the City Engineer. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. Prior to the issuance of a grading permit, the applicant shall submit to the City Engineer for review a Stormwater Pollution Prevention Plan (SWPPP). A copy of the approved SWPPP shall be kept at the project site and available for review upon request.

4. Prior to the issuance of grading permits, the applicant shall prepare and submit a precise grading plan prepared by a licensed civil engineer to the Engineering Division of the Public Works Department showing building footprints, new and revised pads and elevations of finished grades, drainage routes, retaining walls, erosion control, slope easements, structural best management practices (BMPs) conforming to the approved water quality management plan, and other pertinent information. The project development shall accept and make provisions for the existing surface water that are the natural flows from the adjacent properties immediately abutting to the development site.

5. Prior to approval of the final design plans and issuance of a grading permit, the applicant shall conduct a site-specific geotechnical investigation for the entire site and prepare a report that fully assesses the geologic and soil conditions of the site. As part of the report preparation, soil sampling and any geotechnical testing will be completed at each location where structures are to be erected. The report shall provide grading and structural design recommendations for avoiding liquefaction, subsidence or collapse for each of the proposed structures. The recommendations shall be implemented by the Applicant.

6. Prior to the issuance of a grading permit, erosion control plans and notes shall be submitted and approved by the Engineering Division of Public Works Department.

7. All private slopes of 4 feet or more in vertical height and of 4:1 or greater slope, but less than 2:1 slope, shall be, at minimum, irrigated and landscaped with appropriate ground cover for erosion control. Slope planting required by this section shall include a permanent irrigation system to be installed by the developer prior to occupancy.

8. The development site shall be graded to drain surface water to the existing City storm drain system with no cross lot drainage permitted. Drainage shall be indicated on the precise grading plans.

9. Surety and agreement guaranteeing completion of all on-site grading improvements including drainage, structural BMPs, erosion control, grading operations shall be posted and executed to the satisfaction of the City Engineer prior to the issuance of grading permits.

10. The final grading plan for this parcel shall be substantially the same, specifically with regard to pad elevations, size, and configuration; as the proposed grading illustrated on the approved site plan. If there is a significant deviation between the two plans the Community Development Director and the City Engineer will review the plans and determine if a finding of substantial conformance can be made prior to the issuance of a grading permit. The Community Development Director and the City Engineer may refer the matter to the Planning Commission for an opinion before making a decision. Failure to achieve such a finding will require processing a revised site plan.

11. All parking, common, and storage areas shall be lighted to maintain a minimum of 1-foot candle power. These areas should be lighted from sunset to sunrise and be on photo censored cell.

12. The site grading, landscape, irrigation, and street improvement plans shall be coordinated for consistency with each other and for consistency with the requirements and standards of the City of Placentia.

13. The applicant shall provide a quitclaim or relocation of easement as applicable in plan review process prior to issuance of grading permit.

14. Provide and identify all pavement and driveway paving materials used inside the development areas.

15. Identify all storm drain structures, types, sizes and specifications on the plans.

16. Correct easement number referring for drainage ditch shown on the plan on sheet 2 of VTM.

17. Conceptual grading plan (sheet 5) needs to show sheet flow drainage patterns with proper key elevations of the proposed drainage systems presenting on a comprehensive topographical sheet to describe sheet flows, conveyance, treatment and discharge.

18. The detail drawings on sheet C-6 shows two accesses. One for fire lane on the western end of the site, and the other on the east end for main entry. The plan needs to identify the type of pavement with appropriate designation of the proposed materials and make it consistent with landscape plans. For instance, landscape plan calls out the entry Round About with concrete paver.

19. Prior to issuance of occupancy permit, all public improvements shown on the plans shall be constructed to City Standards. Existing street surface has been determined unsuitable due to cracking, subsidence, irregular surface, age, water damage, and/or failure to meet structural section requirements of the City standard. Public improvements shall include, but are not limited to, resurfacing of one half section of existing street pavement adjacent to the site from the street centerline along the full length of property frontage (full width grind at a 2-inch with a 2-inch overlay), driveway approach, sidewalks, curb and gutter, street lights, and street trees.

20. Preliminary WQMP shall include a feasibility check to ensure the proposed infiltration BMPs are not proposed to be within 100 feet horizontally of a water supply well and/or non-potable well for the protection of groundwater quality per Orange County TGD. Golden State Water Company currently operates a water well pump at the northwest corner of Bradford Avenue and Crowther Avenue.

Public Improvements and Construction

1. Existing pavement and sidewalk conditions of Crowther Avenue are determined unsuitable due to cracking, irregular surface, age, water damage, and/or failure to meet structural section to support the new residential development. The applicant shall provide street resurfacing of one half section (up to street centerline) of pavement along the full length of property frontage (grind to a depth of 2-inch and 2-inch overlay. Also, applicant shall provide a wide patch pavements on the opposite side of the centerline where constructing and connecting to two new sanitary sewer manholes. All public improvements shown on the plans and/or tentative map shall be constructed to City of Placentia standards, ordinances, policies and/or reasonably determined by the City Engineer to be applicable to the project.

2. Prior to issuance of 1st occupancy permit, all new public improvements shall be constructed satisfactorily to the TOD Streetscape Masterplan and the City Standards and match the adjacent public improvements.

3. All of the street improvements shall follow and comply with the following design standards throughout, in addition to the improvements depicted in the TOD Streetscape Masterplan including but not limited to tree grates, benches, trash receptacles, bike racks, street and pedestrian lights, in addition to the following requirements:

    a. Driveways shall conform to the TOD and applicable City of Placentia standards and shall be shown on the street improvement plans.
    b. Driveways shall be located at a minimum of two (2) feet from the property line prolongation at the curb.
    c. Concrete sidewalks shall be constructed along all public street frontages in accordance with TOD Streetscape Master Plan and City Standards.
    d. The minimum centerline and flowline grades shall be one percent unless otherwise approved by the City Engineer.
    e. Street lights shall be provided along streets adjoining and within the subject site in accordance with TOD Streetscape Master Plan and the City Standard or as approved by the City Engineer.
    f. Provide irrigation service to the irrigation trees planted in the ROW – the City will assume ownership of all the equipment and irrigation costs once installed.
    g. Provide landscape up-lighting for the new trees - the City will also own all the related electrical equipment and electricity costs once installed.
    h. Twelve (12) Drake Chinese Elm Trees – must include tree grates and tree guards at each tree location per the specified manufacturer's cut sheet attached to the streetscape master plan.
    i. Four (4) decorative street/pedestrian combination lights with banner attachment poles per the specified manufacturer's cut sheet attached to the streetscape master plan.
    j. Four (4) decorative street benches per the specified manufacturer's cut sheet attached to the streetscape master plan.
    k. Four (4) decorative trash cans per the specified manufacturer's cut sheet attached to the streetscape master plan.
    l. Three (3) decorative bike racks per the specified manufacturer's cut sheet attached to the streetscape master plan.
    m. New sidewalk along their property frontage per the streetscape master plan specifications.
    n. All street and public improvement plans and specifications shall be prepared in accordance with the TOD Streetscape Masterplan with the layout and arrangements as depicted on the TOD Streetscape Master Plan. Shop drawings and product data shall be provided for the City's review and approval for all the public improvement items listed above, PRIOR to their installation.

4. Improvement plans shall be based upon a centerline profile extending beyond the project boundaries a minimum distance of 150 feet at a grade and alignment approved by the City Engineer

5. Prior to recordation of final map or issuance of building permit if recordation has already been accomplished, the applicant shall enter into an agreement and post security bond, in a form and amount acceptable to the City Engineer, guaranteeing the construction of public improvements in conformance with applicable City standards and the City Code, including, but not limited to the following:

    a. Street improvement including, but not limited to: pavement, curb and gutter, sidewalks, driveway approaches, street lights, signing, striping, traffic signal systems and other traffic control devices as appropriate.
    b. Storm drain facilities
    c. Landscaping
    d. Sewer systems
    e. Street lighting

6. All utilities to the project site will be undergrounded. All existing overhead utilities and utility poles currently located on the project site must be removed and undergrounded. In addition, the project applicant shall remove three existing utility poles located along the project property frontage and directly across the street along Crowther Avenue and adjacent to the Crowther Public Parking Lot. The utilities connected to those poles will need to be placed underground as well.

Storm Drain Improvements and Construction

1. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the Public Works Director.

2. Drainage easements, when required, shall be shown on the grading plans and noted as follows: "Drainage Easement - no buildings, obstructions, or encroachments by landfills are allowed."

3. The project shall be designed to accept and properly dispose of all off-site drainage flowing onto or through the site. The storm drain design and improvements shall be subject to review and approval by City Engineer. The hydraulics and hydrology report shall include detailed drainage studies indicating how the grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, BMP treatment and LID, will allow building pads to be safe from

inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood per the Orange County Hydrology Manual. The project development shall be designed to accept and properly dispose of all off-site drainage flowing onto or through the site. If the quantities exceed the existing downstream capacity, the developer shall provide adequate drainage facilities to mitigate the impact as approved by the City Engineer.

4. Prior to the approval of the improvement plans, the hydrology study shall show that the 25-year storm flow will be contained within the street from curb to curb and the 100-year storm flow shall be contained within the street right-of-way. When either of these criteria are exceeded, additional drainage facilities shall be installed. All analysis shall comply with the Orange County Hydrology Manual and County Local Drainage Manual.

5. The post development peak flow rate generated from the project site shall be less than or equal to the pre development peak flow rate from the site for all frequency storms up to and including 100-year return.

6. Drainage facilities with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency flow bypass shall also be provided as approved by City Engineer.

Sewer line Improvements and Construction

1. Sewer flow calculations justifying pipe line design and connection to the main shall be prepared by a registered civil engineer and submitted as a part of an improvement plan for approval by the City Engineer. Provide sewer capacity analysis to evaluate the proposed sewer flow rates into the City sewer system using current flow rate and for pipeline capacity availability.

2. Prior to issuance of building permit, the developer's engineer shall analyze and mitigate any sewer system deficiencies for all phases of the proposed development. Results of the system analysis may require special construction such as booster pumps, upsize the downstream pipes and backwater valves. The engineering analysis and special construction requirements shall be subject to review and approval of City Engineer.

3. Onsite water improvement and fire protection plans shall be approved by the Fire Marshal, the local water district, and City Engineer. The water distribution lines and appurtenances shall conform to the applicable laws and adopted regulations enforced by the Golden State Water Company.

4. Prior to the issuance of a building permit, the applicant shall dedicate ingress and egress of the access route within the project site and improve it fully operational as required by the Orange County Fire Authority and satisfaction to the City Engineer.

5. The applicant shall submit a Will Serve Letter from Orange County Sanitation District and Golden State Water Company.

6. Install new sanitary sewer manholes at the two proposed connection to the existing City sewer line.

Traffic

1. Provide new and modify the existing striping modifications on Crowther Ave. at the public entrance to the project.

2. Maintain sight distance for vehicles exiting at the public driveway on Crowther Ave.

3. Provide a plan for a safe and efficient way for pedestrians to cross the street from the new development to the MetroLink Station including an ADA approved path of travel.

4. Provide clarifications on how the numbers in the "Trip Generation Comparison" section of the Fehr & Peers Traffic Study Memo were derived.

Final Map

1. Applicant shall provide a quitclaim or relocation of easement that affects the proposed development.

2. The applicant shall prepare and submit a preliminary title report no older than 90 days.

3. Prior to approval of the Final Parcel Map, pursuant to the Subdivision Improvement Agreement for Public Improvements, the developer shall provide security in an amount specified in writing by the Registered Civil Engineer or a Licensed Land Surveyor of record. The developer shall enter into an agreement providing for the necessary right-of-way, design and construction of missing public improvements, which shall be constructed in coordination with adjacent existing improvements prior to occupancy of the development and subject to review and approval by the City Engineer.

4. Prior to the exoneration of any security, the applicant shall submit one (1) duplicate Mylar of the final map and all as built public improvement plans, in a manner acceptable to the City Engineer. The computer analysis may be submitted on a CD with a proper labeled.

POLICE

1. Prior to the issuance of building permits, provide a Parking Surveillance Camera Plan showing color cameras capable of monitoring the parking structure entrance, capturing a picture of vehicles entering/exiting including views of license plates. Camera images are to be stored on a digital DVR for a minimum of 30 days.

2. Prior to authorization to use, occupy, and/or operate, the applicant shall arrange for and have passes an inspection, to be performed by the Police Department, to ensure compliance with the Parking Surveillance Camera Plan. The inspector shall verify the cameras capture and store the images of vehicles and their license plates when enter/exiting the parking facility.

3. Prior to issuance of a building permit for that portion of a building or structure containing roof top recreation, the plans shall include a Recreation Surveillance Camera Plan showing the presence of color cameras fully covering the roof top recreation space. Cameras are to be recorded and the images are to be stored on a digital DVR for a minimum of 30 days.

BUILDING DIVISION

1. Both 5-story apartment and 6 story parking garage buildings shall have automatic fire sprinkler system throughout the entire two buildings.

2. Define type of construction and type of occupancy for both apartment & parking garage buildings (per 2016 California Building Code).

3. Grading, street improvement, sewer, utility, erosion control (NPDES, SWPPP, BMP) plans shall be designed & prepared by a licensed California Civil engineer.

4. Existing power poles, if any, to be underground.

5. Building plans (architectural and structural plans) shall be designed and prepared by a licensed California architect or civil/structural engineer.

6. Unless type of construction is type I, please justify total actual floor area is within the allowable floor area per Table 506.2 of the 2016 California Building Code. (use side yard increase and auto sprinkler system throughout to justify actual total floor area if necessary).

7. Obtain demolition building permits prior to demolishing all the existing buildings. Demolition contractor shall obtain approval from A.Q.M.D. prior to demolition building permit application.

8. Landscape plans shall be designed by a licensed California landscape architect and other State Water Conservation Programs.

9. Over all site plan and building plans shall be in compliance with ADA requirements.

OCFA

Prior to approval of a final map or issuance of a grading permit or building permit:

- fire master plan (service code PR145)
- methane investigation/mitigation (service codes PR172-PR176)

Prior to issuance of a building permit:

- architectural (service codes PR200-PR285)
- underground piping for private hydrants and fire sprinkler systems (service code PR470-PR475)
- fire sprinkler system (service codes PR400-PR465)

Prior to concealing interior construction:

- sprinkler monitoring system (service code PR500)
- fire alarm system (service code PR500-PR520)

d. Conditions necessary to secure the purposes of Section 23.75.020, including guarantees and evidence of compliance with conditions, are made part of the development approval.

Section 2. Vesting Tentative Map. Based upon substantial evidence presented to this Commission during the public hearing conducted with regard to the Application, including written staff reports, verbal testimony and development plans, this Commission hereby specifically finds as follows:

a. The proposed project will not be: (1) detrimental to the health, safety or general welfare of the persons residing or working within the neighborhood of the proposed development or within the city, or (2) injurious to the property or improvements within the neighborhood or within the city. Subject to compliance with the attached Conditions of Approval set forth in Attachment "2" of the staff report and by this reference incorporated herein and Standard Development Requirements, the project complies with all applicable code requirements and development standards of the "TOD" District and Title 22, and with Bother applicable regulations of the Placentia Municipal Code.

b. The proposed use is consistent with the City's General Plan. The General Plan Land Use designation for the subject site is "TOD", and the proposed use does not involve any change in the land use of the subject site. The proposed project involves the development of a 215 unit housing project.

c. The proposed project as presented in the staff report and accompanying plans complies with all requirements of Chapter 23.111, TOD District of the Placentia Municipal Code. City Staff carefully examined the proposed development against the applicable development regulations prescribed in Title 23 (Zoning Ordinance), and determined it to be in substantial compliance. The proposed Development includes Conditions of Approval and Standard Development Requirements to ensure full compliance with applicable code requirements.

d. Conditions necessary to secure the purposes of this section, including guarantees and evidence of compliance with conditions are made part of this development approval. The attachments to this Resolution and related staff report contain Conditions of Approval and Standard Development Requirements specific to the Application in order to provide assurances that the proposed construction of the 215 units and related on and off-site improvements are in compliance with applicable requirements of the Placentia Municipal Code.

e. That the proposed map is consistent with the General Plan. The proposed Vesting Tentative Tract Map is to support the construction of 215 units on the site. The proposed 215 unit development is consistent with all of the policies, programs, and goals of the General Plan.

f. That the site is physically suitable for the type and density of development. The subject site is a 2.95 acre parcel, which has been designed to

accommodate the units, as well as sufficient parking, landscaping, and open space. Based on this, the subject site is adequate to accommodate the proposed development.

g. That the design of the subdivision or type of improvements are not likely to cause serious public health problems. The proposed subdivision is to allow a 215 the Applicant is including active open space area and passive uses. These amenities will encourage residents of the community to spend more time outdoors and live a more active lifestyle.

h. That the design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision. As part of the review of the Application, an extensive record research was completed. Additionally, the Applicant submitted a preliminary title report with the Application. Although several easements have been found, they are mostly for utility access only. All of the easements will be protected in place and will not be altered by the construction of the project.

i. That the design of the subdivision or the proposed improvements is not likely to cause substantial environmental damage or substantially and avoidably injure wildlife or their habitat. The subject site is an underutilized single family use that only has limited vegetation. There are no known areas within the City that host wildlife or their habitat, most particularly species. Furthermore, an Initial Study of environmental impacts was prepared pursuant to the requirements of California Environmental Quality Act, California Public Resources Code §§ 21000, *et seq.,* The analysis contained within the Initial Study determined that, with appropriate mitigation measures incorporated into the project, no significant impacts will occur.

j. The intent of the TOD Zone is to assure the consistent development of the TOD District in a manner which meets the growing housing needs of Placentia while adapting to the special characteristics of the land available for residential and mixed-use development. The proposed project will create a new 215 unit housing community. The Applicant has designed the community in a manner that accomplishes all of the goals of the General Plan and Zoning Code, while avoiding significant impacts to the neighboring properties by utilizing proper site design, good architecture, and providing active community open spaces. Furthermore, the proposed design will enhance the streetscape, thus providing a pleasing aspect to those utilizing Crowther Avenue.

k. The proposed development's site plan and its design features, including architecture and landscaping, will integrate harmoniously with and enhance the character and design of the site, the immediate neighborhood, and the surrounding areas of the City. Currently the site is underutilized with legal, non-conforming industrial buildings.

Section 3. Development Agreement. The applicant filed an application for approval of Development Agreement No. 2017-01, as described in the title of this Resolution. The City and Applicant have faithfully negotiated the Development Agreement pursuant to the procedures described in California Government Code § 65867, which authorizes cities to enter into development agreements with any person having a legal or equitable interest in real property for the development of such property. The Planning Commission hereby finds that the Development Agreement between the City and Applicant conforms to the policies and programs of the General Plan.

Section 4. The Planning Commission hereby recommends: (a). The City Council of the City of Placentia certify a Mitigated Negative Declaration and find that the Mitigated Negative Declaration, adopted with respect to the project was prepared in compliance with the California Environmental Quality Act ("CEQA"), California Public Resources Code §§ 21000, *et seq.,* the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, §§ 15000, *et seq.,* and the Environmental Impact Report Guidelines of the City of Placentia and that the Council review and consider the information contained in said Mitigated Negative Declaration with respect to the Application:

a. The City Council find and determine that, based upon the findings set forth below, and changes and alterations which have been incorporated into and conditioned upon the proposed project, no significant adverse environmental effects will occur; and

b. The City Council find that facts supporting the above-specified findings are contained in the Mitigated Negative Declaration, the staff report and exhibits, and the information provided during the public hearing conducted with respect to the Application and the Mitigated Negative Declaration. Mitigation measures are made a condition of approval of said project and are intended to mitigate and/or avoid environmental effects identified in the Mitigated Negative Declaration.

Section 5. Based upon the findings and conclusions set forth herein, this Planning Commission hereby recommends the City Council approve Development Plan Review (DPR) No. 2017-01, Vesting Tentative Tract Map (VTM) 18118 approval of Development Agreement (DA) 2017-01, and adoption of a Mitigated Negative Declaration as modified herein, and specifically subject to the conditions set forth in Attachment "2" of the staff report and by this reference incorporated herein.

Section 6. The Secretary to the Planning Commission shall:

a. Certify to the adoption of this Resolution; and

b. Forthwith transmit a certified copy of this Resolution, by certified mail, to the applicant at the address of record set forth in the Application.

ADOPTED AND APPROVED this 8th day of August, 2016.

_____

CHRISTINE J. SCHAEFER, CHAIR

I, Joseph M. Lambert, Secretary to the Planning Commission of the City of Placentia, do hereby certify that the foregoing Resolution was introduced at a regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2016, and was passed at this regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2016, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAINED:

ATTEST:

_____
Joseph M. Lambert,
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
YOLANDA M. SUMMERHILL,
ASSISTANT CITY ATTORNEY

EAST CROWTHER AVE. SITE

PROJECT TEAM

DEVELOPER
INTEGRAL COMMUNITIES

888 San Clemente Drive, Suite 100
Newport Beach, CA 92660
(949) 720-3612 phone
(760) 822-6461 Cell
(949) 720-3613 Fax

CONTACT: Edward A. Galigher
EMAIL: egaligher@integralcommunities.com

ARCHITECT
HUMPHREYS & PARTNERS ARCHITECTS, L.P.

2350 SE Bristol Street, Suite - 310
Newport Beach, CA 92660
(949) 955-9400

CONTACT: Vince Chupka
EMAIL: vince@humphreys.com

CIVIL
KHR Associates

20411 SW Birch Street, Suite 310
Newport Beach, CA 92660
Office (949) 756-6440

CONTACT: Mike Thomas
EMAIL: mthomas@khrdesign.com

LANDSCAPE
LIFESCAPES INTERNATIONAL INC.

4930 Campus Drive,
Newport Beach, CA 92660
Phone: 949-476-8888 Ext. 217
Fax: 949-476-8854

CONTACT: MIKE MEYERS
EMAIL: mike@lifescapesintl.com

SUMMARY

SIZE OF PROPERTY:	GROSS:	2.95 AC	NET:	2.95 AC
FRONT SETBACKS:	REQUIRED:	MIN.3'-MAX.15'	PROVIDED:	12'
SIDE SETBACKS (WEST):	REQUIRED:	MIN. 0'	PROVIDED:	VARIES, 10' TO 27'
SIDE SETBACKS (EAST):	REQUIRED:	MIN. 0'	PROVIDED:	VARIES, 10' TO 46'
REAR SETBACKS:	REQUIRED:	MIN. 10'	PROVIDED:	VARIES, 10' TO 20'
PARKING:	REQUIRED:	316 TO 445	PROVIDED:	394
DENSITY:	MAX.	65 TO 95	PROPOSED:	73
% LOT COVERAGE:	MAX.	N/A	PROPOSED:	N/A
OPEN SPACE:				
COMMON (50 S.F./UNIT)	REQUIRED:	10,750	PROVIDED:*	17,600
PRIVATE (64 S.F./UNIT)	REQUIRED:	13,760	PROVIDED:	15,132
	*INCLUDING COURTYARDS AND 50% ROOFTOP			
TYPE OF ARCHITECTURE:	RATIONAL CONTEMPORARY, DEFINED BY THE PURPOSED OF THE STRUCTURE, FOLLOWING EMPHASIZED GEOMETIC FORMS AND IDEAL PROPORTIONS, AND APPLYING IN A FRESH WAY, ESPECIALLY THROUGH THE USE OF COLORS.			

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C-7	PRELIMINARY STORM DRAIN
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REFERENCE

THIS SURVEY IS BASED ON THE COMMITMENT FOR TITLE INSURANCE PREPARED BY:

CHICAGO TITLE INSURANCE COMPANY
ORDER NO: 00047759-002-LB
EFFECTIVE DATE: FEBRUARY 25, 2016

OWNERSHIP

TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

GLENN E. BALDWIN AND KATHRYN E. BALDWIN, TRUSTEES OF THE GLENN E. BALDWIN AND KATHRYN E. BALDWIN LIVING TRUST, UNDER DECLARATION DATED NOVEMBER 26, 1991.

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PLACENTIA, IN THE COUNTY OF ORANGE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF BLOCK H OF THE KRAEMER TRACT AS SHOWN ON A MAP RECORDED IN BOOK 12, PAGES 87 AND 88 OF MISCELLANEOUS MAPS, RECORDS OF LOS ANGELES COUNTY CALIFORNIA.

PARCEL 2 AS SHOWN ON A MAP FILED IN BOOK 34, PAGE 26 OF PARCEL MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA.

APN: 339-091-09

EXCEPTIONS

(#) INDICATES EXCEPTIONS SHOWN HEREON. (NUMBERED ACCORDING TO THE TITLE REPORT)

1. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

2. EASEMENT(S) FOR POLES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY AS SET FORTH IN A DOCUMENT RECORDED JUNE 22, 1910 IN BOOK 193, PAGE 93, DEEDS. *THE EXACT LOCATION OF SAID EASEMENT IS UNDETERMINED FROM RECORD.*

3. THIS EXCEPTION HAS BEEN INTENTIONALLY DELETED.

(4) EASEMENT(S) FOR TREEWELL PURPOSES AND RIGHTS INCIDENTAL THERETO AS DELINEATED OR AS OFFERED FOR DEDICATION, ON THE MAP OF SAID PARCEL MAP.

5. THIS EXCEPTION HAS BEEN INTENTIONALLY DELETED.

6. THIS EXCEPTION HAS BEEN INTENTIONALLY DELETED.

7. THE LAND DESCRIBED HEREIN IS INCLUDED WITHIN A PROJECT AREA OF THE REDEVELOPMENT AGENCY SHOWN BELOW, AND THAT PROCEEDINGS FOR THE REDEVELOPMENT OF SAID PROJECT HAVE BEEN INSTITUTED UNDER THE REDEVELOPMENT LAW (SUCH REDEVELOPMENT TO PROCEED ONLY AFTER THE ADOPTION OF THE REDEVELOPMENT PLAN) AS DISCLOSED BY A DOCUMENT.

REDEVELOPMENT AGENCY: STATEMENT OF PROCEEDING REDEVELOPMENT AGENCY CITY OF PLACENTIA
RECORDING DATE: JULY 20, 1983
RECORDING NO: 83-312045, OFFICIAL RECORDS

8. ANY RIGHTS, CLAIMS OR INTERESTS THAT MAY EXIST OR ARISE BY REASON OF THE FOLLOWING FACTS DISCLOSED BY A MAP DATED MARCH 1, 2016, REVISED MARCH 7, 2016 OF AN ALTA/NSPS LAND TITLE SURVEY COMPLETED FEBRUARY 23, 2016 PREPARED BY OR UNDER THE RESPONSIBLE CHARGE OF JAMES H. KAWAMURA C. 30560, OF/FOR KHR ASSOCIATES, PROJECT/JOB NO. 6444001.

A. A CONCRETE CURB EXTENDS ONTO ADJOINING PROPERTY TO THE WEST BY 0.75 FEET.

B. A WALL COLUMN EXTENDS ONTO ADJOINING PROPERTY TO THE WEST BY 0.46 FEET.

C. A PLANTER WALL IN THE NORTHWEST CORNER OF PARCEL 2 EXTENDS FROM 0.15 FEET TO 0.24 FEET ONTO ADJOINING PROPERTY TO THE NORTH.

D. THERE ARE POWER POLES, GUY WIRES, AND OVERHEAD LINES ON THE EAST SIDE, WHICH LIE OUTSIDE ANY RECORD EASEMENT FOR SAME.

E. THERE IS AN ELECTRIC PULL BOX AND FIRE DEPARTMENT CONNECTION ON THE NORTH SIDE, WHICH LIE OUTSIDE ANY RECORD EASEMENT FOR SAME.

REFERENCE

THIS SURVEY IS BASED ON THE PRELIMINARY TITLE REPORT PREPARED BY:

CHICAGO TITLE INSURANCE COMPANY
ORDER NO: 00047760-002-LB
EFFECTIVE DATE: FEBRUARY 22, 2016 AMENDED: MARCH 7, 2016

OWNERSHIP

TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

PAPER CANYON, LLC, A WYOMING CLOSE LIMITED LIABILITY COMPANY

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PLACENTIA, IN THE COUNTY OF ORANGE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF BLOCK "H" OF THE KRAEMER TRACT, IN THE CITY OF PLACENTIA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGES 87 AND 88 OF MISCELLANEOUS MAPS, OF LOS ANGELES COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHERLY LINE OF THE LAND CONVEYED TO FRANK X. BURNS AND WIFE, BY DEED RECORDED AUGUST 17, 1942 IN BOOK 1155, PAGE 250 OF OFFICIAL RECORDS IN THE OFFICE OF THE COUNTY RECORDER OF SAID ORANGE COUNTY, DISTANT THEREON, SOUTH 73° 14' 10" WEST 387.88 FEET FROM THE NORTHEASTERLY CORNER OF SAID BLOCK "H" AND RUNNING; THENCE SOUTH 17° 39' 52" WEST 502.05 FEET TO A POINT IN THE SOUTHERLY LINE OF SAID LAND CONVEYED TO BURNS, DISTANT THEREON, SOUTH 72° 27' WEST 383.68 FEET FROM THE SOUTHEAST CORNER OF SAID LAND CONVEYED TO BURNS; THENCE SOUTH 72° 27' WEST ALONG SAID SOUTHERLY LINE OF SAID LAND CONVEYED TO BURNS TO THE SOUTHWEST CORNER THEREOF; THENCE NORTH 17° 17' 40" EAST ALONG THE WESTERLY LINE OF SAID LAND CONVEYED TO BURNS, 502.50 FEET TO THE NORTHWEST CORNER THEREOF; THENCE NORTH 73° 14' 10" EAST ALONG THE NORTHERLY LINE OF SAID LAND CONVEYED TO BURNS TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THE NORTH 40 FEET OF SAID LAND FOR STREET PURPOSES, AS GRANTED IN DEED RECORDED APRIL 8, 1963 IN BOOK 6499, PAGE 627 OF OFFICIAL RECORDS.

APN: 339-091-08

EXCEPTIONS

(#) INDICATES EXCEPTIONS SHOWN HEREON. (NUMBERED ACCORDING TO THE TITLE REPORT)

1. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

(2) EASEMENT(S) FOR DITCH PURPOSES AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT RECORDED IN BOOK 35, PAGE 259 DEEDS.
AFFECTS: THE SOUTHERLY 10 FEET. *LOCATION UNDETERMINED OF RECORD, SHOWN ON SURVEY AFFECTING SOUTHERLY 10 FEET AS NOTED ON REPORT.*

3. THIS EXCEPTION HAS BEEN INTENTIONALLY DELETED.

4. THE LAND DESCRIBED HEREIN IS INCLUDED WITHIN A PROJECT AREA OF THE REDEVELOPMENT AGENCY SHOWN BELOW, AND THAT PROCEEDINGS FOR THE REDEVELOPMENT OF SAID PROJECT HAVE BEEN INSTITUTED UNDER THE REDEVELOPMENT LAW (SUCH REDEVELOPMENT TO PROCEED ONLY AFTER THE ADOPTION OF THE REDEVELOPMENT PLAN) AS DISCLOSED BY A DOCUMENT.

REDEVELOPMENT AGENCY OF CITY OF PLACENTIA RECORDED JULY 20, 1983 AS INSTRUMENT NO. 83-312045 OFFICIAL RECORDS.

(5) EASEMENT(S) FOR UNDERGROUND LINES, CONDUITS, INCIDENTAL PURPOSES INCLUDING ABOVE GROUND APPURTENANT FIXTURES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION AS SET FORTH IN A DOCUMENT RECORDED IN BOOK 10643, PAGE 733, OFFICIAL RECORDS.

6. ANY RIGHTS, CLAIMS OR INTERESTS THAT MAY EXIST OR ARISE BY REASON OF THE FOLLOWING FACTS DISCLOSED BY A MAP DATED MARCH 1, 2016 OF AN ALTA/NSPS LAND TITLE SURVEY COMPLETED FEBRUARY 23, 2016 PREPARED BY OR UNDER THE RESPONSIBLE CHARGE OF JAMES H. KAWAMURA C. 30560, OF/FOR KHR ASSOCIATES, PROJECT/JOB NO. 6444001.

THERE ARE FIRE HYDRANTS, A GAS METER, SEWER CLEANOUT, AND DRAINAGE IMPROVEMENTS IN VARIOUS LOCATIONS ON SAID LAND WHICH LIE OUTSIDE ANY RECORD EASEMENT FOR SAME.

BENCHMARK

DESIGNATION: 404-33-05 NAVD88 (FT): 219.522 YEAR LEVELED: 2006

DESCRIBED BY OCS 2005 – FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "404-33-05", SET IN THE SOUTHEASTERLY CORNER OF A 4 BY 22 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHEASTERLY CORNER OF THE INTERSECTION OF CROWTHER AVENUE AND MELROSE STREET 280 FT. EASTERLY OF THE CENTERLINE OF MELROSE AND 28 FT. NORTHERLY OF THE CENTERLINE OF CROWTHER. MONUMENT IS AT LEVEL WITH THE SIDEWALK.

ZONING

ZONE CLASSIFICATION: "M" MANUFACTURING DISTRICT

PLACENTIA MUNICIPAL CODE CHAPTER 23.47 "M" MANUFACTURING DISTRICT

23.47.050 HEIGHT

THE MAXIMUM BUILDING OR STRUCTURAL HEIGHT SHALL NOT BE MORE THAT FIFTY-FOUR (54) FEET.

23.47.070 FRONT YARD

THE REQUIRED YARD SHALL BE ONE (1) FOOT FOR EACH TWO (2) FEET OF HEIGHT EXCEPT THAT THERE SHALL BE A MINIMUM OF FIFTEEN (15) FEET. ALL OF THE REQUIRED YARD AREA SHALL BE LANDSCAPED AND MAINTAINED AS A CONDITION TO THE USE.

23.47.080 FRONT YARD

SIDE AND REAR YARDS ARE REQUIRED ONLY ALONG THE PROPERTY LINE ADJACENT TO A RESIDENTIAL DISTRICT OR A PUBLIC RIGHT-OF-WAY. THE REQUIRED YARD SHALL BE ONE (1) FOOT FOR EACH TWO (2) FEET OF HEIGHT EXCEPT THAT THERE SHALL BE A MINIMUM OF TEN (10) FEET ADJACENT TO A RESIDENTIAL DISTRICT AND FIFTEEN (15) FEET ADJACENT TO A PUBLIC RIGHT-OF-WAY. ALL OF THE REQUIRED YARD AREA SHALL BE LANDSCAPED AND MAINTAINED AS A CONDITION TO THE USE.

FLOOD ZONE

THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X (UNSHADED), CONSIDERED TO BE AN AREA OF MINIMAL FLOOD HAZARD AND AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP NO. 06059C0151J, WITH AN EFFECTIVE DATE OF DECEMBER 3, 2009.

PARKING

NUMBER OF PARKING STALLS IS UNDETERMINED DUE TO SITE CONDITIONS.

NOTES

1. THERE IS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

2. THERE IS NO OBSERVED EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

3. THERE ARE NO WETLAND AREAS AS DELINEATED BY APPROPRIATE AUTHORITIES.

SURVEYOR'S CERTIFICATE

TO: INTEGRAL PARTNERS, FUNDING, LLC AND ITS SUCCESSORS AND ASSIGNS AND CHICAGO TITLE COMPANY OF CALIFORNIA;

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(A), 7(A), (B1), (C), 8, 9, 10(A), 10(B), 11(A), 14, 16, 17, 18, 19, AND 20 IN THE MINIMUM AMOUNT OF $ 1,000,000.00 OF TABLE A THEREOF.

THE FIELD WORK WAS COMPLETED ON FEBRUARY 23, 2016

DATE: 3/15/16

JAMES H. KAWAMURA
REGISTRATION NO. 30560
WITHIN THE STATE OF CALIFORNIA

JAMES H. KAWAMURA — No. 30560 — Expiration 03/31/18 — CIVIL — STATE OF CALIFORNIA

ADDRESS/THOMAS GUIDE

ADDRESS: 110 EAST CROWTHER AVENUE
132 EAST CROWTHER AVENUE
PLACENTIA, CALIFORNIA 92870

ASSESSORS PARCEL NO. 339-091-08, 339-091-09

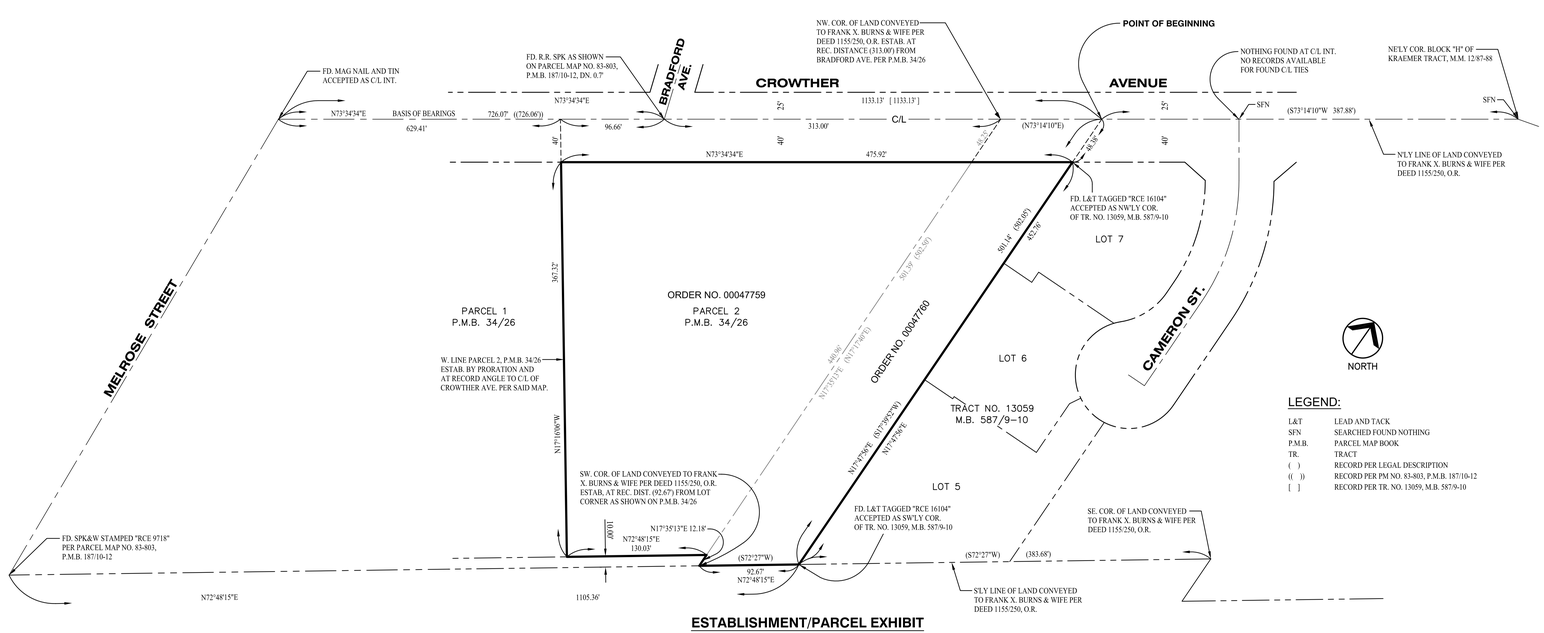
THOMAS BROTHERS GRID: PAGE 739, GRID E7

AREA

THE SUBJECT PROPERTY CONSISTS OF: 128,520 S.F. (2.950 ACRES)

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N73°34'34"E OF THE CENTERLINE OF CROWTHER AVENUE AS SHOWN ON PARCEL MAP NO. 83-803, FILED IN BOOK 187 PAGES 10 TO 12, INCLUSIVE, OF PARCEL MAPS, RECORDS OF ORANGE COUNTY.



LEGEND:

L&T	LEAD AND TACK
SFN	SEARCHED FOUND NOTHING
P.M.B.	PARCEL MAP BOOK
TR.	TRACT
( )	RECORD PER LEGAL DESCRIPTION
(( ))	RECORD PER PM NO. 83-803, P.M.B. 187/10-12
[ ]	RECORD PER TR. NO. 13059, M.B. 587/9-10

ESTABLISHMENT/PARCEL EXHIBIT
NO SCALE

(SHEET C-1)

PREPARED BY:
KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
20411 SW Birch Street - Suite 310 Newport Beach, California 92660
(949) 756-6440 Fax (949) 756-6444

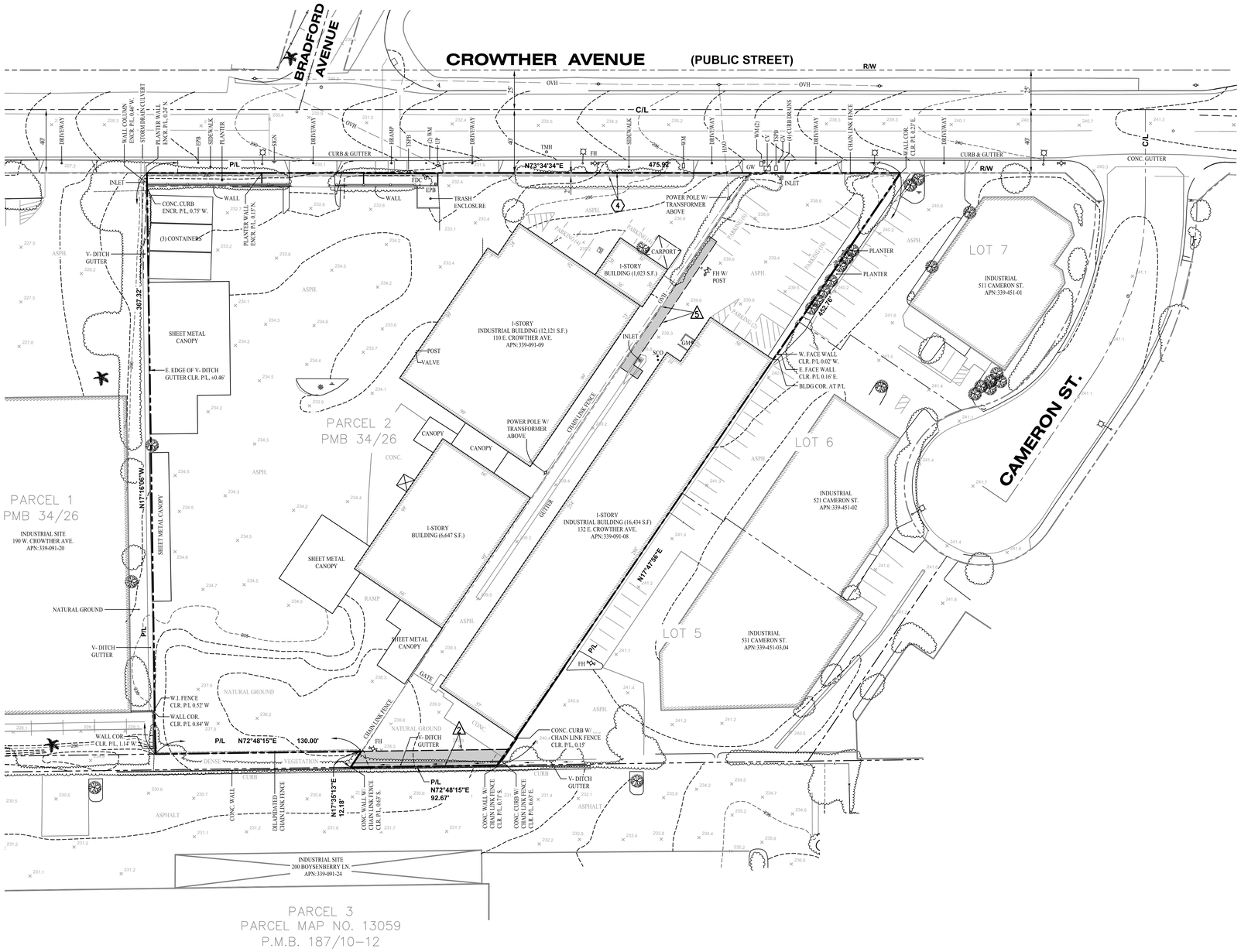
VESTING TENTATIVE PARCEL MAP NO. 2017-113
ALTA/NSPS LAND TITLE SURVEY
110 & 132 EAST CROWTHER AVENUE
PLACENTIA, CALIFORNIA

SCALE: 1"=30'	DATE: 1/6/17	DRAWN BY: L.C.	CHECKED BY: J.H.K.
REVISION DATE: 08/05/16	JOB NO: 6444001	SHEET NO. 1 OF 2	

R:\Vestings\CDs\Preliminary\Tentative Parcel Map\ALTA\P-ALTA-PG1.dwg May 05, 2017 - 4:28pm Mike

0 15 30 60 90

SCALE: 1"=30' DATE: 05/05/17

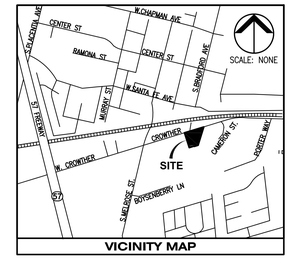


ABBREVIATIONS

APN.	ACESSOR'S PARCLE NUMBER
ASPH.	ASPHALT PAVEMENT
C/L	CENTERLINE
CLF	CHAIN LINK FENCE
CLR.	CLEAR
CONC.	CONCRETE
CD	CURB DRAIN
CV	COMMUNICATION VAULT
E.	EAST
ENCR.	ENCROACHMENT
EPB	ELECTRICAL PULLBOX
ESTAB.	ESTABLISHED
FD.	FOUND
FH	FIRE HYDRANT
GV	GAS VALVE
GW	GUYWIRE ANCHOR
HRAMP	HANDICAP RAMP
N.	NORTH
OVH	OVERHEAD LINE
P	POST
PP	POWER POLE
P/L	PROPERTY LINE
R/W	RIGHT OF WAY
S.	SOUTH
SCO	SEWER CLEANOUT
S.F.	SQUARE FEET
SPK&W	SPIKE & WASHER
TMH	TELEPHONE MANHOLE
UP	UTILITY POLE
TSPB	TRAFFIC SIGNAL PULLBOX
UP	UTILITY POLE
V	VALVE
W/	WITH
W.I.	WROUGHT IRON

LEGEND

- BOUNDARY
- RIGHT OF WAY
- CENTERLINE
- CONTOUR LINE
- CHAIN LINK FENCE
- BUILDING
- CURB AND GUTTER
- EASEMENT AREA
- YARD LIGHT
- STREET LIGHT
- SIGN
- TREE
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT



VICINITY MAP

(SHEET C-2)

PREPARED BY:
KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
20411 SW Birch Street - Suite 310 Newport Beach, California 92660
(949) 756-6440 Fax (949) 756-6444

VESTING TENTATIVE PARCEL MAP NO. 2017-113
ALTA/NSPS LAND TITLE SURVEY

110 & 132 EAST CROWTHER AVENUE
PLACENTIA, CALIFORNIA

SCALE: 1"=30'	DATE: 1/6/17	DRAWN BY: L.C.	CHECKED BY: J.H.K.
REVISION DATE: 08/05/16	JOB NO: 6444001	SHEET NO. 2 OF 2	

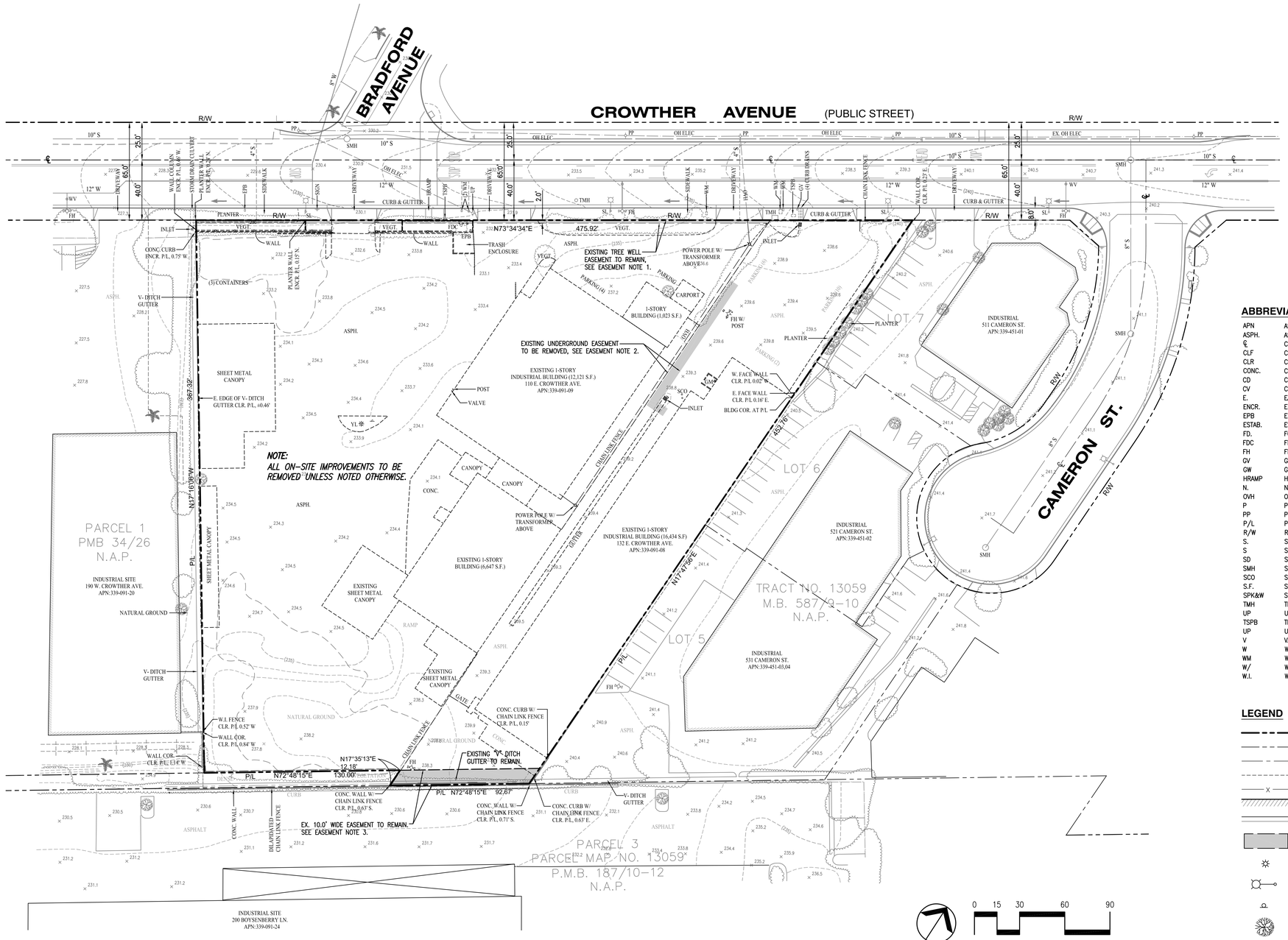
R:\Integral\CDs\Preliminary\Tentative Parcel Map\ALTA\P-ALTA-PG2.dwg May 05, 2017 - 4:26pm Mike

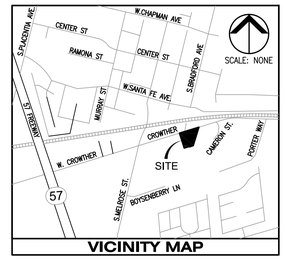
VESTING TENTATIVE TRACT MAP NO. 18118

110 &132 CROWTHER AVENUE

IN THE CITY OF PLACENTIA, COUNTY OF ORANGE, STATE OF CALIFORNIA
FEBRUARY 15, 2017

FOR CONDOMINIUM PURPOSES





VICINITY MAP

OWNERSHIP:

TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

GLENN E. BALDWIN AND KATHRYN E. BALDWIN, TRUSTEES OF THE GLENN E. BALDWIN AND KATHRYN E. BALDWIN LIVING TRUST, UNDER DECLARATION DATED NOVEMBER 26, 1991.

CIVIL ENGINEER:

KHR ASSOCIATES
20411 SW BIRCH STREET, SUITE 310
NEWPORT BEACH, CA 92660
ATTN. JAMES H. KAWAMURA, R.C.E. NO 30560
PHONE NO. (949) 756-6440

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PLACENTIA, IN THE COUNTY OF ORANGE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF BLOCK H OF THE KRAEMER TRACT AS SHOWN ON A MAP RECORDED IN BOOK 12, PAGES 87 AND 88 OF MISCELLANEOUS MAPS, RECORDS OF LOS ANGELES COUNTY CALIFORNIA.

PARCEL 2 AS SHOWN ON A MAP FILED IN BOOK 34, PAGE 26 OF PARCEL MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA.

APN: 339-091-09

AREA:

THE SUBJECT PROPERTY CONSISTS OF: 128,520 S.F. (2.950 ACRES)

ZONING:

EXISTING ZONE CLASSIFICATION: "M" MANUFACTURING DISTRICT
PROPOSED ZONE CLASSIFICATION: "R3" HIGH DENSITY RESIDENTIAL

FLOOD ZONE:

THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X (UNSHADED), CONSIDERED TO BE AN AREA OF MINIMAL FLOOD HAZARD AND AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP NO. 06059C0151J, WITH AN EFFECTIVE DATE OF DECEMBER 3, 2009.

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N73°34'34"E OF THE CENTERLINE OF CROWTHER AVENUE AS SHOWN ON PARCEL MAP NO. 83-803, FILED IN BOOK 187 PAGES 10 TO 12, INCLUSIVE, OF PARCEL MAPS, RECORDS OF ORANGE COUNTY.

BENCHMARK:

DESIGNATION: 404-33-05 NAVD88 (FT): 219.522 YEAR LEVELED: 2006

DESCRIBED BY OCS 2005 – FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "404-33-05", SET IN THE SOUTHEASTERLY CORNER OF A 4 BY 22 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHEASTERLY CORNER OF THE INTERSECTION OF CROWTHER AVENUE AND MELROSE STREET 280 FT. EASTERLY OF THE CENTERLINE OF MELROSE AND 28 FT. NORTHERLY OF THE CENTERLINE OF CROWTHER. MONUMENT IS AT LEVEL WITH THE SIDEWALK.

EASEMENTS:

1. EASEMENT(S) TO REMAIN FOR TREEWELL PURPOSES AND RIGHTS INCIDENTAL THERETO AS DELINEATED OR AS OFFERED FOR DEDICATION, ON THE MAP OF SAID PARCEL MAP.
2. EASEMENT(S) FOR UNDERGROUND LINES, CONDUITS, INCIDENTAL PURPOSES INCLUDING ABOVE GROUND APPURTENANT FIXTURES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION AS SET FORTH IN A DOCUMENT RECORDED IN BOOK 10643, PAGE 733, OFFICIAL RECORDS. *TO BE REMOVED.*
3. EASEMENT(S) TO REMAIN FOR DITCH PURPOSES AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT RECORDED IN BOOK 35, PAGE 259 DEEDS. AFFECTS: THE SOUTHERLY 10 FEET. *LOCATION UNDETERMINED OF RECORD. SHOWN ON SURVEY AFFECTING SOUTHERLY 10 FEET AS NOTED ON REPORT.*
4. EASEMENT(S) FOR POLES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY AS SET FORTH IN A DOCUMENT RECORDED JUNE 22, 1910 IN BOOK 193, PAGE 93, DEEDS. *THE EXACT LOCATION OF SAID EASEMENT IS UNDETERMINED FROM RECORD.*

ABBREVIATIONS:

APN	ASSESSOR'S PARCEL NUMBER
ASPH.	ASPHALT PAVEMENT
℄	CENTERLINE
CLF	CHAIN LINK FENCE
CLR	CLEAR
CONC.	CONCRETE
CD	CURB DRAIN
CV	COMMUNICATION VAULT
E.	EAST
ENCR.	ENCROACHMENT
EPB	ELECTRICAL PULLBOX
ESTAB.	ESTABLISHED
FD.	FOUND
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
GV	GAS VALVE
GW	GUYWIRE ANCHOR
HRAMP	HANDICAP RAMP
N.	NORTH
OVH	OVERHEAD LINE
P	POST
PP	POWER POLE
P/L	PROPERTY LINE
R/W	RIGHT OF WAY
S.	SOUTH
S	SEWER
SD	STORM DRAIN
SMH	SEWER MANHOLE
SCO	SEWER CLEANOUT
S.F.	SQUARE FEET
SPK&W	SPIKE & WASHER
TMH	TELEPHONE MANHOLE
UP	UTILITY POLE
TSPB	TRAFFIC SIGNAL PULLBOX
UP	UTILITY POLE
V	VALVE
W	WATER
WM	WATER METER
W/	WITH
W.I.	WROUGHT IRON

LEGEND

- EX. BOUNDARY
- EX. RIGHT OF WAY
- EX. CENTERLINE
- EX. CONTOUR LINE
- EX. CHAIN LINK FENCE
- EX. BUILDING
- EX. CURB AND GUTTER
- EX. EASEMENT AREA
- EX. YARD LIGHT
- EX. STREET LIGHT
- EX. SIGN
- EX. TREE
- EX. FIRE DEPARTMENT CONNECTION
- EX. FIRE HYDRANT

(SHEET C-3)

PREPARED BY:
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CONSULTING ENGINEERS/SURVEYORS/PLANNERS
20411 SW Birch Street - Suite 310 Newport Beach, California 92660
(949) 756-6440 Fax (949) 756-6444

VESTING TENTATIVE TRACT MAP NO. 18118
EXISTING SITE PLAN
110 & 132 EAST CROWTHER AVENUE
PLACENTIA, CALIFORNIA

SCALE: 1"=30'	DATE: 1/6/17	DRAWN BY: L.C.	CHECKED BY: J.H.K.
REVISION DATE: 08/08/16	JOB NO: 6444001	SHEET NO. 1 OF 2	

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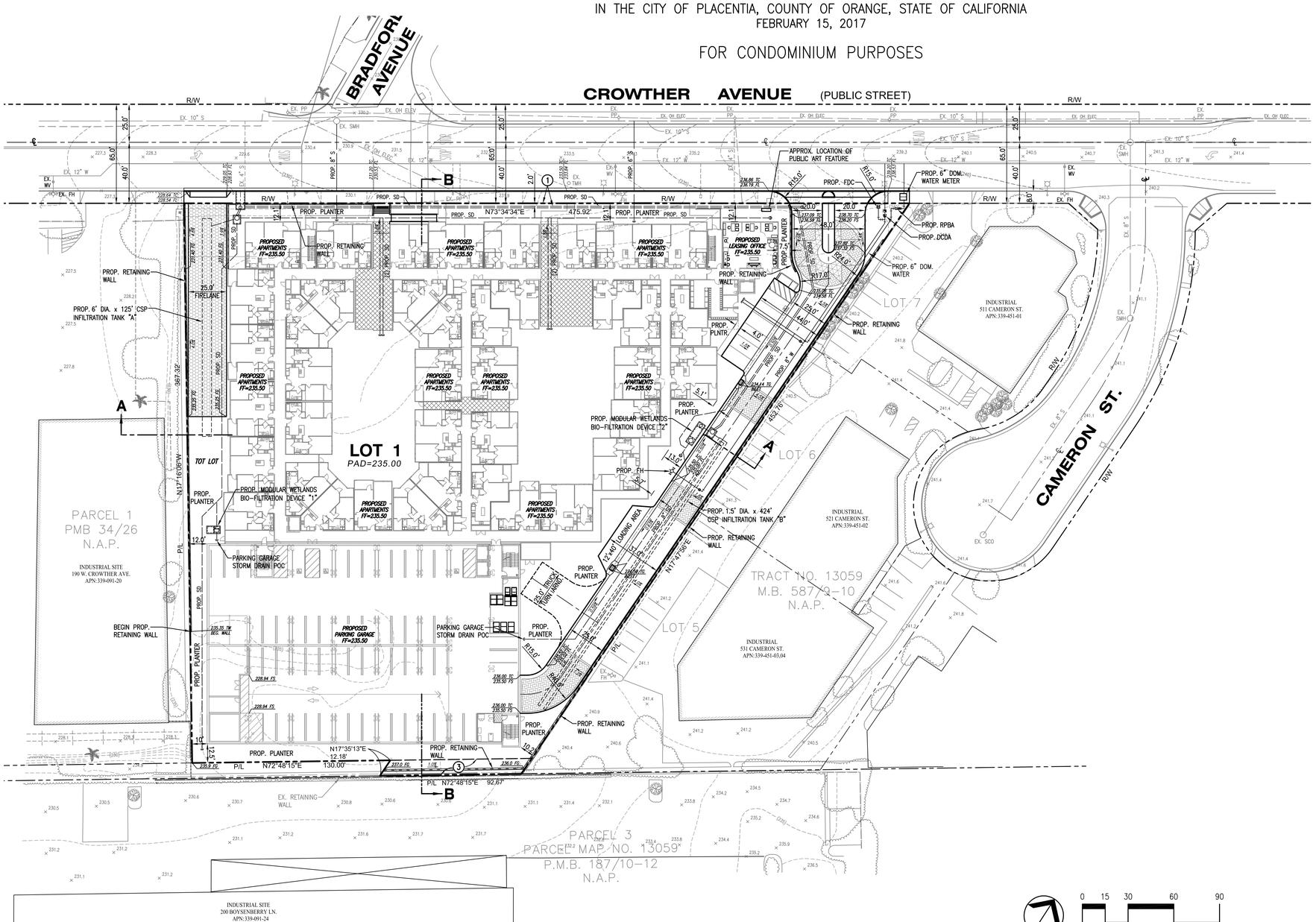
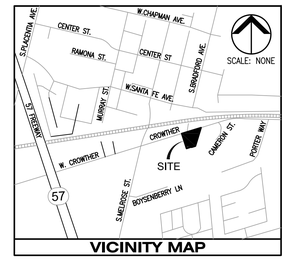
VESTING TENTATIVE TRACT MAP NO. 18118

110 &132 CROWTHER AVENUE

IN THE CITY OF PLACENTIA, COUNTY OF ORANGE, STATE OF CALIFORNIA
FEBRUARY 15, 2017

FOR CONDOMINIUM PURPOSES





VICINITY MAP

GENERAL NOTES:

1. OWNER'S RESPONSIBLE TO UNDERGROUND ALL OVERHEAD LINES, INCLUDING POWER, TELECOMMUNICATION, ETC. WITHIN THE PROJECT LIMITS.
2. DEVELOPER REQUIRED TO PROVIDE STREET IMPROVEMENTS PER THE ADOPTED TRANSIT ORIENTED DEVELOPMENT (TOD) GUIDELINES AND STREETSCAPE MASTER PLAN.

AREAS:

APARTMENT BUILDING COVERAGE: . . . . . 63,843 S.F. (1.46 ACRES)
PARKING STRUCTURE COVERAGE: . . . . . 26,970 S.F. (0.62 ACRES)
FIRE ACCESS ROAD: . . . . . 16,700 S.F. (0.31 ACRES)
COURTYARD/LANDSCAPE: . . . . . .18,804 S.F. (0.43 ACRES)
TOT LOT: . . . . . 2,203 S.F. (0.05 ACRES)
TOTAL LOT AREA: . . . . . 128,520 S.F. (2.95 ACRES)

EASEMENTS:

(1) EASEMENT(S) TO REMAIN FOR TREEWELL PURPOSES AND RIGHTS INCIDENTAL THERETO AS DELINEATED OR AS OFFERED FOR DEDICATION, ON THE MAP OF SAID PARCEL MAP.

(2) EASEMENT(S) TO REMAIN FOR DITCH PURPOSES AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT RECORDED IN BOOK 35, PAGE 259 DEEDS. AFFECTS: THE SOUTHERLY 10 FEET.
LOCATION UNDETERMINED OF RECORD, SHOWN ON SURVEY AFFECTING SOUTHERLY 10 FEET AS NOTED ON REPORT

PRELIMINARY EARTHWORK ESTIMATE:

CUT = 7,144 C.Y. OVER-EXCAVATION &
FILL = 2,120 C.Y. RECOMPACTION (8" DEPTH) = 20,810 C.Y.
NET = 5,024 C.Y. (EXPORT)

ABBREVIATIONS:

C/L	CENTERLINE
CSP	CORRUGATED STEEL PIPE
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
EX.	EXISTING
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FDC	FIRE DEPARTMENT CONNECTION
P/L	PROPERTY LINE
PROP.	PROPOSED
R/W	RIGHT OF WAY
S	SEWER
SCO	SEWER CLEAN OUT
SMH	SEWER MANHOLE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
W	WATER

LEGEND:

EX. BOUNDARY
EX. RIGHT OF WAY
EX. CENTERLINE
EX. CONTOUR LINE
EX. CHAIN LINK FENCE
EX. BUILDING
EX. CURB AND GUTTER
FIRE ACCESS ROAD
EX. YARD LIGHT
EX. STREET LIGHT
EX. SIGN
EX. TREE
EX. SHRUBS
EX. FIRE DEPARTMENT CONNECTION
EX. FIRE HYDRANT

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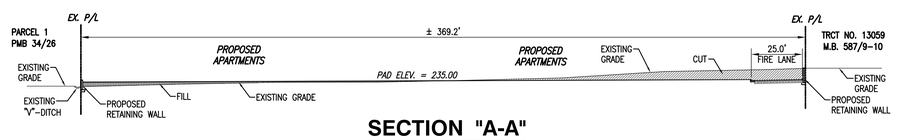
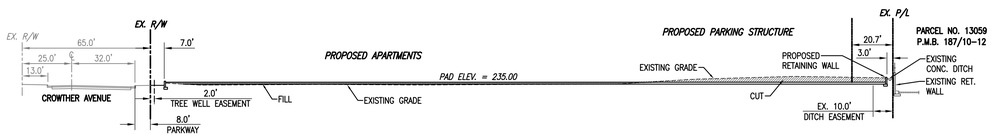
SCALE: 1"=30' DATE: 05/19/17



SECTION "A-A"
SCALE: 1"=30'



SECTION "B-B"
SCALE: 1"=30'

(SHEET C-4)

PREPARED BY:
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VESTING TENTATIVE TRACT MAP NO. 18118
PROPOSED SITE PLAN
110 & 132 EAST CROWTHER AVENUE
PLACENTIA, CALIFORNIA

SCALE: 1"=30'	DATE: 1/6/17	DRAWN BY: L.C.	CHECKED BY: J.H.K.
REVISION DATE: 07/18/17	JOB NO: 6444001	SHEET NO. 2 OF 2	

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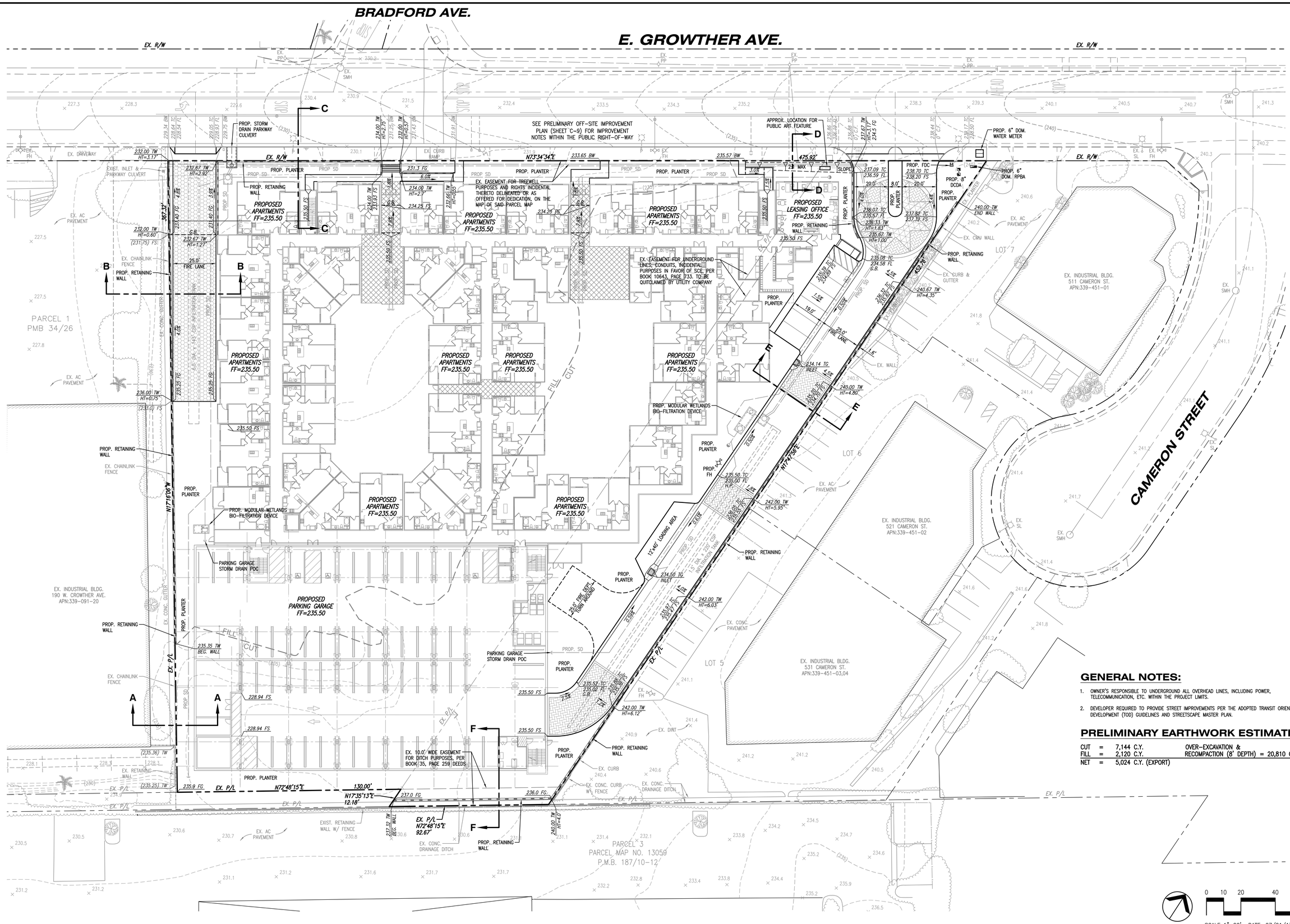

GENERAL NOTES:

1. OWNER'S RESPONSIBLE TO UNDERGROUND ALL OVERHEAD LINES, INCLUDING POWER, TELECOMMUNICATION, ETC. WITHIN THE PROJECT LIMITS.
2. DEVELOPER REQUIRED TO PROVIDE STREET IMPROVEMENTS PER THE ADOPTED TRANSIT ORIENTED DEVELOPMENT (TOD) GUIDELINES AND STREETSCAPE MASTER PLAN.

PRELIMINARY EARTHWORK ESTIMATE:

CUT	=	7,144 C.Y.	OVER-EXCAVATION &
FILL	=	2,120 C.Y.	RECOMPACTION (8" DEPTH) = 20,810 C.Y.
NET	=	5,024 C.Y. (EXPORT)	

0 10 20 40 60

SCALE: 1"=20' DATE: 07/21/17

MULTI-FAMILY DEVELOPMENT

INTEGRAL COMMUNITIES

PRELIMINARY GRADING PLAN (SHEET C-5)

PLACENTIA, CALIFORNIA

PREPARED BY:
KHR ASSOCIATES
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(949) 756-6440 Fax (949) 756-6444

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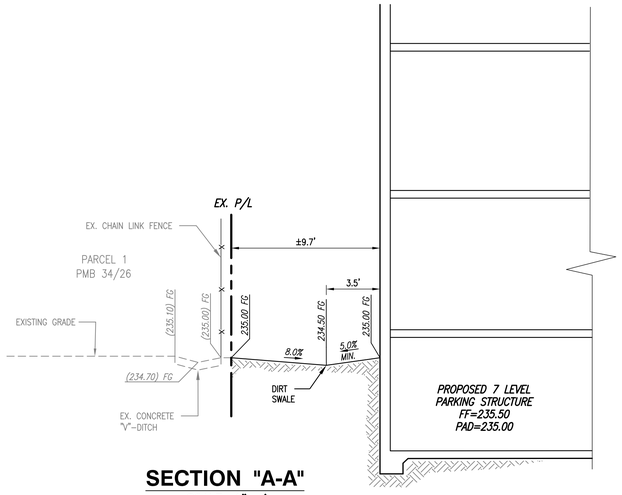

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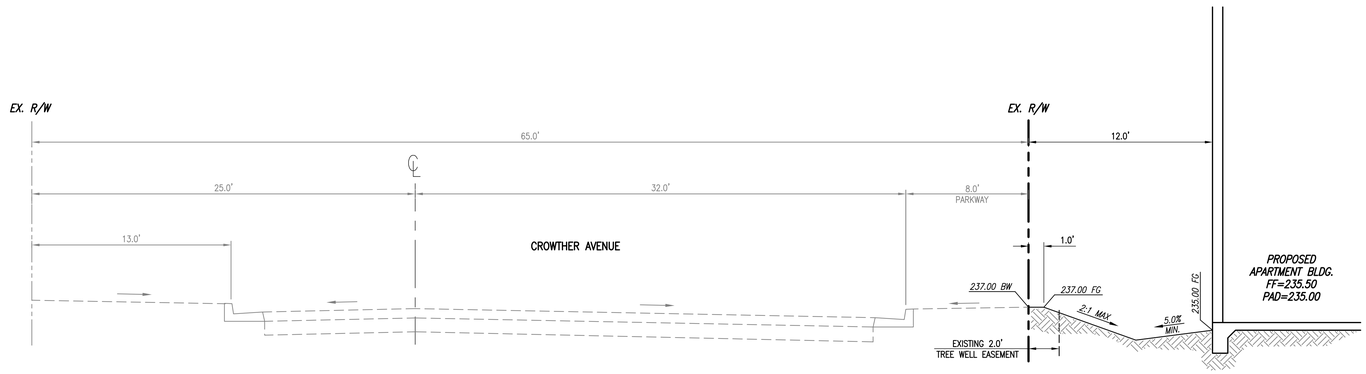

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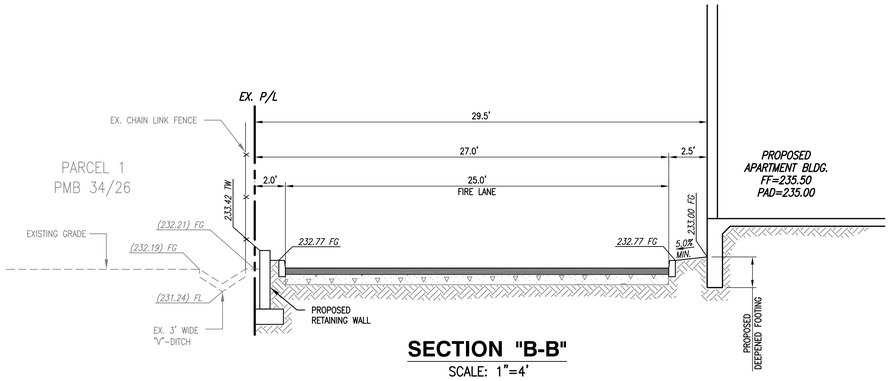

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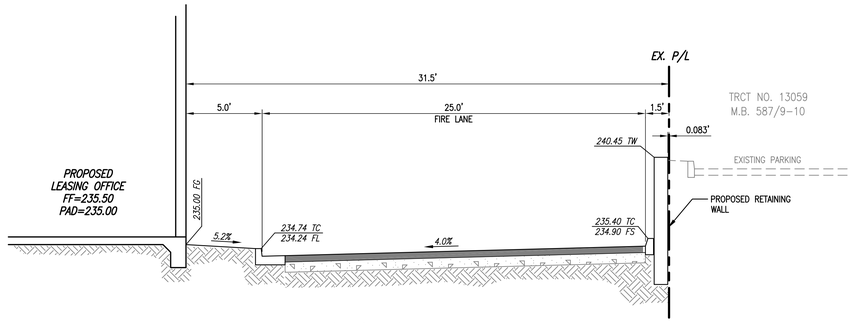

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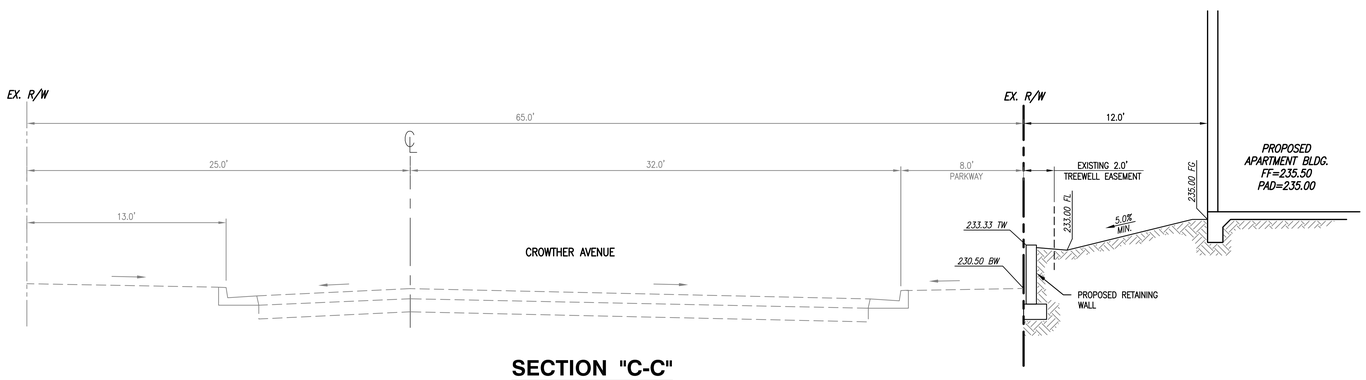

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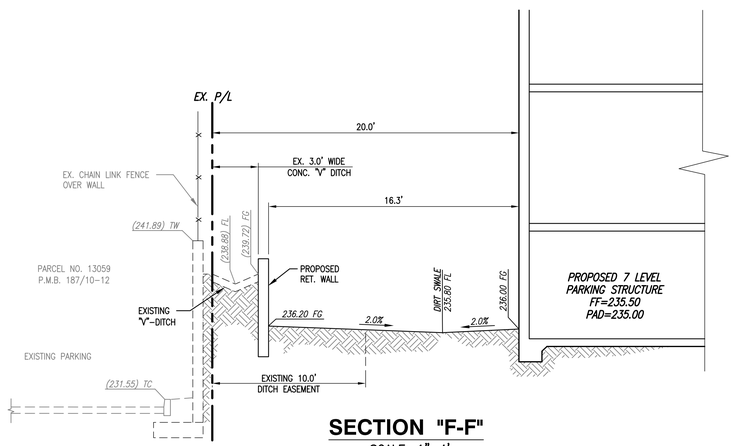

SECTION "F-F"
SCALE: 1"=4'

MULTI-FAMILY DEVELOPMENT

INTEGRAL COMMUNITIES

PRELIMINARY SITE SECTIONS (SHEET C-6)

PLACENTIA, CALIFORNIA

PREPARED BY:
KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
20411 SW Birch Street - Suite 310 Newport Beach, California 92660
(949) 756-6440 Fax (949) 756-6444

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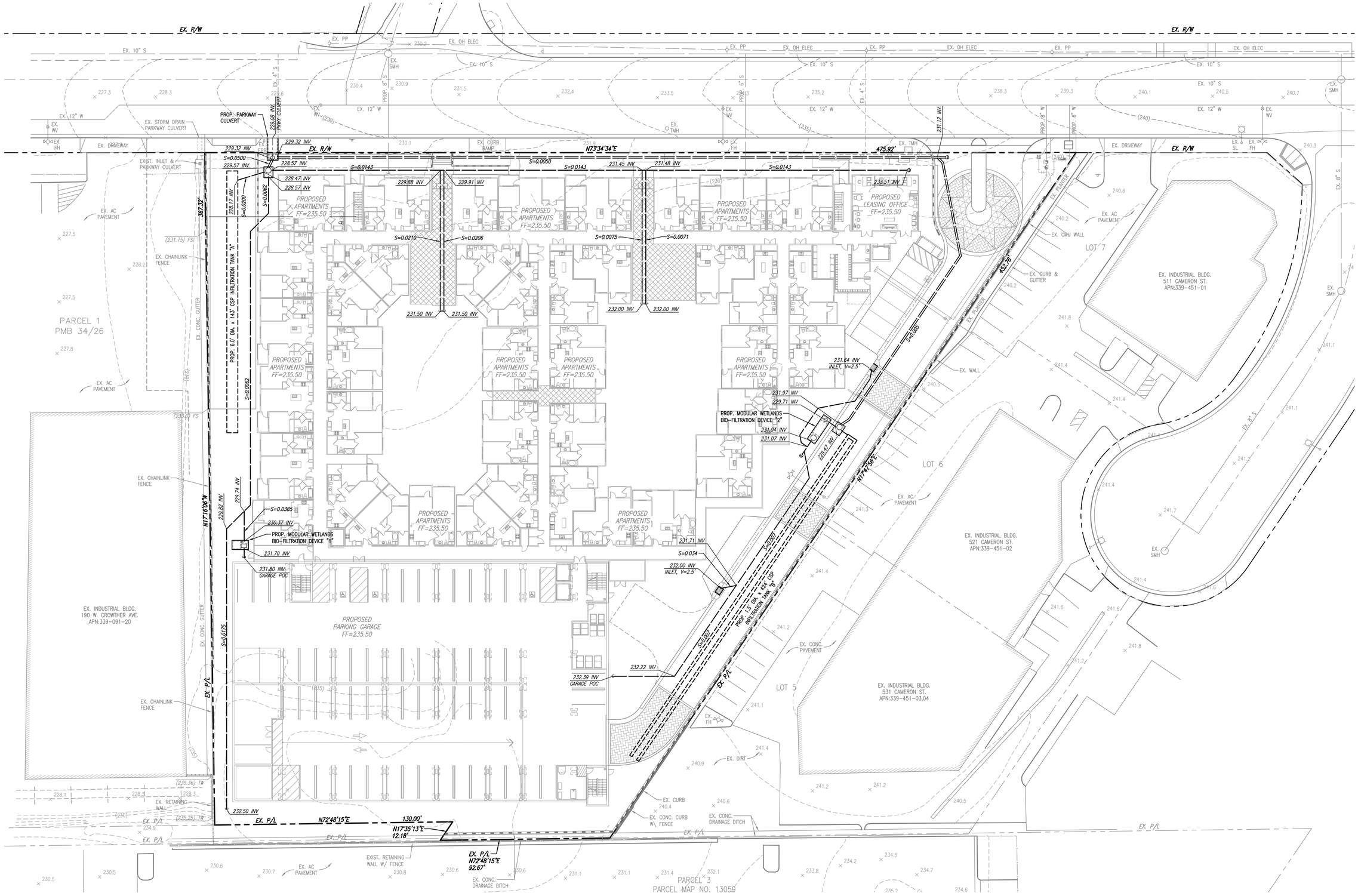

0 10 20 40 60

SCALE: 1"=20' DATE: 07/21/17

MULTIFAMILY DEVELOPMENT

INTEGRAL COMMUNITIES

PRELIMINARY STORM DRAIN (SHEET C-7)

PLACENTIA, CALIFORNIA

PREPARED BY:

KHR ASSOCIATES

CONSULTING ENGINEERS/SURVEYORS/PLANNERS

20411 SW Birch Street - Suite 310 Newport Beach, California 92660

(949) 756-6440 Fax (949) 756-6444

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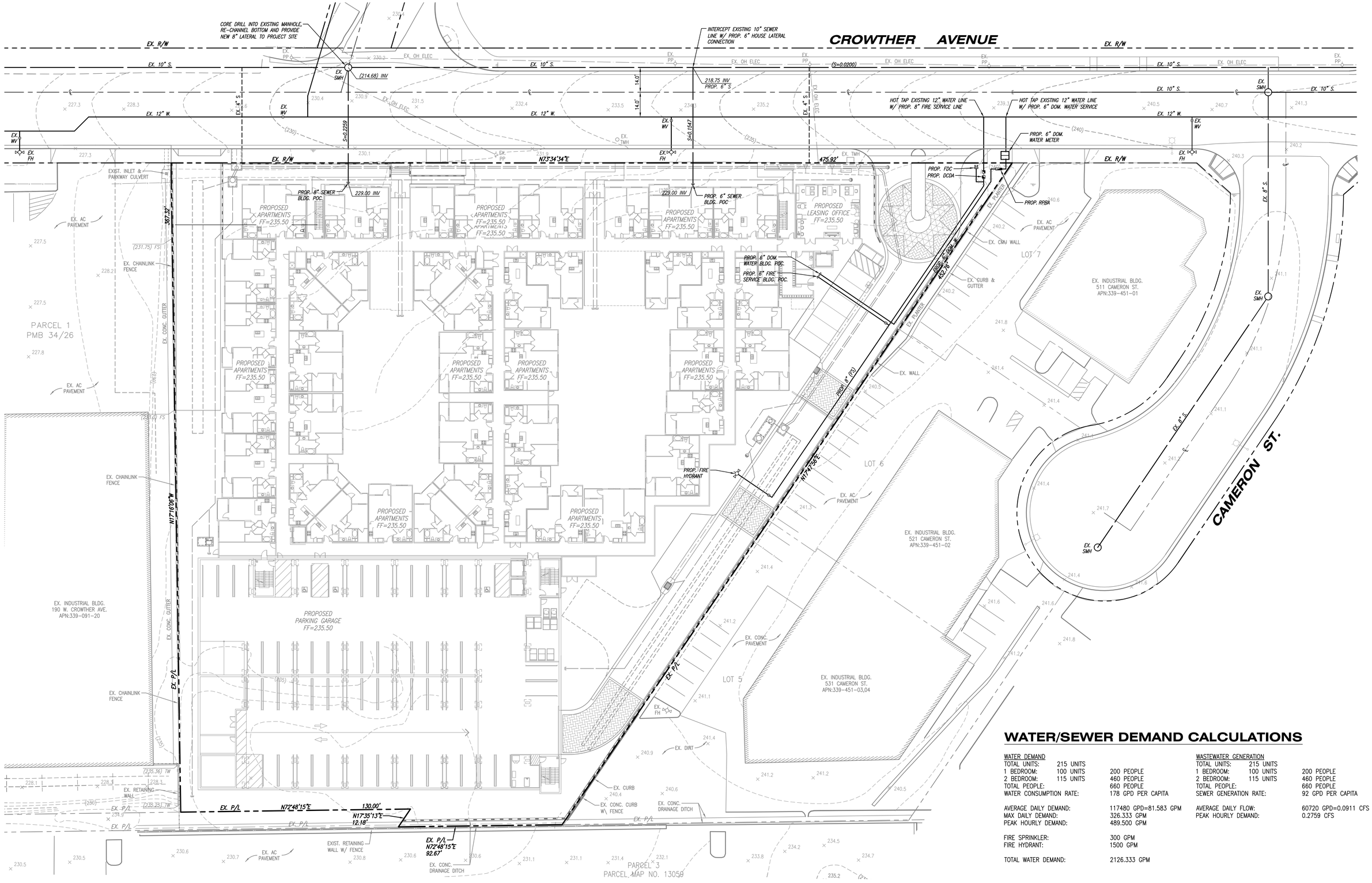

WATER/SEWER DEMAND CALCULATIONS

WATER DEMAND			WASTEWATER GENERATION		
TOTAL UNITS:	215 UNITS		TOTAL UNITS:	215 UNITS	
1 BEDROOM:	100 UNITS	200 PEOPLE	1 BEDROOM:	100 UNITS	200 PEOPLE
2 BEDROOM:	115 UNITS	460 PEOPLE	2 BEDROOM:	115 UNITS	460 PEOPLE
TOTAL PEOPLE:		660 PEOPLE	TOTAL PEOPLE:		660 PEOPLE
WATER CONSUMPTION RATE:		178 GPD PER CAPITA	SEWER GENERATION RATE:		92 GPD PER CAPITA
AVERAGE DAILY DEMAND:		117480 GPD=81.583 GPM	AVERAGE DAILY FLOW:		60720 GPD=0.0911 CFS
MAX DAILY DEMAND:		326.333 GPM	PEAK HOURLY DEMAND:		0.2759 CFS
PEAK HOURLY DEMAND:		489.500 GPM			
FIRE SPRINKLER:		300 GPM			
FIRE HYDRANT:		1500 GPM			
TOTAL WATER DEMAND:		2126.333 GPM			

0 10 20 40 60

SCALE: 1"=20' DATE: 07/21/17

MULTIFAMILY DEVELOPMENT

INTEGRAL COMMUNITIES

PRELIMINARY UTILITY PLAN (SHEET C-8)

PLACENTIA, CALIFORNIA

PREPARED BY:
KHR ASSOCIATES
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(949) 756-6440 Fax (949) 756-6444

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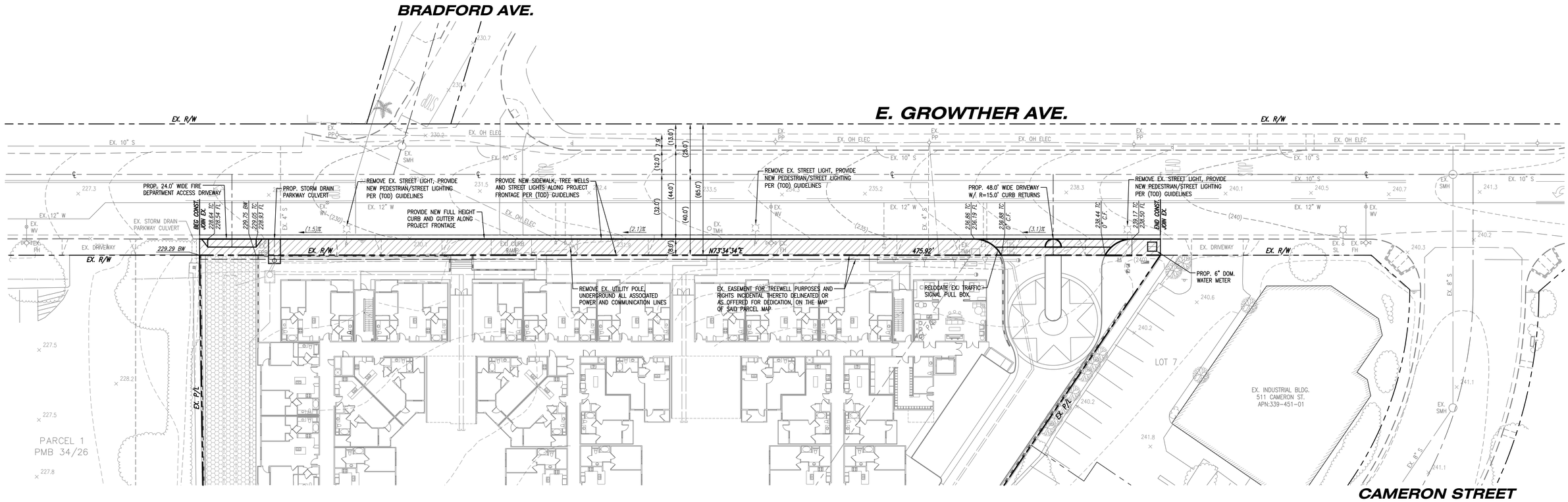

LEGEND:

LIMITS OF PROJECT STREET IMPROVEMENTS

GENERAL NOTES:

1. OWNER'S RESPONSIBLE TO UNDERGROUND ALL OVERHEAD LINES, INCLUDING POWER, TELECOMMUNICATION, ETC. WITHIN THE PROJECT LIMITS.
2. DEVELOPER REQUIRED TO PROVIDE STREET IMPROVEMENTS PER THE ADOPTED TRANSIT ORIENTED DEVELOPMENT (TOD) GUIDELINES AND STREETSCAPE MASTER PLAN.

0 10 20 40 60

SCALE: 1"=20' DATE: 07/20/17

MULTI-FAMILY DEVELOPMENT

INTEGRAL COMMUNITIES

PRELIMINARY STREET IMPROVEMENT PLAN (SHEET C-9)

PLACENTIA, CALIFORNIA

PREPARED BY:
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(949) 756-6440 Fax (949) 756-6444

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ENTRY STEPS/RAMP

SCULPTURAL/PATTERNED PLANTING

POSSIBLE ART LOCATION

REINFORCED ARTIFICIAL TURF FIRE ACCESS MATERIAL AND BASE THICKNESS SHALL CONFORM TO FIRE EQUIPMENT REQUIREMENTS REFER TO DETAIL A2

UNDER COVER LOUNGE AND GAMES AREA

REINFORCED ARTIFICIAL TURF FIRE ACCESS

ARTIFICIAL TURF

TURF LOUNGE AREA

LOUNGE SEATING

TURF GAMES AREA

FOUNTAIN AND SCULPTURE

SECLUDED SEATING CLUSTERS

GROUND LEVEL UNIT TERRACE EXTENSION

QUIET LOUNGE AREA

PRECAST CONCRETE PAVERS - PAVER THICKNESS AND BASE DEPTH SHALL CONFORM TO FIRE EQUIPMENT REQUIREMENTS REFER TO DETAIL A1

UNDER COVER LOUNGE AND GAMES AREA

ARTIFICIAL TURF

BED LOUNGES

SAND LOUNGE AREA

FOUNTAIN

RAISED BARBECUE TERRACE

COMMUNITY TABLES

PRECAST CONCRETE PAVERS - PAVER THICKNESS AND BASE DEPTH SHALL CONFORM TO FIRE EQUIPMENT REQUIREMENTS REFER TO DETAIL A1

DOG RUN

NOTE: THIS LANDSCAPE SHALL COMPLY WITH THE CALIFORNIA STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND CHAPTER 23.77 OF THE PLACENTIA MUNICIPAL CODE.

SCALE: 1"=20'

NORTH

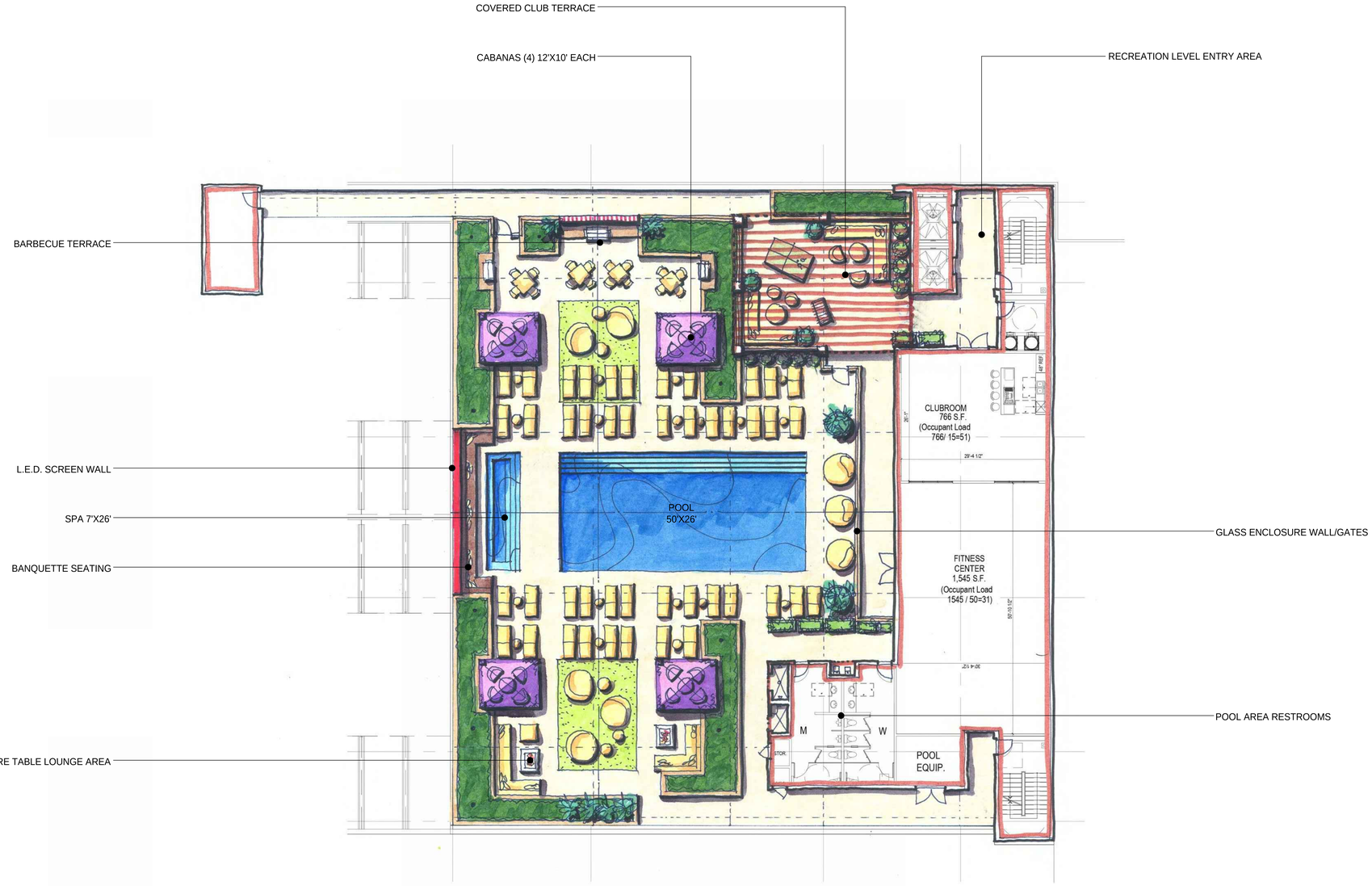
L-1

LYON LIVING - E. CROWTHER AVENUE SITE

GENERAL ARRANGEMENT PLAN - GROUND LEVEL

REV 6 July 21, 2017
REV 5 July 18, 2017
REV 4 July 13, 2017
REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

LIFESCAPES International Inc
LANDSCAPE ARCHITECTS



THIS PLAN IS INTENDED TO DEMONSTRATE THE GENERAL DESIGN INTENT FOR THE POOL DECK. FINAL LAYOUT MAY VARY AS THE DESIGN AND ARCHITECTURE DEVELOP FURTHER

NOTE: THIS LANDSCAPE SHALL COMPLY WITH THE CALIFORNIA STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND CHAPTER 23.77 OF THE PLACENTIA MUNICIPAL CODE.

0 5' 10' 20'
SCALE: 1"=10'

NORTH

L-1A

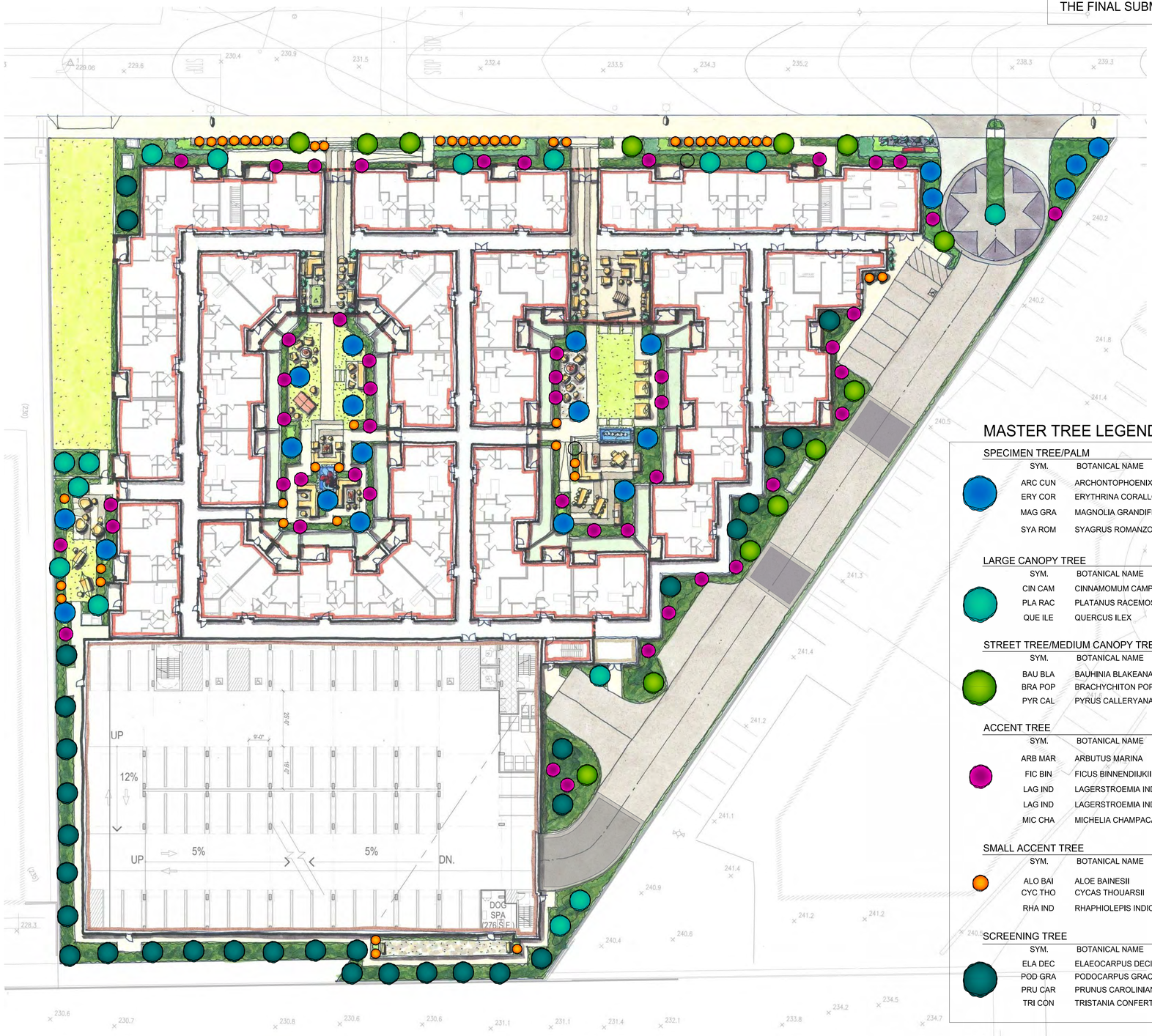
LYON LIVING - E. CROWTHER AVENUE SITE

GENERAL ARRANGEMENT PLAN - POOL DECK

REV 6 July 21, 2017
REV 5 July 18, 2017
REV 4 July 13, 2017
REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

LIFESCAPES International Inc
LANDSCAPE ARCHITECTS

NOTE: TREES SHOWN IN THE PLAN ARE CONCEPTUAL AND TO INDICATE GENERAL DESIGN INTENT. FINAL TREE AND SHRUB LOCATIONS, SIZES AND QUANTITIES SHALL BE REFLECTED IN THE FINAL SUBMITTAL PLANS FOR CONSTRUCTION.



MASTER TREE LEGEND

SPECIMEN TREE/PALM

SYM.	BOTANICAL NAME	COMMON NAME
ARC CUN	ARCHONTOPHOENIX CUNNINGHAMIANA	KING PALM
ERY COR	ERYTHRINA CORALLOIDES	FLAME CORAL TREE
MAG GRA	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	DWARF SOUTHERN MAGNOLIA
SYA ROM	SYAGRUS ROMANZOFFIANA	QUEEN PALM

LARGE CANOPY TREE

SYM.	BOTANICAL NAME	COMMON NAME
CIN CAM	CINNAMOMUM CAMPHORA	CAMPHOR TREE
PLA RAC	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE
QUE ILE	QUERCUS ILEX	HOLLY OAK

STREET TREE/MEDIUM CANOPY TREE

SYM.	BOTANICAL NAME	COMMON NAME
BAU BLA	BAUHINIA BLAKEANA	ORCHID TREE 'CANDINA' (WHITE FLOWERING)
BRA POP	BRACHYCHITON POPULNEUS	BOTTLE TREE
PYR CAL	PYRUS CALLERYANA	CALLERY PEAR

ACCENT TREE

SYM.	BOTANICAL NAME	COMMON NAME
ARB MAR	ARBUTUS MARINA	STRAWBERRY TREE
FIC BIN	FICUS BINNENDIJKII 'ALII'	FICUS ALII
LAG IND	LAGERSTROEMIA INDICA 'CENTENNIAL SPIRIT'	CENTENNIAL SPIRIT CRAPE MYRTLE
LAG IND	LAGERSTROEMIA INDICA 'CATAWBA'	CATAWBA CRAPE MYRTLE
MIC CHA	MICHELIA CHAMPACA	FRAGRANT HIMALAYAN CHAMPACA

SMALL ACCENT TREE

SYM.	BOTANICAL NAME	COMMON NAME
ALO BAI	ALOE BAINESII	TREE ALOE
CYC THO	CYCAS THOUARSII	MADAGASCAR SAGO
RHA IND	RHAPHIOLEPIS INDICA 'MAJESTIC BEAUTY'	MAJESTIC BEAUTY INDIAN HAWTHORN

SCREENING TREE

SYM.	BOTANICAL NAME	COMMON NAME
ELA DEC	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY TREE
POD GRA	PODOCARPUS GRACILIOR	FERN PINE
PRU CAR	PRUNUS CAROLINIANA	CAROLINA CHERRY LAUREL
TRI CON	TRISTANIA CONFERTA	BRISBANE BOX

0 5' 10' 20' 40'
SCALE: 1"=20'

NORTH

L- 2

LYON LIVING - E. CROWTHER AVENUE SITE

CONCEPTUAL TREE PLAN - GROUND LEVEL

REV 6 July 21, 2017
REV 5 July 18, 2017
REV 4 July 13, 2017
REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

LIFESCAPES International Inc
LANDSCAPE ARCHITECTS

MASTER TREE LEGEND

SYM.	BOTANICAL NAME	COMMON NAME	BOX SIZE 4"	8"	16"	24"	30"	36"	48"	60"	COMMENTS
ALO BAI	ALOE BAINESII	TREE ALOE	-	-	-	-	-	-	-	-	-
ARB MAR	ARBUTUS MARINA	STRAWBERRY TREE	-	-	-	-	-	-	-	-	-
ARC CUN	ARCHONTOPHOENIX CUNNINGHAMIANA	KING PALM	-	-	-	-	-	-	-	-	-
BAU BLA	BAUHINIA BLAKEANA	ORCHID TREE 'CANDINA' (WHITE FLOWERING)	-	-	-	-	-	-	-	-	-
BRA POP	BRACHYCHITON POPULNEUS	BOTTLE TREE	-	-	-	-	-	-	-	-	-
CIN CAM	CINNAMOMUM CAMPHORA	CAMPHOR TREE	-	-	-	-	-	-	-	-	-
CYC THO	CYCAS THOUARSII	MADAGASCAR SAGO	-	-	-	-	-	-	-	-	-
ELA DEC	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY TREE	-	-	-	-	-	-	-	-	-
ERY COR	ERYTHRINA CORALLOIDES	FLAME CORAL TREE	-	-	-	-	-	-	-	-	-
FIC BIN	FICUS BINNENDIJKII 'ALII'	FICUS ALII	-	-	-	-	-	-	-	-	-
LAG IND	LAGERSTROEMIA INDICA 'CENTENNIAL SPIRIT'	CENTENNIAL SPIRIT CRAPE MYRTLE	-	-	-	-	-	-	-	-	-
LAG IND	LAGERSTROEMIA INDICA 'CATAWBA'	CATAWBA CRAPE MYRTLE	-	-	-	-	-	-	-	-	-
MAG GRA	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	DWARF SOUTHERN MAGNOLIA	-	-	-	-	-	-	-	-	-
MIC CHA	MICHELIA CHAMPACA	FRAGRANT HIMALAYAN CHAMPACA	-	-	-	-	-	-	-	-	-
PLA RAC	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	-	-	-	-	-	-	-	-	-
POD GRA	PODOCARPUS GRACILIOR	FERN PINE	-	-	-	-	-	-	-	-	-
PRU CAR	PRUNUS CAROLINIANA	CAROLINA CHERRY LAUREL	-	-	-	-	-	-	-	-	-
PYR CAL	PYRUS CALLERYANA	CALLERY PEAR	-	-	-	-	-	-	-	-	-
QUE ILE	QUERCUS ILEX	HOLLY OAK	-	-	-	-	-	-	-	-	-
RHA IND	RHAPHIOLEPIS INDICA 'MAJESTIC BEAUTY'	MAJESTIC BEAUTY INDIAN HAWTHORN	-	-	-	-	-	-	-	-	-
SYA ROM	SYAGRUS ROMANZOFFIANA	QUEEN PALM	-	-	-	-	-	-	-	-	-
TRI CON	TRISTANIA CONFERTA	BRISBANE BOX	-	-	-	-	-	-	-	-	-

NOTE: MATERIAL SHOWN IN THIS LEGEND IS TO DEMONSTRATE GENERAL DESIGN INTENT AND FINAL MAY/MAY NOT INCLUDE ALL OF THE MATERIAL SHOWN ABOVE

19065-TL01

NOTE: TREES SHOWN IN THE PLAN ARE CONCEPTUAL AND TO INDICATE GENERAL DESIGN INTENT. FINAL TREE AND SHRUB LOCATIONS, SIZES AND QUANTITIES SHALL BE REFLECTED IN THE FINAL SUBMITTAL PLANS FOR CONSTRUCTION.

ALOE BAINESII
TREE ALOE

ARBUTUS MARINA
STRAWBERRY TREE

ARCHONTOPHOENIX
CUNNINGHAMIANA
KING PALM

BAUHINIA BLAKEANA
ORCHID TREE 'CANDINA'

BRACHYCHITON POPULNEUS
BOTTLE TREE

CINNAMOMUM CAMPHORA
CAMPHOR TREE

CYCAS THOUARSII
MADAGASCAR SAGO

ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE

ERYTHRINA CORALLOIDES
FLAME CORAL TREE

FICUS BINNENDIJKII 'ALII'
FICUS ALII

LAGERSTROEMIA INDICA 'CATAWABA'
CATAWABA CRAPE MYRTLE

LAGERSTROEMIA INDICA 'CENTENNIAL SPIRIT'
CENTENNIAL SPIRIT CRAPE MYRTLE

MAGNOLIA GRANDIFLORA
'LITTLE GEM'
DWARF SOUTHERN MAGNOLIA

MICHELIA CHAMPACA
FRAGRANT HIMALAYAN CHAMPACA

PLATANUS RACEMOSA
CALIFORNIA SYCAMORE

PODOCARPUS GRACILIOR
FERN PINE

Podocarpus Gracilior Column
36" Box 11-13' x 4-5' x 2½"
Rosemead Yard

PRUNUS CAROLINIANA
CAROLINA CHERRY LAUREL

PYRUS CALLERYANA
CALLERY PEAR

QUERCUS ILEX
HOLLY OAK

RHAPHIOLEPIS INDICA 'MAJESTIC BEAUTY'
MAJESTIC BEAUTY INDIAN HAWTHORN

SYAGRUS ROMANZOFFIANA
QUEEN PALM

TRISTANIA CONFERTA
BRISBANE BOX

TYPICAL TREE SIZING FOR ENTIRE SITE

15 GALLON - 15 PERCENT
24" BOX - 55 PERCENT
36" BOX - 20 PERCENT
48" BOX + - 10 PERCENT

LYON LIVING - E. CROWTHER AVENUE SITE

MASTER TREE PALETTE AND IMAGES

REV 6 July 21, 2017
REV 5 July 18, 2017
REV 4 July 13, 2017
REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

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LANDSCAPE ARCHITECTS

AGAVE AMERICANA
FOXTAIL AGAVE

ABELIA GRANDIFLORA 'KALEIDOSCOPE'
ABELIA

ACACIA 'COUSIN ITT'
ACACIA

AGAPANTHUS 'TINKERBELL'
LILY OF THE NILE

ANIGOZANTHOS SP.
KANGAROO PAW

APTINIA CORDIFOLIA
RED APPLE

BOUGANVILLA SP.
BOUGAINVILLA

CALISTEMON 'LITTLE JOHN'
BOTTLE BRUSH

CHONDROPETALUM TECTORUM
CAPE RUSH

COPROSMA 'MARBLE QUEEN'
COPROSMA

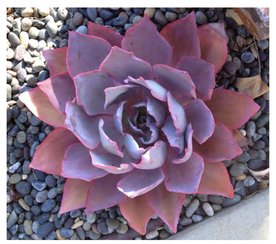
CRASSULA UNDULAFOLIA
JADE PLANT

CRASSULA OVATA
JADE PLANT

DIANELLA 'CASSA BLUE'
FLAX LILY

DIANELLA TASMANICA
FLAX LILY

ECHEVERIA 'AFTERGLOW'
ECHEVERIA



EUPHORBIA TIRUCALLI
FIRE STICKS

FESTUCA GLAUCA
BLUE FESCUE

GAZANIA 'COPPER KING'
GAZANIA

HEUCHERA 'PALACE PURPLE'
HEUCHERA

LANTANA 'NEW GOLD'
LANTANA

KALANCHOE BLOSSFEDIANA
KALENCHOE

LIGUSTRUM JAPONICA
PRIVET

LIRIOPE SP.
LILY TURF

LOROPETALUM 'PURPLE PIXIE'
LOROPETALUM

MYOPORUM PARVIFOLIUM
MYOPORUM

NANDINA 'FIREPOWER'
HEAVENLY BAMBOO

PHORMIUM SP.
FLAX

POLYGALA 'PETITE BUTTERFLIES'
POLYGALA

PORTULACARIA PROSTRATE
ELEPHANT FOOD

RHAPHIOLEPIS 'CLARA'
INDIAN HAWTHORN

RHAPHIOLEPIS 'MAJESTIC BEAUTY'
INDIAN HAWTHORN

RHAPHIOLEPIS UMBELLATA
INDIAN HAWTHORN

SEDUM NUSSBAUMERIANUM
SEDUM

SENECIO SERPENS
CHALKSTICKS

TRACHYLOSPERMUM JASMINOIDES
STAR JASMINE

TYPICAL PLANT SIZING FOR ENTIRE SITE

1 GALLON - 75 PERCENT
5 GALLON - 20 PERCENT
15 GALLON - 5 PERCENT

AVERAGE SHRUB SPACING IS 30" ON CENTER

NOTE: THE MATERIALS SHOWN ARE CONCEPTUAL AND TO INDICATE GENERAL DESIGN INTENT. FINAL MATERIALS, COLORS AND FINISHES SHALL BE REFLECTED IN THE FINAL SUBMITTAL PLANS FOR CONSTRUCTION.

LYON LIVING - E. CROWTHER AVENUE SITE

MASTER SHRUB PALETTE AND IMAGES

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REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

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LANDSCAPE ARCHITECTS

NOTE: INFORMATION SHOWN IN THIS PLAN ARE DIAGRAMATIC/CONCEPTUAL AND TO INDICATE GENERAL DESIGN INTENT. FINAL IRRIGATION SYSTEM, VALVE LOCATIONS AND WATER CALCULATIONS SHALL BE ENGINEERED AND COMPLETED IN THE CONSTRUCTION DOCUMENT SUBMITTAL PACKAGE

BUILDING MOUNTED HOSE BIB
(PER ARCHITECT)

IRRIGATION CONTROLLER
(INCLUDES BACKFLOW, MASTER VALVE AND FLOW SENSOR

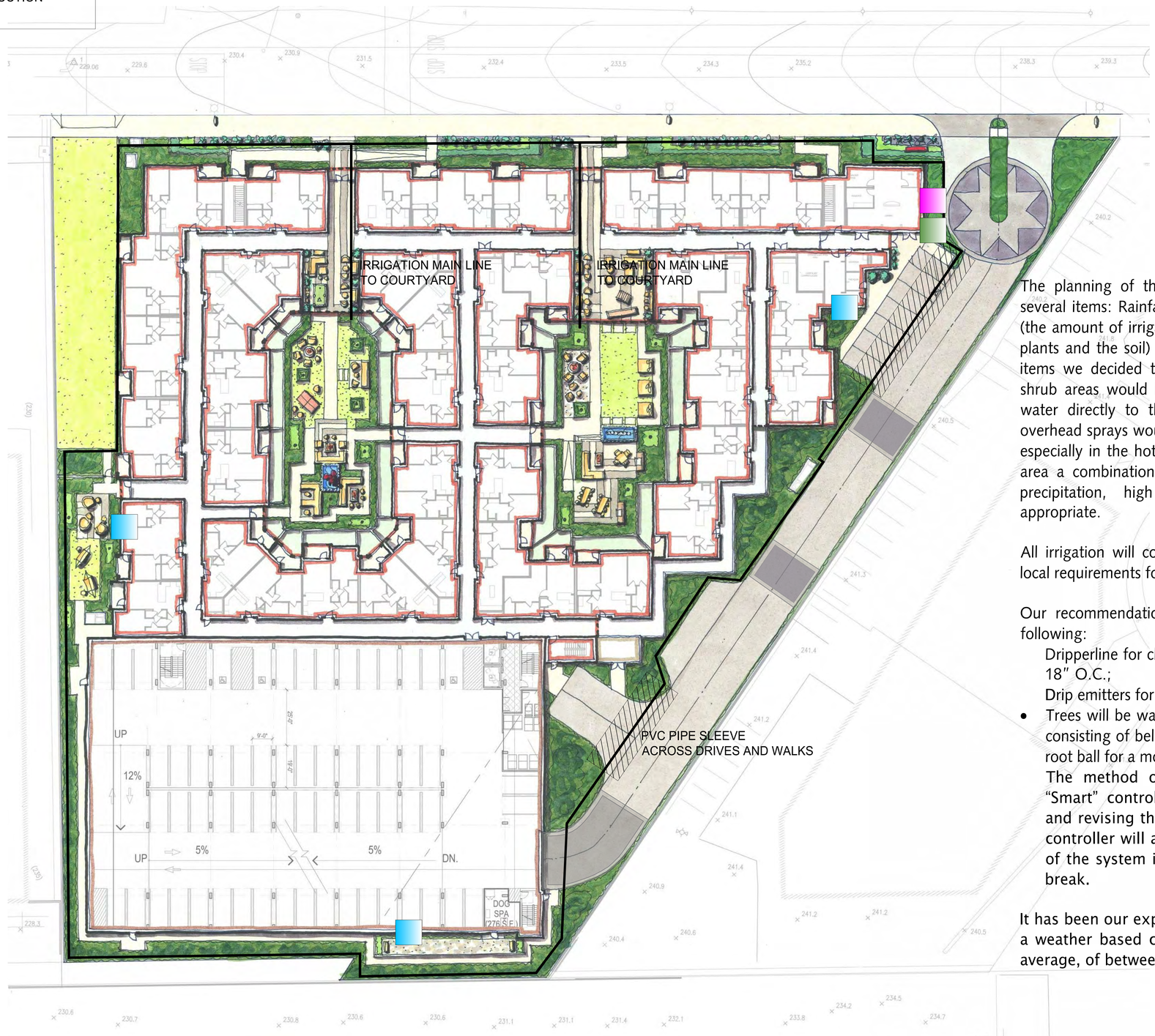
IRRIGATION GATE VALVE
(PROPOSED)

IRRIGATION MAIN LINE ROUTE
(INCLUDES PVC PIPE SLEEVE UNDER PAVED AREAS AND PVC CONDUIT FOR CONTROL WIRE)

ALL VALVE BOXES SHALL BE LOCATED WITHIN PLANTING AREAS. VALVE BOXES SHALL NOT BE PLACED IN HEDGE ROWS, ARTIFICIAL TURF AREA OR EMERGENCY VEHICLE ACCESS AREAS

QUICK COUPLING VALVES SHALL BE LOCATED 100' O.C. ALONG ENTIRE MAIN LINE

THIS LANDSCAPE SHALL COMPLY WITH THE CALIFORNIA STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND CHAPTER 23.77 ORDINANCE OF THE PLACENTIA MUNICIPAL CODE



The planning of the irrigation system takes into consideration several items: Rainfall, temperature, wind and evapotranspiration (the amount of irrigation water transferred to the atmosphere by plants and the soil) are some of these. In factoring in the above items we decided that a drip system for all ground cover and shrub areas would be the best method of irrigation. Delivering water directly to the root zones rather than dispersing it by overhead sprays would mean less water loose due to evaporation, especially in the hottest and windiest months. For the Park (turf) area a combination of rotors, rotary nozzles and matched/low precipitation, high efficiency overhead sprays would be appropriate.

All irrigation will comply with the latest state of California and local requirements for water conservation.

Our recommendation for the irrigation system consists of the following:

Dripperline for closely spaced shrubs and groundcover, 12″ to 18″ O.C.;

Drip emitters for shrubs spaced greater than 24″ O.C.;

- Trees will be watered using Rain Bird Tree Watering Systems, consisting of below grade bubblers spaced equally around the root ball for a more even dispersal of the water;

The method of controlling the system will include a “Smart” controller capable of monitoring local weather and revising the irrigation schedule on a daily basis. The controller will also monitor flow and allow for shut down of the system in the event of a rain event or a main line break.

It has been our experience that drip irrigation in concert with a weather based controller could show a water savings, on average, of between 30%-45%.

0 5' 10' 20' 40'
SCALE: 1"=20'

NORTH

LYON LIVING - E. CROWTHER AVENUE SITE

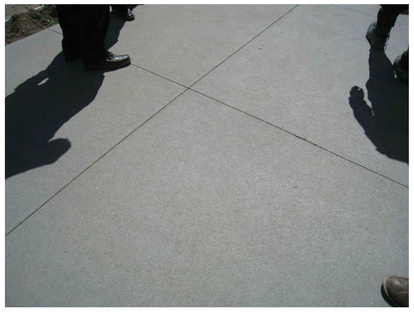
CONCEPTUAL IRRIGATION PLAN - GROUND LEVEL

Russell-Reton Group International
Landscape Irrigation Design Since 1969

REV 6 July 21, 2017
REV 5 July 18, 2017
REV 4 July 13, 2017
REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

LIFESCAPES International Inc
LANDSCAPE ARCHITECTS

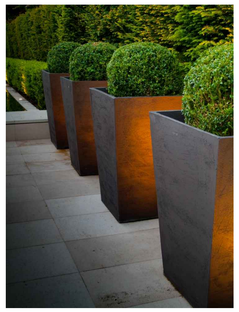
PRECAST CONCRETE PAVER (VEHICULAR/EMERGENCY VEHICLE RATED WHERE APPLICABLE)



CHEMICAL RETARDED/WASHED/BROOM FINISH CONCRETE

PLANTER WALLS AND CAPS

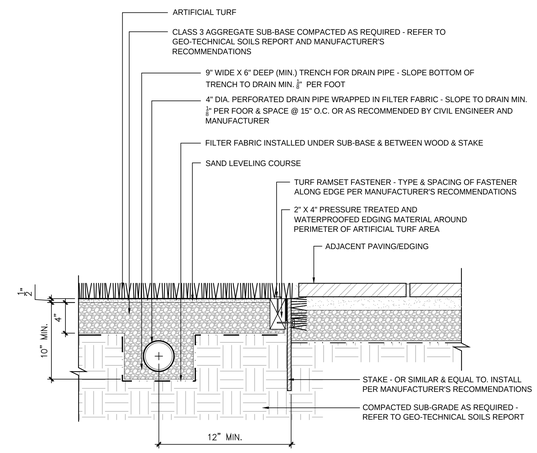
FIRE TABLES



DECORATIVE POTTERY

ARTIFICIAL TURF

NOTE: THE MATERIALS SHOWN ARE CONCEPTUAL AND TO INDICATE GENERAL DESIGN INTENT. FINAL MATERIALS, COLORS AND FINISHES SHALL BE REFLECTED IN THE FINAL SUBMITTAL PLANS FOR CONSTRUCTION.



PROPOSED SECTION

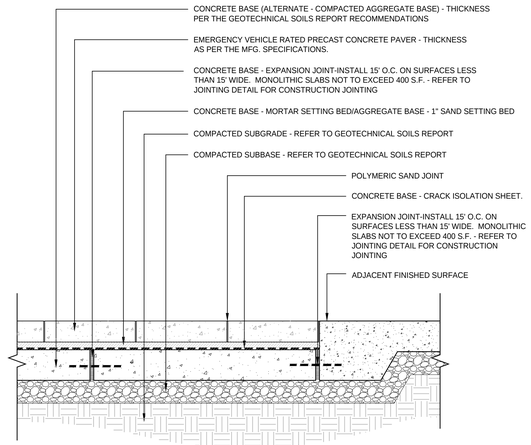
ALL HEAVY TRAFFIC/FIRE LANES SHALL HAVE A MINIMUM TRAFFIC INDEX OF 9.5

NOTE: REFER TO FINAL SUBMITTAL PLANS FOR COLOR, MFG. AND INSTALLATION METHOD - INSTALL PER MFG. RECOMMENDATIONS

DATURF

1-1/2" = 1'- 0"

PROPOSED SECTION - ARTIFICIAL TURF SERVICE LANE



PROPOSED SECTION

ALL HEAVY TRAFFIC/FIRE LANES SHALL HAVE A MINIMUM TRAFFIC INDEX OF 9.5

NOTE: PAVERS EXCEEDING ¼" LIPPAGE SHALL BE REPLACED AND RESET AT THE CONTRACTOR'S EXPENSE.
- REFER TO FINAL SUBMITTAL PLANS FOR COLOR, SIZE FINISH AND INSTALLATION METHOD
- PAVERS SHALL BE INSTALLED PER ICPI RECOMMENDATIONS - ICPI.ORG

DPAVERSCON

1-1/2 "=1'-0"

PROPOSED SECTION - VEHICULAR PAVERS AT ENTRY DRIVE

LYON LIVING - E. CROWTHER AVENUE SITE

MATERIALS

REV 6 July 21, 2017
REV 5 July 18, 2017
REV 4 July 13, 2017
REV 3 May 18, 2017
REV 2 May 11, 2017
REV 1 May 3, 2017
March 14, 2017

LIFESCAPES International Inc
LANDSCAPE ARCHITECTS

5-STORY WRAP W/ 6-STORY (7-LEVEL) GARAGE

LAND AREA:	2.95 (+/- ACRES)
TOTAL UNITS:	215 UNITS
DENSITY:	72.9 DU/AC
LEASING:	2,400 S.F.
CLUB/ FITNESS:	3,294 S.F. (ON GAR. ROOF)

UNITS	NET S.F.	NUMBER	%	TL. NET	BAL.	TL.BAL.
A1	749	19		14,231	76	1,444
A2	760	40		30,400	97	3,880
A3	755	19		14,345	76	1,444
A4	755	20		15,100	62	1,240
A5	734	2	47%	1,468	0	0
B1	1,006	54		54,324	56	3,024
B2	1,013	42		42,546	67	2,814
B2-A	1,050	6		6,300	67	402
B2-LOFT	1,154	11		12,694	68	748
B2-A-LOFT	1,185	2	53%	2,370	68	136
TOTAL		215	100%	193,778		15,132

NET RENTABLE: 193,778 S.F.
AVE. NET UNIT SIZE: 901 S.F.

PARKING PROVIDED:

GARAGE:	388 SPACES	1.80 PER UNIT
SURFACE:	6 SPACES	
TOTAL:	394 SPACES	

	REQ	NUMBER	MIN.	MAX.
1BR	1 min./1.5 max.	100	100	150
2BR	1.5 min./2 max.	115	173	230
GUEST/10UNITS	2 min./3 max.	215	43	65
TOTAL			316	445

TOTAL PROVIDED ON SITE: 394 SPACES
(INCLUDING 40 EV SPACES)

AREA BREAK DOWN:

NET RESIDENTIAL:	193,778 S.F.
BALCONIES:	15,132 S.F.
CORRIDOR&STOR.:	44,290 S.F.
STAIRS & ELEV:	882 S.F.
LEASING:	2,400 S.F.
GROSS RES. AREA:	256,482 S.F.
GROSS GARAGE:	179,800 S.F.
(INCLUDING ROOF TOP CLUB)	

BIKE PARKING:	REQ.	PROVIDED
SHORT TERM	43	44
LONG TERM	47	48

SITE PLAN

NORTH

0' 20' 40'

A-1.1

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 17, 2017

INTEGRAL COMMUNITIES

HUMPHREYS & PARTNERS ARCHITECTS, L.P.
5339 Alpha Rd., Suite 300, Dallas, TX 75240 | 972.701.9636 | www.humphreys.com

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A-1

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 13, 2017

INTEGRAL COMMUNITIES

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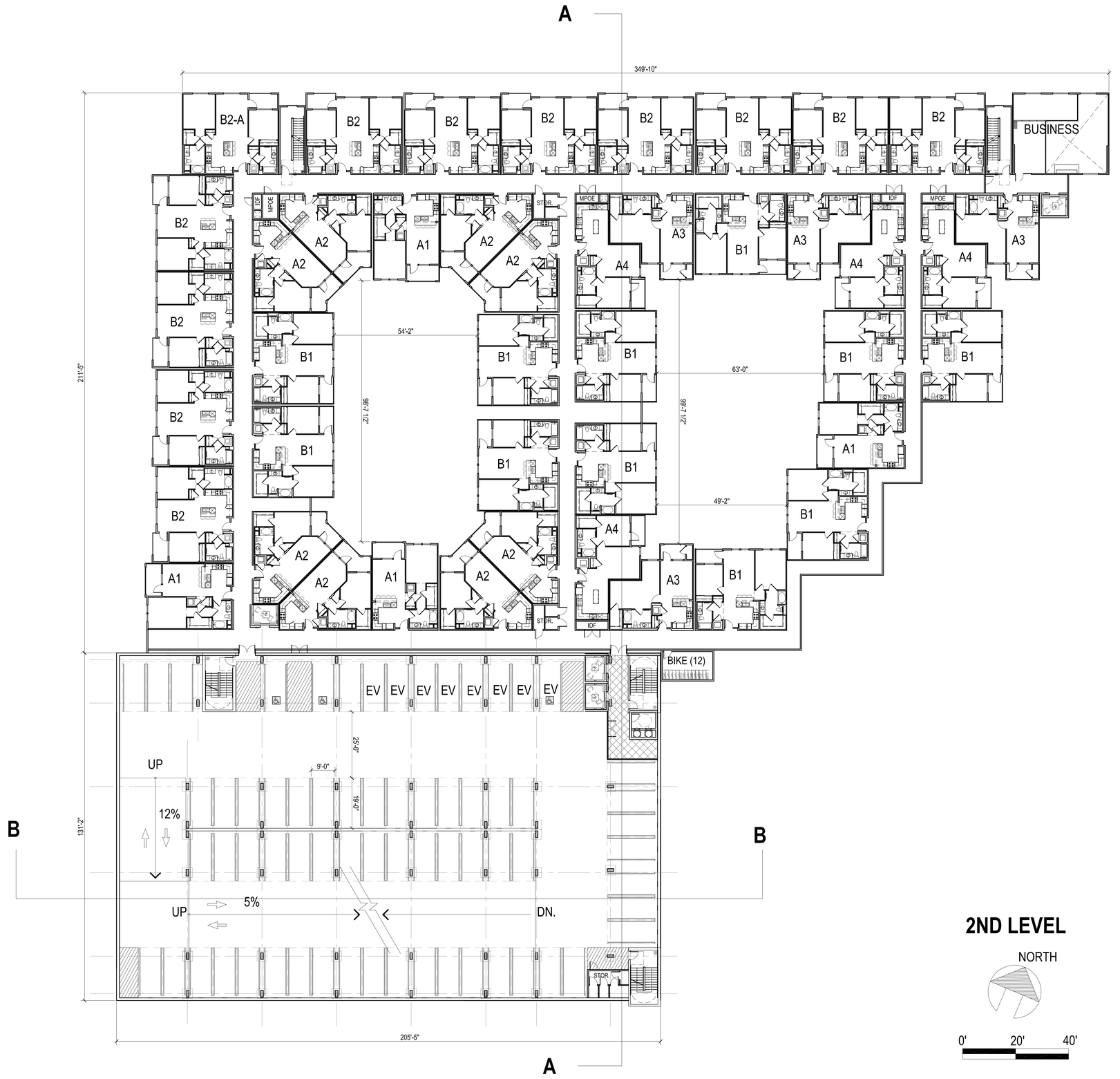

2ND LEVEL

NORTH

0' 20' 40'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 13, 2017

INTEGRAL
COMMUNITIES

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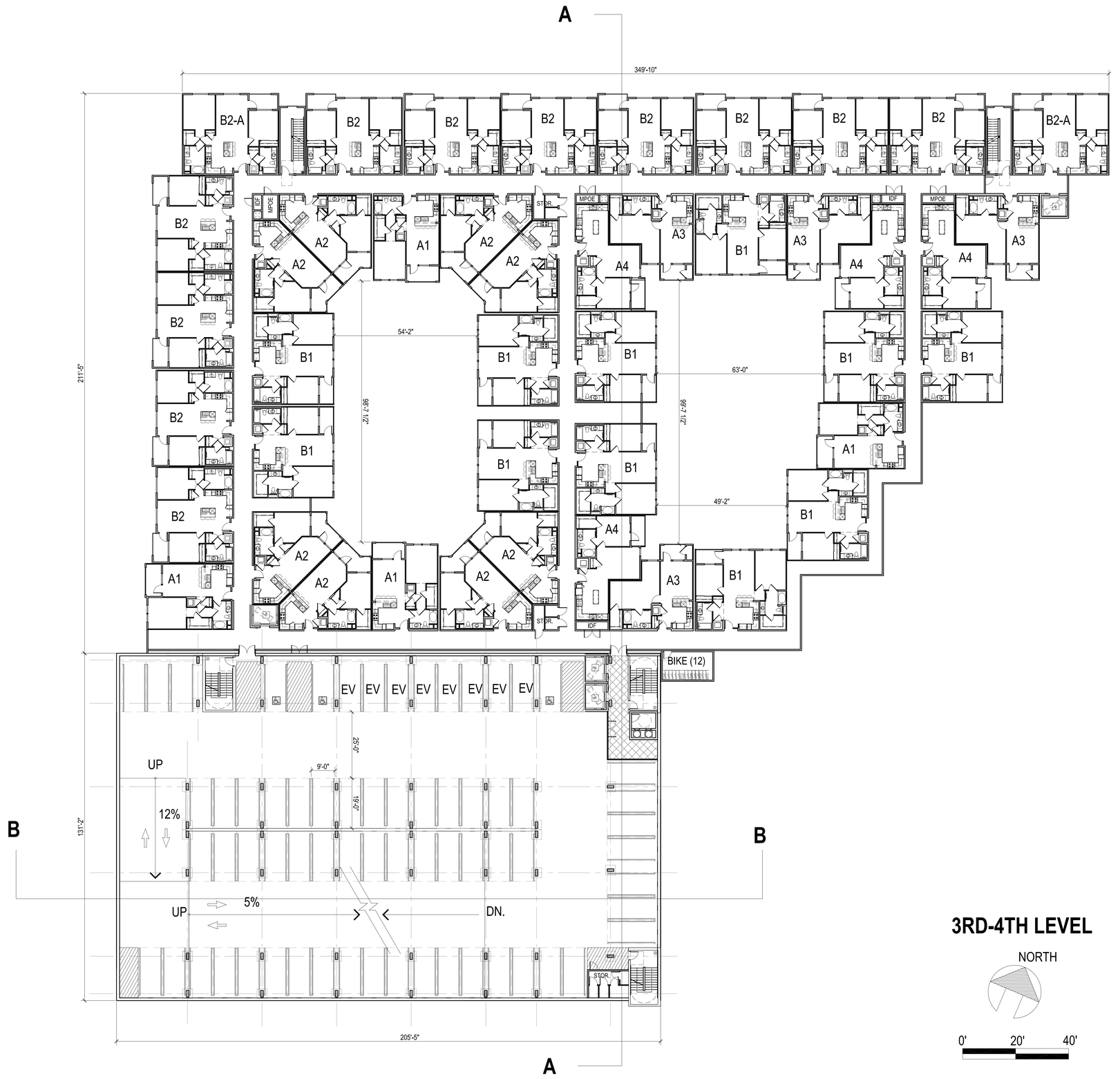

3RD-4TH LEVEL

NORTH

0' 20' 40'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 13, 2017

INTEGRAL COMMUNITIES

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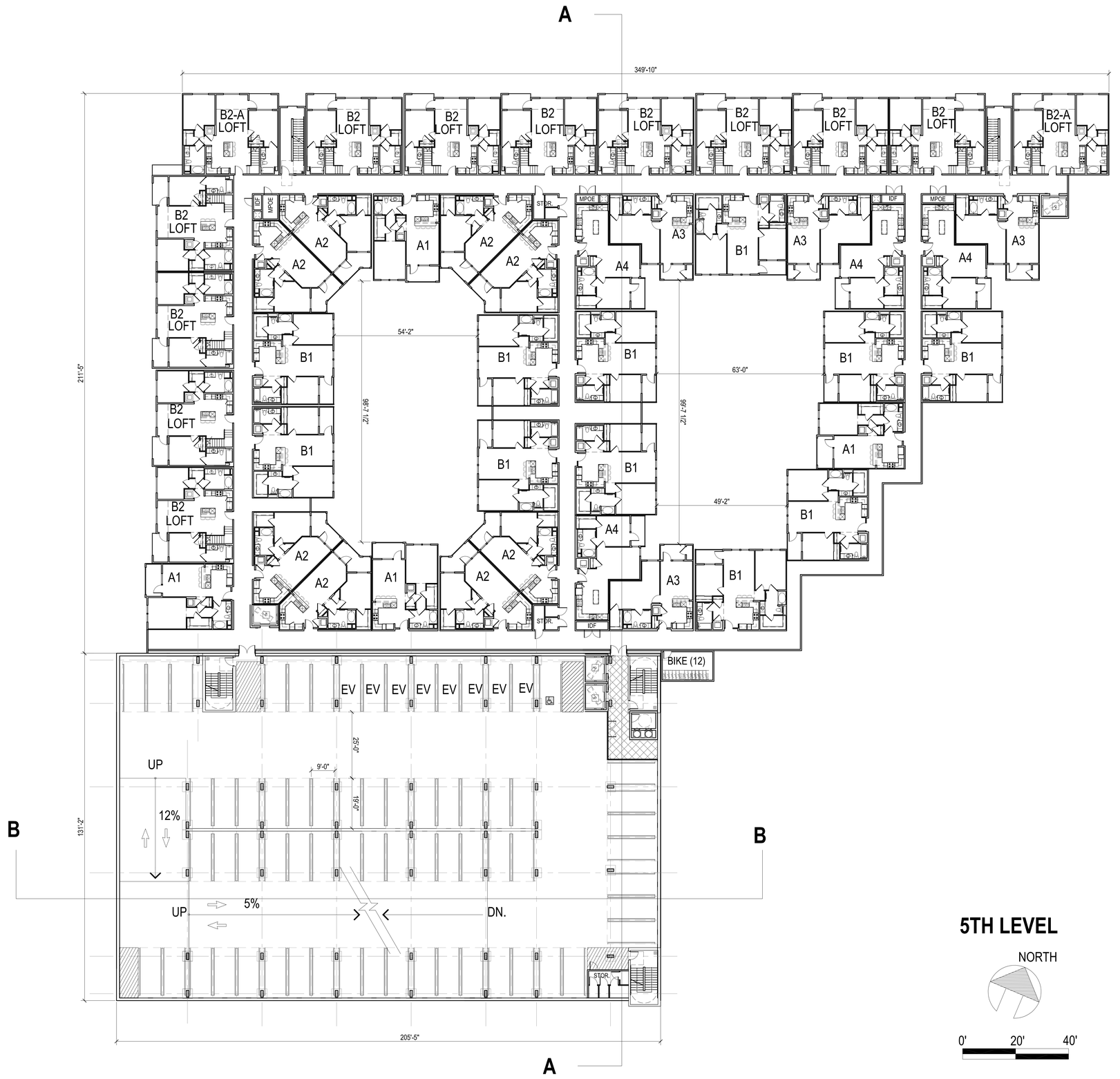

5TH LEVEL

NORTH

0' 20' 40'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 13, 2017

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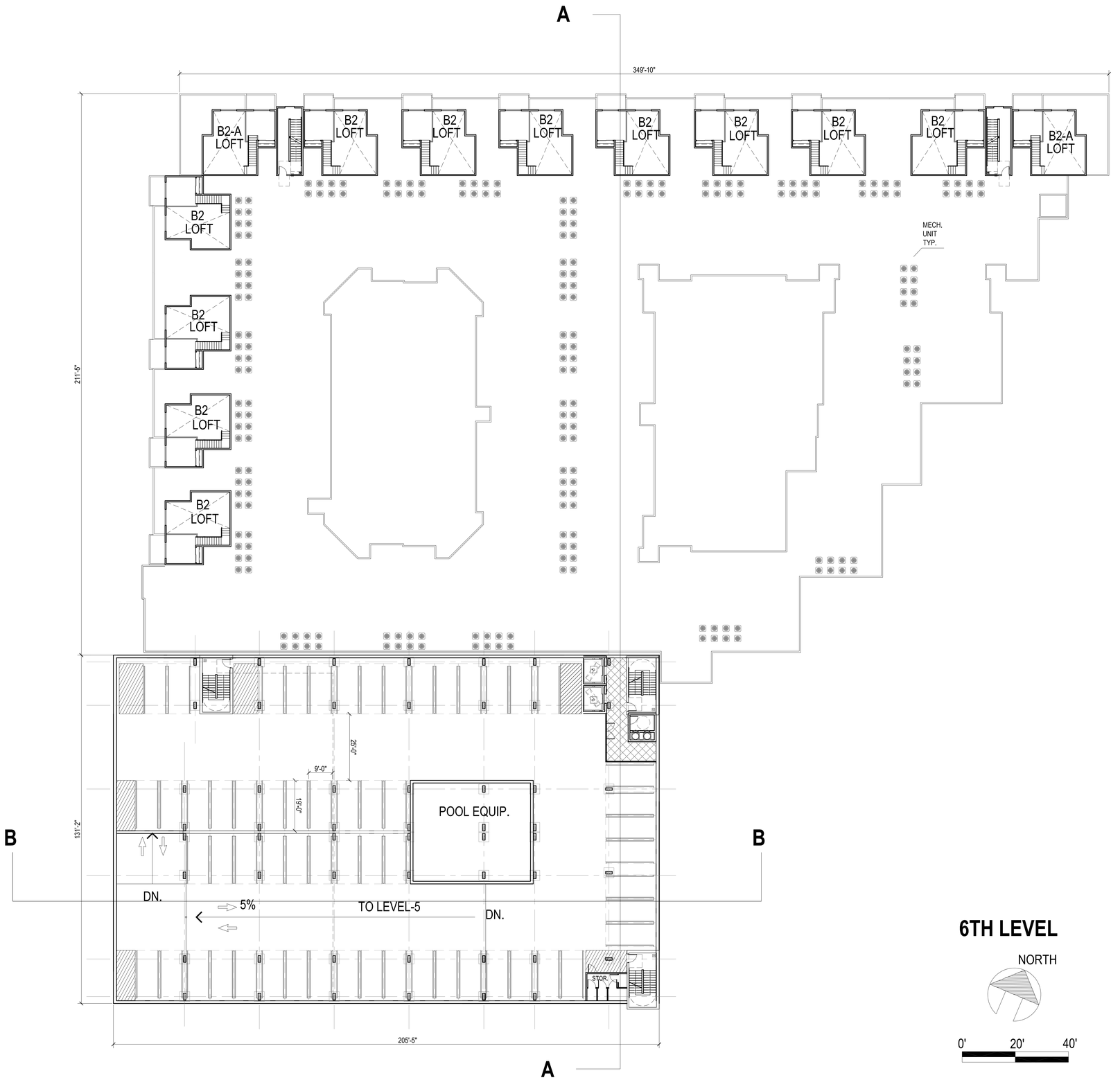

6TH LEVEL

NORTH

0' 20' 40'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 13, 2017

INTEGRAL COMMUNITIES

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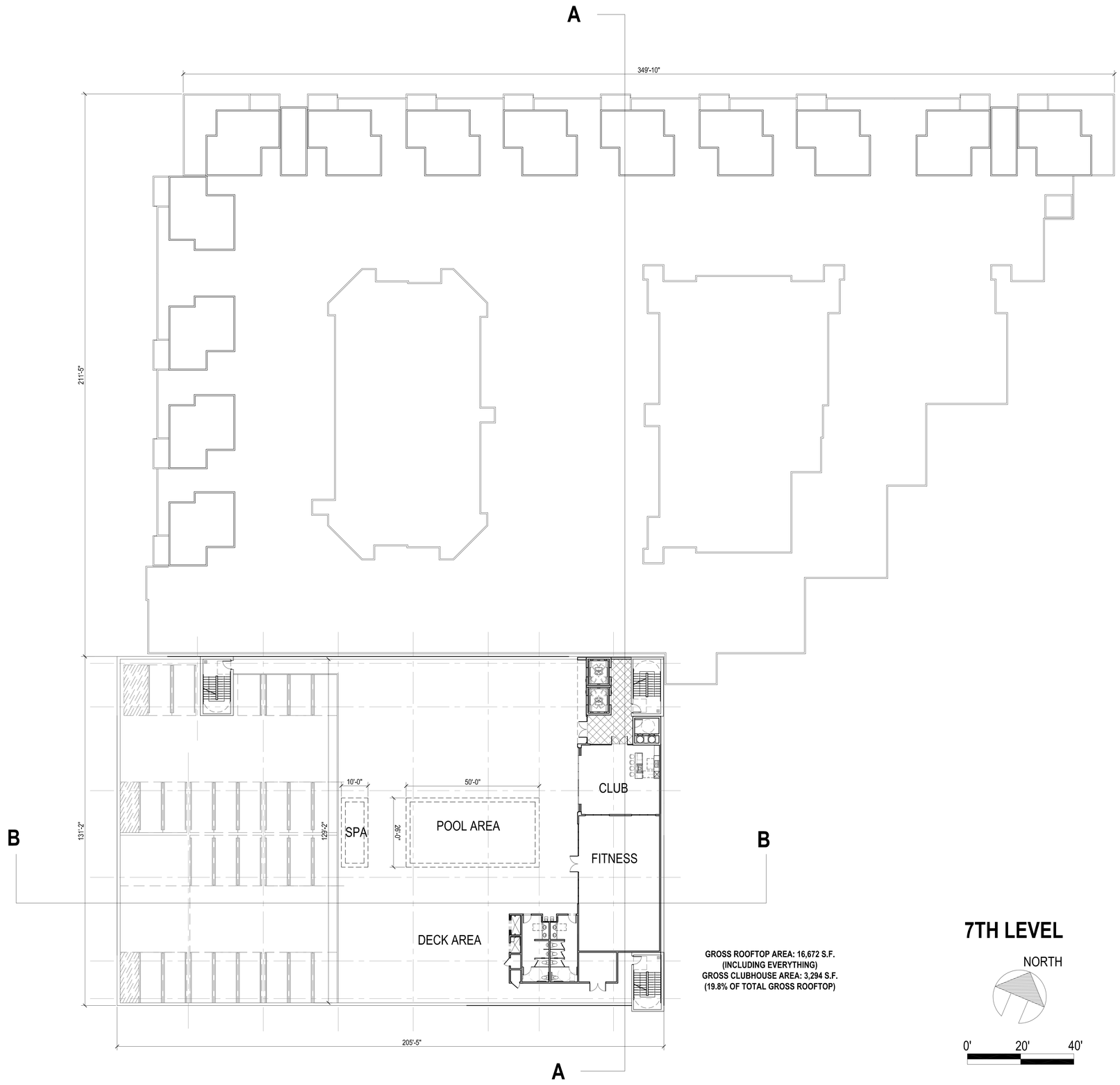

GROSS ROOFTOP AREA: 16,672 S.F.
(INCLUDING EVERYTHING)
GROSS CLUBHOUSE AREA: 3,294 S.F.
(19.8% OF TOTAL GROSS ROOFTOP)

7TH LEVEL

NORTH

0' 20' 40'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
JULY 13, 2017

INTEGRAL
COMMUNITIES

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* DIMENSIONS MEASURED FROM PAD 235.0

NORTH ELEVATION-ALONG CROWTHER AVE.

0' 20' 40'

* DIMENSIONS MEASURED FROM PAD 235.0

WEST ELEVATION

0' 20' 40'

A-7

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

ELEVATIONS
JULY 13, 2017

INTEGRAL
COMMUNITIES

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* DIMENSIONS MEASURED FROM PAD 235.0

SOUTH ELEVATION

0' 20' 40'

* DIMENSIONS MEASURED FROM PAD 235.0

EAST ELEVATION

0' 20' 40'

A-8

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

ELEVATIONS
JULY 13, 2017

INTEGRAL
COMMUNITIES

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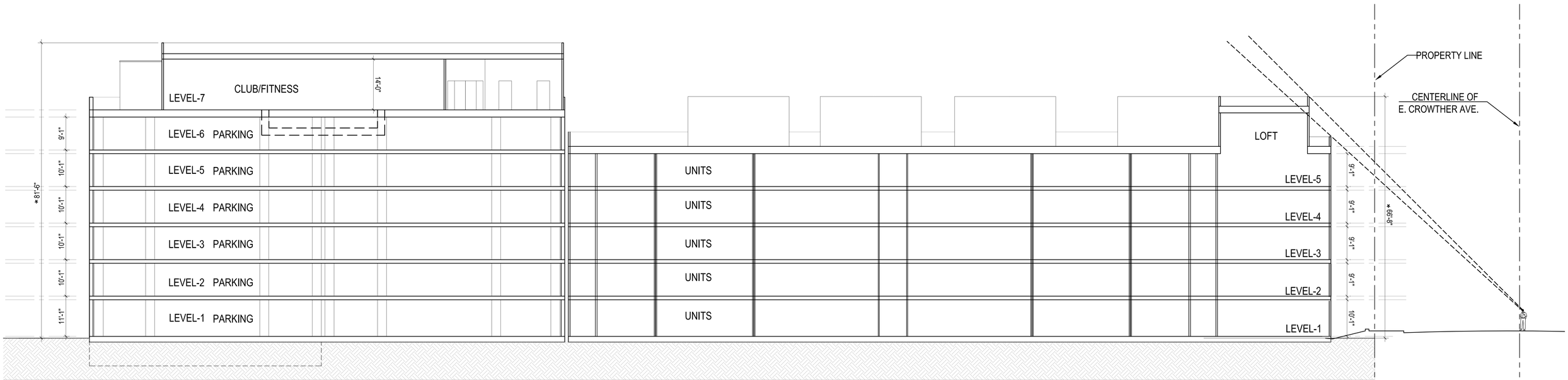
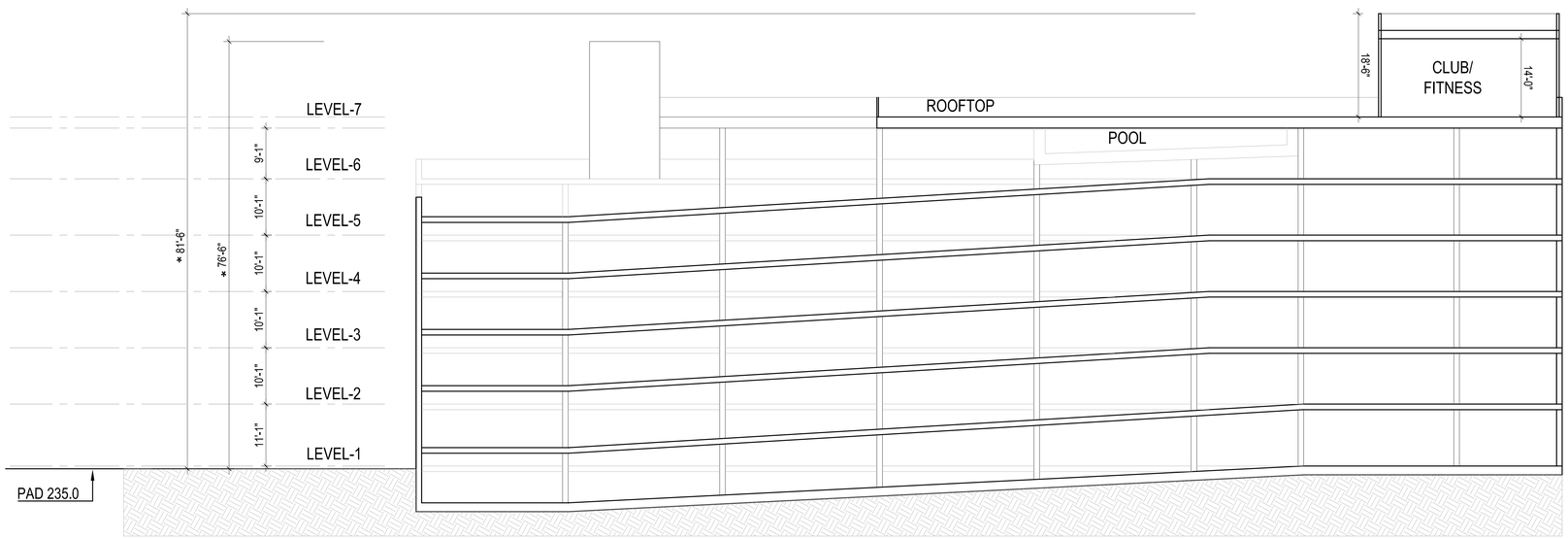


*** DIMENSIONS MEASURED FROM PAD 235.0**

SECTION A-A

0' 20' 40'



*** DIMENSIONS MEASURED FROM PAD 235.0**

GARAGE SECTION B-B

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

ELEVATIONS
JULY 13, 2017

INTEGRAL
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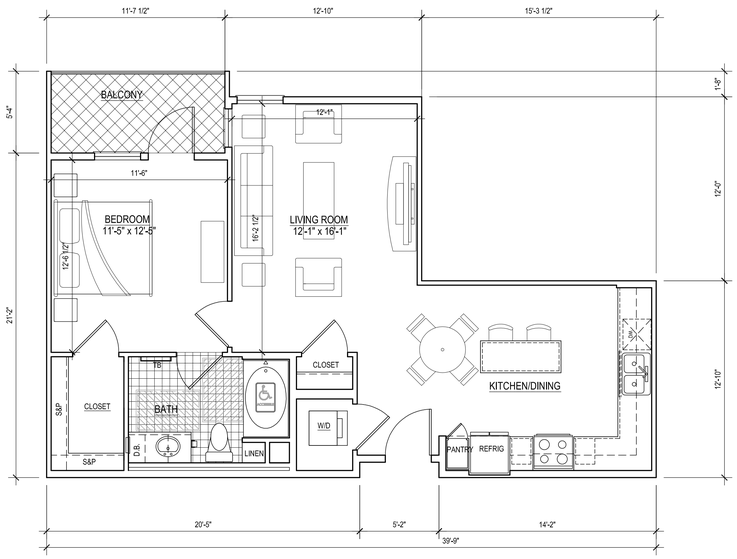
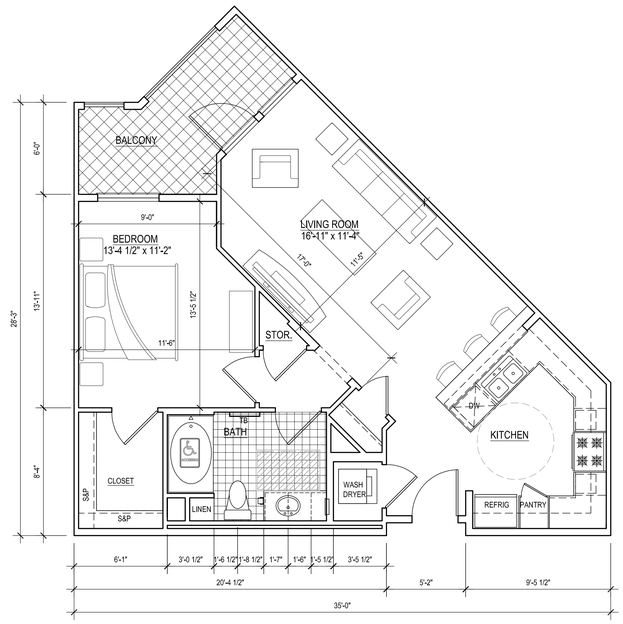


UNIT A4

NET:
BALC.: 755 S.F.
GROSS: 62 S.F.
817 S.F.

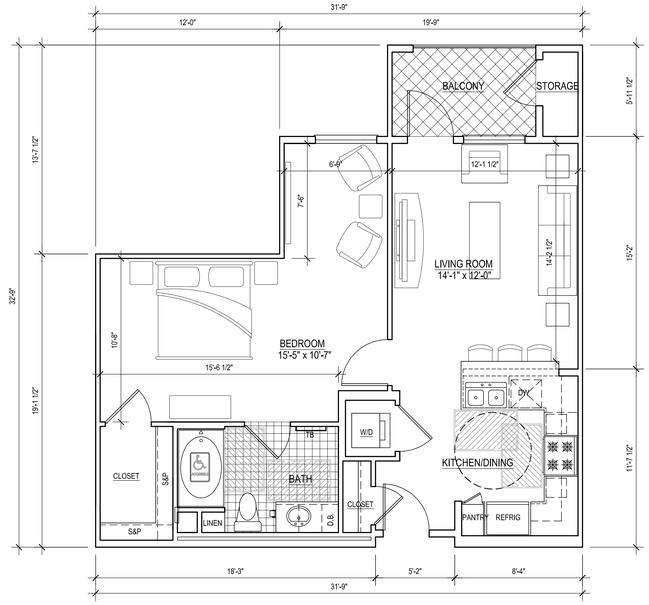
SCALE: 1/4"=1'-0"
0' 1' 2' 4' 8'



UNIT A2

NET: 760 S.F.
BALC.: 97 S.F.
GROSS: 857 S.F.

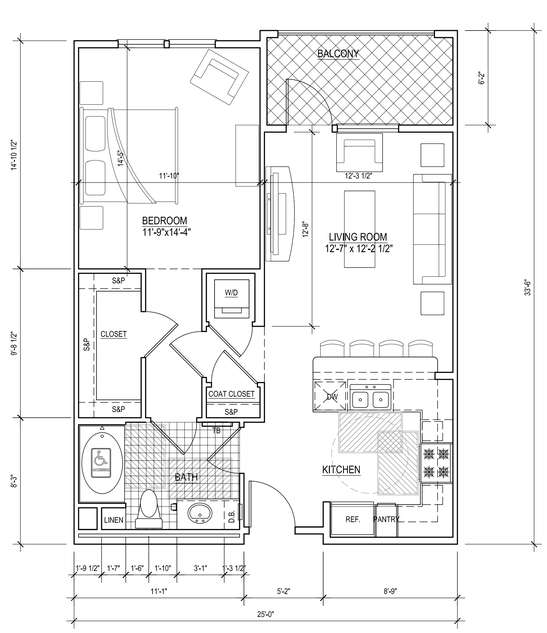
SCALE: 1/4"=1'-0"
0' 1' 2' 4' 8'



UNIT A3

NET: 755 S.F.
BALC.: 76 S.F.
GROSS: 831 S.F.

SCALE: 1/4"=1'-0"
0' 1' 2' 4' 8'



UNIT A1

NET: 749 S.F.
BALC.: 76 S.F.
GROSS: 825 S.F.

SCALE: 1/4"=1'-0"
0' 1' 2' 4' 8'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

UNIT PLANS
JULY 13, 2017

INTEGRAL COMMUNITIES

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UNIT B2-A

NET:	1050 S.F.
BALC.:	67 S.F.
GROSS:	1117 S.F.

SCALE: 1/4"=1'-0"

0' 1' 2' 4' 8'

UNIT B1

NET:	1006 S.F.
BALC.:	56 S.F.
GROSS:	1062 S.F.

SCALE: 1/4"=1'-0"

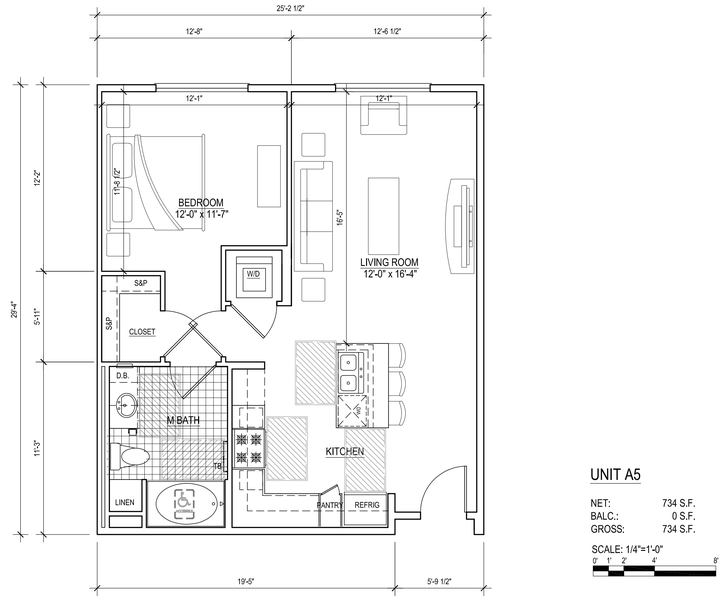
0' 1' 2' 4' 8'

UNIT B2

NET:	1013 S.F.
BALC.:	67 S.F.
GROSS:	1080 S.F.

SCALE: 1/4"=1'-0"

0' 1' 2' 4' 8'



UNIT A5

NET:	734 S.F.
BALC.:	0 S.F.
GROSS:	734 S.F.

SCALE: 1/4"=1'-0"

0' 1' 2' 4' 8'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

UNIT PLANS
JULY 13, 2017

INTEGRAL COMMUNITIES

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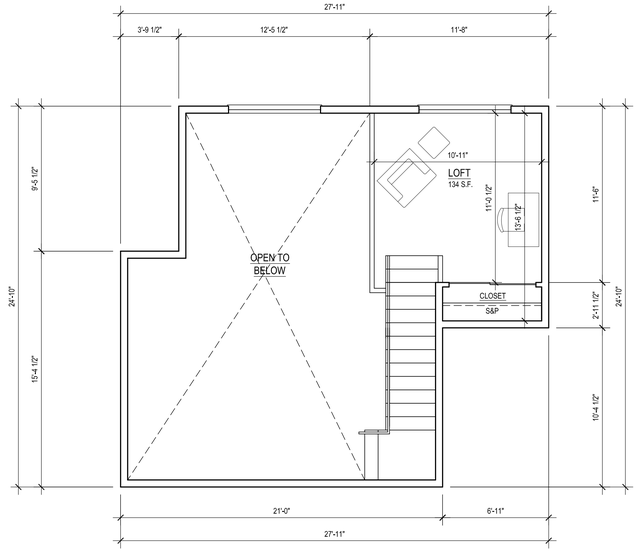
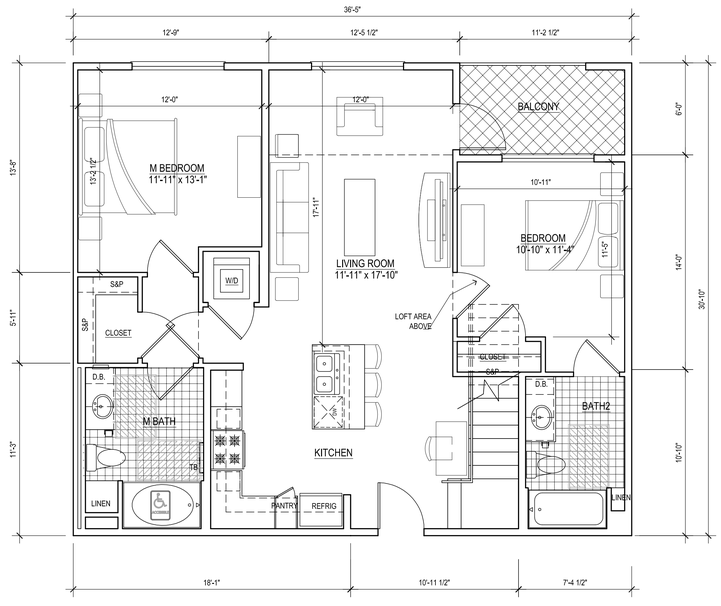


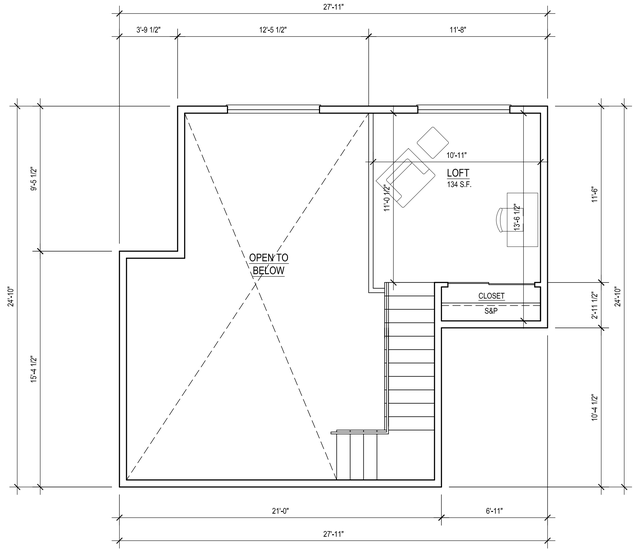
UNIT B2-A LOFT
(UPPER LEVEL)



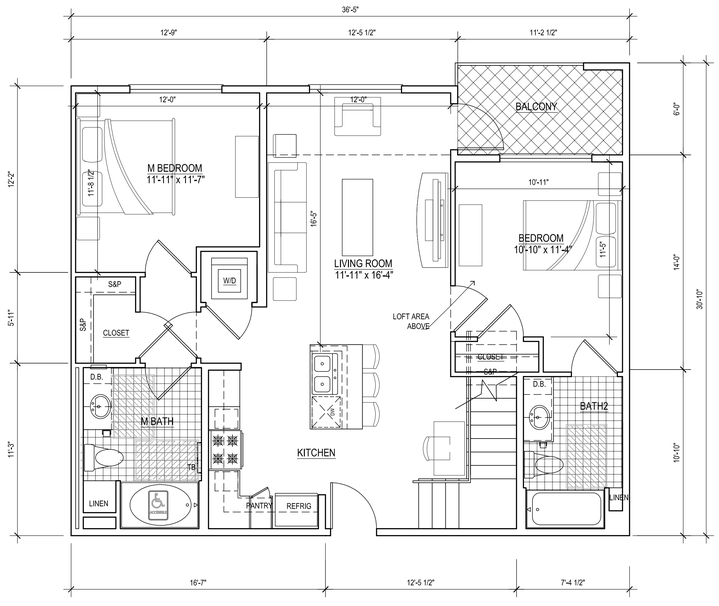
UNIT B2-A LOFT
(LOWER LEVEL)

LOWER:	1055 S.F.
LOFT:	130 S.F.
NET:	1185 S.F.
BALC.:	68 S.F.
GROSS:	1253 S.F.

SCALE: 1/4"=1'-0"
0' 1' 2' 4' 8'



UNIT B2-LOFT
(UPPER LEVEL)



UNIT B2-LOFT
(LOWER LEVEL)

LOWER:	1017 S.F.
LOFT:	137 S.F.
NET:	1154 S.F.
BALC.:	68 S.F.
GROSS:	1222 S.F.

SCALE: 1/4"=1'-0"
0' 1' 2' 4' 8'

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

UNIT PLANS
JULY 13, 2017

INTEGRAL
COMMUNITIES

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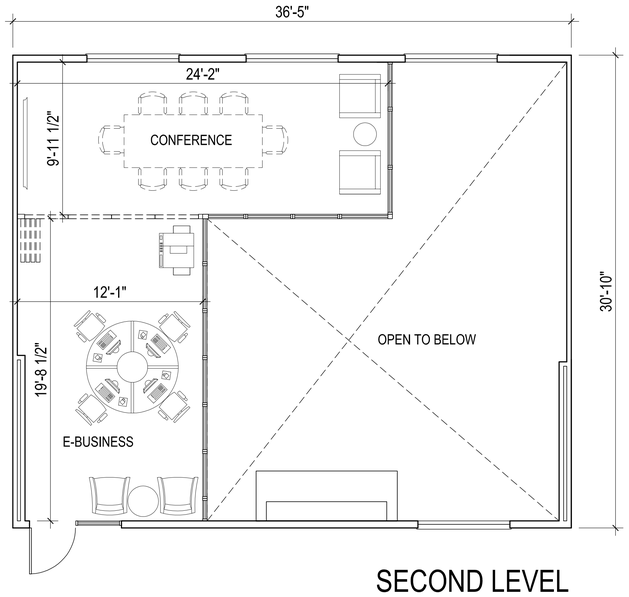
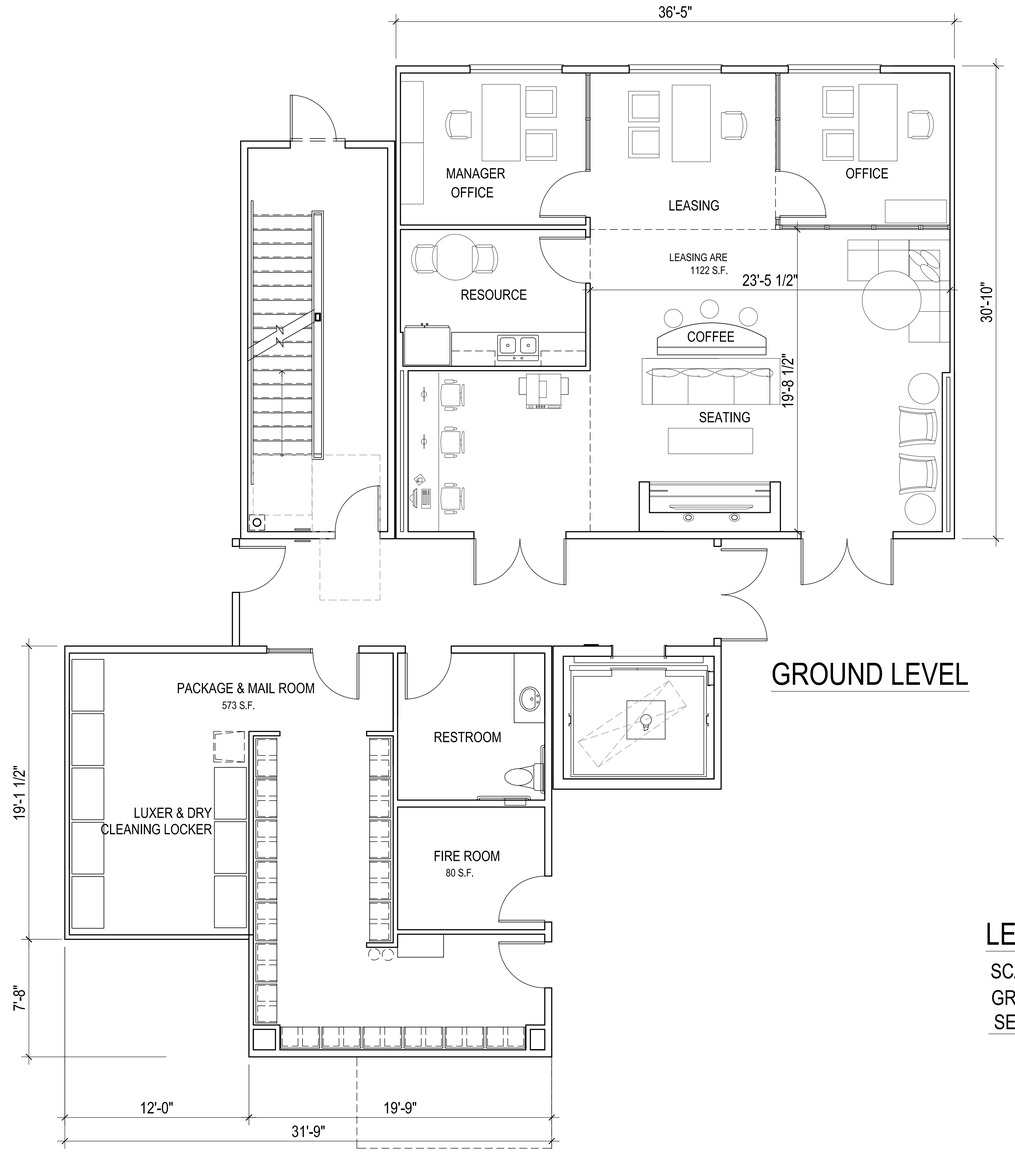


SECOND LEVEL

E-BUSINESS & CONFERENCE: 519 S.F.



GROUND LEVEL

LEASING CENTER

SCALE: 1/8" = 1'-0"
GROUND LEVEL: 1881 S.F.
SECOND LEVEL: 519 S.F.
TOTAL: 2400 S.F.

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

LEASING CENTER
JULY 13, 2017

INTEGRAL COMMUNITIES

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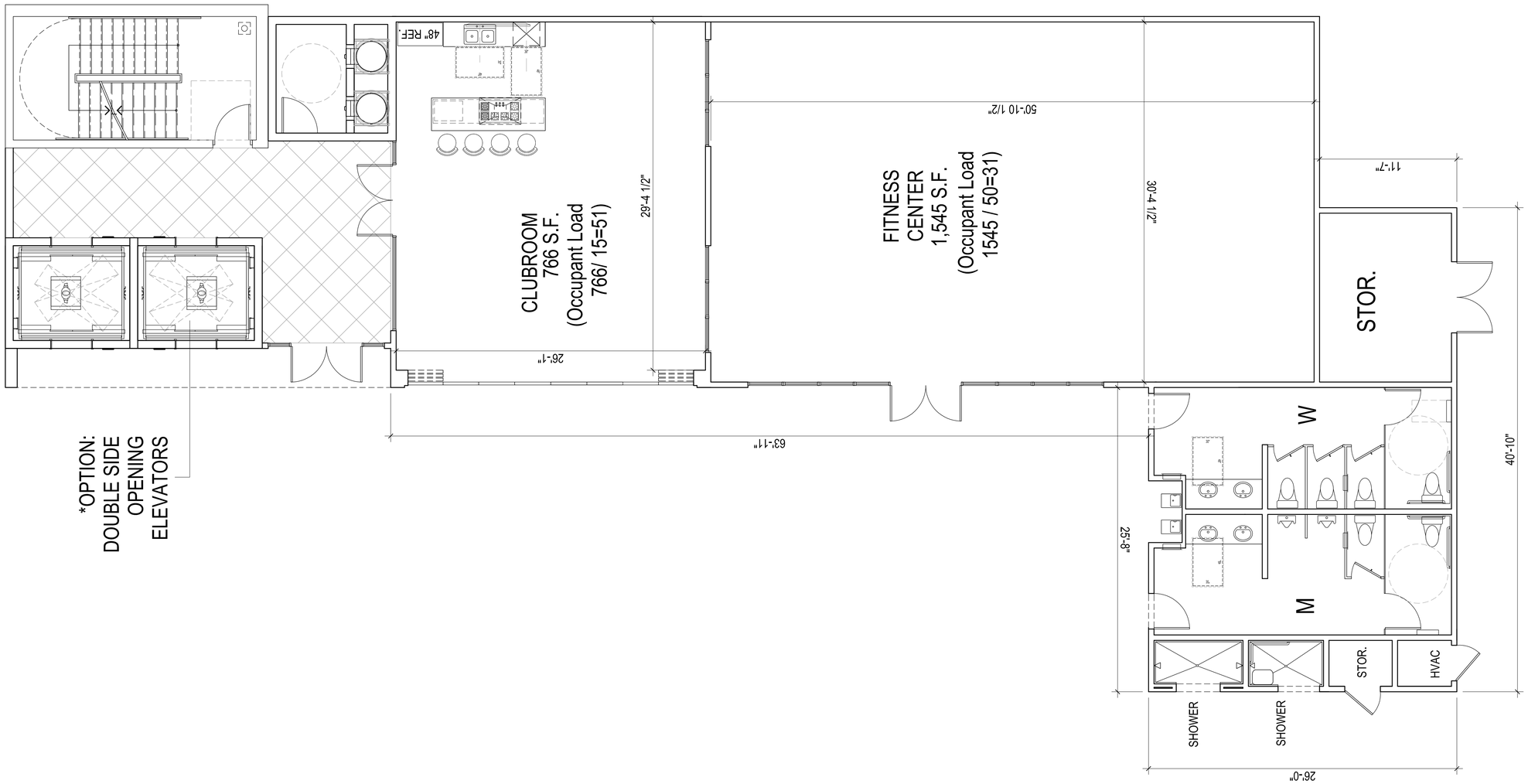

CLUB&FITNESS

SCALE: 1/8" = 1'-0"

3294 S.F.

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

CLUB/FITNESS
JULY 13, 2017

INTEGRAL
COMMUNITIES

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*** DIMENSIONS MEASURED FROM PAD 235.0**

EAST ELEVATION-LINE OF SIGHT

*** DIMENSIONS MEASURED FROM PAD 235.0**

WEST ELEVATION- LINE OF SIGHT

40' 20' 0'

A-15

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

LINE OF SIGHT
JULY 13, 2017

INTEGRAL
COMMUNITIES

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VIEW OF NORTHEAST CORNER

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PERSPECTIVE VIEW
JULY 13, 2017

INTEGRAL
COMMUNITIES

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VIEW OF NORTHWEST CORNER

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PERSPECTIVE VIEW
JULY 13, 2017

INTEGRAL
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VIEW OF SOUTHWEST CORNER

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PERSPECTIVE VIEW
JULY 13, 2017

INTEGRAL
COMMUNITIES

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VIEW OF SOUTHEAST CORNER

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PERSPECTIVE VIEW
JULY 13, 2017

INTEGRAL
COMMUNITIES

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RECORDING REQUESTED BY:

Clerk, City Council
City of Placentia

WHEN RECORDED MAIL TO:

City of Placentia
401 E. Chapman Avenue
Placentia, CA 92870

Attn: City Clerk

Exempt from Filing Fees Gov. Code Section 6103

DEVELOPMENT AGREEMENT

between

CITY OF PLACENTIA,
a California municipal corporation
("CITY")

and

THE PLACENTIA TOD PROJECT OWNER, LLC, a Delaware limited liability company

("DEVELOPER")

DRAFT

DEVELOPMENT AGREEMENT

This Development Agreement ("Agreement") is entered into effective on the date it is recorded with the Orange County Recorder (hereinafter the "Effective Date") by and between the City of Placentia ("CITY"), and THE PLACENTIA TOD PROJECT OWNER, LLC, a Delaware limited liability company (hereinafter "DEVELOPER").

RECITALS

WHEREAS, CITY is authorized to enter into binding development agreements with persons having legal or equitable interests in real property for the development of such property, pursuant to Section 65864, *et seq*. of the Government Code; and

WHEREAS, DEVELOPER owns the real property that is the subject of this Agreement (the "Property"); and

WHEREAS, the Project consists of the development of 215 multiple-family residential dwelling units with an overall density of 72.9 dwelling units (DU) per acre, as well as related amenities such as two landscaped courtyards (with recreational features including fire tables, BBQs, and water features), a 6-story/7-level parking structure, a pool/club house and fitness center located on the rooftop terrace (7th level) of the parking structure , a tot lot, a dog run/spa, pedestrian walkways/corridors, and extensive landscaping on approximately 2.95 acres located in the City of Placentia along the south side of East Crowther Avenue, approximately 0.12 mile east of South Melrose Street and 100 feet west of Cameron Street and;

WHEREAS, DEVELOPER has requested CITY to enter into a development agreement and proceedings have been taken in accordance with Section 68564, *et seq*. of the Government Code and the rules and regulations of CITY; and

WHEREAS, all of the rights and benefits granted to DEVELOPER in this Agreement shall inure to the benefit of the Property and DEVELOPER and DEVELOPER'S successors-in-interest; and

WHEREAS, all of the duties and obligations of DEVELOPER shall remain the duties and obligations of DEVELOPER and DEVELOPER'S successors-in-interest except as otherwise provided for herein; and

WHEREAS, all actions taken and approvals given by CITY have been duly taken or approved in accordance with all applicable legal requirements for notice, public hearings, findings, votes, and other procedural matters; and

WHEREAS, development of the Property in accordance with this Agreement will provide substantial benefits to CITY and will further important policies and goals of CITY; and

WHEREAS, this Agreement will eliminate uncertainty in planning and provide for the orderly development of the Property, ensure progressive installation of necessary improvements, provide for public services appropriate to the development of the Project, and generally serve the purposes for which development agreements under Sections 65864, *et seq*. of the Government Code are intended; and

DRAFT

WHEREAS, DEVELOPER has incurred and will in the future incur substantial costs in excess of the generally applicable requirements in order to assure vesting of legal rights to develop the Property in accordance with this Agreement.

COVENANTS

NOW, THEREFORE, in consideration of the above recitals and of the mutual covenants hereinafter contained and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. DEFINITIONS AND EXHIBITS.

1.1 Definitions. The following terms when used in this Agreement shall be defined as follows:

1.1.1. "Agreement" means this Development Agreement.

1.1.2. "CITY" means the City of Placentia, a California municipal corporation and charter city.

1.1.3. "City Council" means the City Council of the CITY.

1.1.4. "Development" means the improvement of the Property for the purposes of completing the structures, improvements and facilities comprising the Project including, but not limited to: grading; the construction of infrastructure and public and private facilities related to the Project whether located within or outside the Property; the construction of buildings and structures; and the installation of landscaping. "Development" includes the maintenance, repair, reconstruction or redevelopment of any building, structure, improvement or facility after the construction and completion thereof.

1.1.5. "Development Approvals" mean all permits and other entitlements for use subject to approval or issuance by CITY in connection with development of the Property including, but not limited to Development Plan Review and Vesting Tentative Map.

1.1.6. "Development Exaction" means any requirement of CITY in connection with or pursuant to any Land Use Regulation or Development Approval for the dedication of land, the construction of improvements or public facilities, or the payment of fees in order to lessen, offset, mitigate or compensate for the impacts of development on the environment or other public interests.

1.1.7. "Development Impact Fee" means a monetary exaction other than a tax or special assessment, whether established for a broad class of projects by legislation of general applicability or imposed on a specific project on an ad hoc basis, that is charged by a local agency to the applicant in connection with approval of a development project, for the purpose of defraying all or a portion of the cost of public facilities related to the development project, but does not include fees specified in Government Code Section 66477, fees for processing applications for governmental regulatory actions or approvals, fees collected under development agreements adopted pursuant to Article 2.5 (commencing with Section 65864 of Chapter 4 of the Government Code). "Development Impact Fee" expressly excludes processing fees and charges of every kind

DRAFT

and nature imposed by CITY to cover the estimated actual costs to CITY of processing applications for Development Approvals or for monitoring compliance with any Development Approvals granted or issued, including, without limitation, fees for zoning variances; zoning changes; use permits; building inspections; building permits; filing and processing applications and petitions filed with the local agency formation commission or conducting preliminary proceedings or proceedings under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, Division 3 (commencing with Section 56000) of Title 5 of the Government Code. For purposes of this Agreement, Development Impact Fees include those fees listed in Exhibit "E" attached hereto.

1.1.8. "Development Plan" means the Development Approvals and the Existing Land Use Regulations applicable to Development of the Property.

1.1.9. "DEVELOPER" means The Placentia TOD Project Owner, LLC, a Delaware limited liability company, and its successors in interest to all or any part of the Property.

1.1.10. "Effective Date" means the date that is 31 days following the date that this Agreement is approved by CITY by final action of the City Council.

1.1.11. "Existing Development Approvals" means all Development Approvals approved or issued by CITY prior to or contemporaneously with CITY'S approval of this Agreement. The Existing Development Approvals include, without limitation, the approvals incorporated herein as Exhibit C.

1.1.12. "Existing Land Use Regulations" mean all Land Use Regulations in effect on the Effective Date. Existing Land Use Regulations shall include the Transient Oriented Development Standards ("TOD") and any other Regulations incorporated herein as Exhibit "D" as of the Effective Date.

1.1.13. "Land Use Regulations" mean all ordinances, resolutions, codes, rules, regulations and official written policies of CITY governing the development and use of land, including, without limitation, the permitted use of land, the intensity of use, subdivision requirements, the maximum height and size of proposed buildings, the provisions for reservation or dedication of land for public purposes, and the design, improvement and construction standards' and specifications applicable to the development of the property, as modified or supplemented by the Existing Development Approvals. "Land Use Regulations" does not include any CITY ordinance, resolution, code, rule, regulation or official policy, governing:

(a) the conduct of businesses, professions, and occupations;

(b) taxes and assessments;

(c) the control and abatement of nuisances;

(d) the granting of encroachment permits and the conveyance of rights and interests that provide for the use of or the entry upon public property; or

(e) the exercise of the power of eminent domain.

DRAFT

1.1.14. "Lot" means a legally subdivided lot.

1.1.15. "Mortgagee" means a mortgagee of a mortgage, a beneficiary under a deed of trust or any other security-device lender, and their successors and assigns.

1.1.16. "Project" means the Development of the Property contemplated by the Development Plan as such Plan may be further defined, enhanced or modified pursuant to the provisions of this Agreement.

1.1.17. "Property" means the approximately 2.95 acres of real property described on Exhibit "A" and shown on Exhibit "B" of this Agreement.

1.1.18. "Reservations of Authority" means the rights and authority excepted from the assurances and rights provided to DEVELOPER under this Agreement and reserved to CITY under Section 3.6 of this Agreement.

1.1.19. "Subsequent Development Approvals" means all Development Approvals approved by CITY subsequent to the Effective Date.

1.1.20. "Subsequent Land Use Regulations" means any Land Use Regulations adopted and effective after the Effective Date of this Agreement.

1.2 Exhibits. The following documents are attached to, and by this reference made a part of, this Agreement:

Exhibit "A"	Legal Description of Property
Exhibit "B"	Map of Property
Exhibit "C"	Existing Land Use Regulations
Exhibit "D"	Summary of Development Impact Fees
Exhibit "E"	Off Site Improvements
Exhibit "F"	On Site Improvements
Exhibit "G"	Schedule of Performance

2 GENERAL PROVISIONS.

2.1 Binding Effect of Agreement. The Property is hereby made subject to this Agreement. Development of the Property is hereby authorized and shall be carried out only in accordance with the terms of this Agreement. Notwithstanding the foregoing, nothing contained in this Agreement shall be deemed to be a covenant to develop or construct the Project or any portion of the Project; provided, however, that to the extent that any phase of the Project is developed, DEVELOPER shall be obligated to construct the public improvements required herein related to that phase of development.

2.2 Ownership. DEVELOPER represents and covenants that it has a legal or equitable interest in the Property.

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2.3 Term. The term of this Agreement shall commence on the Effective Date and shall continue for a period of five (5) years thereafter.

2.4 Assignment.

2.4.1 Right to Assign. DEVELOPER shall have the right to sell, transfer or assign the Property in whole or in part (provided that no such partial transfer shall violate the Subdivision Map Act, Government Code Section 66410, *et seq*.) to any person, partnership, joint venture, firm or corporation at any time during the term of this Agreement; provided, however, that the rights of Developer under this Agreement may not be transferred to assigned unless the written consent of the City Council is first obtained and any such sale, transfer or assignment shall include in writing the assignment and assumption of the rights, duties and obligations arising under or from this Agreement and be made in strict compliance with the following conditions precedent:

(a) No sale, transfer or assignment of any right or interest under this Agreement shall be made unless made together with the sale, transfer or assignment of all or a part of the Property.

(b) DEVELOPER shall notify CITY, in writing, of such proposed sale, transfer or assignment and shall provide CITY with adequate time to provide written consent of the assignment in accordance with Section 2.4.1.

Any sale, transfer or assignment not made in compliance with the foregoing conditions shall constitute a default by DEVELOPER under this Agreement.

2.4.2 Subsequent Assignment. Any subsequent sale, transfer or assignment after an initial sale, transfer or assignment shall be made only in accordance with and subject to the terms and conditions of this Section.

2.5 Amendment or Cancellation of Agreement. This Agreement may be amended or cancelled in whole or in part only by written mutual consent of all parties or their respective successors or assigns with respect to their respective portions of the Property in the manner provided for in Government Code Section 65868. This provision shall not limit any remedy for default of CITY or DEVELOPER as provided by this Agreement.

2.6 Termination. This Agreement shall be deemed terminated and of no further effect upon the occurrence of any of the following events:

(a) Expiration of the stated term of this Agreement as set forth in Section 2.3.

(b) Entry of a final judgment setting aside, voiding or annulling the adoption of the ordinance approving this Agreement.

(c) The adoption of a referendum measure overriding or repealing the ordinance approving this Agreement.

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(d) Completion of the Project in accordance with the terms of this Agreement, including, without limitation, issuance of all required occupancy permits and acceptance by CITY or applicable public agency of all required dedications, completion of all improvements for the Project, payment by DEVELOPER of all fees/sums due under this Agreement, and implementation of all of DEVELOPER's obligations hereunder.

Termination of this Agreement shall not constitute termination of any other land use entitlements approved for the Property including but not limited to, all conditions and mitigation measures imposed as part of such entitlements prior to the date of termination. Upon the termination of this Agreement, no party shall have any further right or obligation hereunder except with respect to any obligation to have been performed prior to such termination or with respect to any default in the performance of the provisions of this Agreement that has occurred prior to such termination or with respect to any obligations that are specifically set forth as surviving this Agreement.

2.7 Notices.

(a) As used in this Agreement, "notice" includes, but is not limited to, the communication of notice, request, demand, approval, statement, report, acceptance, consent, waiver, appointment or other communication required or permitted hereunder.

(b) All notices shall be in writing and shall be considered given either: (i) when delivered in person to the recipient named below; or (ii) on the date of delivery shown on the return receipt, after deposit in the United States mail in a sealed envelope as either registered or certified mail with return receipt requested, and postage and postal charges prepaid, and addressed to the recipient named below; or (iii) on the date of delivery shown in the records of the telegraph company after transmission by telegraph to the recipient named below. All notices shall be addressed as follows:

If to CITY:

City of Placentia,
401 E. Chapman Avenue
Placentia, CA 92870
Attn: City Administrator

With a copy to:

Christian L. Bettenhausen, City Attorney
Jones & Mayer
3777 N. Harbor Blvd.
Fullerton, CA 92835

If to DEVELOPER:

John Stanek
Caren Read, Esq.

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The Placentia TOD Property Owner, LLC
c/o Integral Communities
888 San Clemente Drive, Suite 100
Newport Beach, CA 92660
with a copy to:

Rutan & Tucker, LLP
Hans Van Ligten
611 Anton Blvd., Suite 1400
Costa Mesa, CA 92626

(c) Either party may, by notice given at any time, require subsequent notices to be given to another person or entity, whether a party or an officer or representative of a party, or to a different address, or both. Notices given before actual receipt of notice of change shall not be invalidated by the change.

3 DEVELOPMENT OF THE PROPERTY.

3.1 Rights to Develop. Subject to the terms of this Agreement including the Reservations of Authority, DEVELOPER shall have a vested right to develop the Property as the "Catalyst Site" (as that term is used in the TOD Ordinance) in accordance with, and to the extent of, the Development Plan and the Existing Land Use Regulations; however, if DEVELOPER has not met the deadlines for completion of work as set forth in the Schedule of Performance attached hereto in Exhibit __, the City Council shall have the sole discretion upon written notice to DEVELOPER, to re-assign the designation as the Catalyst Site. The Project shall remain subject to all Subsequent Development Approvals required to complete the Project as contemplated by the Development Plan. Except as otherwise provided expressly in this Agreement, the permitted uses of the Property, the intensity of use, the maximum height and size of proposed buildings, the design, improvement, and construction standards applicable to development of the Property, and provisions for reservation and dedication of land for public purposes and Development Exactions shall be those set forth in the Development Plan. Notwithstanding the foregoing, nothing contained in this Agreement shall be deemed to be a covenant by DEVELOPER to develop or construct the Project or any portion of the Project; provided, however, that to the extent that any phase of the Project is developed, DEVELOPER shall be obligated to construct the public improvements required herein related to that phase of development.

3.2 Effect of Agreement on Land Use Regulations. Except as otherwise provided expressly under the terms of this Agreement including the Reservations of Authority, the rules, regulations and official policies of CITY governing permitted uses of the Property, the intensity of use of the Property, the maximum height and size of proposed buildings, and the design, improvement and construction standards and specifications applicable to development of the Property shall be the Existing Land Use Regulations. In connection with any Subsequent Development Approval, CITY shall exercise its discretion in accordance with the Development Plan, the Existing Land Use Regulations, and as provided by this Agreement including, but not limited to, the Reservations of Authority.

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3.3 Timing of Development. The parties acknowledge that DEVELOPER cannot at this time predict when or the rate at which phases of the Property will be developed. Such decisions depend upon numerous factors that are not within the control of DEVELOPER, such as market orientation and demand, interest rates, absorption, completion and other similar factors. Since the California Supreme Court held in Pardee Construction Co. v. City of Camarillo (1984) 37 Cal.3d 465, that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over such parties' agreement, it is the parties' intent to cure that deficiency by acknowledging and providing that DEVELOPER shall have the right to develop the Property in such order and at such rate and at such times as DEVELOPER, in its sole and absolute discretion deems appropriate, subject only to any timing or phasing requirements set forth in the Development Plan or the Phasing Plan referred to in Section 3.4.

3.4 Schedule of Performance. Development of the Property shall be subject to all timing and established by the Development Plan and Schedule of Performance attached hereto as Exhibit __.

3.5 Changes and Amendments. The parties acknowledge that refinement and further development of the Project will require Subsequent Development Approvals and may demonstrate that changes are appropriate and mutually desirable in the Existing Development Approvals. During the term of this Agreement, in the event DEVELOPER finds that a change in the Existing Development Approvals is necessary or appropriate, DEVELOPER shall apply for a Subsequent Development Approval to effectuate such change and CITY shall process and act on such application in accordance with the Existing Land Use Regulations, except as otherwise provided by this Agreement, including, without limitation, the Reservations of Authority. If approved, any such change in the Existing Development Approvals shall be attached to this Agreement as an addendum to Exhibit "__", and may be further changed from time to time as provided in this Section.

3.6 Reservations of Authority

3.6.1 Limitations, Reservations and Exceptions. Notwithstanding any other provision of this Agreement, the following Subsequent Land Use Regulations shall apply to the development of the Property.

(a) Processing fees and charges of every kind and nature imposed by CITY to cover the estimated actual costs to CITY of processing applications for Development Approvals or for monitoring compliance with any Development Approvals granted or issued.

(b) Procedural regulations relating to hearing bodies, petitions, applications, notices, findings, records, hearings, reports, recommendations, appeals and any other matter of procedure.

(c) Regulations governing construction standards and specifications including, without limitation, CITY'S Building Code, Plumbing Code, Mechanical Code, Electrical Code, Fire Code and Grading Code that are applied uniformly and on a city-wide basis to all development projects of a similar type as the Project.

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(d) Regulations that are not in conflict with the Development Plan but that are reasonably necessary to protect the public health and safety of the residents of the Project or the immediate community. To the extent possible, any such regulations shall be applied and construed so as to provide DEVELOPER with all of the rights and assurances provided under this Agreement. Any regulation, whether adopted by initiative or otherwise, limiting the permitted uses, density, intensity, or rate or timing of development of the Property to the extent permitted by law shall be deemed to conflict with the Development Plan and shall therefore not be applicable to the development of the Property.

(e) Regulations that are in conflict with the Development Plan provided DEVELOPER has given written consent to the application of such regulations to development of the Property.

3.6.2 Subsequent Development Approvals. This Agreement shall not prevent CITY, in acting on Subsequent Development Approvals, from applying Subsequent Land Use Regulations that do not conflict with the Existing Land Use Regulations or Development Plan, nor shall this Agreement prevent CITY from denying or conditionally approving any Subsequent Development Approval on the basis of the Existing Land Use Regulations or any Subsequent Land Use Regulation not in conflict with the Development Plan. Upon approval of any Subsequent Development Approval, such Subsequent Development Approval shall be deemed vested pursuant to the provisions of this Agreement, without any further action by CITY or DEVELOPER being required.

3.6.3 Modification or Suspension by State or Federal Law. In the event any State or Federal law or regulation that is enacted or adopted after the Effective Date of this Agreement, or any other action of any governmental entity that is not under CITY'S control, prevents or precludes compliance with any provision of this Agreement, then that provision of this Agreement shall be modified or suspended only to the extent and for the time necessary to achieve compliance with that law, regulation or other governmental action and the remaining provisions of this Agreement shall continue in full force and effect and the parties shall negotiate in good faith for such amendments to this Agreement as may be necessary to achieve its intent, notwithstanding the existence of such law or regulation or other governmental action. Upon the repeal of any such law, regulation or other governmental action or on the occurrence of any other circumstance that removes the effect of the same on this Agreement, provided this Agreement is otherwise still in effect, the provisions of this Agreement shall be automatically restored to their full original effect and any amendment to this Agreement that the parties have entered into as a result of any such law, regulation or other governmental action, shall terminate.

3.6.4 Intent. The parties acknowledge and agree that CITY is restricted in its authority to limit its police power by contract and that the foregoing limitations, reservations and exceptions are intended to reserve to CITY all of its police power that cannot be so limited. This Agreement shall be construed, contrary to its stated terms if necessary, to reserve to CITY all such power and authority that cannot be restricted by contract.

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3.6.5 Public Works. DEVELOPER shall construct all public improvements related to the Project required as a condition of approval in accordance with CITY'S or other applicable public agency's then-applicable public works engineering standards. For public utilities, the DEVELOPER shall design and construct all public utility facilities within the public rights-of-way in the project boundary as required by the public utility purveyors, including those related to cable/telephone or related communication transmission facilities, energy transmission facilities, fiber optic, electric, gas to service the property. The CITY shall determine whether the DEVELOPER shall dedicate said public utility facilities and the public access easements thereto and the entities to whom those dedications shall be made. DEVELOPER shall install electrical or communication appurtenances (such as transformers) underground unless said appurtenance is a service pedestal for electrical, phone, traffic signal control cabinets, or irrigation control devices. DEVELOPER shall underground all power lines, both on site and off site, that are related to the Development, as approved by the City Engineer.

3.6.6 On-Site Improvements. All on-site public improvements identified in Exhibit ___ shall be constructed by Developer to City standards and offered for dedication as part of the project subdivision maps. These improvements include all potable water mains, sewer mains and storm water collection facilities intended to serve the property within the TOD boundaries.

3.6.7 Off Site Improvements to be Constructed by DEVELOPER. DEVELOPER is required by this Agreement to construct certain public improvements as indicated on Exhibit ___ which will be accepted by the CITY or other public agencies upon satisfactory completion.

3.6.8 DEVELOPER Obligation. DEVELOPER shall submit a Parking Management Plan for approval by the Development Services Director prior to issuance of its Certificate of Occupancy that provides details as to adequate available visitor parking spaces, designated parking spaces for residents, ensure each unit has an adequate number of parking spaces for residents. The Development Services Director, in his/her discretion, may require additional conditions for the management of parking at the Property.

3.6.9 DEVELOPER shall pay its fair-share contribution for the improvements as shown on Exhibit ___.

3.6.10 Provision of Real Property Interests by CITY. In any instance where DEVELOPER is required to construct any public improvement on land not owned by DEVELOPER, DEVELOPER shall at its sole cost and expense provide or cause to be provided, the real property interests necessary for the construction of such public improvements. DEVELOPER shall exercise reasonable and diligent good faith efforts to acquire the real property interests necessary for the construction of such public improvements at a cost and upon terms acceptable to the owner of the real property and approved by CITY. If, despite such efforts, DEVELOPER is unable to acquire such property after one-hundred eighty days (180), at DEVELOPER's request and upon DEVELOPER'S provision of adequate security for costs CITY incurs, CITY shall negotiate the purchase of the necessary real property interests to allow DEVELOPER to construct the public improvements as required by this Agreement. If necessary,

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in accordance with the procedures established by law, the CITY may use its power of eminent domain to acquire such required real property interests. DEVELOPER shall pay all costs associated with any such negotiation or condemnation proceedings. This Section 3.9 is not intended by the parties to impose upon the DEVELOPER an enforceable duty to acquire land or construct any public improvements on land not owned by DEVELOPER, except to the extent that the DEVELOPER elects to proceed with the development of the Project.

3.7 Regulation by Other Public Agencies. It is acknowledged by the parties that other public agencies not within the control of CITY possess authority to regulate aspects of the development of the Property separately from or jointly with CITY and this Agreement does not limit the authority of such other public agencies.

3.8 Covenants, Conditions & Restrictions. Prior to the issuance of building permits, the DEVELOPER shall provide Covenants, Conditions and Restrictions ("CC&Rs") to the CITY in a form and substance acceptable to the Development Services Director and City Attorney's office. The final CC&Rs that shall be recorded with the Orange County Clerk Recorder's Office. The CC&Rs shall provide that the Home Owners Authority ("HOA") shall be responsible to maintain all common and open space areas.

3.9 Conversion from Rental to Condominium Use. The Project, although it includes a map for condominium purposes, is contemplated to be operated as a rental multi-family housing development. In the event DEVELOPER elects to convert to a "for-sale" project of individual units, notwithstanding any other provision of law, DEVELOPER shall notify City of its intention to convert in writing and request consideration of the request by the City Council. As part of its application to the City Council, DEVELOPER shall provide a Parking Management Plan that demonstrates to the satisfaction of the City Council, the amount of available parking is sufficient to meet the demands of for-sale units. The City Council shall approve the request if, in its discretion, the City Council determines that the proposed conversion is consistent with the goals and standards of the Packing House TOD Ordinance and other applicable laws. The City Council shall consider the request at a duly-noticed meeting within 90 days of receipt of a complete application as determined by the City, subject to extensions as agreed to by the City and DEVELOPER. In the event the City Council approves the conversion to "for-sale" of individual units, DEVELOPER shall provide the City with the proposed Covenants, Conditions and Restrictions ("CC&R") to be recorded with the Orange County Clerk-Recorders' Office against the Property for the condominiums. Prior to recordation with the Orange County Clerk-Recorders' Office, the DEVELOPER shall receive approval by the Development Services Director of the CC&Rs including the provisions governing the following:

(a) No more than INSERT NUMBER] (___) persons shall be permitted in each two-bedroom unit. In each three-bedroom unit, no more than INSERT NUMBER (____) persons shall be permitted.

(b) Annual review of the Parking Management Plan to be approved by the Development Services Director with any additional conditions required by the Association in order to remedy any parking concerns.

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4 PUBLIC BENEFITS.

4.1 Intent. The parties acknowledge and agree that development of the Property will result in substantial public benefit in initiating the revitalization of the newly-approved Transit Oriented Development area.

4.2 Development Impact Fees.

4.2.0 Amount and Components of Fee. DEVELOPER shall pay to CITY the Development Impact Fees in the amounts determined by the CITY as identified in Exhibit "__".

4.2.1 No Incresases In Fees. During the term of this Agreement, commencing as of the Effective Date, and, except as provided herein, those per unit Development Impact Fees set forth in Exhibit "__" shall not be increased with respect to this Project. Upon expiration of the term of this Agreement, DEVELOPER shall thereafter pay the amount of such Development Impact Fees legally adopted and in effect by the then-applicable CITY ordinance or resolution.

4.2.2 Time of Payment. Development Impact Fees required pursuant to Subsection 4.2.1, shall be paid to CITY at the time of issuance of the building permits.

4.3 Miscellaneous Provisions Regarding Credits.

4.3.0 DEVELOPER Credit for DIF Program Improvements. DEVELOPER shall be entitled to a credit against any applicable TOD or City-wide Development Impact Fee to the extent DEVELOPER constructs any program improvement. The amount of any credit will be determined in accordance with standard City practice by the City Administrator or his or her designee based upon evidence of the costs of construction, to the satisfaction of the City Administrator, of such program improvement within 30 days of submission.

4.4 Design and Construction of Improvements. All improvements constructed by DEVELOPER as set forth in this Section 4, shall be designed and constructed by DEVELOPER according to the phasing schedule contained in Exhibit "__".

4.5 Construction of Improvements by Others. In the event that, at the time DEVELOPER would otherwise be required to construct improvements as set forth in this Paragraph 4, such improvements have been constructed by others, DEVELOPER'S obligation to construct such improvements shall be deemed satisfied and DEVELOPER shall not receive credit against Development Impact Fees or reimbursement for the cost of such improvements.

4.6 Reimbursement of CITY Costs. DEVELOPER shall pay all costs incurred by CITY in connection with the Development Approvals sought to be granted related to the Project. DEVELOPER shall pay all costs of any private financing for the Project, including all of CITY's costs therefor. Costs to be paid by DEVELOPER include, but are not limited to, CITY fees due for processing of all applications, CITY's attorneys' fees incurred in connection with negotiation and preparation of this Agreement and all Development Approvals, review and revision to proposed Covenants, Conditions and Restrictions for the Project, CITY's, costs reasonably borne for staff time related to the Project and this Agreement, including all administrative and staff costs, and any out of pocket costs incurred by CITY in connection with the Development Agreement,

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Development Approvals, and consulting, permits, noticing, and environmental evaluation and mitigation, including overseeing any Mitigation Monitoring Program. A reimbursement schedule and a reimbursement process for all such costs which have not been reimbursed directly to CITY by DEVELOPER shall be mutually agreed upon prior to the issuance of building permits. CITY shall require DEVELOPER to submit a deposit against which such costs will be billed.

4.7 The Project will comply with the new California Green Building Code and Title 24 regulations. Roof solar PV panels and EV conduit in garages for plug in electric vehicles will be offered as options to homeowners. The project will use LED as standard interior lighting for the for-sale residential uses. HERS (Home Energy Rating System) inspectors will be utilized to assess and measure energy compliance.

5 PUBLIC FINANCING.

5.1 Financing. If deemed appropriate by CITY or, if requested by DEVELOPER, CITY and DEVELOPER shall cooperate in the formation of any special assessment district, community facilities district or alternate financing mechanism to pay for the maintenance and operation of public improvements required as part of the Development Plan. Without limiting the generality of the foregoing, for the purposes of this paragraph, included within the definition of maintenance and operation of public improvements are continuing costs associated with street improvements, sewer improvements, drainage improvements, water improvements, other utility improvements, park improvements, trail improvements, pedestrian or bicycle improvements and open space. CITY also agrees that, to the extent any such district or other financing entity is formed and sells bonds in order to finance such reimbursements, DEVELOPER may be reimbursed to the extent that DEVELOPER spends funds or dedicates land for the construction and/or maintenance and operation of public improvements. The special tax rate or assessment shall not exceed CITY'S adopted policies regarding public financing. Nothing herein shall be deemed a commitment by CITY to adopt a resolution of formation to form any special assessment district, community facilities district or alternate financing mechanism, it being understood and agreed that such adoption and approval are legislative acts within the unencumbered discretion of CITY. In addition, nothing herein shall be deemed a commitment by DEVELOPER to vote for or otherwise approve the formation of any special assessment district, community facilities district or alternate financing mechanism, it being understood and agreed that DEVELOPER reserves all of its legal rights regarding formation of the same. As used herein, "cooperate" means working together in good faith to diligently process and consider the formation of any special assessment district, community facilities district or alternative financing mechanism.

6. REVIEW FOR COMPLIANCE.

6.1 Periodic Review.

The Development Services Director shall review this Agreement annually, on or before the anniversary of the Effective Date, in order to ascertain the good faith compliance by DEVELOPER with the terms of the Agreement. DEVELOPER shall submit an annual monitoring report ("Annual Monitoring Report"), in a form acceptable to the Development Services Director, within 30 days after written notice from the Director demonstrating DEVELOPER's good faith compliance with all the material terms of this Agreement. The Annual Monitoring Report shall

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be accompanied by an annual review and administration fee sufficient to defray the estimated costs of review and administration of the Agreement during the succeeding year. The amount of the annual review and administration fee shall be set annually by resolution of the City Council. Upon completion of a periodic review, the Development Services Director shall submit a report to the City Council setting forth the evidence concerning good faith compliance by DEVELOPER with the terms of this Agreement and his or her recommended finding on that issue. If the City Council finds that DEVELOPER has not complied in good faith with the terms and conditions of this Agreement, the City Council may modify or terminate this Agreement as provided in Section 6.3 and 6.4, or in the alternative, at CITY's sole election, pursuant to Section 8.4.

6.2 Special Review. Notwithstanding anything to the contrary contained in this Agreement, the City Council of CITY may order a special review of compliance with this Agreement at any time by giving written notice to DEVELOPER. The notice for Special Review must describe in detail the specific issues which caused the CITY to question DEVELOPER'S good faith compliance and the evidence the CITY believes is necessary for the review. Within thirty (30) days following receipt of such notice, DEVELOPER shall submit evidence to the CITY of DEVELOPERs good faith compliance with this Agreement FOR such review and determination.

If the CITY makes a preliminary finding that DEVELOPER has not complied in good faith with the terms and conditions of this Agreement, the CITY may modify or terminate this Agreement as provided in Sections 6.3 and 6.4 or, in the alternative, at CITY's sole election, proceed pursuant to the requirements of Section 8.4.

6.3 Proceedings upon Modification or Termination. If upon a finding under Section 6.1 or 6.2, CITY determines to proceed with modification or termination of this Agreement, CITY shall give written notice to DEVELOPER of its intention so to do. The notice shall be given at least ten calendar days prior to the scheduled hearing and shall contain:

(a) The time and place of the hearing;

(b) A statement as to whether or not CITY proposes to terminate or to modify the Agreement; and,

(c) Such other information as is reasonably necessary to inform DEVELOPER of the nature of the proceeding.

6.4 Hearing on Modification or Termination. At the time and place set for the hearing on modification or termination, DEVELOPER shall be given an opportunity to be heard. DEVELOPER shall be required to demonstrate good faith compliance with the terms and conditions of this Agreement. The burden of proof on this issue shall be on DEVELOPER. If the City Council finds, based upon substantial evidence, that DEVELOPER has not complied in good faith with the terms or conditions of the Agreement, the City Council may terminate this Agreement or modify this Agreement and impose such conditions as are reasonably necessary to protect the interests of CITY. The decision of the City Council shall be final, subject only to judicial review pursuant to Section 1094.5 of the Code of Civil Procedure.

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6.5 Certificate of Agreement Compliance. If, at the conclusion of a periodic review, DEVELOPER is found to be in compliance with this Agreement, CITY shall, upon request by DEVELOPER, issue a Certificate of Agreement Compliance ("Certificate") to DEVELOPER stating that after the most recent periodic or special review and based upon the information known or made known to the Development Services Director and City Council that (1) this Agreement remains in effect and (2) DEVELOPER is not in default. The Certificate shall be in recordable form, shall contain information necessary to communicate constructive record notice of the finding of compliance, shall state whether the Certificate is issued after a periodic or special review and shall state the anticipated date of commencement of the next periodic review. DEVELOPER may record the Certificate with the Orange County Recorder.

Whether or not the Certificate is relied upon by assignees or other transferees or DEVELOPER, CITY shall not be bound by a Certificate if a default existed at the time of the periodic or special review, but was concealed from or otherwise not known to the Development Services Director or City Council.

7 PREVAILING WAGES.

7.1 Public Works Determination. DEVELOPER has been alerted to the requirements of California Labor Code section 1770, *et seq*., including, without limitation S.B. 975, which require the payment of prevailing wage rates and the performance of other requirements if it is determined that this Development Agreement or any portion of the Development constitutes a public works contract. It shall be the sole responsibility of DEVELOPER to determine whether to pay prevailing wages for any or all work required by this Development Agreement. As a material part of this Development Agreement, DEVELOPER agrees to assume all risk of liability arising from any decision not to pay prevailing wages for work required by this Development Agreement.

7.2 Indemnification. As a further material part of this Development Agreement, DEVELOPER agrees to indemnify, defend and hold harmless CITY, its officials, officers, employees, consultants and agents from any and all claims, liability, loss, costs, damages, expenses, fines and penalties, of whatever the or nature, including all costs of defense and attorneys' fees, arising from any alleged failure of the DEVELOPER or DEVELOPER'S contractors to comply with the prevailing wage laws of the State of California. If CITY or any of the other indemnified parties is named as a party in any dispute arising from the failure of DEVELOPER or DEVELOPER'S contractors to pay prevailing wages, DEVELOPER agrees that CITY and those other indemnified parties may appoint their own independent counsel, and DEVELOPER agrees to pay all attorneys' fees and defense costs of CITY and the other indemnified parties as billed, in addition to all other damages, fines, penalties, and losses incurred by CITY and those other indemnified parties as a result of the action.

8 DEFAULT AND REMEDIES.

8.1 Remedies in General. It is acknowledged by the parties that neither party would have entered into this Agreement if it were to be liable in damages under this Agreement, or with respect to this Agreement or the application thereof. In general, each of the parties hereto may pursue any remedy at law or equity available for the breach of any provision of this Agreement, except that neither party shall be liable in damages to the other party, or to any successor in interest

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of such party, or to any other person, and each party covenants not to sue for damages or claim any damages:

(a) For any breach of this Agreement or for any cause of action that arises out of this Agreement; or

(b) For the taking, impairment or restriction of any right or interest conveyed or provided under or pursuant to this Agreement; or

(c) Arising out of or connected with any dispute, controversy or issue regarding the application or interpretation or effect of the provisions of this Agreement.

8.2 Specific Performance. The parties acknowledge that money damages and remedies at law generally are inadequate and specific performance and other non-monetary relief are particularly appropriate remedies for the enforcement of this Agreement and should be available to all parties for the following reasons:

(a) Money damages are unavailable against CITY or DEVELOPER as provided in Section 8.1 above; provided nothing in this Agreement precludes CITY from exercising its rights to enforce bonds or other security furnished by DEVELOPER to CITY as required in the Development Plan, or from enforcing its right to indemnification from DEVELOPER as set forth herein and requiring DEVELOPER to pay money damages for failure to do so.

(b) Due to the size, nature and scope of the Project, it may not be practical or possible to restore the Property to its natural condition once implementation of this Agreement has begun. After such implementation, DEVELOPER may be foreclosed from other choices it may have had to utilize the Property or portions thereof. DEVELOPER has invested significant time and resources and performed extensive planning and processing of the Project in agreeing to the terms of this Agreement and will be investing even more significant time and resources in implementing the Project in reliance upon the terms of this Agreement, and it is not possible to determine the sum of money that would adequately compensate DEVELOPER for such efforts.

8.3 Release. Except for non-damage remedies, including the remedy of specific performance as provided in Section 8.2, and judicial review as provided for in Section 6.4, DEVELOPER, for itself, its successors and assignees, hereby releases CITY, its officials, officers, agents and employees from any and all claims, demands, actions, or suits of any kind or nature arising out of any liability, known or unknown, present or future, including, but not limited to, any claim or liability, based or asserted, pursuant to Article I, Section 19 of the California Constitution, the Fifth Amendment of the United States Constitution, or any other law or ordinance that seeks to impose any other liability or damage, whatsoever, upon CITY because it entered into this Agreement or because of the terms of this Agreement.

8.4 Default of DEVELOPER. CITY may terminate or modify this Agreement for any failure of DEVELOPER to perform any material duty or obligation of DEVELOPER under this Agreement, or to comply in good faith with the terms of this Agreement (hereinafter referred to as "default"); provided, however, CITY shall first provide written notice to DEVELOPER of default setting forth the nature of the default and demanding the DEVELOPER to cure such default. If

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DEVELOPER fails to cure such default within 30 days after the service of such notice or, in the event that such default cannot be cured within such 30 day period but can be cured within a longer time, has failed to commence the actions necessary to cure such default within such 30 day period and to diligently proceed to complete such actions and cure such default, CITY may proceed as set forth in section 6.4 hereof.

8.5 Termination of Agreement for Default of CITY. DEVELOPER may terminate this Agreement only in the event of a default by CITY in the performance of a material term of this Agreement and only after providing written notice to CITY of default setting forth the nature of the default and the actions, if any, required by CITY to cure such default and, where the default can be cured, CITY has failed to take such actions and cure such default within 60 days after the effective date of such notice or, in the event that such default cannot be cured within such 60 day period but can be cured within a longer time, has failed to commence the actions necessary to cure such default within such 60 day period and to diligently proceed to complete such actions and cure such default.

9 THIRD PARTY LITIGATION.

9.1 General Plan Litigation. CITY has determined that this Agreement is consistent with its General Plan, herein called General Plan, and Existing Land Use Regulations. DEVELOPER has reviewed the General Plan and concurs with CITY'S determination. CITY shall have no liability in damages under this Agreement for any failure of CITY to perform under this Agreement or the inability of DEVELOPER to develop the Property as contemplated by the Development Plan of this Agreement as the result of a judicial determination that on the Effective Date, or at any time thereafter, the General Plan, Existing Regulations or the Mitigated Negative Declaration, or portions thereof, applied to the Development Plan are invalid or inadequate or not in compliance with law.

9.2 Third Party Litigation Concerning Agreement. DEVELOPER shall defend, at its expense, including attorneys' fees, indemnify, and hold harmless CITY, its agents, officials, officers, independent contractors, subcontractors, and employees, from any claim, action or proceeding against CITY, its agents, officials, officers, independent contractors, subcontractors, or employees to attack, set aside, void, or annul the approval of this Agreement or the approval of any Subsequent Development Approval granted pursuant to this Agreement. CITY shall promptly notify DEVELOPER of any such claim, action or proceeding, and CITY shall cooperate in the defense.

9.3 Indemnity. In addition to the provisions of 9.2 above, DEVELOPER shall indemnify and hold CITY, its officials, officers, agents and employees free and harmless from any liability whatsoever, based or asserted upon any act or omission of DEVELOPER, its officers, agents, employees, subcontractors and independent contractors, for property damage, bodily injury, or death (DEVELOPER'S employees included) or any other element of damage of any kind or nature, relating to or in any way connected with or arising from the activities contemplated hereunder, including, but not limited to, the study, design, engineering, construction, completion, failure or conveyance of the public improvements, save and except claims for damages to the extent arising through the gross active negligence or willful misconduct of CITY. DEVELOPER shall defend, at its expense, including attorneys' fees, CITY, its officers, officials, agents and

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employees in any action or proceeding based upon such alleged acts or omissions. CITY may, in its discretion, participate in the defense of any such action or proceeding.

9.4 Environmental Assurances. DEVELOPER shall indemnify and hold CITY, its officers, officials, agents and employees free and harmless from any liability, based or asserted, upon any act or omission of DEVELOPER, its officers, agents, employees, subcontractors, predecessors in interest, successors, assigns and independent contractors for any violation of any federal, state or local law, ordinance or regulation relating to industrial hygiene or to environmental conditions on, under or about the Property, including, but not limited to, soil and groundwater conditions, and DEVELOPER shall defend and indemnify, at its expense, including attorneys' fees, CITY, its officers, officials, agents and employees in any action based or asserted upon any such alleged act or omission. CITY may, in its discretion, participate in the defense of any such action.

9.5 Reservation of Rights. With respect to Sections 9.2, 9.3 and 9.4 herein, CITY reserves the right to either (1) approve the attorney(s) that DEVELOPER selects, hires or otherwise engages to defend CITY hereunder, which approval shall not be unreasonably withheld, or (2) conduct its own defense, provided, however, that DEVELOPER shall reimburse CITY forthwith for any and all expenses incurred for such defense, including attorneys' fees, upon billing and accounting therefor. In the event CITY chooses Option (2), then DEVELOPER shall also be entitled to participate in the proceedings that are the subject of Sections 9.2, 9.3 or 9.4 herein.

9.6 Survival. The provisions of this Sections 9.1 through 9.6, inclusive, shall survive the termination of this Agreement.

10 MORTGAGEE PROTECTION.

The parties hereto agree that this Agreement shall not prevent or limit DEVELOPER, in any manner, at DEVELOPER'S sole discretion, from encumbering the Property or any portion thereof or any improvement thereon by any mortgage, deed of trust or other security device securing financing with respect to the Property. CITY acknowledges that Mortgagees providing such financing may require certain Agreement interpretations and modifications and agrees upon request, from time to time, to meet with DEVELOPER and representatives of such Mortgagees to negotiate in good faith any such request for interpretation or modification. CITY will not unreasonably withhold its consent to any such requested interpretation or modification provided such interpretation or modification is consistent with the intent and purposes of this Agreement. Any Mortgagee of the Property shall be entitled to the following rights and privileges:

(a) Neither entering into this Agreement nor a breach of this Agreement shall defeat, render invalid, diminish or impair the lien of any mortgage on the Property made in good-faith and for value, unless otherwise required by law.

(b) The Mortgagee of any mortgage or deed of trust encumbering the Property, or any part thereof, which Mortgagee has submitted a request in writing to CITY in the manner specified herein for giving notices, shall be entitled to receive written notification from CITY of any default by DEVELOPER in the performance of DEVELOPER'S obligations under this Agreement.

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(c) If CITY timely receives a request from a Mortgagee requesting a copy of any notice of default given to DEVELOPER under the terms of this Agreement, CITY shall provide a copy of that notice to the Mortgagee within 10 days of receiving the notice of default to DEVELOPER. The Mortgagee shall have the right, but not the obligation, to cure the default during the remaining cure period allowed such party under this Agreement.

(d) Any Mortgagee who comes into possession of the Property, or any part thereof, pursuant to foreclosure of the mortgage or deed of trust, or deed in lieu of such foreclosure, shall take the Property, or part thereof, subject to the terms of this Agreement. Notwithstanding any other provision of this Agreement to the contrary, no Mortgagee shall have an obligation or duty under this Agreement to perform any of DEVELOPER'S obligations or other affirmative covenants of DEVELOPER hereunder, or to guarantee such performance; provided, however, that to the extent that any covenant to be performed by DEVELOPER is a condition precedent to the performance of a covenant by CITY, the performance thereof shall continue to be a condition precedent to CITY'S performance hereunder, and if further provided that any sale, transfer or assignment by any Mortgagee in possession shall be subject to the provisions of Section 2.3 of this Agreement.

11 MISCELLANEOUS PROVISIONS.

11.1 Recordation of Agreement. This Agreement and any amendment or cancellation thereof shall be recorded with the Orange County Recorder by the City Clerk within the period required by Section 65868.5 of the Government Code.

11.2 Entire Agreement. This Agreement sets forth and contains the entire understanding and agreement of the parties, and there are no oral or written representations, understandings or ancillary covenants, undertakings or agreements that are not contained or expressly referred to herein. No testimony or evidence of any such representations, understandings or covenants shall be admissible in any proceeding of any kind or nature to interpret or determine the terms or conditions of this Agreement.

11.3 Severability. If any term, provision, covenant or condition of this Agreement shall be determined invalid, void or unenforceable, the remainder of this Agreement shall not be affected thereby to the extent such remaining provisions are not rendered impractical to perform taking into consideration the purposes of this Agreement. Notwithstanding the foregoing, the provision of the public benefits set forth in Section 4 of this Agreement, including the payment of the fees set forth therein, are essential elements of this Agreement and CITY would not have entered into this Agreement but for such provisions, and therefore in the event such provisions are determined to be invalid, void or unenforceable, this entire Agreement shall be null and void and of no force and effect whatsoever.

11.4 Interpretation and Governing Law. This Agreement and any dispute arising hereunder shall be governed and interpreted in accordance with the laws of the State of California. This Agreement shall be construed as a whole according to its fair language and common meaning to achieve the objectives and purposes of the parties hereto, and the rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be employed in

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interpreting this Agreement, all parties having been represented by counsel in the negotiation and preparation hereof.

11.5 Section Headings. All section headings and subheadings are inserted for convenience only and shall not affect any construction or interpretation of this Agreement.

11.6 Singular and Plural. As used herein, the singular of any word includes the plural.

11.7 Joint and Several Obligations. If at any time during the term of this Agreement the Property is owned, in whole or in part, by more than one DEVELOPER (collectively the "Obligors"), all obligations of such Obligors under this Agreement shall be joint and several, and the default of any such Obligors shall be the default of all such Obligors. Notwithstanding the foregoing, no Obligors of a single Lot that has been finally subdivided, or of a Condominium unit in a Condominium Plan that has been approved by CITY, and such Lot or Condominium unit sold to a member of the general public or other ultimate user, shall have any further obligation under this Agreement with respect to such Lot or Condominium unit except as provided under Section 4 hereof.

11.8 Time of Essence. Time is of the essence in the performance of the provisions of this Agreement as to which time is an element.

11.9 Waiver. Failure by a party to insist upon the strict performance of any of the provisions of this Agreement by the other party, or the failure by a party to exercise its rights upon the default of the other party, shall not constitute a waiver of such party's right to insist and demand strict compliance by the other party with the terms of this Agreement thereafter.

11.10 No Third Party Beneficiaries. This Agreement is made and entered into for the sole protection and benefit of the parties and their successors and assigns. No other person shall have any right of action based upon any provision of this Agreement.

11.11 Force Majeure. Neither party shall be deemed to be in default where failure or delay in performance of any of its obligations under this Agreement is caused by floods, earthquakes, other acts of God, fires, wars, riots or similar hostilities, strikes and other labor difficulties beyond the party's control, (including the party's employment force), government regulations, court actions (such as restraining orders or injunctions), or other causes beyond the party's control. If any such events shall occur, the term of this Agreement and the time for performance by either party of any of its obligations hereunder may be extended by the written agreement of the parties for the period of time that such events prevented such performance, provided that the term of this Agreement shall not be extended under any circumstances for more than 5 years.

11.12 Mutual Covenants. The covenants contained herein are mutual covenants and also constitute conditions to the concurrent or subsequent performance by the party benefited thereby of the covenants to be performed hereunder by such benefited party.

11.13 Successors in Interest. The burdens of this Agreement shall be binding upon, and the benefits of this Agreement shall inure to, all successors in interest to the parties to this Agreement. All provisions of this Agreement shall be enforceable as equitable servitudes and constitute covenants running with the land. Each covenant to do or refrain from doing some act

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hereunder with regard to development of the Property: (a) is for the benefit of and is a burden upon every portion of the Property; (b) runs with the Property and each portion thereof; and, (e) is binding upon each party and each successor in interest during ownership of the Property or any portion thereof.

11.14 Counterparts. This Agreement 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.

11.15 Jurisdiction and Venue. Any action at law or in equity arising under this Agreement or brought by a party hereto for the purpose of enforcing, construing or determining the validity of any provision of this Agreement shall be filed and tried in the Superior Court of the County of Orange, State of California, and the parties hereto waive all provisions of law providing for the filing, removal or change of venue to any other court.

11.16 Project as a Private Undertaking. It is specifically understood and agreed by and between the parties hereto that the development of the Project is a private development, that neither party is acting as the agent of the other in any respect hereunder, and that each party is an independent contracting entity with respect to the terms, covenants and conditions contained in this Agreement. No partnership, joint venture or other association of any kind is formed by this Agreement. The only relationship between CITY and DEVELOPER is that of a government entity regulating the development of private property and the DEVELOPER of such property.

11.17 Further Actions and Instruments. Each of the parties shall cooperate with and provide reasonable assistance to the other to the extent contemplated hereunder in the performance of all obligations under this Agreement and the satisfaction of the conditions of this Agreement. Upon the request of either party at any time, the other party shall promptly execute, with acknowledgment or affidavit if reasonably required, and file or record such required instruments and writings and take any actions as may be reasonably necessary under the terms of this Agreement to carry out the intent and to fulfill the provisions of this Agreement or to evidence or consummate the transactions contemplated by this Agreement.

11.18 Eminent Domain. No provision of this Agreement shall be construed to limit or restrict the exercise by CITY of its power of eminent domain.

11.19 Agent for Service of Process. In the event DEVELOPER is not a resident of the State of California or it is an association, partnership or joint venture without a member, partner or joint venturer resident of the State of California, or it is a foreign corporation, then in any such event, DEVELOPER shall file with the Development Services Director, upon its execution of this Agreement, a designation of a natural person residing in the State of California, giving his or her name, residence and business addresses, as its agent for the purpose of service of process in any court action arising out of or based upon this Agreement, and the delivery to such agent of a copy of any process in any such action shall constitute valid service upon DEVELOPER. If for any reason service of such process upon such agent is not feasible, then in such event DEVELOPER maybe personally served with such process out of Orange County and such service shall constitute valid service upon DEVELOPER. DEVELOPER is amenable to the process so served, submits to the jurisdiction of the Court referenced in Section 11.15 so obtained and waives any and all

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objections and protests thereto. DEVELOPER for itself, assigns and successors hereby waive the provisions of the Hague Convention (Convention on the Service Abroad of Judicial and Extra Judicial Documents in Civil or Commercial Matters, 20 U.S.T. 361, T.I.A.S. No. 6638).

11.20 Authority to Execute. The person or persons executing this Agreement on behalf of DEVELOPER warrants and represents that he or she or they has/have the authority to execute this Agreement on behalf of such corporation, partnership or business entity and warrants and represents that he or she or they has/have the authority to bind DEVELOPER to the performance of its obligations hereunder.

11.21 Conflict with TOD. Notwithstanding any other provision of this Agreement, in the event of any conflict between any provision of this Agreement and any provision of the TOD, the conflicting provision of this Agreement shall supersede and control.

11.22 Minor Modifications to Development Plan. Minor modifications to the Development Plan may be approved by the City Administrator, or his or her designee, evidenced by a written memorandum from the City, which shall not require recordation but shall be retained by the City as a public record. [INSERT DEFINITION OF MINOR MODIFICATION.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year set forth below.

[SIGNATURES FOLLOW]

DRAFT

"DEVELOPER"

THE PLACENTIA TOD PROJECT OWNER, LLC, a Delaware limited liability company
By: Integral Placentia Associates, LLC, a Delaware limited liability company, its Manager

By: Manchester Family Diversified, LLC, a Delaware limited liability company, its Managing Member

By: KPMW Integral, LLC, a California limited liability company, its Manager

By: _____
Name: John Stanek
Title: Authorized Representative

Attest:

"CITY"

THE CITY OF PLACENTIA,
a municipal corporation

_____
CITY CLERK

By: _____
Name:_____
Title: Mayor

APPROVED AS TO FORM:

By: _____
_____
Title: City Manager

By: _____
City Attorney

By: _____
_____
Title: Deputy City Manager

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A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On _____, before me, _____,
(insert name and title of the officer)

Notary Public, personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (Seal)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

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I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (Seal)

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LEGAL DESCRIPTION OF PROPERTY

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EXHIBIT “A”

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MAP OF PROPERTY

EXHIBIT “B”

DRAFT

EXISTING LAND USE REGULATIONS

EXHIBIT “C”

SUMMARY OF DEVELOMENT IMPACT FEES

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EXHIBIT “D”

OFF SITE IMPROVEMENTS

Utilities across street	Undergrounding
Street furniture	
Landscaping	

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ONSITE IMPROVEMENTS

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EXHIBIT “F”

SCHEDULE OF PERFORMANCE

Action	Deadline	Deliverable
Obtain Entitlements	**09/17**	
Plan Check Submittal	**02/18**	
Building Permits Submittal	**03/18**	
Building Permits Issued	**09/18**	
Construction Commencement	**09/09/18**	
Construction Completion	**03/31/19**	

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EXHIBIT “H”

Final

Initial Study/ Mitigated Negative Declaration for the Placentia Crowther Project at 110 and 132 E. Crowther Avenue

August 2017

Provided By:

The Placentia TOD Project Owner, LLC

Placentia Crowther Project
at 110 and 132 East Crowther Avenue

Final Initial Study / Mitigated Negative Declaration

Project Applicant:

Integral Communities
(The Placentia TOD Project Owner, LLC)
888 San Clemente Drive, Suite 100
Newport Beach, CA 92660

CEQA Lead Agency:

City of Placentia
401 East Chapman Avenue
Placentia, CA 92870

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard, Suite 200
La Mesa, CA 91942

August 2017

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ATTACHMENTS

A Air Quality/GHG Analysis
B Historic Resource Evaluation Report
C Geotechnical Studies
D Hazardous Materials Studies
E Water Quality Management Plan
F Noise and Vibration Analysis
G Traffic Analysis
H Will Serve Letters
I Tribal Consultation
J Notice of Intent
K Mitigation Monitoring and Reporting Program

1.0 INTRODUCTION

This ~~Draft~~ Final Initial Study/Mitigated Negative Declaration (IS/MND) addresses the Placentia Crowther Project (project/proposed project), located at 110 and 132 East Crowther Avenue. This IS/MND analyzes the environmental impacts associated with the proposed project in conformance with the California Environmental Quality Act (CEQA) and the associated Guidelines (State CEQA Guidelines). The analysis includes responses to the State CEQA Guidelines Appendix G Initial Study Checklist. Where potential impacts have been identified, mitigation measures have been specified to reduce impacts to a less than significant level. The project site is located within the City of Placentia (City) and the City is the CEQA Lead Agency for the proposed project. Because the IS/MND demonstrates that all potentially significant project impacts would be reduced to less than significant levels, with mitigation incorporated, the City has filed a Notice of Intent to adopt a Mitigated Negative Declaration for the proposed project.

The proposed project is within the Packing House District Transit-Oriented Development District (TOD District) that was approved in 2017, with an IS/MND. The proposed project is subject to the applicable requirements of the approved TOD District and represents a portion of the development that was evaluated within the TOD District IS/MND. The analyses within this document therefore utilize studies that were completed for the TOD District IS/MND, as well as new environmental analyses focused on the proposed project. Where applicable and/or appropriate, information has been incorporated by reference and summarized in the analysis presented in this document for the proposed project as permitted by Section 15150 of the CEQA Guidelines.

The Notice of Intent to adopt the IS/MND was published in the local paper and filed with the County Clerk (See Attachment J) and the IS/MND was available for a 20-day public review from July 10 to July 31. No public comments were received. A letter was received from the Gabrieleño Band of Mission Indians – Kizh Nation requesting consultation regarding the proposed project. Since the same request had already been made for the Packing House District as a whole, within which the proposed project is located, the need for consultation and monitoring by a qualified archaeologist and Native American Monitor during construction had already been reflected in the Draft IS/MND. Minor edits to the Final IS/MND has been made to address the more recent request and no changes in the impact conclusions or mitigation measures were required. Passages within this Final IS/MND that have been revised since public circulation are marked with a line in the left-hand margin.

This Final IS/MND also incorporates the required Mitigation Monitoring and Reporting Program (MMRP) for the project, within Attachment K.

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2.0 PROJECT LOCATION AND SETTING

2.1 Project Location

The 2.95-acre project site is located in the City of Placentia (City), approximately 0.4 mile east of State Route (SR) 57 and 1.3 miles north of SR 91 in northern Orange County, California (Figure 1, *Regional Location*). More specifically, the project site is located along the south side of East Crowther Avenue, approximately 0.12 mile east of South Melrose Street and 100 feet west of Cameron Street (Figure 2, *Project Vicinity*).

2.2 General Plan Designation

The General Plan designation for the site is Transit-Oriented Development (TOD).

2.3 Zoning Designation

The zoning for the site is TOD.

2.4 Existing Land Uses and Environmental Setting

The project site is located within a predominantly urban area, with existing adjacent uses including industrial development to the east, west and south; and East Crowther Avenue, a parking lot, and a graded/undeveloped lot to the north. More distant land uses include the rail corridor and mixed residential, commercial, institutional (school/church), and recreational (park) uses to the north; a mix of residential and commercial sites to the east and south; and predominantly commercial and industrial development to the west. Land use and zoning designations in surrounding areas reflect these uses, and include a number of residential, commercial, and industrial/manufacturing categories.

The project site has been previously graded/filled and developed with industrial uses. Existing development on the site includes four buildings with a combined area of approximately 36,225 square feet (SF), several sheet metal canopy structures, a carport, fencing, utility and drainage structures, a number of paved/unpaved parking areas, and former paved storage areas. The project site is generally level, and exhibits elevations of between approximately 230 and 240 feet above mean sea level (AMSL). Existing on-site drainage occurs primarily as overland flow moving generally north to East Crowther Avenue (with some local variation), with flows in this roadway continuing along the curb before entering downstream City drainage facilities and ultimately flowing south to the Santa Ana River.

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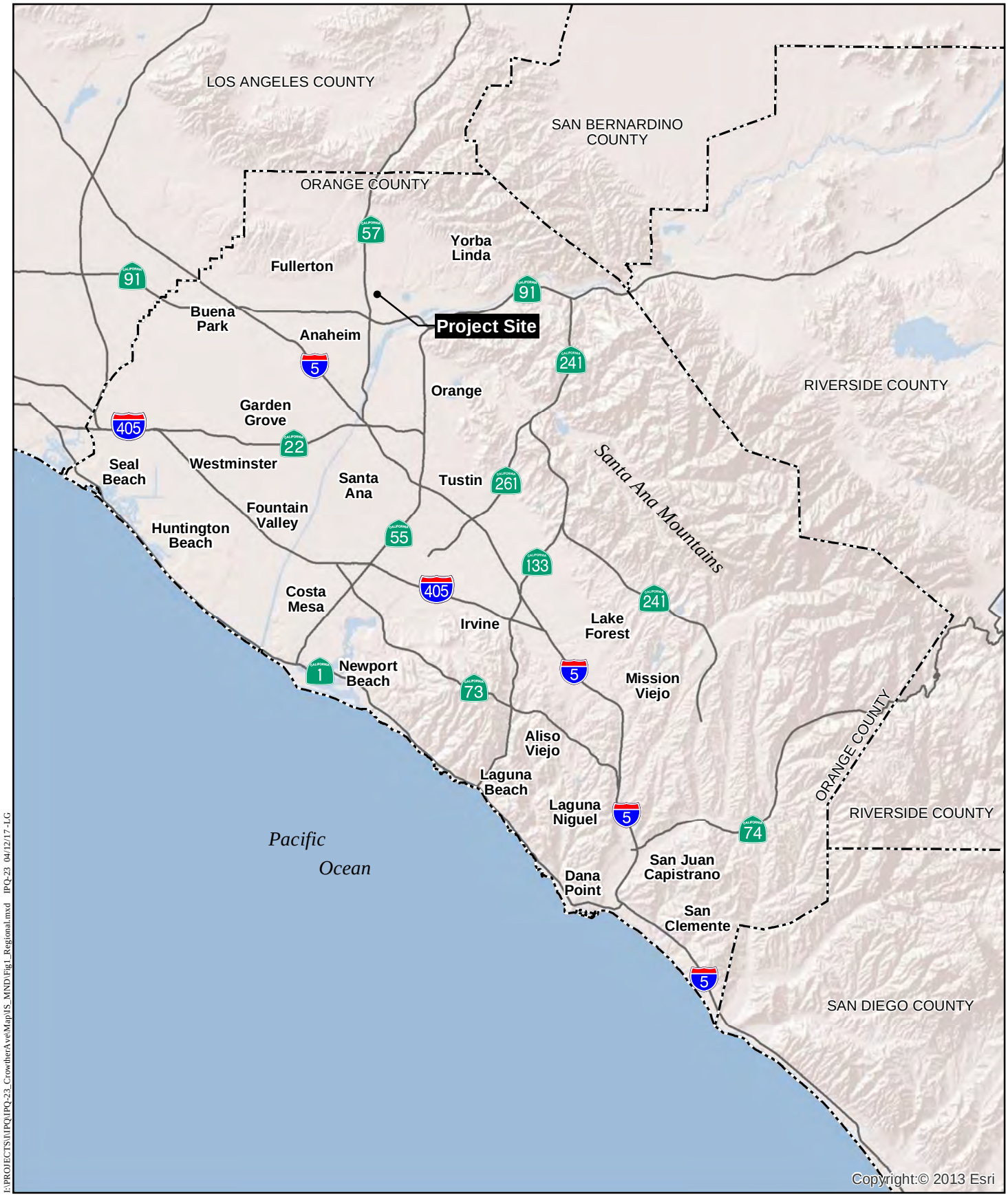

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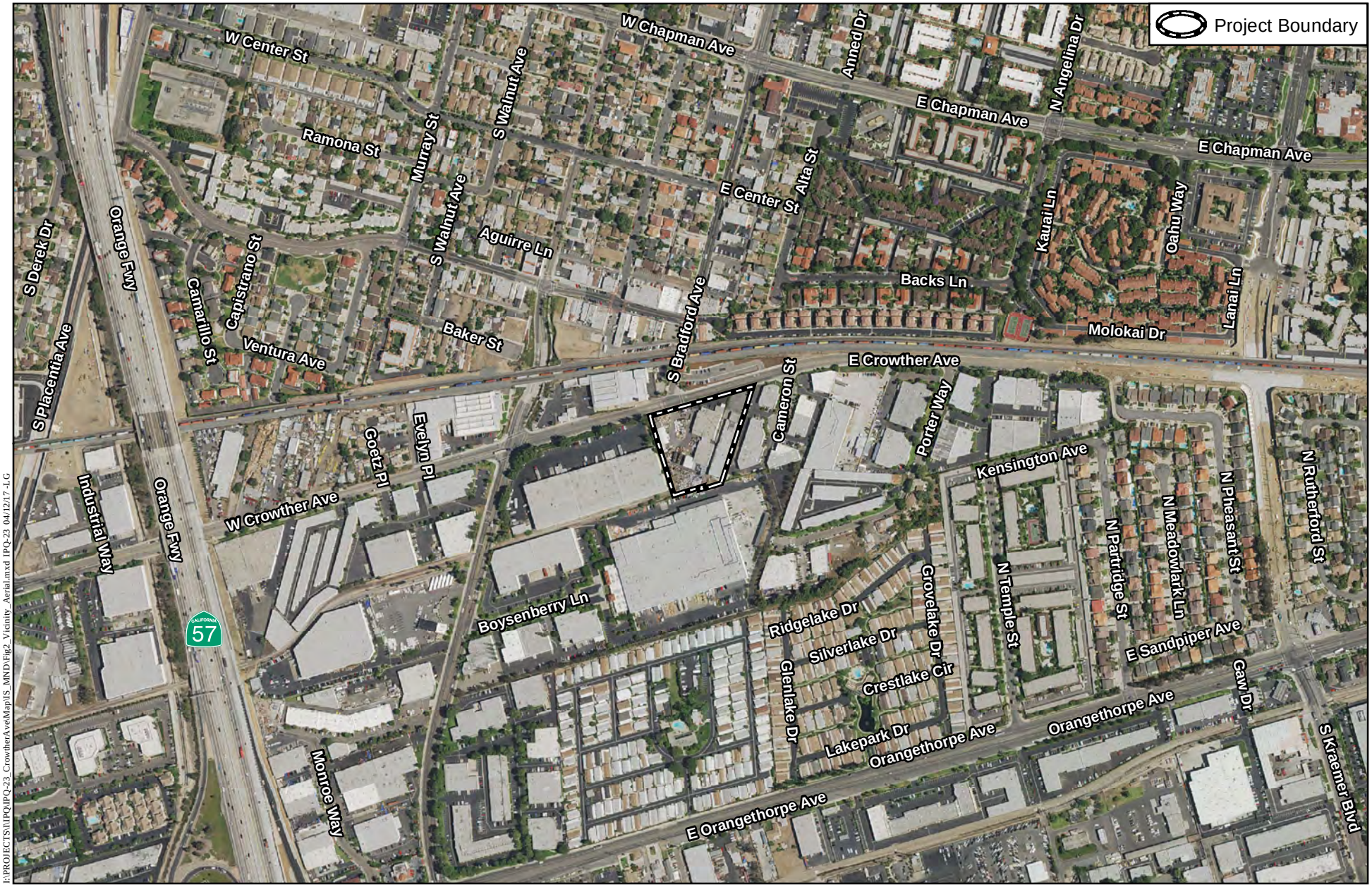
Regional Location

PLACENTIA CROWTHER PROJECT

HELIX Environmental Planning

N 0 6 Miles

Figure 1



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Project Vicinity Map

PLACENTIA CROWTHER PROJECT

HELIX Environmental Planning

N 0 600 Feet

Figure 2

3.0 PROJECT CHARACTERISTICS

3.1 Project Description

Project Features

The proposed project involves the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a 215-unit multi-family residential development and related amenities as outlined below.

The proposed residential facilities include 215 multi-family residential dwelling units (DU) with an overall density of 72.9 DU per acre (which is below the maximum allowable density of 95 DU per acre permitted in the TOD District), as well as related amenities such as two landscaped courtyards (with recreational features including fire tables, BBQs, and water features), a 6-story/7-level parking structure, a pool/club house and fitness center located on the rooftop terrace (7^{th} level) of the parking structure (with related BBQ, fire table/lounge, cabana and spa facilities), a tot lot, a dog run/spa, pedestrian walkways/corridors, and extensive landscaping (Figures 3a, *Project Site Plan*, and 3b, *Rooftop Terrace*). The proposed residential facilities include 100 one-bedroom units and 115 two-bedroom units located within 5-story structures. The residential units encompass 10 distinct model designs, with net residential areas ranging between 734 and 1,185 SF, an average unit net area of 901 SF, and a total (gross) residential area of 256,482 SF (i.e., including balconies, corridors/storage, stairs/elevators, etc., refer to Figure 3a). Additional requirements, such as structure heights, setbacks, common areas, and parking would conform to local requirements, such as the adopted TOD District development standards, with additional discussion provided below (i.e., for parking) and in applicable sections of this IS/MND. A 2,400-SF leasing office would also be located on the ground floor residential level, near the northeastern corner of the development. Specifically, while the proposed residential sites would initially be offered as rental units, the project approval would include an option for future conversion/sale as condominiums.

Access for residents and guests would be provided through the primary site entry located east of the leasing office, and would extend along the eastern site boundary to the proposed parking structure (Figure 3a). This proposed access road includes an automatic gate that would open via entry codes and/or remote-control openers to be provided to on-site residents, as well as a fire turn-around/pullout located near the parking structure. An additional fire access corridor would be located along the northwestern site boundary, with associated use to be limited to emergency vehicles (Figure 3a). No other roadways are proposed on site. A series of internal pedestrian walkways and corridors is proposed to accommodate resident/guest access to units and recreational amenities. The proposed parking structure would include 179,800 gross SF with seven levels as noted, including the previously described rooftop terrace and a basement level encompassing a maintenance shop and bicycle storage in addition to vehicle parking. A total of 394 parking spaces would be provided on site, including 388 within the noted structure and 6 surface spaces located near the leasing office (Figures 3a and 3b). This would equate to approximately 1.8 parking spaces per unit (the minimum requirement is 316 parking spaces or approximately 1.5 spaces per unit), including a minimum of 100 spaces for the one-bedroom units, 173 spaces for the two-bedroom units, and 43 spaces for guest parking (refer to Figure 3a).

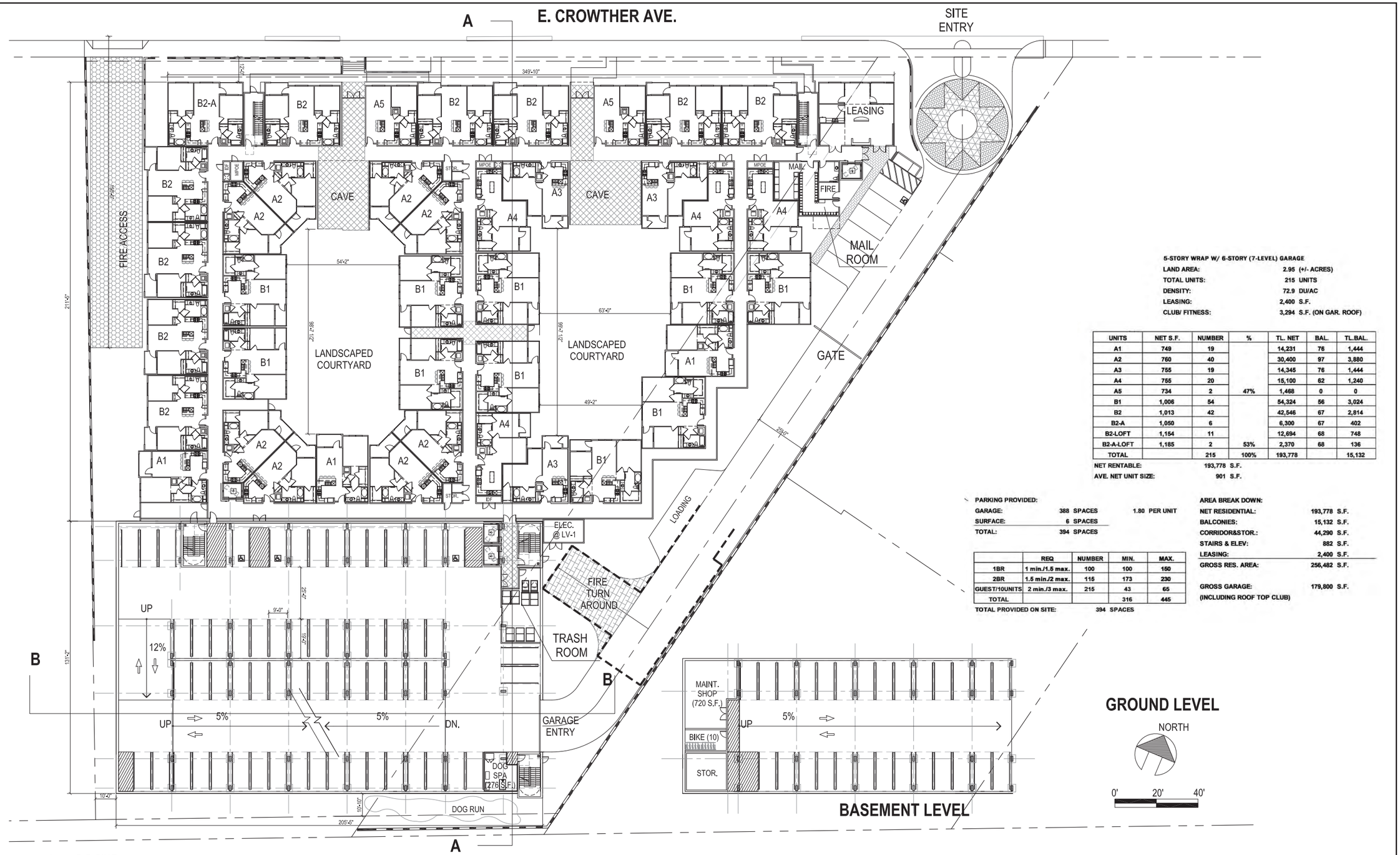
Proposed landscaping would include a mix of native and ornamental varieties along much of the site perimeter, the on-site courtyards, and rooftop terrace, as well as an enlarged planting area at the main site entry. Tree plantings would occur along the northern property boundary with East Crowther Drive and other applicable portions of the site perimeter and interior, and would include varieties such as oaks, sycamores, palms, and other native/ornamental species. Artificial turf would be installed in portions of the courtyard, along with accent vegetation and architectural features to provide screening and separation between active (e.g., games) and passive (lounge) recreational areas.

The project site would be served by connections to existing local utilities including water, sewer, and gas/electric facilities. Proposed connections and internal utility design, as well as related services such as solid waste pickup/disposal, would conform with applicable agency/utility requirements (with additional discussion provided below in associated sections of this IS/MND).

Project Grading/Construction

The facilities proposed for demolition/removal include four existing buildings with a combined area of approximately 36,225 SF, several sheet metal canopy structures, a carport, fencing, utility and drainage structures, a number of paved/unpaved parking areas, and former paved storage areas. After demolition and removal of existing facilities, as described, the site would be graded to accommodate proposed development, with grading to include approximately 7,144 cubic yards (CY) of cut and 2,120 CY of on-site fill to provide a level building pad (and the remaining 5,024 CY of excavated material to be exported for off-site use/disposal at one or more approved locations). At 13 CY per load, 386 truck trips would be required to export this material from the project site. The project site has been previously graded and filled to accommodate the described existing development, and includes approximately 4 to 6 feet of existing artificial fill, although deeper fill may be encountered in some areas of the site. Proposed excavation would extend to maximum depths of approximately 10 feet. Retaining walls would also be provided along the east and west site boundaries, and portions of the southern site boundary to accommodate the proposed cut-and-fill activities and pad elevations.

Project-related construction would utilize typical equipment, including graders, excavators, scrapers, bulldozers, vibratory rollers, and support vehicles (e.g., water, material delivery, and dump trucks). Final equipment types and numbers would be determined by the project contractor(s). Access to the project site during construction would be provided by a number of larger existing roadways, including SR 91, SR 57, and Crowther Avenue. Construction-related traffic would include one-time ingress/egress for construction equipment and vehicles, as well as daily trips for construction workers and material deliveries/hauling. Construction within or adjacent to public streets would be limited to access and utility connections along East Crowther Avenue. Appropriate traffic control measures would be implemented as necessary to maintain access and ensure public safety. These measures would likely include standard efforts such as the use of cones, barriers, signs, and flaggers where appropriate, in compliance with applicable requirements and guidelines of the California Manual of Uniform Traffic Control Devices (MUTCD). Construction-related equipment/material staging and storage would be located either within the project site disturbance area, and/or in one or more previously disturbed/developed off-site locations, such as paved surface parking lots (with off-site staging areas to be identified by the project contractor[s]). Pursuant to Title 23 of the City Municipal Code



5-STORY WRAP W/ 6-STORY (7-LEVEL) GARAGE

LAND AREA:	2.95 (+/- ACRES)
TOTAL UNITS:	215 UNITS
DENSITY:	72.9 DU/AC
LEASING:	2,400 S.F.
CLUB/ FITNESS:	3,294 S.F. (ON GAR. ROOF)

UNITS	NET S.F.	NUMBER	%	TL. NET	BAL.	TL.BAL.
A1	749	19		14,231	76	1,444
A2	760	40		30,400	97	3,880
A3	755	19		14,345	76	1,444
A4	755	20		15,100	62	1,240
A5	734	2	47%	1,468	0	0
B1	1,006	54		54,324	56	3,024
B2	1,013	42		42,546	67	2,814
B2-A	1,050	6		6,300	67	402
B2-LOFT	1,154	11		12,694	68	748
B2-A-LOFT	1,185	2	53%	2,370	68	136
TOTAL		215	100%	193,778		15,132
NET RENTABLE:		193,778	S.F.			
AVE. NET UNIT SIZE:		901	S.F.			

PARKING PROVIDED:

GARAGE:	388 SPACES	1.80 PER UNIT
SURFACE:	6 SPACES	
TOTAL:	394 SPACES	

	REQ	NUMBER	MIN.	MAX.
1BR	1 min./1.5 max.	100	100	150
2BR	1.5 min./2 max.	115	173	230
GUEST/10UNITS	2 min./3 max.	215	43	65
TOTAL			316	445
TOTAL PROVIDED ON SITE:		394 SPACES		

AREA BREAK DOWN:

NET RESIDENTIAL:	193,778 S.F.
BALCONIES:	15,132 S.F.
CORRIDOR&STOR.:	44,290 S.F.
STAIRS & ELEV:	882 S.F.
LEASING:	2,400 S.F.
GROSS RES. AREA:	256,482 S.F.
GROSS GARAGE: (INCLUDING ROOF TOP CLUB)	179,800 S.F.

Source: Humphreys and Partners Architects, L.P. 2017

Project Site Plan

PLACENTIA CROWTHER PROJECT

Figure 3a

HELIX Environmental Planning

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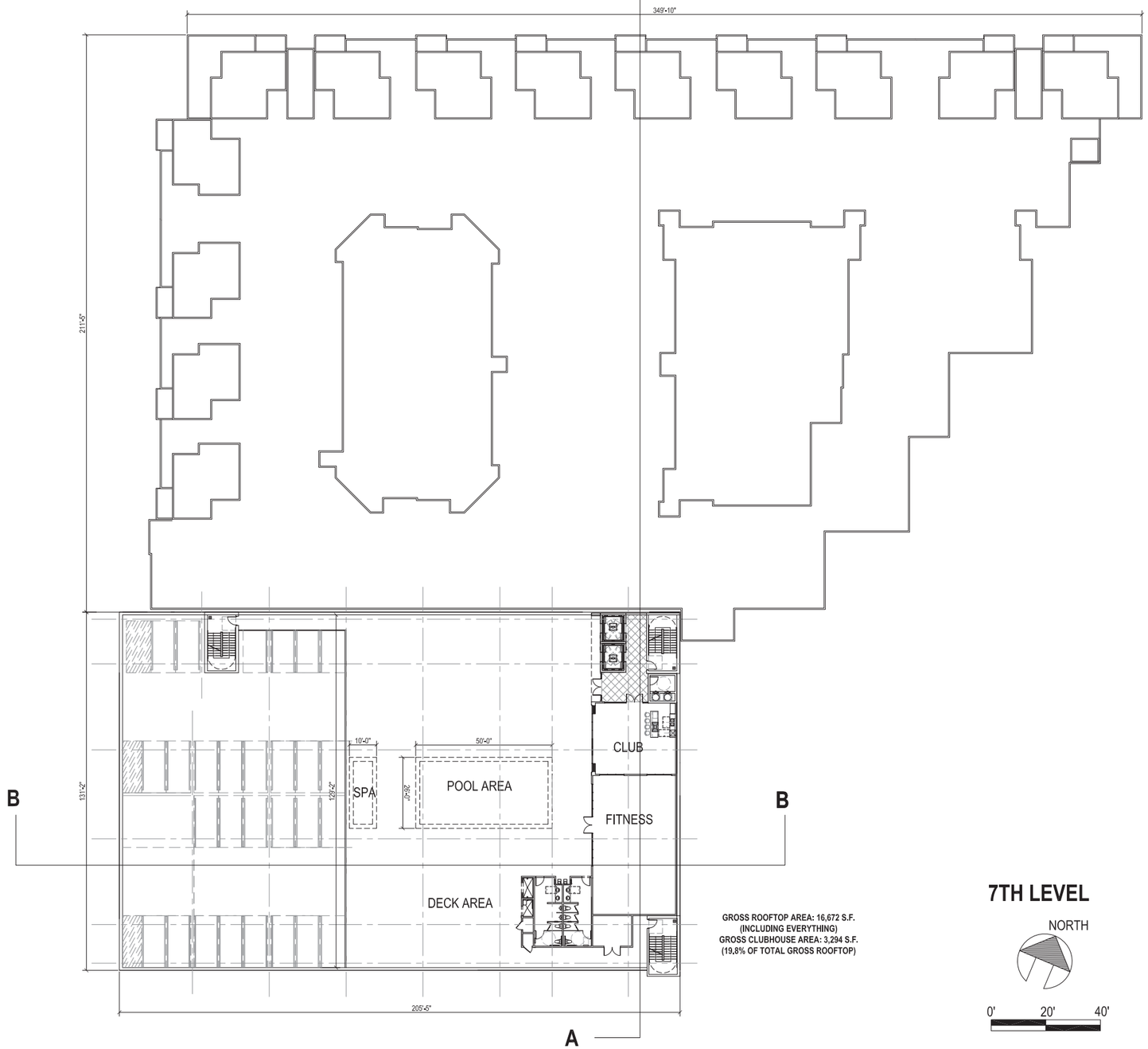

Source: Humphreys and Partners Architects, L.P. 2017

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Rooftop Terrace

PLACENTIA CROWTHER PROJECT

HELIX Environmental Planning

Figure 3b

(Section 23.81.170), project construction activities would be limited to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday (with construction generally prohibited on Sundays and holidays). Construction is currently anticipated to extend approximately 18 months between June 2018 and January 2020.

3.2 Other Required Agency Approvals

No required permits or approvals from other agencies have been identified at this time.

3.3 Previous Environmental Documentation

An IS/MND was adopted by the City in April 2017 for the General Plan Amendment (GPA) and zone change to establish the Packing House District TOD Project (Tom Dodson & Associates [Dodson], 2017). The referenced IS/MND included mitigation measures that apply to future development in the District; applicable mitigation measures and other information from the TOD document are included in this environmental analysis for the proposed project.

3.4 Summary of Environmental Factors Potentially Affected

A summary of the environmental factors potentially affected by this project, consisting of a Potentially Significant Impact or Potentially Significant Impact Unless Mitigated, include:

■ Aesthetics	□ Agriculture & Forestry Resources	□ Air Quality
□ Biological Resources	■ Cultural Resources	□ Geology/Soils
□ Greenhouse Gas Emissions	■ Hazards & Hazardous Materials	□ Hydrology/Water Quality
□ Land Use & Planning	□ Mineral Resources	■ Noise
□ Population & Housing	□ Public Services	□ Recreation
■ Transportation	■ Tribal Cultural Resources	■ Utilities Systems
■ Mandatory Findings of Significance		

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4.0 ENVIRONMENTAL CHECKLIST

This section analyzes the potential environmental impacts which may result from the proposed project. For the evaluation of potential impacts, the questions in the CEQA Initial Study Checklist are stated and answers are provided according to the analysis undertaken as part of the Initial Study. The analysis considers the project's short-term impacts (construction-related), and its operational or day-to-day impacts. For each question, there are four possible responses. They include:

1. *No Impact*. Future development arising from the project's implementation will not have any measurable environmental impact on the environment and no additional analysis is required.

2. *Less Than Significant Impact*. The development associated with project implementation will have the potential to impact the environment; these impacts, however, will be less than the levels or thresholds that are considered significant, and no additional analysis is required.

3. *Potentially Significant Unless Mitigated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the project's physical or operational characteristics can reduce these impacts to levels that are less than significant.

4. *Potentially Significant Impact*. Future implementation will have impacts that are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Measures from the TOD District IS/MND that are applicable to the proposed project are identified within the CEQA Initial Study Checklist responses.

4.1 AESTHETICS

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 stated 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?	□	■	□	□

CEQA Checklist Analysis

a. Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The project site and surrounding areas are characterized by generally flat topography and one- to two-story industrial and residential development. There are no designated scenic vistas identified in the Placentia General Plan or other relevant long-range documents adopted by the City in the project area, and the surrounding viewshed is limited due to low variability in elevation and the relatively uniform urban development pattern. While the proposed structures would be taller than the surrounding development, they would be consistent with the development standards adopted for the TOD District (Dodson 2017), and impacts related to scenic vistas would be less than significant.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. SR 91 is located approximately 1.2 miles south of the proposed project, and is listed as an Officially Designated State Scenic Highway on the California Scenic Highway Mapping System website from SR 55 to east of the Anaheim city limit (Caltrans 2017). As previously indicated, the site has been extensively altered as a result of previous development that has occurred on the property. As such, the site is devoid of any important trees, rock outcroppings, or other natural features. The project site is not visible from SR 91, as views from the highway towards the City are blocked by sound walls and adjacent development.

Mitigation identified in the TOD District IS/MND (Dodson 2017) requires an evaluation of the scenic value of structures that will be replaced by new facilities in the TOD District. A survey of the historic value of existing buildings on the project site was conducted and the buildings were determined not to have historical value pursuant to CEQA Guidelines Section 15064.5. The Historic Resource Evaluation Report (HRER) is attached to this IS/MND (ASM 2017). The buildings are rectangular industrial buildings with simple concrete and painted brick exteriors. They do not have any unique or especially scenic qualities. All but three of the structures are less than 45 years old. The three older buildings were constructed between 1964 and 1972. Historical evaluations were prepared and recorded at the South Central Coastal Information Center for these three buildings, however, because they are more than 45 years old. The evaluations conclude that these structures are not historically significant.

No impacts related to scenic resources within a state scenic highway would occur.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. During the construction period, activities associated with the project, such as the presence of construction vehicles, equipment, and staging area(s), would result in short-term visual effects to the project site and its surroundings. Due to the short-term nature of these potential effects, impacts related to existing visual character or quality of the site and surrounding areas would be less than significant during construction. Upon project completion, all materials associated with construction would be removed and the roads and surrounding areas would be restored to their original condition. Furthermore, construction and

development of the site must comply with the TOD District ordinance and other applicable City codes. Therefore, construction-related impacts to existing visual character or quality of the site and surrounding areas would remain less than significant at project completion.

The architectural style of the proposed structures would be contemporary, with a stucco finish, some metal siding, and brick accents. The facade would include a variety of complimentary colors and architectural projections, such as overhangs, to create visual contrast/interest. Windows would be slightly inset and would cover approximately one-third of the exterior. Residential units would include a balcony enclosed with metal railing.

The structures would be appropriately set back and separated from the street with a pedestrian walkway and sculptural/patterned plantings. The entryway on Crowther Avenue would contain enlarged planting areas and signage.

Surrounding development consists primarily of industrial land uses. The proposed project would conform to the TOD District development standards which aim to create an aesthetically appealing neighborhood of mixed residential/commercial land uses and an active streetscape along Crowther Avenue. Operational impacts to the visual character and quality of the site would, therefore, also be less than significant.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Potentially Significant Unless Mitigated. This analysis addresses potential light/glare impacts on views, as well as potential impacts to occupants of adjacent structures or drivers on adjacent streets, including the potential for impacts to driver safety, as required by mitigation specified in the TOD District IS/MND (Dodson 2017).

Project construction would be limited to the hours of 7:00 a.m. to 7:00 p.m., as described in the Project Description. While the majority of construction activities would be conducted during daylight hours, lighting may be needed to illuminate the construction site during times when dawn and/or dusk overlap the allowable construction time frame. Nighttime security lighting of the construction site may also be needed. Associated impacts would be potentially significant.

Operation of the proposed project would introduce new sources of light/glare to the area. Although no residential or other sensitive land uses are currently located adjacent to the project site, such uses could be developed in the future pursuant to the new TOD District land use designation and zoning adopted for this area. Additionally, travelers on Crowther Avenue and the rail corridor could potentially be impacted if project-related exterior lighting is not properly implemented or if project building materials produce substantial glare.

Mitigation Measures **Aes-1**, **Aes-2**, and **Aes-3** shall be implemented to address potentially significant impacts related to lighting during construction and light/glare emanating from the project once construction is completed.

Aes-1 Nighttime construction or security lighting, if required, shall be shielded, selectively placed, and directed toward the project site, so that light will not spill beyond the

boundary of the project site onto off-site sensitive receptors, such as drivers, residents, or train operators.

Aes-2 Building design and/or lighting features shall be incorporated into the final project design to minimize glare, in conformance with the TOD District, such as: (1) overhangs and recessed windows to reduce potential glare from reflective windows; (2) landscaping near the buildings, such as trees along the street frontage, which would shade the building and reduce the potential for drivers to be affected by glare from reflective windows; and/or (3) non-reflective building materials.

Aes-3 Permanent lighting associated with the proposed development shall conform to the TOD District development standards and applicable City Municipal Code requirements. Examples of standard requirements include: (1) lighting along walkways, on exterior signage, within landscaped areas and in parking areas must be appropriately directed and shielded to reflect light away from the public right-of-way and from any adjoining residential premises; (2) lighting is not to blink, flash, flutter, or change light intensity, brightness, or color; and (3) neither direct nor reflected light from primary light sources shall create hazards for pedestrians or operators of motor vehicles. The developer shall submit a detailed lighting plan to the City for approval, prior to issuance of a building permit.

4.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 depicted on 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?	□	□	□	■

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	□	□	□	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	□	□	□	■

CEQA Checklist Analysis

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as depicted on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency?

No Impact. The project site and surrounding areas are mapped as Urban and Built-Up Land by the California Department of Conservation (CDC), with no designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance located within or adjacent to the property (CDC 2017). Accordingly, no impacts to the noted Farmland categories would result from project implementation.

b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

No Impact. There are no areas zoned for agriculture or designated as Williamson Act Contract lands within or adjacent to the project site (City 2017a; CDC 2017b). As a result, project implementation would not result in impacts to such resources.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is not within or adjacent to areas designated or zoned for forest land, timberland, or timberland zoned Timberland Production (City 2017a, 2017b). Therefore, implementation of the project would not conflict with existing zoning for such lands or cause such lands to be rezoned, and no related impacts would occur.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As previously stated, the project site is not located within or adjacent to areas designated or zoned as forest land. As a result, project implementation would not convert forest land to non-forest use, and no associated impacts would occur.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

***No Impac*t**. As described above in Responses 4.2.a through 4.2.d, there are no pertinent agricultural- or forestry-related designations or associated uses located within or adjacent to the project site. Accordingly, the proposed project would not involve changes that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and no related impacts would occur.

4.3 AIR QUALITY

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 the applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	□	□	■	□
d. Expose sensitive receptors to substantial pollutant concentrations?	□	□	■	□
e. Create objectionable odors affecting a substantial number of people?	□	□	■	□

An Air Quality Study has been completed for the project (HELIX 2017) and is located in Attachment A.

CEQA Checklist Analysis

a. Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The project is located in the Orange County portion of the South Coast Air Basin (SCAB), where the South Coast Air Quality Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control. The SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments, and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air

Quality Management Plans (AQMPs). An AQMP establishes a program of rules and regulations directed at attaining the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The regional plan applicable to the proposed project is the SCAQMD's AQMP.

On March 3, 2017, the SCAQMD adopted the 2016 AQMP, which is a regional and multi-agency effort (SCAQMD, California Air Resources Board [CARB], SCAG, and the U.S. Environmental Protection Agency [USEPA]). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methodologies for various source categories; and SCAG's latest growth forecasts (SCAQMD 2017).

The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and state air quality standards. For a project to be consistent with the AQMP, the project should not (1) result in emissions that exceed the SCAQMD CEQA air quality significance thresholds or (2) conflict with or exceed the assumptions in the AQMP. With respect to the first criterion, as shown below, pollutant emissions from the proposed project would be less than the SCAQMD thresholds. With respect to the second criterion, although the project would be consistent with the existing TOD District, it should be noted that the development intensities for the TOD District were adopted following certification of the 2016 AQMP and are, therefore, not included in the 2016 AQMP. Even though the project's land use is not consistent with the land uses analyzed in the 2016 AQMP, the project is clearly consistent with SCAG regional programs.

SCAG's 2016 RTP/SCS Plan identifies coordinated transportation and land use planning strategies intended to reduce GHG emissions in accordance with SB 375 and to benefit regional quality of life. The RTP/SCS Plan emphasizes placing high intensity housing and jobs in locations with existing high-quality transit infrastructure that make daily travel via transit or active transportation (biking, walking, etc.) feasible and attractive alternatives to single occupancy vehicle travel. The project is designed to achieve this specific goal with the inclusion of sidewalks, on-site bicycle parking, and most importantly, close proximity to mass transit, including the new Placentia Metrolink Station. The site is located within a high-quality transit area and future TOD development will be within reasonable walking distance of mass transit.

The project would be consistent with SCAG 2016 RTP/SCS Goals as summarized below.

RTP/SCS Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness.

Consistent. The project would replace existing vacant industrial buildings with a transit oriented development to take advantage of a new Metrolink Station adjacent to the site.

RTP/SCS Goal 2: Maximize mobility and accessibility for all people and goods in the region.

Consistent. Through a combination of higher density development, connections to mass transit systems, and incorporation of new mass transit features, the project fulfills this goal.

RTP/SCS Goal 3: Ensure travel safety and reliability for all people and goods in the region.

Consistent. The project will re-construct roadways within and surrounding the project site to their ultimate or half-width paved sections. Through fair share contributions, improvements to the connecting circulation system will be enhanced. Both routine and emergency response will be enhanced to the project area.

RTP/SCS Goal 4: Preserve and ensure a sustainable regional transportation system.

Consistent. The project will contribute to a sustainable regional transportation system through creation of high density residential development combined with high quality connections to both the local and regional transportation systems. The project is designed specifically to sustain alternative transportation systems to the automobile.

RTP/SCS Goal 5: Maximize the productivity of our transportation system.

Consistent. By creating high density residential adjacent to the new Metrolink Station, the project will maximize productivity of the local and regional transportation systems.

RTP/SCS Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).

Consistent. The project includes sidewalks and on-site bicycle parking that would promote opportunities for pedestrian and bicycle travel. The specific goal of the land use designation is to reduce vehicle trips and related air pollutant emissions while encouraging active alternative modes of transportation.

RTP/SCS Goal 7: Actively encourage and create incentives for energy efficiency, where possible.

Consistent. The project would replace existing older industrial buildings. This transition to modern energy-efficient structures will result in substantial energy savings.

RTP/SCS Goal 8: Encourage land use and growth patterns that facilitate transit and active transportation.

Consistent. The project design includes sidewalks, bike trails and connections to mass transit that will facilitate use of transit and active transportation modes throughout the project area. The project is anticipated to foster a substantial reduction in average vehicle trip length, per capita vehicle miles traveled, and the percent of drive-alone vehicle trips.

RTP/SCS Goal 9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

Consistent. The project would have no direct impact on system monitoring, rapid recovery planning, or coordination with other security agencies. However, the project would generate on-

going demand and funds that are indirectly designed to make the new Metrolink Station and other mass transit and alternative modes of transportation successful.

The project would, therefore, be consistent with SCAG regional programs to promote the use of alternative modes of transportation. As such, the proposed project would not conflict with the 2016 AQMP and no impact would occur.

b. Violate any air quality standard or contribute to an existing or projected air quality violation?

Less Than Significant Impact. Air quality is defined by ambient air concentrations of six specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter smaller than 10 microns in diameter (PM_{10}), particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). The primary source of air pollutants generated by the proposed project would be emissions associated with construction and grading activities.

Construction of the proposed project, including demolition of the existing buildings and export of an estimated 5,024 cubic yards (386 truckloads) of material off-site, would result in temporary increases in air pollutant and dust emissions generated primarily from construction equipment exhaust, earth disturbance/excavation, construction worker vehicle trips, and heavy-duty truck trips. Compliance with Rule 403 would be required during active operations capable of generating fugitive dust emissions. Rule 403 would require best available control measures (BACMs) such as the following:

- Water or a stabilizing agent shall be applied to exposed surfaces to prevent generation of dust plumes.

- The construction contractor shall utilize at least one of the following measures at each vehicle egress from the project site to a paved public road:

  - Install a pad consisting of washed gravel maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long;

  - Pave the surface extending at least 100 feet and at least 20 feet wide;

  - Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; and/or

  - Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

- All trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

- Construction activity on unpaved surfaces shall be suspended when wind speed exceeds 25 miles per hour (mph; such as instantaneous gusts).

- Heavy-duty equipment operations shall be suspended during first and second stage smog alerts.

- Ground cover in disturbed areas shall be replaced as quickly as possible

Mandatory compliance with Rule 403 would ensure that potential air quality impacts related to fugitive dust would be less than significant. These measures associated with required conformance with existing regulations will be incorporated into the Mitigation Monitoring and Reporting Program (MMRP) for monitoring purposes.

Regional Construction Impacts

Maximum daily emissions for the peak work day are shown in Table 1, *Daily Construction Emissions*. As shown, emissions of all criteria pollutants are below the SCAQMD daily thresholds. Thus, regional construction impacts would be less than significant and no mitigation is required.

Table 1
DAILY CONSTRUCTION EMISSIONS

Construction Phase	Pollutant Emissions (pounds per day)					
	VOC	NO_X[1]	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	3	26	16	<0.1	3	2
Site Preparation	2	24	13	<0.1	3	1
Grading	3	49	17	<0.1	9	5
Building Construction	4	28	26	<0.1	4	2
Paving	1	13	12	<0.1	1	1
Architectural Coating	60	2	3	<0.1	1	<0.5
Maximum Daily Emissions	**61**[2]	**49**	**26**	**<0.1**	**9**	**5**
Significance Thresholds	75	100	550	150	150	55
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: HELIX 2017

[1] NO_X is the total combined concentration of NO and NO_2. In the presence of excess oxygen, NO reacts to form NO_2.

[2] Maximum volatile organic compound (VOC) emissions occur when paving and architectural coatings overlap.

Localized Construction Impacts

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the project according to the SCAQMD's localized significance threshold (LST) methodology, which utilizes on-site mass emissions rate look up tables and project-specific modeling, where appropriate. LSTs are applicable to the following criteria pollutants: NO_2, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard for each pollutant, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance

to the nearest sensitive receptor. For PM_{10} and $PM_{2.5}$, LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The SCAQMD provides LST mass rate look-up tables for projects that are less than or equal to five acres.

When quantifying mass emissions for localized analysis, only emissions that occur on-site are considered. Consistent with the SCAQMD's LST methodology guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. The LST thresholds for a 2-acre site located in Source Receptor Area 16, North Orange County, with receptors at a distance of 50 meters were used (the nearest sensitive receptor [residential] is approximately 76 meters from the property). The results of the LST analysis are provided in Table 2, *Localized Construction Emissions*. As shown in Table 2, localized emissions for all criteria pollutants would be less than their respective SCAQMD LST significance thresholds. Thus, impacts would be less than significant and no mitigation is required.

Table 2
LOCALIZED CONSTRUCTION EMISSIONS

Construction Phase	Pollutant Emissions (pounds per day)			
	NO_X[1]	CO	PM_{10}	$PM_{2.5}$
Demolition	24	15	3	2
Site Preparation	24	13	3	1
Grading	24	10	8	4
Building Construction	21	16	1	1
Paving	13	12	1	1
Architectural Coating	2	2	<0.5	<0.5
Maximum Daily On-site Emissions	**24**	**16**	**8**	**4**
SCAQMD LSTs	143	1,010	17	6
Significant Impact?	***No***	***No***	***No***	***No***

Source: SCAQMD 2009 (Thresholds)
CalEEMod output data provided in Attachment A.
[1] NO_X is the total concentration of NO and NO_2. In the presence of excess oxygen, NO reacts to form NO_2.

Once construction activity is complete, there would be long-term emissions associated with area, energy, and mobile sources; however, as shown in Table 3, *Daily Operation Emissions*, these emissions would be below the SCAQMD thresholds. Therefore, the proposed project would not violate air quality standards or contribute substantially to an existing or projected air quality violation. Impacts from project construction and operation would be less than significant.

Table 3
DAILY OPERATION EMISSIONS

Source	Pollutant Emissions (pounds per day)					
	ROG	**NO_X[1]**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	6	<0.5	18	<0.1	<0.1	<0.1
Energy	<0.1	1	<0.5	<0.1	<0.1	<0.1
Mobile	2	7	21	<0.1	7	2
Maximum Daily Emissions	**8**	**8**	**39**	**<0.1**	**7**	**2**
Significance Thresholds	55	55	550	150	150	55
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: SCAQMD 2015 (Thresholds)
CalEEMod output data provided in Attachment A.
[1] NO_X is the total concentration of NO and NO_2. In the presence of excess oxygen, NO reacts to form NO_2.

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under the applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact. SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. As discussed above, the proposed project would be consistent with the AQMP, which is intended to bring the SCAB into attainment for all criteria pollutants. In addition, and as discussed above, daily emissions during project construction would not exceed the SCAQMD significance thresholds. Accordingly, cumulative impacts would be less than significant.

d. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive populations (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than are the general population. Land uses considered sensitive receptors typically include residences, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. During the project construction period, which would occur over approximately 18 months, diesel exhaust particulate matter would be generated from heavy construction equipment. Diesel exhaust particulate matter is known to the State of California as a carcinogenic compound. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Association (CAPCOA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Because diesel exhaust particulate matter is considered to be carcinogenic, long-term exposure to diesel exhaust emissions have the potential to result in adverse health impacts. Due to the short-term nature of project construction, however, exposure to diesel exhaust emissions during construction would be less than significant.

e. Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. The project proposes to replace the existing industrial uses with a residential development and associated on-site improvements. The project would not create objectionable odors affecting a substantial number of people, and no operational odor-related impacts would occur.

Project-related odor emissions would be limited to the construction period, where emissions from the construction equipment may be temporarily evident in the immediately surrounding area. On- and off-road construction equipment could intermittently emit diesel exhaust perceptible by nearby receptors along roadways and near the project site during construction. These odors would not affect a substantial number of people, since construction would be temporary and odors would dissipate rapidly from the source with an increase in distance. The nearest sensitive receptor (residential) is approximately 250 feet north of the project site. The diesel engines used in the construction equipment would be required to comply with the State's Airborne Toxics Control Measure (ATCM) standards for diesel particulate matter emissions in the exhaust (including a five-minute idling limit). Compliance with these standards would minimize exposure to diesel exhaust emissions and odors. Therefore, construction-related odor impacts would be less than significant.

4.4. BIOLOGICAL RESOURCES

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	□	□	□	■
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	□	□	□	■
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	□	□	□	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	□	□	□	■
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	□	□	□	■

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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 Wildlife or U.S. Fish and Wildlife Service?

***No Impac*t**. The project site and adjacent areas are completely developed for urban uses, with no associated native habitats or vegetation present that are suitable for use by candidate, sensitive, or special status species. As a result, no associated direct or indirect impacts would result from project implementation.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. As previously noted, the project site and adjacent areas do not contain or support native habitat, including riparian habitat or sensitive natural communities identified in local/regional plans or by applicable resource agencies. Accordingly, no related impacts would result from development of the proposed project.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. As noted above in Responses 4.4a and 4.4.b, no wetlands or related resources are present within or adjacent to the project site. As a result, no associated impacts would result from project implementation.

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?

No Impact. Pursuant to the information described above in Responses 4.4.a through 4.4.c, there are no areas of native habitat or associated wildlife corridors/nursery sites within or adjacent to the project site. The project site and areas surrounding the site have been extensively developed, including high volume arterials, which serves as an existing deterrent to wildlife. Based on the described conditions, implementation of the proposed project would not result in any impacts related to wildlife species movement or breeding/nesting activities.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. As previously noted, project construction and operation would be restricted to areas that are completely disturbed and/or developed, with no sensitive biological resources present within or adjacent to the site. Accordingly, no impacts related to policies or ordinances protecting biological resources, such as tree preservation, would result from project

implementation. The City's Municipal Code does not contain a tree preservation policy. While the City does have requirements related to tree and shrub removal, (pursuant to Title 14, Section 14.12.040, of the City Municipal Code), these standards are limited to permit requirements related to removing "…any tree or shrub growing in any public street of the City." There are three non-native trees along Crowther Avenue and some shrubs within the project site that would be removed for project development, but these would be replaced by trees and plants included in the landscaping plan for the proposed project. Should any of the proposed removals of ornamental landscaping be located within City right-of-way, City permission would be required for the removal. Because vegetation removal associated with the proposed development is limited to non-native, ornamental landscaping, and any removals would be replaced with proposed landscape improvements, no adverse impacts would occur with respect to local policies or ordinances associated with the protection of biological resources or trees.

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 Impact. The project site is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Accordingly, no associated impacts would result from implementation of the proposed project.

4.5 CULTURAL RESOURCES

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of CEQA?	□	□	□	■
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA?	□	■	□	□
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?	□	□	■	□

A survey of the historic value of existing buildings on the project site was conducted pursuant to CEQA Guidelines Section 15064.5. The Historic Resource Evaluation Report (HRER) is provided in Attachment B to this IS/MND (ASM 2017).

CEQA Checklist Analysis

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of CEQA?

No Impact. Mitigation identified in the TOD District IS/MND (Dodson 2017) requires a comprehensive historical resource evaluation of any structure greater than 50 years of age prior

to demolition. Such evaluations are also typically performed as part of the CEQA evaluation of impacts to historic structures. As described in Response 4.1b, the HRER determined that the existing buildings on the project site were built between 1964 and the late 1970s, and do not have historical value pursuant to CEQA Guidelines Section 15064.5 (ASM 2017). Therefore, no substantial adverse change in the significance of historical resources is anticipated to occur as a result of project implementation.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA?

Potentially Significant Unless Mitigated. The project site and adjacent areas have been previously disturbed through existing/historical development and associated grading, excavation, and construction. Specifically, as noted in the Project Description and described below in Response 4.5.c, the site includes a 4- to 6-foot cap of artificial fill with no potential for the occurrence of archaeological resources. The Geotechnical Engineering Report for the project (Attachment C) notes that there may be accumulations of artificial fill greater than six feet in some areas of the site (Leighton and Associates, Inc. [Leighton] 2017a). The artificial fill is underlain by very old alluvial fan deposits. The potential for encountering archaeological resources/sites within the alluvium that have integrity or contextual value is considered low. Nevertheless, excavation during construction would extend into the alluvial layer in some areas of the project site and the potential exists to encounter archaeological resources. Associated impacts would be potentially significant.

During consultation and CEQA review for the Packinghouse District IS/MND and ~~the TOD District~~this IS/MND, the Gabrieleño Band of Mission Indians indicated that both the District and the project site have sensitivity for tribal cultural resources. The Band has requested monitoring for all ground-disturbing activities within the District. Additional information/discussion is included in the Section 4.17, Tribal Cultural Resources, of this IS/MND. Related correspondence is provided in Attachment I. Mitigation Measure **Cul-1**, described below, would be consistent with this request, and would reduce impacts related to cultural/archaeological resources to below a level of significance.

Cul-1 Construction monitoring and reporting shall be conducted by a qualified Archaeologist and a Native American monitor in all areas proposed for excavation/disturbance. At the monitors' discretion, monitoring may be reduced or eliminated if there is no indication that cultural resources are present. In the event that an unanticipated discovery of cultural material is made during project construction, all earth-disturbing work within the vicinity of the find must be temporarily suspended or redirected until the monitor has evaluated the nature and significance of the find. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of archaeological materials that might be discovered during site development shall be in accordance with all applicable laws and regulations.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. As previously noted, the project site is capped with approximately 4 to 6 feet of artificial fill deposits, which are underlain by a thick sequence of alluvial/fluvial materials (Leighton 2017a). Fill deposits exhibit no potential for sensitive paleontological resources, due to their artificial and mechanically-generated nature, while alluvial/fluvial materials typically exhibit low paleontological resource potential based on their relatively young age and high-energy depositional history. Based on the described conditions, associated potential impacts from proposed project development would be less than significant.

Unique geological features are generally defined to include geologic structures, formations, or other features that exhibit unusual or important characteristics in the context of scientific information (e.g., rare geologic/mineral assemblages or structural features), economic considerations (e.g., economically valuable mineral deposits), or cultural perception (e.g., prominent, unusual, and/or aesthetically pleasing rock outcrops or exposures). Based on the geotechnical and mineral resource assessments of the site (refer to Sections 4.6, *Geology and Soils*, and 4.11, *Mineral Resources*), no geologic resources or related conditions that would comprise unique geological features are present within or adjacent to the project site. Accordingly, no associated impacts would result from project implementation.

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. Because the project site and adjacent areas have been previously disturbed as described above in Responses 4.5.b and 4.5.c, the potential for encountering human remains is considered extremely low. In the unlikely event that human remains are encountered during site development, Section 7050.5 of the California Health and Safety Code would require that the project contractor(s) immediately stop work in the vicinity of the discovery and notify the County Coroner. Pursuant to Public Resources Code Section 5097.98, the Coroner must then determine whether the remains are human, and if so, whether the remains are or appear to be Native American. If the remains are deemed to potentially be Native American, the Coroner would contact the Native American Heritage Commission to identify the most likely affected tribe and to initiate proper recovery of such remains. Because the described process is mandatory, no mitigation is required to ensure that potential impacts to human remains will be less than significant.

4.6 GEOLOGY AND SOILS

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial	□	□	■	□

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
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-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	□	□	■	□
d. Be located on expansive soil, as defined in Chapter 1803.5.3 of the California Building Code, 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?	□	□	□	■

Mitigation specified in the TOD District IS/MND states that an application for any proposed residential structures in the District must include a professionally prepared geotechnical report with geotechnical design specifications. A Geotechnical Engineering Report (Leighton 2017a) was prepared for the proposed project and is provided in Attachment C, along with the preliminary Due-Diligence Level Geotechnical Report (Leighton 2016) and the Project Memorandum for percolation testing results (Leighton 2017b). The Geotechnical Engineering Report provides an evaluation of the site geotechnical conditions and related recommendations for project development, including review of project plans and on-site monitoring by the project geotechnical engineer, with associated information summarized herein as appropriate.

CEQA Checklist Analysis

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

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

Less Than Significant Impact. While the project is located within the seismically active Southern California region, there are no known active faults, potentially active faults, or California Geological Survey (CGS) Earthquake Fault Zone designations located within or adjacent to the site (Leighton 2017a). Active faults are defined as those exhibiting historic seismicity or displacement of Holocene (less than approximately 11,000 years old) materials, while potentially active faults have no historic seismicity and displace Pleistocene (between approximately 11,000 and 2 million years old) but not Holocene strata. The closest known active/potentially active faults include the active Puente Hills Blind Thrust Fault located

approximately 1.7 miles northeast of the site, and the potentially active El Modeno Fault approximately 2.1 miles to the southeast. Based on the described conditions, the probability of local fault rupture is considered low and associated impacts from project implementation would be less than significant.

ii. *Strong seismic ground shaking?*

Less Than Significant Impact. As noted above, Southern California is a seismically active region subject to potential ground acceleration (ground shaking) effects from earthquake events along a number of active and potentially active regional fault structures. There are several active and potentially active faults that could affect the project site, including the Puente Hills Blind Thrust Fault and the El Modeno Fault (as previously described), the Whittier-Elsinore Fault Zone (approximately 4.3 miles to the north), the Newport-Inglewood Fault Zone (approximately 14.9 miles to the southwest), and the San Andreas Fault Zone (approximately 36 miles to the northeast). Seismic ground shaking represents the principal seismic hazard to the project site, with an estimated on-site peak ground acceleration level of 0.648g (where g equals the acceleration due to gravity). While this level of ground shaking could potentially impact proposed facilities such as structures and utilities, the project would be designed and constructed in conformance with associated regulatory and industry standards, including applicable elements of the California Building Code (CBC), related City standards, and recommendations identified in the Geotechnical Engineering Report and/or by the project civil, structural, and geotechnical engineers. Specifically, these standards typically involve incorporating applicable seismic factors into facility design, through efforts such as remedial grading (e.g., removal and/or reconditioning unsuitable soils), appropriate slope design and drainage, use of properly engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction), and pertinent structural design elements (e.g., CBC seismic loading parameters). Mandatory conformance with applicable regulatory/industry standards and engineering recommendations in the project Geotechnical Engineering Report would ensure that the potential effects of seismic ground shaking on proposed facilities would be less than significant.

iii. *Seismic-related ground failure, including liquefaction?*

Less Than Significant Impact. Liquefaction is a seismic phenomenon in which loose (cohesionless), saturated, and granular (low clay/silt content) soils behave like a fluid when subjected to high-intensity ground shaking. Surface and subsurface manifestations from these events can include loss of support for structures and foundations, seismic (dynamic) settlement, the occurrence of sand boils (i.e., sand and water ejected at the surface), and other effects such as lateral spreading (horizontal displacement on sloped surfaces as a result of underlying liquefaction). The project Geotechnical Engineering Report notes that the site and adjacent areas are not within identified CGS liquefaction hazard zones, and concludes that: (1) the potential for on-site liquefaction and lateral spreading is considered low; and (2) potential dynamic settlement within the site would be limited to less than one inch. As previously noted, the proposed project would be designed and constructed in conformance with associated regulatory and industry standards, including applicable elements of the CBC, City standards, and recommendations from the Geotechnical Engineering Report. Based on the described considerations, potential impacts

associated with liquefaction and related hazards from implementation of the proposed project would be less than significant.

iv. *Landslides?*

Less Than Significant Impact. The Geotechnical Engineering Report notes that the site and adjacent areas are not within identified CGS landslide hazard zones, and exhibit generally level topography. Based on these conditions and the fact that proposed development does not include substantial manufactured slopes, the potential for on-site landslide hazards is identified as "negligible" and associated potential impacts would be less than significant.

b. Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Implementation of the proposed project would increase the potential for erosion and transport of eroded material (sedimentation) both within and from the site. Specifically, proposed activities would involve: (1) removal of surface stabilizing features (e.g., structures and pavement); (2) excavation of compacted materials; and (3) redeposition of backfill material in proposed development areas. While these areas would be stabilized through efforts such as installation of structures, pavement and landscaping, erosion potential would be higher in the short-term than during pre-construction conditions. Potential erosion and sedimentation effects are primarily associated with the project construction period and are not considered to be significant long-term concerns, as all developed areas would be stabilized as noted. The off-site transport of sediment during construction could also potentially result in effects to downstream receiving waters, such as increased turbidity and the provision of a transport mechanism for other contaminants that tend to adhere to sediment particles (e.g., hydrocarbons). Additional discussion of potential water quality effects associated with project-related erosion and sedimentation is provided below and in Response 4.9.a.

Short-term erosion and sedimentation impacts would be addressed through conformance with applicable elements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (NPDES No. CAS000002, State Water Resources Control Board [SWRCB] Order 2009-0009-DWQ, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ), and related City requirements. Specifically, this would entail implementing appropriate measures such as an approved Storm Water Pollution Prevention Plan (SWPPP), an associated Construction Site Monitoring Program (CSMP), employee training, and minimum best management practices (BMPs), as well as a Rain Event Action Plan (REAP) if applicable (i.e., if the project is determined to be in Risk Categories 2 or 3 as outlined below).

Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., erosion potential and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. While specific BMPs would be determined during the SWPPP process based on site-specific characteristics (soils, slopes, grading, etc.), typical erosion and sediment control measures that may be required in the project SWPPP include: (1) grading restrictions for applicable areas during wet weather; (2) preparation and implementation of a CSMP and, if applicable, a REAP to provide enhanced erosion and sediment control measures prior to predicted storm events; (3) use of erosion control/stabilizing measures such as geotextiles, mats, fiber rolls, or soil binders; (4) use of sediment controls to protect the site

perimeter and prevent off-site sediment transport, including measures such as silt fencing, fiber rolls, gravel bags, temporary sediment basins, street sweeping, stabilized construction access points and sediment stockpiles, and use of properly fitted covers for sediment transport vehicles; (5) compliance with local dust control measures; and (6) implementation of additional BMPs as necessary to ensure adequate erosion/sediment control and regulatory conformance.

Mitigation in the TOD District IS/MND requires the submittal of comprehensive documentation to the City that demonstrates how erosion control and water quality BMPs will be implemented for proposed projects (Dodson 2017). Conformance with the construction-related elements of this mitigation measure would be provided through the required implementation of a SWPPP and related BMPs per applicable NPDES and City standards, as outlined above. Site-specific BMPs would be determined after generation of detailed site grading and development plans. Post-development storm water runoff and water quality measures related to the project would be addressed under applicable requirements associated with the NPDES Municipal Permit, as discussed below in Response 4.9a.

Based on implementation of appropriate erosion and sediment control BMPs as part of, and in conformance with, the project SWPPP and related NPDES/City requirements, associated potential erosion and sedimentation impacts from implementation of the proposed project 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?*

Less Than Significant Impact. Refer to Response 4.6.a above for discussions on potential impacts related to landslides, lateral spreading, and liquefaction. Potential impacts related to phenomena such as subsidence and collapse are not considered significant with respect to the proposed project, based on the following considerations: (1) subsidence and collapse are most typically associated with groundwater (or other fluid) withdrawal, with such activities not proposed as part of the project; (2) shallow regional groundwater aquifers were not encountered during subsurface testing (cone penetrometer soundings) conducted to depths of approximately 38 to 45 feet during the project Geotechnical Investigation, and are not expected to occur on site; and (3) potentially less stable materials underlying the project area (e.g., undocumented fill and alluvium) would be addressed through conformance with applicable regulatory/industry standards and recommendations from project engineers (as described under Response 4.6.a). As a result, associated potential impacts related to geologic and soil stability would be less than significant.

An additional potential geologic and soil instability issue discussed in the project Geotechnical Investigation involves safety hazards related to the stability of temporary (construction) excavations. Specifically, excavations can exhibit instability and the potential for collapse related to loose or unstable soil and geologic materials. These potential hazards would be adequately addressed through required conformance with applicable U.S. Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (Cal-OSHA) standards. These standards include criteria related to factors such as excavation slope limitations and dimensions; use of appropriate shoring, shielding, and benching to provide

excavation stability; and restrictions on adjacent uses (e.g., heavy equipment operation). Required conformance with these regulatory standards would ensure that potential impacts related to excavation stability would be less than significant.

d. Be located on expansive soil, as defined in Chapter 1803.5.3 of the California Building Code, creating substantial risks to life or property?

Less Than Significant Impact. Expansive (or shrink-swell) behavior in surface or near-surface materials is attributable to the water-holding capacity of clay materials. Such behavior can adversely affect the structural integrity of features such as foundations and subsurface utilities, through shifting of support materials during the shrink-swell process. The Geotechnical Engineering Report notes that expansive subsurface clay layers are present within the site. The report also identifies a number of remedial measures to address potential expansive soil hazards. Specifically, these include the following standard efforts, with additional detail provided in Attachment C: (1) replacement or (if applicable) mixing of unsuitable materials with engineered fill; (2) capping expansive materials with engineered fill in applicable areas (per site-specific geotechnical recommendations); and (3) use of appropriate foundation and/or footing design, per site-specific geotechnical recommendations. Mandatory conformance with applicable regulatory/industry standards and recommendations from the Geotechnical Engineering Report would reduce any potential ensure that impacts related to expansive soils would be less than significant.

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?

No Impact. The proposed project would utilize municipal sewer service, and does not include the implementation of septic tanks or alternative wastewater disposal systems. As a result, no associated impacts to result from project implementation.

4.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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?	□	□	■	□

Pursuant to CEQA, and as specified in the mitigation measures identified in the TOD District IS/MND (Dodson 2017), an Air Quality/GHG study was completed for the project (HELIX 2017) and is provided as Attachment A.

CEQA Checklist Analysis

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, and certain hydrofluorocarbons (HFCs). These gases, known as greenhouse gases (GHGs), allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect, contributing to what is termed "global warming," or the trend of warming of the Earth's climate from anthropogenic activities. Global climate change impacts are by nature cumulative; direct impacts cannot be evaluated because the impacts themselves are global rather than localized impacts.

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO_2, CH_4, N_2O, O_3, chlorofluorocarbons (CFCs), HFCs, perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO_2e) units for comparison. The CO_2e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure.[1] The most common GHGs related to the project are those primarily related to energy usage: CO_2, CH_4, and N_2O.

There are no established federal, state, or local quantitative thresholds applicable to the project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the SCAQMD, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance or threshold levels that require the implementation of GHG emission reduction measures. Because the project is a residential development project, the SCAQMD-adopted interim screening threshold of 3,000 metric tons of CO_2 equivalent (MT CO_2e) is being used for project consistency with CEQA (SCAQMD 2008a).

Construction of the project would result in temporary emissions of GHG from the operation of construction equipment and from worker and building supply vendor vehicles. Construction GHG emissions were calculated by using CalEEMod. The model and construction assumptions are described above, in the Section 4.3, Air Quality, and are attached to this IS/MND. The estimated construction GHG emissions for the project are shown in Table 4, *Construction GHG Emissions*.

[1] The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere, and is expressed as a function of how much warming would be caused by the same mass of CO_2. For instance, CH_4 has a global warming potential of 21, meaning that 1 gram of CH_4 traps the same amount of heat as 21 grams of CO_2. N_2O has a global warming potential of 310.

Table 4 CONSTRUCTION GHG EMISSIONS (MT/yr)	
Construction Activity	**CO_2e**
Demolition	39
Site Preparation	5
Grading	33
Building Construction	885
Paving	12
Architectural Coating	10
TOTAL	**983**
Amortized Construction Emissions[1]	33

Source: CalEEMod emissions modeling by HELIX 2017 (output data is provided in Attachment A).

[1] Construction emissions are amortized over 30 years

GHG emissions generated from construction activities are finite and for a relatively short-term period of time. Unlike the numerous opportunities available to reduce a project's long-term GHG emissions through design features, operational restrictions, use of green-building materials, etc., GHG emissions-reduction measures for construction equipment are relatively limited. As such and in accordance with the SCAQMD's recommendations, construction emissions are amortized over a 30-year project lifetime. As shown in Table 4, *Construction GHG Emissions*, the 30-year amortized construction emissions would be 33 MT CO_2e per year.

Once construction activity is complete, the project would result in operational emissions from mobile sources and indirect emissions resulting from increased use of electricity, natural gas, water, and solid waste disposal services. As shown in Table 5, *Estimated Annual GHG Emissions*, the estimated increase in annual GHG emissions, including amortized construction emissions, would be 2,037 MT CO_2e per year. This value may be compared with and is less than the SCAQMD threshold of 3,000 MT CO_2e per year.

Table 5 ESTIMATED ANNUAL GHG EMISSIONS (MT/yr)				
Emission Sources	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area	4	<0.1	0	4
Energy	615	<0.1	<0.1	617
Mobile	1,270	<0.1	0	1,271
Waste	10	1	0	25
Water	75	<0.5	<0.1	87
Operational Subtotal	**1,973**	**1**	<0.1	**2,004**
Construction Emissions[1]	-	-	-	33
TOTAL PROJECT	-	-	-	**2,037**
Screening Threshold[2]				**3,000**
Significant Impact?				***No***

Source: HELIX 2017

[1] Construction emissions are amortized over 30 years.

[2] SCAQMD 2008.

It is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change; therefore, any impact would be considered on a cumulative basis. Because the proposed project's GHG emissions would be less than the SCAQMD threshold, the emissions would not be cumulatively considerable. Therefore, impacts would be less than significant and no mitigation is required.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. Applicable plans, policies, and regulations either adopted or supported by the SCAQMD include Assembly Bill (AB) 32, Senate Bill (SB) 32, and the 2016 California Green Building Standards, among others. As discussed in Response 4.7.a, the proposed project would result in less than significant GHG emissions. The proposed project would not result in emissions that would adversely affect state-wide attainment of GHG emission reduction goals as described in AB 32. The project would be consistent with the intent of the TOD District, to provide higher density residential development across Crowther Avenue from an approved Metrolink Station, thereby facilitating and encouraging more people to utilize transit instead of automobiles. Based on the analysis in above Response 4.7.a, the technical study analysis in Attachment A, and the cumulative analysis in the IS/MND for the TOD District as a whole (Dodson, 2017), project-related construction and operational emissions would have a less than cumulatively considerable contribution to global climate change impacts, and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact would occur.

4.8 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 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?	□	□	□	■

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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?	□	□	□	■

CEQA Checklist Analysis

a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. The proposed project entails development of a residential site, and would generally not involve the routine transport, use, release, or disposal of hazardous materials. Project construction and demolition would involve the on-site use and storage of related hazardous materials such as vehicle/equipment fuels, as well as potentially requiring the removal/disposal of hazardous materials including asbestos insulation and lead-based paint (LBP). Applicable regulatory requirements associated with construction-related hazardous material concerns would be met through implementation of a SWPPP and related BMPs, as described in Responses 4.6.b and 4.9.a. Potential hazards related to encountering asbestos-containing material (ACM) and LBP during site demolition are addressed below in Response 4.8.b. Once project construction is complete, regular cleaning and maintenance activities on the subject property may require the storage and use of small quantities of potentially hazardous materials such as paint, solvents, fuel, pesticides, herbicides, and/or cleaning products. Additionally, small quantities of hazardous materials associated with residential uses may be used and stored on the project site, such as household batteries and household cleaners. Federal, state, and local regulations, such as the Hazardous Materials Transportation Act, Title 22 of the California Code of Regulations, and Occupational Safety and Health Act, which govern the use and disposal of hazardous materials, would apply to all employees and residents involved with the proposed project.

Based on the described conditions and required conformance with regulatory requirements, project-related impacts associated with the routine transport, use, release, or disposal of hazardous materials would be less than significant.

b. Create a significant hazard to the public or the environment through reasonably foreseeable conditions involving the release of hazardous materials into the environment?

Potentially Significant Unless Mitigated. Mitigation measures identified in the TOD District IS/MND require the preparation of a Phase I and/or Phase II Environmental Site Assessment (ESA) to document any potential residual contamination. Such studies are also typically required for CEQA analysis of former industrial properties. Identified residual contamination above

acceptable levels for residential land uses must be remediated prior to residential development. Advanced Environmental Concepts, Inc. (AEC) conducted a Phase I Environmental Site Assessment (ESA) for the project site (AEC 2016), and this study is included as Attachment D of this IS/MND. The investigation identified one historical recognized environmental condition (REC) within the site. Specifically, this included nine underground fuel storage tanks that were removed under an Orange County Health Care Agency (OCHCA) permit in 1992. Soil samples collected beneath the tanks upon removal revealed elevated concentrations of a chlorinated solvent (1,1,1-trichloroethane); however, subsequent soil samples showed concentrations were non-detectable and the cleanup site was closed on November 13, 1992.

A Phase II investigation was conducted across the project site by Optimal Technology in March 2016 to determine if subsurface soil vapor contamination is currently present. A total of 28 samples were collected at 13 locations across the site, at depths ranging from 5 to 15 feet below ground surface. The multi-depth soil gas investigation identified 17 samples with tetrachloroethene (PCE) levels from 0.14 to 0.64 micrograms per liter (µg/L). The identified PCE levels are above the listed reporting limit of 0.10 µg/L; however, the majority of the samples are below the OCHCA's residential risk threshold (pers. comm. Tamara Escobedo, 5/4/2017, results from J&E model [1991]). Two samples had PCE levels slightly within OCHCA's residential risk threshold, however the site average for all the samples was below the threshold by a magnitude of 10 (J&E model results), and the OCHCA is not planning any further action for this site. Samples were also analyzed by Optimal Technology for 29 additional compounds (including the chlorinated solvent that was found in elevated concentrations in 1992), and none of these 29 additional compounds were detected above listed reporting limits. While currently identified soil vapor contamination is not at a level that would automatically trigger mandatory remediation, not all areas of the site could be tested. Additionally, due to the project site's historical industrial land use, there is the potential for soil contamination to be encountered during project construction, which would result in a potentially significant impact.

The Phase I ESA (AEC 2016) notes that the existing buildings on the project site were constructed prior to 1978, and therefore could potentially contain LBP. Additionally, a previous asbestos survey indicated asbestos-containing material in one of the existing structures on the project site (ECOS 1992). Demolition of the existing structures associated with the proposed project could result in the release of lead and asbestos into the environment. Exposure to these substances is associated with a number of adverse health effects, and impacts would be potentially significant.

Due to the potential presence of contaminants in the soil and the potential for release of ACM and LBP into the environment, the following mitigation measures shall be incorporated:

Haz-1 If hazardous substances are encountered during project grading, work shall cease and an immediate evaluation shall be conducted and appropriate remediation actions undertaken. The associated assessment and remediation/removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the OCHCA. If additional contamination is identified, an application would be submitted to OCHCA for review and comment under the OCHCA's Voluntary Industrial Cleanup Program (VICP). A mitigation plan would be prepared detailing the mitigation of on-site soils impacted by

PCE and/or other contaminants, as applicable. The plan would be submitted to the OCHCA with the VICP application. Once approved, the mitigation plan would be implemented to the satisfaction of the OCHCA. Potential feasible measures could include, but are not limited to, on-site treatment or stabilization or removal of contaminated soil and disposal at an approved off-site location.

Haz-2 Prior to renovating and/or demolishing the on-site structures, the developer shall conduct a survey at the site to evaluate the extent of LBP and ACM within those structures. All associated remediation and removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the appropriate regulatory agency.

Impacts associated with the potential to uncover and release hazardous materials during construction activities would be less than significant with implementation of Mitigation Measures **Haz-1** and **Haz-2**.

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 Impact. There are no existing or proposed schools within one-quarter mile of the project site. The closest school property, Valencia High School, is located approximately 0.4 mile to the north. The potential on-site use/handling of hazardous materials associated with the proposed project would be limited to pesticide/herbicide applications related to landscape maintenance and small quantities of other materials as outlined above in Response 4.8a. Such chemical uses would be minor in extent and infrequent, and would be subject to mandatory compliance with applicable regulatory standards and manufacture's recommendations. No impacts related to hazardous material/waste use or emissions within one-quarter mile of a school would result from project implementation.

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?

Potentially Significant Unless Mitigated. As described above under response 4.8.b., the project site previously contained nine underground fuel storage tanks. The project site is listed on the SWRCB Geotracker website as a leaking underground storage tank cleanup site with a cleanup status of "completed – case closed" (SWRCB 2017). While no other environmental conditions of concern were identified by the Phase I ESA (AEC 2016), and there are currently no additional listings of hazardous materials on the project site pursuant to Government Code Section 65962.5, the soil vapor investigation conducted in March 2016 identified some areas on the site with concentrations of PCE above the listed reporting limit. The average concentrations for the site are below the OCHCA's residential risk threshold, however, and the OCHCA is not requiring further cleanup action related to this site. Based on the history of contamination and industrial uses on the site, there is the potential that previously unidentified contamination could be encountered during construction. Potential impacts related to any residual soil contamination on the project site would be less than significant with implementation of Mitigation Measure **Haz-1**, as described above under response 4.8.b.

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 Impact. The closest airport, Fullerton Municipal Airport, is located approximately 6 miles west of the project site. Pursuant to the associated Airport Environs Land Use Plan, the project site is not within any related mapped Safety (impact) Zones, Noise Contours, Height Restriction/Notification Areas, or Imaginary Surface Obstruction Zones (Orange County Airport Land Use Commission [ALUC] 2004). Based on the described conditions, no impacts associated with airport-related safety hazards would result from implementation of the proposed project.

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 Impact. The project site is not located within the vicinity of a private airstrip, and no associated safety hazards or impacts would result from project implementation.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The project site is not located near a primary evacuation route; therefore, implementation of the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. Impacts 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 Impact. The project site and vicinity are predominantly developed for urban uses, and do not encompass any areas of designated wildland fire hazards in the City (with such designations limited to the northernmost City boundaries). As a result, no impacts related to wildland fire hazards would occur from project implementation.

4.9 HYDROLOGY AND WATER QUALITY

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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)?	□	□	■	□

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 site 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 which would result in flooding on site or off site?	□	□	■	□
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	□	□	■	□
f. Otherwise substantially degrade water quality?	□	□	■	□
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	□	□	□	■
h. Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?	□	□	□	■
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	□	□	■	□
j. Inundation by seiche, tsunami, or mudflow?	□	□	□	■

CEQA Checklist Analysis

a. Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. As outlined in the following analysis, potential project-related water quality impacts are associated with both short-term construction activities and long-term operation and maintenance. Because the proposed project does not include activities or facilities that could directly affect groundwater quality (e.g., septic systems or underground fuel tanks) associated potential project-related impacts are limited to the percolation of surface runoff and associated pollutants. As a result, the following assessment of potential water quality impacts is applicable to both surface and groundwater resources.

Short-term Construction Impacts

Potential water quality impacts related to project construction include erosion/sedimentation, the use and storage of construction-related hazardous materials (e.g., fuels, etc.), generation of debris from demolition activities, and disposal of extracted groundwater (if required), as outlined below.

Erosion and Sedimentation. As described above in Response 4.6.b, potential construction-related erosion/sedimentation impacts would be avoided or reduced below a level of significance through conformance with existing NPDES and related City Storm Water requirements.

Specifically, this would entail implementing a SWPPP and related BMPs in conformance with applicable regulatory requirements.

Construction-related Hazardous Materials. Project construction would involve the use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of such materials during project construction could potentially result in significant impacts if these pollutants reach downstream receiving waters, particularly materials such as petroleum compounds that are potentially toxic to aquatic species in low concentrations. As previously noted, implementation of a SWPPP would be required under NPDES and related City guidelines, and would include detailed measures to avoid or mitigate potential impacts related to the use and potential discharge of construction-related hazardous materials.

While detailed BMPs associated with construction-related hazardous materials would be determined as part of the noted SWPPP process based on project-specific parameters, they are likely to include the following typical measures: (1) minimizing on-site hazardous material storage, and restricting storage locations to areas at least 50 feet from storm drains and surface waters; (2) maintaining written inventories, labels and warning signs for stored hazardous materials; (3) using berms, ditches, and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas to provide an appropriate containment volume and prevent discharge in the event of a spill; (4) properly maintaining construction equipment and vehicles; (5) using appropriate sediment control devices/methods downstream of paving activities, and properly containing and disposing of wastes and/or slurry from sources including concrete, dry wall and paint, by using properly designed and contained washout areas; (6) providing training for applicable employees in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill; (7) storing absorbent and clean-up materials in readily accessible on-site locations; (8) properly locating, maintaining and containing portable wastewater facilities; (9) regularly (at least weekly) monitoring and maintaining hazardous material use/storage facilities and operations to ensure proper working order; and (10) implementing solid waste management efforts such as proper containment and disposal of construction debris.

Based on the implementation of appropriate BMPs as part of (and in conformance with) the project SWPPP and related regulatory requirements, impacts from construction-related hazardous materials would be less than significant.

Demolition-related Debris Generation. The proposed project would involve the demolition of existing on-site facilities including structures and pavement. These activities would generate variable amounts of construction debris, potentially including concrete, asphalt, glass, metal, drywall, paint, insulation, fabric, and wood. Demolition activities could also potentially generate particulates, as well as pollutants related to hazardous materials including LBP and asbestos insulation (refer to Response 4.8.b). The introduction of demolition-related particulates or hazardous material pollutants into local drainages or storm drain systems could potentially result in significant downstream water quality impacts.

Project construction would be subject to a number of regulatory controls related to demolition, including NPDES/City SWPPP requirements as previously noted. The project SWPPP would

include measures to address potential effects associated with pollutant generation from demolition activities as appropriate, with detailed requirements to be determined as part of the SWPPP process. Typical measures for control of demolition-related hazardous materials that may be required in the project SWPPP include: (1) recycling appropriate (i.e., non-hazardous) construction debris for on- or off-site use whenever feasible, and proper off-site disposal of materials that cannot be recycled; (2) using dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal); (3) using appropriate erosion prevention and sediment control measures downstream of all demolition activities; and (4) providing conformance with applicable requirements related to the removal, handling, transport and disposal of hazardous materials generated during demolition (refer to Mitigation Measure **Haz-2** in Response 4.8.b).

Based on implementation of appropriate BMPs as part of (and in conformance with) the project SWPPP, as well as conformance with applicable hazardous material regulations, potential water quality impacts from project-related generation of demolition debris would be less than significant.

Disposal of Extracted Groundwater. Disposal of groundwater extracted during construction activities into local drainages and/or storm drain facilities could potentially result in significant water quality impacts through erosion/sedimentation, or the possible occurrence of pollutants in local groundwater aquifers. While shallow groundwater was not observed during geotechnical investigations and is not anticipated to be encountered during project-related excavation and construction (Leighton 2016), if dewatering is required the applicant and/or contractor would be required to comply with pertinent NPDES criteria related to groundwater extraction/disposal. While specific requirements would be determined based on site-specific parameters, they would likely include the following types of standard measures: (1) submittal of appropriate application materials and fees; (2) implementation of pertinent (depending on site-specific conditions) monitoring/testing, disposal alternative, and treatment programs; (3) provision of applicable notification to the associated local agency prior to discharging to a municipal storm drain system; (4) conformance with appropriate effluent standards; and (5) submittal of applicable documentation (e.g., monitoring reports). Based on the implementation of these and/or other appropriate BMPs as part of (and in conformance with) NPDES requirements, potential impacts from construction-related dewatering (if required) would be less than significant.

Long-term Operation and Maintenance Impacts

Long-term operation and maintenance of the proposed project would potentially generate a number of associated pollutants from sources including vehicle use (particulates, metals, and oil and grease), landscaping (pesticides/nutrients and oxygen demanding substances), pet waste (bacteria and viruses), and trash/debris generation. Urban pollutants accumulate in areas such as streets, parking areas, and drainage facilities, and are picked up in runoff during storm events. While runoff within and from the project site would decrease as noted below in Response 4.9.d, project operation would still potentially result in the on- and off-site transport of urban pollutants and associated significant effects such as increased turbidity, oxygen depletion, and toxicity to attendant species in downstream receiving waters. The project would be subject to applicable requirements under the associated NPDES Municipal Permit (NPDES Permit No. CAS618030, Regional Water Quality Control Board [RWQCB] Order No. R8-2009-0030 as amended by

Order No. R8-2010-0062) and related City standards (with the City listed as a co-permittee on the noted Municipal Permit). Pursuant to NPDES and City storm water standards, a Conceptual Water Quality Management Plan (WQMP) has been prepared for the project to assess potential concerns and identify appropriate BMPs to ensure regulatory conformance (KHR 2017b). This document is provided as Attachment E to this IS/MND. Specifically, this includes a combination of structural and non-structural source control and low impact development (LID)[2] treatment control BMPs. Source control BMPs are intended to avoid or minimize the introduction of pollutants into storm drains and natural drainages to the maximum extent practicable (MEP) by reducing on-site pollutant generation and off-site pollutant transport. Specific source control BMPs identified in the project WQMP include efforts such as: (1) locating trash enclosures within covered structures; (2) locating the majority of on-site parking within a covered structure; (3) using signs and educational materials to inform residents on proper use/disposal of substances such as pesticides, household cleaners, and pet waste; (4) providing appropriate employee training for the use and disposal of potential pollutants, as well as appropriate action to take in the event of a spill; and (5) restriction on applicable activities such as on-site vehicle maintenance. Proposed LID treatment control BMPs include storm water infiltration using methods such as subsurface perforated metal pipes or drywells, with the design capture volume of these facilities to accommodate the 85th percentile 24-hour storm event, pursuant to NPDES/City standards (KHR 2017a). LID infiltration BMPs provide a high efficiency level for removal of all pollutant categories, and their use is typically encouraged or required by regulatory authorities where appropriate conditions are present (e.g., adequate soil percolation rates and groundwater depths).

Implementation of the WQMP and related BMPs as described would ensure project conformance with applicable NPDES and City storm water standards, and would reduce associated potential long-term project water quality impacts below a level of significance.

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)?

Less Than Significant Impact. The proposed project would not result in the long-term use or extraction of local groundwater, with no associated impacts to groundwater supplies, aquifer volumes, or groundwater tables. In the unlikely event that shallow groundwater is encountered during project construction, small-scale and temporary dewatering efforts would be implemented in conformance with applicable NPDES requirements as noted above in Response 4.9.a.

The majority of the project site is currently developed with buildings, pavement, and other impermeable surfaces; therefore, existing groundwater recharge at the project site is assumed to be minimal. While project implementation would also include the installation of impervious surfaces such as structures and pavement, the project would result in larger landscaped areas and the overall area of on-site impervious surfaces would be reduced compared to the existing

[2] The LID process is intended to mimic predevelopment hydrologic conditions by using design practices and techniques to effectively capture, filter, store, evaporate, detain, and infiltrate runoff close to its source.

condition. This would result in an overall reduction in storm water leaving the site and a greater potential for rainfall to percolate into the ground and potentially reach the water table (refer to Response 4.9.e). The resulting contribution to the groundwater basin as a whole would be negligible. Based on the described conditions, potential impacts from the proposed project related to groundwater supplies and recharge capacity would be less than significant.

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?

Less Than Significant Impact. While implementation of the proposed project would not alter the course of any stream or river, it would result in minor changes to the existing on-site drainage patterns through grading, development, etc. The overall existing drainage patterns would remain unchanged, however, with on-site flows moving generally north, discharging to East Crowther Avenue, and continuing along the curb before entering downstream City drainage facilities and ultimately flowing south to the Santa Ana River. Based on the described conditions, potential impacts associated with drainage alteration, including related erosion/sedimentation effects and hydromodification (as outlined below in Response 4.9.d), would be less than significant (with additional discussion of potential erosion hazards provided above in Responses 4.6.b and 4.9.a).

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?

Less Than Significant Impact. As noted above in Response 4.9.c, project implementation would not alter the course of any stream or river, although it would result in minor changes to the existing on-site drainage patterns. The proposed project would also result in a net reduction of surface flows within and from the site, however, due to the proposed reduction in on-site impervious surface area (e.g., from extensive landscaping), as well as the proposed used of infiltration for water quality treatment (refer to Response 4.9.a). An analysis of potential project-related hydromodification[3] impacts was conducted as part of the WQMP, which concluded that while downstream drainages may be susceptible to such effects, the proposed reduction in on-site impervious area and use of infiltration would eliminate this potential impact (KHR 2017b). As a result, potential impacts from project implementation from drainage alteration, including related effects to runoff rates/amounts, hydromodification and flooding hazards, would be less than significant.

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?

Less Than Significant Impact. Based on the discussions provided above in Responses 4.9.a, 4.9.c, and 4.9.d, the proposed project would result in a net reduction of surface runoff, with no associated adverse effects to the capacity of existing or planned storm water drainage systems. Additionally, as outlined in Responses 4.6.b and 4.9.a, potential project-related water quality

[3] Hydromodification is generally defined as the change in natural watershed hydrologic processes and runoff characteristics (infiltration and overland flow) caused by urbanization or other land use changes that result in increased stream flows, sediment transport, and morphological changes in the channels receiving the runoff.

impacts would be avoided or reduced below a level of significance through required conformance with applicable NPDES and City regulatory standards. As a result, potential impacts related to drainage system capacity and the generation of polluted runoff from project implementation would be less than significant.

f. Otherwise substantially degrade water quality?

Less Than Significant Impact. As described above in Responses 4.6.b and 4.9.a, the proposed project would be subject to applicable requirements under NPDES/City storm water standards and other pertinent regulations (e.g., hazardous material) to address potential short-and long-term water quality impacts. As a result, these potential impacts would be reduced below a level of significance and the proposed project would not otherwise result in the degradation of water quality.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The project Geotechnical Investigation notes that the project site is not within a mapped 100-year flood hazard area (Leighton 2016) and no associated impacts would result from project implementation.

h. Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?

No Impact. As noted in Response 4.9.g, the project site is not located within a 100-year floodplain. No impacts related to impeding or redirecting flood flows would result from project development.

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?

Less Than Significant Impact. As described in Response 4.9.g, the project is not located within a 100-year floodplain. The project Geotechnical Investigation notes that the site is located within the mapped inundation area associated with catastrophic failure of the Prado Dam (Leighton 2016). Such a catastrophic scenario is considered a very unlikely event, however, due to the fact that dam structures are subject to rigorous safety regulations under the direction of the California Division of Safety of Dams, the U.S. Army Corps of Engineers, and California Department of Water Resources. These requirements involve efforts related to the siting, construction, operation, and maintenance of dam structures, including regular monitoring and reporting. Based on the described conditions, potential risks of loss, injury, or death related to dam inundation caused by a failure of the Prado Dam at the project site would be less than significant.

j. Inundation by seiche, tsunami, or mudflow?

No Impact. Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water such as lakes or reservoirs, and are most typically associated with seismic activity. Seiches can result in flooding damage and related effects (e.g., erosion) in surrounding areas from spilling or sloshing water, as well as increasing pressure on containment

structures. Because there are no large water bodies in the project vicinity, seiche-related hazards are considered negligible (Leighton 2016) and no associated impacts would result from project implementation.

Tsunamis (commonly referred to as tidal waves) are sea waves generated by sources such as underwater earthquakes or volcanic eruptions, and can generate impacts related to inundation in coastal zones. Because the project site is located approximately 15 miles inland and at elevations of between approximately 230 and 240 feet AMSL, tsunami hazards are negligible (Leighton 2016), and no impacts resulting from tsunamis would occur as a result of project implementation.

The project site is generally not susceptible to inundation by mudflow, due to the relatively level nature of the site and vicinity (with the closest area of substantial topography located approximately 4.3 miles to the northeast). Accordingly, no mudflow-related impacts are anticipated in association with project implementation.

4.10 LAND USE AND PLANNING

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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?	□	□	□	■

CEQA Checklist Analysis

a. Physically divide an established community?

No Impact. The project is proposed to be constructed on two parcels that currently contain vacant industrial buildings and associated facilities and would represent one of the first developments within the newly established TOD District. The existing industrial packinghouse "community" is planned to evolve into a new mixed-use TOD community. The project is consistent with the TOD policies and guidance, and will have easy access to the planned Metrolink station. It is separated from the community associated with the Old Town Placentia Planning Area by Crowther Avenue and the existing rail corridor, including the site of the future Metrolink Station, and would not adversely affect that community. It would not have an adverse impact on the physical arrangement of an established community. Therefore, no impacts are anticipated to occur.

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 Impact. The proposed project would be consistent with the newly adopted TOD zoning designation and General Plan designation, and associated development standards and policies, as well as other applicable City development regulations and standards as reflected in the Final IS/MND prepared for the TOD District (Dodson 2017). No adverse impacts related to conflicts with applicable land use plans, policies, or regulations would occur.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project site is fully developed, and there are no habitat conservation plans or natural community conservation plans within or near the project area. No related impacts would occur.

4.11 MINERAL RESOURCES

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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?	□	□	■	□

CEQA Checklist Analysis

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?*

Less Than Significant Impact. As described above in Response 4.5.c, the project site encompasses approximately 8 to 10 feet of artificial fill deposits that are underlain by a thick sequence of alluvial/fluvial materials. Accordingly, associated mineral resource potential would be limited primarily to aggregate (sand and gravel) and petroleum resources, with a number of identified historic oil and gas fields mapped to the north, east, and west of the City (CGS 1981, 1973). Based on the referenced historic CGS sources, as well as related data provided in the City of Placentia General Plan Update (2017b) and the Orange County General Plan (2005), there are no identified mineral resources within the City, as defined by the CGS. In addition, the project site and vicinity are fully developed with urban and related uses, and the City land and zoning designations within and adjacent to the site do not include mineral extraction as an allowable use. Based on the described conditions, it is considered unlikely that economic mineral resources are present in the project site vicinity and, even if such resources were subsequently determined to be present, it is unlikely that associated extraction operations would be authorized by the City

due to the approval of the TOD District and desired long-range planning that does not accommodate such use (i.e., mineral resource extraction) of the project site. As a result, potential impacts to mineral resources from implementation of the proposed project would be less than significant.

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?

Less Than Significant Impact. Refer to Response 4.11.a, above.

4.12 NOISE

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	■	□	□
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	□	□	■	□
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	□	■	□	□
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	■	□
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?	□	□	□	■

Mitigation measures in the TOD District IS/MND specify that a noise and vibration study shall be prepared for any proposed project in the District. The study must identify whether noise attenuation features would be required to meet City noise standards and/or to meet the 72 vibration decibel (VdB) threshold recommended for the volume of train traffic. Such studies are also typically completed as part of the CEQA compliance process. The following analysis is based on a Noise and Vibration Analysis Report prepared for the proposed project by HELIX Environmental Planning, Inc. (HELIX; May 2017).

CEQA Checklist Analysis

Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret, while noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Sound intensity or acoustic energy is measured in decibels (dB) that are

A-weighted to correct for the relative frequency response of the human ear (dBA). Decibels are measured on a logarithmic scale, with a 3-dBA change in sound generally considered the minimum level that is "barely perceptible" to humans, and a 5-dBA change generally considered "readily perceptible." Time-averaged noise levels are expressed by the symbol L_{EQ}, with a specified duration, typically of one hour.

The predominant rating scales for communities are the Noise Equivalent (L_{EQ}), and the Community Noise Equivalent Level (CNEL), both of which are based on dBA. The L_{EQ} is the total sound energy of time-varying noise over a sample period. The CNEL is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels at night from 10:00 p.m. to 7:00 a.m. CNEL is utilized for describing ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during nighttime hours.

The thresholds of significance within the City of Placentia and as developed by the U.S. Department of Housing and Urban Development and State of California Guidelines are utilized in this document as the applicable Noise Standards applied to the project in determining whether a significant impact will occur, with 60 CNEL as the acceptable ambient noise base level for multiple-family residences. The General Plan and Chapter 23.76 of the Placentia Municipal Code regulate construction noise. The Municipal Code regulates noise-producing operations to standards of 55 dBA during the daytime and 50 dBA at night when measured at the property line. California's Title 24 noise standards regulate interior noise levels to at least 45 CNEL, and the Federal Transportation Administration (FTA) regulates residential ground-borne vibration to 72 VdB, and ground-borne noise to 35 dBA. The following analysis is derived from the noise and vibration report by HELIX Environmental Planning (2017).

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?*

Potentially Significant Unless Mitigated. The proposed project would be located adjacent to East Crowther Avenue and approximately 212 feet south of the Burlington Northern Santa Fe (BNSF) railway line. Daily railway operations include nine Metrolink trains, two Amtrak trains, and up to 125 daily freight trains by 2025 (Orange County Transportation Authority [OCTA] 2017). HELIX conducted noise modeling for the combined railway and roadway noise. The project's rooftop exterior use area on the parking structure building measured approximately 53.0 CNEL. This is below the U.S. Department of Housing and Urban Development and State of California Guidelines recommendation of 60 CNEL for multi-family residential.

The project building's northern façade would be exposed to noise levels up to 68.9 CNEL. Because standard construction materials reduce exterior noise levels by approximately 15 CNEL, interior noise levels in the project may be above the 45 CNEL Title 24 requirements. An exterior-to-interior analysis was conducted to calculate the project's residential unit interior noise levels. Mitigation Measure **Noi-1** below specifies the noise attenuation features required to reduce interior noise levels to acceptable levels.

Noi-1 Interior noise levels shall not exceed the Title 24 interior noise standard of 45 CNEL for residences. The following building materials shall be used in the construction of all units facing East Crowther Avenue and the railway to reduce interior noise to acceptable levels:

- Exterior walls shall have a Sound Transmission Class (STC) 46 rating
- Windows shall have an STC 31 rating
- Exterior doors shall have an STC 28 rating
- Glass doors shall be at least 0.5 inch thick

Operational noise attributed to the proposed project includes the use of heating, ventilation, and air conditioning (HVAC) units on the project's rooftop. Modeling assumed the use of a Carrier 38HDR060 split system for each residential unit. The continuous use of 215 rooftop condenser units would generate noise levels of 39.9 dBA at ground level and 41.5 dBA at 25 feet. These levels would not exceed the City's nighttime allowable hourly limit of 50 dBA for residential zones.

b. *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. The construction and demolition activities required for the proposed facility are not anticipated to generate excessive ground-borne vibrations or noise levels. No pile driving is anticipated to be necessary as part of project construction; the loudest source of potential vibration from project construction would be the use of a vibratory roller, which may be used to achieve soil compaction as part of the foundation construction.

No vibration-sensitive land uses (i.e., land uses where equipment or operations would be disrupted by excessive vibration) are located within 200 feet of project site. The nearest residences are located approximately 450 feet north of the project across East Crowther Avenue and the BNSF railway line. Therefore, construction vibration would not adversely affect vibration-sensitive land uses.

According to the noise and vibration report, the project site is approximately 212 feet south of the railway tracks, and under the most conservative operating assumption trains are expected to pass the project site vicinity at approximately 45 miles per hour. At this distance and speed, vibration levels from passenger and freight trains are assumed to be approximately 70.1 VdB, and associated ground-borne noise levels would be below 35 dBA. These levels are below the 72 VdB residential use impact criteria threshold for vibration and 35 dBA threshold for groundborne noise as established by the FTA's Transit Noise and Vibration Impact Assessment. Therefore, vibration impacts would be less than significant.

c. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less than Significant Impact. The project's traffic study found that the project would result in a net increase of approximately 275 average daily trips (ADT). The Traffic Impact Study for the TOD District (Albert Grover & Associates [AGA] 2017) provided existing traffic volumes for

nearby roadways. Modeling used the posted speed limits and observed vehicular mix for nearby East and West Crowther Avenue and Melrose Street. Existing noise levels were calculated to be between 62.2 CNEL and 66.1 CNEL at a distance of 50 feet on the ground. (Note that while these noise levels are above the recommendation of 60 CNEL for multi-family residential, the project's exterior use areas would be located on the parking garage roof where existing noise levels were calculated at 53.0 CNEL [see Response 4.12.a].) Adding the project's 28 peak hour trips resulted in a maximum increase of 0.3 CNEL along West Crowther Avenue. As the project does not increase existing noise levels above 3 CNEL, no substantial permanent increase in ambient noise levels in the project vicinity would occur. Impacts would be less than significant.

d. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Potentially Significant Unless Mitigated. The project would involve demolition of existing structures, minor grading, paving of the site, and construction of new buildings. Demolition and construction would generate elevated noise levels that may be audible at nearby residences. Residences are located approximately 450 feet north of the project across East Crowther Avenue and the BNSF railway line. Construction would rely on the use of standard equipment including an excavator, front-end loader, grader, scraper, and bulldozer. Construction equipment would not all operate at the same time or location. A dozer and an excavator may be working on the site simultaneously, but would not be working in close proximity to one another at a given time due to the nature of their respective operations. A scraper and dozer were analyzed together for construction noise impacts due to their likelihood of being used in conjunction with one another. During a given hour, the highest impact level for a scraper and dozer at the nearest residence is 60.5 dBA L_{EQ}. The impact level for a grader in isolation at the nearest residence is 61.9 dBA L_{EQ}. Construction noise from this equipment was modeled below the significance threshold defined in the General Plan Noise Element of 75 dBA L_{EQ}. Furthermore, construction would not occur between the hours of 7:00 p.m. and 7:00 a.m. on Monday through Saturday, or at any time on Sundays or federal holidays, as stated in the City's Noise Ordinance. Thus, the project-related construction impacts alone would not result in a significant impact.

There is the potential, however, for construction of the proposed project to occur simultaneously with construction of the Metrolink Station and other development projects within the recently established TOD District. The IS/MND for the TOD District identified a potentially significant impact and indicated that the following measures shall be implemented during construction within the TOD District:

Noi-2 The following measures shall be implemented during construction:

- Contractor shall establish a noise complaint response program and shall respond to any noise complaints received for future specific project by measuring noise levels at the affected receptor site. If the noise level exceeds an CNEL of 60 dBA exterior or an CNEL of 45 dBA interior at the sensitive receptor, the applicant will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.

- All construction equipment shall be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities. Equipment not in use for five minutes shall be shut off.

- Equipment shall be maintained and operated such that loads are secured from rattling or banging.

- Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.

- Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

- No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.

- Public notice shall be given 10 days prior to initiating construction. This notice shall be provided to all property owners and residents within 300 feet of the project site and shall be provided to property owners/residents at least one week prior to initiating construction. The notice shall identify the dates of construction and the name and phone number of a construction supervisor (contact person) in case of complaints. One contact person shall be assigned to the project. The public notice shall encourage the adjacent residents to contact the supervisor in the case of a complaint. Residents would be informed if there is a change in the construction schedule. The supervisor shall be available 24/7 throughout construction by mobile phone. If a complaint is received, the contact person shall take all feasible steps to remove or attenuate the sound source causing the complaint.

With implementation of the above mitigation measures, construction noise impacts would be less than significant.

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?*

No Impact. The project is subject to some distant aircraft noise, though the site is not located near any active airports. The nearest airport is Fullerton Municipal Airport, located six miles to the west. No effects related to airport noise would occur at the project site, and impacts would be less than significant.

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?*

No Impact. The proposed project site is not located within the vicinity of a private airstrip and would not expose people residing or working in the project area to excessive noise levels. No impact would occur.

4.13 POPULATION AND HOUSING

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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?	□	□	□	■

CEQA Checklist Analysis

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)?

Less Than Significant Impact. The City had a total population of 52,094 in 2014, with an overall average household size of 3.1 persons per unit (SCAG 2015). The proposed project would provide 100 one-bedroom units and 115 two-bedroom units; therefore, a more likely average household size for the project would be 2.3 persons per unit, with a total added population of approximately 495 project residents. This population increase would represent approximately 0.1 percent of the total population of the City, which has been anticipated by the City based on adopted long-range plans and programs. Therefore, the estimated population increase would not be a substantial increase overall.

The City has planned for population growth associated with the District, and the proposed project would be within the assumptions made to designate the project area as a TOD. For example, the District development standards for density are a minimum of 65 DU per acre and a maximum of 95 DU per acre. The proposed project would provide 72.9 DU per acre, which is within the range of the planned residential growth for the area.

Due to the small percentage of total population increase relative to the total population of the City and conformance with the adopted long-range plans, including the TOD District development standards, impacts related to population growth would be less than significant.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would involve the demolition of vacant industrial/warehouse facilities and would not require the removal existing housing. The proposed project would provide new housing and would not necessitate the construction of replacement housing elsewhere. No impacts related to the displacement of housing would occur.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Refer to Responses 4.13.a and 4.13.b, above.

4.14 PUBLIC SERVICES

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a. Fire protection?	□	□	■	□
b. Police protection?	□	□	■	□
c. Schools?	□	□	■	□
d. Parks?	□	□	■	□
e. Other public facilities?	□	□	□	■

The proposed project is in an area currently served by urban levels of all public services. Public services provided by the City in the project area include fire, police, schools, and park services.

CEQA Checklist Analysis

a. Fire Protection?

Less Than Significant Impact. The Orange County Fire Authority (OCFA) provides service to the City through a Joint Powers Agreement. There are two fire stations in the City. The nearest station to the project site is Station 35, located approximately 0.3 mile north at 120 South Bradford Avenue.

The project site is currently fully developed with industrial land uses. The transition to residential land uses would not be expected to require additional fire protection than what is already present in the area. In fact, new construction would be required to conform to current building codes, which would include modern fire protection measures that may not be present in

the existing structures on the site. The project would be required to comply with building code requirements related to fire safety and it is standard practice for the OCFA to review and require adjustments to the project plans for fire safety purposes, prior to approval of final building plans. As determined in the TOD District IS/MND, compliance with current standards along with the increased value of the developed land, which will generate additional property tax, would be sufficient to control impacts on the fire protection and emergency response system to a less than significant impact level. The impact of the proposed project on fire protection services would be less than significant.

b. Police Protection?

Less Than Significant Impact. The project area is served by the City Police Department which operates from a station located at 401 East Chapman Avenue. Mitigation measures identified in the TOD District IS/MND (Dodson 2017) indicates that each development within the TOD District shall pay fees to support City services related to law enforcement and recreation as deemed necessary by the City. The City is therefore in the process of completing a facilities benefit assessment to determine the fair share in lieu fees for developments within the TOD District. Based on mandatory participation in the facilities benefit assessment, the project applicant would be required to pay the fair share fee as determined by the City, to support police services and offset any increased demand resulting from implementation of the proposed project. Impacts related to police protection services would therefore be less than significant.

c. Schools?

Less Than Significant Impact. The project site is served by the Placentia-Yorba Linda Unified School District (PYLUSD). Using the methodology in the PYLUSD Residential Development School Fee Justification Study (see Table 3 in Dolinka Group 2016), the proposed project would add approximately 100 students to the school district. This is considered a conservative number, however, because the proposed unit sizes (1- and 2-bedroom units) would typically be expected to accommodate singles, couples, and small families.

The PYLUSD includes a total of 34 school sites with a combined enrollment of approximately 25,455 students (PYLUSD 2017). The current capacity of the PYLUSD is 28,752 students, which leaves over 3,000 spaces available for new students (Dolinka Group 2016). The PYLUSD Residential Development School Fee Justification Study concluded that while there would be adequate capacity to accommodate future elementary school students, the middle schools and high schools in the district may not be able to meet future demand. Senate Bill (SB) 50 addresses potential impacts to schools from new development by mandating the payment of fees per residential unit to offset costs related to school facilities. Based on the relatively small number of anticipated new students, the available capacity in local elementary schools, and the required payment of fees pursuant to SB 50, potential impacts to schools from the proposed development would be less than significant.

d. Parks?

Less than significant. There are a number of public parks near the project site, with a total of seven parks and approximately 28 acres of public parkland within a 1-mile radius. Additionally,

a 40-acre subregional park, the Tri-City Park, is located approximately 2.5 miles north of the project site. The City currently has a total of 82.5 acres of parks (City 2017b). Despite the amount of existing parkland, the City has not achieved its adopted park development standard of 4 acres per 1,000 residents (City 2017b). Using the total park acreage of 82.5 and the 2014 population of 52,094 (SCAG 2015), there are approximately 1.6 acres of parkland per 1,000 residents.

While the proposed project would include recreational amenities for residents, there would also be an increased demand on local parks and recreational facilities. As described above in Response 4.14.b, the TOD District IS/MND indicates that each development within the TOD District shall pay fees to support City services related to law enforcement and recreation as deemed necessary by the City, and the City is in the process of completing a facilities benefit assessment to determine the fair share in lieu fees for developments within the TOD District. The project applicant would be required to either pay a fair share in-lieu fee to support parks or to provide dedicated parkland, or some combination of the two, as determined by the City. Such payments would be mandatory. As a result, project-related impacts to parks would be less than significant.

e. Other Public Facilities?

No Impact. No significant impacts to other public facilities are anticipated to occur with project implementation.

4.15 RECREATION

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project:				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	■	□
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	□	□	■	□

CEQA Checklist Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. Development standards for the TOD District require a minimum of 50 SF of common open space per DU and a minimum of 65 SF of private open space per DU. The proposed project would meet these requirements by providing a total of 21,015 SF of common open space and 15,132 SF of private open space. Each DU would have a private balcony, and common open space would include recreational amenities such as a swimming

pool, dog run, community areas, and an exercise facility. While new residents would also use local parks and off-site recreational facilities, it is anticipated that on-site amenities would offer convenient access to open space and recreation and that the increased demand on off-site facilities would not cause substantial physical deterioration. Furthermore, as indicated in response to 4.14.d, the project would be required to pay a "fair share" or "in-lieu" fee, which would be used by the City to maintain or provide new parks facilities in the City. Implementation of the proposed project would therefore result in less than significant impacts related to substantial deterioration of existing parks and recreational facilities.

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?

Less Than Significant. The proposed project would include common open space recreational facilities (i.e., swimming pool, dog run, community areas, and an exercise facility), as well as private open space (i.e., balconies), as described above in 4.15.a. Impacts related to the construction of these on-site recreational elements as part of the proposed project have been analyzed throughout this document. In all instances where potentially significant impacts were identified, mitigation measures have been included that would reduce impacts to less than significant. No specific off-site recreational improvements have been identified, but the project would pay fair share in lieu fees that the City may use to develop public recreational amenities. If the City does plan and implement future park development, this would constitute a future project subject to separate CEQA review. Impacts related to recreational facilities would therefore be less than significant.

4.16 TRANSPORTATION/TRAFFIC

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 standard 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?	□	□	□	■

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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?	□	□	□	■

A traffic study has been completed for the proposed Placentia Crowther project (Fehr & Peers, 2017). This study is provided as Attachment G to this IS/MND. The below analyses also rely upon the traffic study and analysis for the TOD District IS/MND (Albert Grover & Associates [AGA], 2017).

CEQA Checklist Analysis

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?

Potentially Significant Unless Mitigated. Project construction activities would temporarily contribute additional vehicle trips to the local circulation system. Short-term construction traffic impacts would result from hauling demolition material away from the project site, importing/exporting materials to/from the site, and transporting construction personnel to and from the site. It is assumed that primary access to the site for construction traffic would be from SR 91 and SR 57, utilizing surface streets that are permitted for truck use. Construction would occur over an estimated 18-month period. During peak hauling periods associated with transporting demolition waste off site and bringing building materials to the site, there is the potential for significant impacts to roadway segments and intersections along the truck route from the project site to SR 57 or SR 91, if substantial truck trips occur during the AM and PM peak hours. These impacts would be reduced to less than significant through implementation of the following mitigation measures, as specified in the TOD District MND:

Tra-1 The project contractor would be required to prepare and implement a construction traffic control plan to the satisfaction of the City Traffic Engineer and in compliance with Manual of Uniform Traffic Control Devices (MUTCD) guidelines. The traffic control plan should include ingress and egress to and from the project site, as well as designated haul routes and construction staging areas, and must address the applicable construction traffic control measures listed in the adopted IS/MND for the approved TOD District, as listed below:

- Construction hours will be in accordance with the City Municipal Code.
- Construction traffic will utilize designated driveways along Crowther Avenue and will yield to public traffic when entering and exiting the project site.

- Parking for construction equipment and vehicles will be on the project site or within an approved nearby temporary use site. Such equipment and vehicles will utilize approved driveways to enter the site(s). Construction staging will also be on the site or another approved property, and not within the public streets.

- Trucks transporting equipment and materials to and from the site will use the designated truck routes along Placentia Avenue, Crowther Avenue, Melrose Street, and Orangethorpe Avenue, and will yield to public traffic at all times.

- All construction work within the public right-of-way, will be conducted in compliance with City standards and the construction site shall be posted with the name, company, and a phone number of a person to call for complaints.

- The developer will be responsible for repair of damages to public facilities caused by the hauling or transporting of construction related materials.

With implementation of the above measures from the TOD District IS/MND, as embodied and expanded upon within the required construction traffic control plan, impacts associated with construction traffic would be less than significant. These mandatory measures will be included within the project MMRP, for monitoring purposes.

Level of service (LOS) analyzes roadway operations and the relationship between capacity, traffic volumes, and delay resulting in LOS grades A through F (F being the lowest). The Traffic Impact Study for the TOD District (AGA 2017) assumed that a significant portion of the trips generated from redevelopment of the TOD project area would be internal once buildout is achieved due to the mixed-use development approach within the area; many of these internal trips would be via bicycle or pedestrian modes. Based on the proximity of the planned Placentia Metrolink Station the study also assumed that 35% of trips would utilize transit instead of motor vehicles. This calculation yielded an expected maximum of 5,000 net daily vehicle trips to be generated as a result of redevelopment of the entire TOD District.

The project traffic study used the same traffic generation and distribution assumptions as were used for the TOD District traffic study (see Attachment G). Applying the same assumptions to the proposed 215-unit development yields an estimated 1,430 vehicle trips that would be generated by the proposed project (See Table 6). This is approximately 821 fewer daily vehicle trips than were projected by the TOD District traffic study for the redevelopment of the "southeast area" of the District, which corresponds to the project site. AM and PM peak hour trips would also be less than previously projected, because the project would result in fewer residential units than were previously assumed for the TOD District. As shown in Table 6, after applying the 35% reduction in trip generation based on the transit-oriented nature of the development, the net trip generation for the project is estimated at 929 daily trips, with 71 AM peak hour trips and 86 PM peak hour trips.

Table 6
PROJECT TRIP GENERATION ESTIMATES

Land Use	Units	ITE Code	Quantity	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Apartments	Dwelling Units	220[1]	215	1,430	22	88	110	86	47	133
Transit Reduction (35%)[2]				-501	-8	-31	-39	-30	-16	-47
Net New Project Trips				929	14	57	71	56	31	86

Sources: ITE Trip Generation Manual, 9th Edition; Fehr and Peers, 2017

[1] ITE Trip Generation land use category 220 = Apartments with Peak Hours of Adjacent Streets at 7-9AM and 4-6PM
- Daily: T = 6.65(X)
- AM Peak Hour: T = 0.51(X) (20% in, 80% out)
- PM Peak Hour: T = 0.62(X) (65% in, 35% out)

[2] From the TOD District Traffic Study; reflects mode share to transit due to the TOD nature of the site.

The peak hour trip generation after transit reduction indicates that the driveway approach will not exceed 100 peak hour trips, the minimum volume identified in the MUTCD warrant for traffic signal installation. As such, side street stop control should be adequate.

The TOD District Traffic Study analyzed the LOS of 15 intersections under six scenarios for both morning and afternoon peak hours and determined that the full redevelopment of the District, assumed to occur by 2035, would cause the following intersections to operate at a deficient LOS E or F or worsen intersections that would operate at E or F even without the TOD District: Placentia Avenue/Crowther Avenue, Orangethorpe Avenue/Placentia Avenue, Orangethorpe Avenue/SR 57 Northbound Ramps, Orangethorpe Avenue/Melrose Street, and Kraemer Boulevard/Orangethorpe Avenue. To address this significant cumulative traffic impact, the MND for the District mandated that each future development within the TOD District must pay its fair share of the costs for the necessary transportation system improvements needed to address the District-wide traffic increases and identified the following transportation system improvements, toward which each developer must pay a fair share:

- Placentia/Crowther Avenue: Upgrade left turn signal phasing for all movements from permissive left turns to protected/permissive left turn phasing.

- Orangethorpe Avenue /Placentia Avenue: Provide eastbound/westbound dual left-turn Lanes at Orangethorpe Avenue/Placentia Avenue.

- Orangethorpe Avenue/SR 57 Northbound Ramps: Restripe Northbound Off-Ramp middle lane as shared Left-Turn/Thru/Right-Turn Lane.

- Orangethorpe Avenue/SR 57 Northbound Ramps: The westbound right turn movement is expected to increase from 550 vehicles per hour (vph) to 800 vph during the PM period for year 2035. This movement should be closely monitored and may require additional improvements to reduce congestion and queuing. An additional improvement would be to modify the existing median on Orangethorpe Avenue to add an exclusive Westbound Right-Turn Lane.

- Orangethorpe Avenue/Melrose Street: Provide an exclusive southbound right-turn lane without overlap signal phasing and northbound dual left-turn lanes at Orangethorpe Avenue/Melrose Street.

- Kraemer Boulevard/Orangethorpe Avenue: Restripe Orangethorpe Avenue to provide eastbound dual left-turn lanes. Add additional north/south thru lane (three lanes each) by restriping the northbound and southbound right turn lanes to thru lanes. Consider modifying the north/south left-turn movements from protected-only left-turn phasing to protected- permissive left-turn phasing. Restripe the southbound left-turn approach to provide a positive offset for better sight distance between the north/south left turn movements.

Mandatory payment of the required fair share fees by the project developer, as specified in the TOD District MND and associated traffic study, ensures that project-related traffic impacts would be less than significant.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standard established by the county congestion management agency for designated roads or highways?

Less than Significant Impact. Refer to Response 4.16.a, above. Mandatory payment of fair share fees will ensure that the required transportation system improvements are funded and that impacts will be less than significant.

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 Impact. The project is not located close enough to any airports to influence air traffic patterns. Fullerton Municipal Airport is located approximately 6 miles to the west of the project site and John Wayne Airport is located approximately 15 miles to the south of the project site. No impacts are anticipated and no mitigation measures are required.

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 Impact. The project would not include the construction of hazards (e.g., sharp curves or dangerous intersections). Although residential development is proposed within an area that is characterized by industrial development, this area is in transition and the existing land uses will be replaced with a variety of residential and non-residential uses that will comprise the TOD District. Therefore, because the project is consistent with the long-term plan for the project area and, furthermore, has been designed in accordance with the TOD District development standards, implementation of the proposed project would not result in incompatible uses with the surrounding developed area. Access to the project site must conform with all City design standards. The project would intensify residential development across the street from the planned Metrolink Station, consistent with the intent of the Packing House TOD District. It is expected that these residents would utilize the station. Currently there is no safe pedestrian access to the Metrolink Station site; however, the Metrolink preliminary plans do reference

pedestrian-friendly bridges. It is expected that pedestrian movement between the project site and Metrolink Station will be accommodated, but this will be a matter to be addressed by the City and OCTA as the Metrolink designs are refined. Overall, impacts regarding design features or incompatible uses would be less than significant.

e. Result in inadequate emergency access?

No Impact. Adequate emergency access would be provided during both short-term construction and long-term operation of the proposed project. No associated impact would occur. Refer also to Response 4.8.g.

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 Impact. The project is located within an approved TOD District and would be required to conform with the adopted design standards for that District. The project would intensify development adjacent to a planned Metrolink station, consistent with the intent of the TOD District to promote use of transit. Sidewalks would be constructed or maintained in conformance with City standards and the project would not adversely affect or preclude future improvements to any existing or planned public transit, bicycle, or pedestrian facilities. Therefore, project implementation would not conflict with adopted policies, plans, or programs supporting alternative transportation. No associated impacts would occur.

4.17 TRIBAL CULTURAL RESOURCES

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or	□	□	□	■
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of the Public Resources Code Section 5024.1. In applying the criteria set forth in Subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	□	■	□	□

CEQA Checklist Analysis

a. Cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

No Impact. The project site has been previously developed with industrial buildings and related facilities that were constructed between 1964 and the late 1970s. Pursuant to the HRER conducted for the project (ASM 2017) and Response 4.5.a above, no cultural resources listed (or eligible for listing in) the California Register of Historical Resources, or in a local register of historical resources, were documented on the project site, or observed during the field survey of the site by the project architectural historian. In addition, the project site is underlain by fill and no significant buried resources are anticipated to occur within the anticipated area and depth of disturbance for project grading and construction. Accordingly, no adverse changes in the significance of a tribal cultural resource that is eligible for listing would result from project implementation.

b. Cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of the Public Resources Code Section 5024.1?

Potentially Significant Unless Mitigated. Pursuant to requirements under AB 52, ~~consultation~~ letters were sent by the City of Placentia to the following groups who have requested project notifications~~was conducted for the TOD District Project (which includes the proposed project site) with the following groups~~: ~~Gabrieleno~~Gabrieleño Band of Mission Indians, Kizh Nation; and Juaneño Band of Mission Indians, Acjachemen Nation. The ~~Gabrieleno~~Gabrieleño Band of Mission Indians has ~~since responded~~indicated that development within the ~~project area~~ TOD District and at the subject Crowther project site within that District ~~has~~ have sensitivity for tribal resources and requested consultation. ~~that~~ The City has committed that a Native American Monitor will be present during all ground-disturbing activities for the proposed project ~~within the District~~. The Juaneño Band of Mission Indians responded in an email that they did not have any comments with respect to the proposed project. ~~Additionally,~~The associated ~~letters~~ communications regarding the proposed project ~~have been sent to Native American tribes who have requested notification and~~ are included in Attachment I *Tribal Consultation*. ~~To date, no additional tribes have provided comments or requested monitoring. Responses to these recent letters will be included in the Final MND.~~

The project site is underlain by fill and ~~only minor~~ disturbance to native ground is anticipated to be minor during project grading and construction. The potential exists, however, to encounter tribal resources, and related impacts would be potentially significant. Implementation of Mitigation Measure **Cul-1** would reduce impacts related to tribal resources to less than significant.

4.18 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	□	□	□	■
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	■	□	□
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	■	□
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	□	□	■	□
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	■	□
f. Be served by a landfill(s) 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?	□	□	□	■

CEQA Checklist Analysis

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The project area is served by the Orange County Sanitation District (OCSD), which operates wastewater collection, treatment, and disposal of treated wastewater for a population of 2.6 million people in a 479-square mile service area across central and northwest Orange County. OCSD discharges treated wastewater under a NPDES permit issued by the California RWQCB Santa Ana Region (RWQCB 2012). Implementation of the proposed project would not exceed the existing treatment requirements imposed on the OCSD by the RWQCB. Wastewater generated by the proposed project would be residential in nature and would not contain constituents that would affect the waste discharge requirements imposed on OCSD's two treatment plants (Reclamation Plant No. 1 and Treatment Plant No. 2). The additional wastewater flows generated by the project would be treated in accordance with the current treatment requirements outlined in OCSD's NPDES permit, and no related impacts would occur.

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?

Potentially Significant Unless Mitigated. The TOD District IS/MND states that projects in the TOD District must conduct a review of existing water consumption compared to the estimated water consumption by the proposed project. The existing industrial structures on the property are currently vacant and do not have a water demand, but when operational these uses would have had an estimated water demand of at least 2,950 gallons per day (gpd), based on a factor of 1,000 gpd per acre, and any new use occupying these buildings would be expected to have a similar demand. Based on the multi-family nature of the proposed development, the estimated water consumption rate for the proposed project is approximately 357 gpd per unit. With the proposed project design of 215 units, average daily water demand for the development would be approximately 76,775 gpd (i.e., 26,025 gpd per acre). Implementation of the proposed project would result in increased potable water demand.

Mitigation in the TOD District IS/MND further states that if a proposed project in the District would increase water consumption by 25 percent over the current water demand or 5,000 gpd per acre, the project applicant would be required to offset the increase by funding sufficient water conservation measures within the project area (including the proposed project). The projected water demand would be greater than that associated with the prior use of the site and would also exceed the threshold of 5,000 gpd per acre. The project shall therefore implement the following mitigation measure:

Uti-1 The project shall incorporate relatively small areas of low water use landscaping, as well as water-conserving features/measures to meet or exceed the current building code requirements. The project applicant shall also consult with the City and local water purveyor to determine project design measures that would provide an adequate level of water conservation. Specifically, these may include the following types of standard industry efforts: (1) use of low-flow/water efficient fixtures and appliances; (2) use of native/drought-tolerant landscaping varieties and/or artificial turf, wherever feasible, and using mulch in landscaped areas; (3) use of drip, micro-spray and/or other water-efficient irrigation systems, as well as capture/reuse systems and devices such as rain barrels; (4) use of "smart irrigation" technology where appropriate, such as pertinent watering schedules to reflect local plant/soil/climate conditions, moisture/precipitation and leak/pressure sensors, and automatic shut-off valves for applicable associated events/conditions such as precipitation and leaks; (5) use of recycling/closed water systems for features such as fountains and pools, and regular inspection/maintenance for all water-related features such as irrigation systems and water lines; and (6) provision of educational materials to residents/employees regarding reduction of water use for household and other applications (e.g., limiting washing machine use to full loads, reducing shower time, turning off water while brushing teeth, and using dry methods [sweeping] rather than a hose to clean paved areas).

Implementation of Mitigation Measure **Uti-1** would reduce impacts related to increased water demand associated with the proposed project to less than significant.

Water service in the City is provided by the Golden State Water Company (GSWC). Based on the GSWC Urban Water Management Plan (2016), projected water supply will be sufficient to meet water demands in the region under normal conditions, a single dry year, and multiple dry years through the year 2040. A Can and Will Serve Letter from the GSWC was issued for the proposed project in June 2017 (Attachment H) stating that water service is available and service would be provided from existing facilities within Crowther Avenue. Implementation of the proposed project would not be expected to require construction or expansion of water facilities.

Implementation of the proposed project would result in an increase of residential wastewater flows. Flows to the two OCSD wastewater treatment plants currently average 184 million gallons per day (mgd) (OCSD 2017). OCSD's treatment plants are designed to treat up to 372 mgd of primary treated wastewater and 332 mgd of secondary treated wastewater (RWQCB 2012). Based on the proposed fixtures that would be installed, the estimated sewer generation rate for the proposed project is 92 gpd per capita. With an estimated 667 new residents associated with the proposed project, wastewater flows from the development would total 61,364 gpd. Wastewater treatment facilities currently have sufficient capacity to treat wastewater flows from the proposed project. Implementation of the proposed project would not be expected to require construction or expansion of wastewater treatment facilities, and related impacts would be less than significant.

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?

Less Than Significant Impact. Mitigation in the TOD District IS/MND requires an evaluation of proposed changes to storm water drainage associated with new projects in the District. Stormwater detention is required for proposed projects that would generate stormwater runoff that exceeds the existing volume or time of accumulation. As previously discussed in Section 4.9, the proposed project would result in a net reduction of runoff from the site due to a decrease in impervious surface area. Project runoff that is generated would be treated with a combination of structural and non-structural source control and LID treatment control BMPs. With these measures, project-related storm water drainage improvements would not result in significant environmental impacts.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. Refer to Response 4.18.b, above.

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?

Less Than Significant Impact. Refer to Responses 4.18.a and 4.18.b, above.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Construction activities, including the demolition and removal of the existing structures, would generate solid waste. The City Municipal Code (Title 8, Chapter 8.04.390) requires the diversion of at least 50 percent of all construction/deconstruction waste generated within the City. Additionally, compliance with the Orange County Waste and Recycling (OCWR) Construction & Demolition Program requires 65 percent diversion of solid waste associated with applicable construction and demolition projects. Applicants can achieve diversion through reuse, recycling, and/or composting of construction and demolition materials at County-approved facilities or use of a County Franchised Waste Hauler (OCWR 2017a). The project would comply with all applicable state and local requirements, and construction-related impacts would be less than significant.

Operational activities would result in generation of municipal solid waste resulting from residential activities. Municipal solid waste generated within the City is transported to the Olinda Landfill site in Orange County, which currently receives approximately 5,000 tons per day (tpd) of solid waste (County of Orange 2017c, OCWR 2017b). The landfill is permitted to receive 8,000 tpd, and is expected to reach capacity by 2030. Orange County has two additional landfill sites in unincorporated areas of the county, with a total permitted disposal allowance of 23,500 tpd and projected capacity to serve residents and businesses through 2067 (County of Orange 2017b and 2017d).

The Regional Landfill Options for Orange County (RELOOC) Strategic Plan identifies a number of strategies for expanding and/or preserving landfill capacity as population in the region grows (RELOOC 2001 and 2007). Strategies include the expansion of existing landfills, promotion of diversion and recycling, identification of alternative technologies or approaches, and an annual review of the RELOOC Strategic Plan to respond to disposal industry trends and advances in technology.

Sufficient landfill capacity exists or is planned in the region to serve the project; therefore, impacts would be less than significant.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Refer to Response 4.17.f, above. The City Municipal Code, Chapter 8.04, regulates waste disposal in the City. Accordingly, the proposed project would comply with applicable, federal, State, and local statutes and regulations related to solid waste. No impact would occur.

4.19 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant	Potentially Significant Unless Mit.	Less Than Significant	No Impact
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 the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	□	□	■	□
c. 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, and the effects of probable future projects.)	□	■	□	□
d. Does the project have environmental effects which will have substantial adverse effects on human beings, directly or indirectly?	□	■	□	□

CEQA Checklist Analysis

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?*

Potentially Significant Unless Mitigated. As described in Section 4.8, *Hazards and Hazardous Materials*, the potential occurrence of contaminated soil, LBP, and asbestos-containing materials could result in associated significant environmental impacts that could degrade the quality of the environment. Implementation of Mitigation Measures **Haz-1** and **Haz-2** would reduce these impacts to less than significant levels. The project would redevelop existing developed industrial parcels in an urban area devoid of native habitat and would not reduce the habitat of a fish or wildlife species, as no natural habitat would be removed, nor would the project cause a wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Refer to Section 4.4 for further discussion of these issue areas.

As described in Section 4.5, *Cultural Resources*, no substantial adverse change in the significance of historical resources is anticipated to occur as a result of project implementation; thus, the project would not eliminate important examples of the major periods of California history. While the potential to encounter cultural/archaeological resources during excavation is considered low, implementation of Mitigation Measure **Cul-1** would reduce potential impacts related to cultural/archaeological resources to less than significant levels.

b. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Less Than Significant Impact. As outlined in the previous checklist responses, potentially significant impacts related to the proposed project would be limited to the potential occurrence of hazardous materials within the site, these potential impacts to be reduced below a level of significance through implementation of identified mitigation. Based on this consideration and the fact that potential impacts for all other issue areas were determined to be absent or less than significant, the project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals, and associated potential impacts would be less than significant.

c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the project's incremental effects are considerable when compared to the past, present, and future effects of other projects.)

Less Than Significant Impact. Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). The proposed project consists of constructing a residential development on a site previously used for industrial/institutional activities. Based on the proposed site plan and the fact that the areas surrounding the project site are primarily developed, the potential for additional future development and construction within the site and vicinity is considered generally low. Because some potential for such future development or redevelopment activities exists, however, cumulative impacts are assessed for applicable topics. Specifically, in order for a project to contribute to cumulative impacts, it must result in some level of impact on a project-specific level. Accordingly, the following discussion addresses project-related effects for which some level of potential impact was identified. Based on this criterion, all categories included in the Environmental Checklist are addressed below except agriculture & forestry resources, biological resources, land use, and mineral resources.

Aesthetics: A number of sites within the District are likely to be redeveloped, consistent with the allowable uses adopted for the TOD zoning designation. If many of these parcels are simultaneously under construction, the appearance of the District would be that of a large construction zone. This cumulative aesthetic impact would last only for the duration of construction and the primary sensitive viewers who would be affected by both the proposed project and other construction within the District would be travelers along Crowther Avenue and new residents of the District. Due to the temporary nature of the construction impacts, the lack of scenic resources, and the lack of existing sensitive viewers who could be adversely impacted, the short-term, construction-related aesthetics impact would be less than significant. While the new buildings are expected to typically be taller than the existing structures in the District, each development would be required to comply with the development standards for the District, which include preservation of historic structures/elements, enhanced pedestrian amenities, reduced on-street parking, various open space amenities and standards for lighting, signage and other elements that are intended to minimize adverse visual effects. Overall, the cumulative aesthetic impact of implementation of the proposed project and other developments within the District would be positive.

Air Quality/Greenhouse Gases: With regard to project-specific impacts that are not localized to the immediate project area, including air quality and greenhouse gas emissions, the baseline analysis often addresses the cumulative condition—it is the contribution to the larger picture that is assessed in analyses of consistency with regional air quality strategies and pollutant dispersal. This includes the effects of air pollutants, which disperse from their original source and affect entire air basins (or with global warming, potentially the entire world). As noted in Sections 4.3 and 4.7, this project's contribution to criteria pollutant and GHG emissions would be negligible and not cumulatively considerable and the project is in conformance with the AQMP. Project (and cumulative project) trip generation from the proposed project and other projects within the District would be minimized due to the TOD and pedestrian-oriented nature of these developments. Therefore, the project would not contribute to a cumulatively considerable decrease in air quality or increase in GHG emissions.

Cultural Resources/Tribal Resources: The existing buildings on the project site were determined not to be of significant historic value, and the potential for encountering buried cultural or paleontological resources during project grading would be low because the project site is underlain by four to six feet or more of artificial fill, and ground-disturbing activities during construction would not excavate substantially deeper into the underlying alluvium. The potential exists, however, for cultural/tribal resources to be buried in areas immediately below the artificial fill, and encountering such materials could result in potential impacts. Based on consultation with local tribes pursuant to AB 52, the Gabrieleño Band of Mission Indians has requested the presence of a Native American Monitor during project grading and for grading of all other related projects within the District. ~~The City has sent consultation letters to all local tribes that have requested such consultation, regarding the proposed project as well and has not received any comments or requests for additional monitoring to date. Any additional requests will also be addressed within the Final IS/MND for the proposed project.~~ Implementation of Mitigation Measure **Cul-1** and conformance by other future developments with AB 52 and the TOD District mitigation measures would reduce potentially significant cumulative tribal resources impacts to less than significant.

Geology and Soils: Because impacts related to geology and soils impacts are inherently restricted to the project site, the project would not contribute to associated cumulative impacts from other planned or proposed development.

Hazards/Hazardous Materials: The potentially significant hazardous materials impacts associated with the proposed project (i.e., potential lead and ACMs within on-site building materials to be demolished) also have the potential to occur for other potential cumulative redevelopment projects within the TOD District. The contribution of the proposed Crowther project to these cumulative impacts would be reduced to less than significant through implementation of Mitigation Measures **Haz-1** and **Haz-2**. Future related projects within the TOD District would be subject to similar requirements pursuant to the TOD District IS/MND mitigation measures and mandatory regulatory compliance (e.g., construction-related hazardous material use and proper removal and disposal of hazardous building materials). As a result, associated impacts from the project and related cumulative projects would be reduced to less than significant.

Hydrology and Water Quality: The project and all related projects within the same watershed would be required to comply with applicable regulatory standards, which address these issues on

a regional/watershed basis and therefore include cumulative considerations. The gradual redevelopment of the District would replace older industrial developments with newer mixed-use development that would be required to implement more effective water quality BMPs. The resulting cumulative effect with respect to water quality within the watershed would be less than significant and potentially a net positive effect.

Noise: A number of sites within the District are likely to be redeveloped, consistent with the allowable uses for the TOD. If many of these parcels are simultaneously under construction, the cumulative construction noise impact could be greater than that of the proposed project alone. This potentially significant impact would be temporary in nature and all of these future developments would be required to comply with the City's Noise Ordinance, as would the proposed project. Conformance by the proposed project and future development projects in the TOD District with the specified TOD construction noise mitigation measures would reduce the project contribution to cumulative construction noise impacts, and the overall cumulative construction noise impacts in the TOD District to less than significant levels.

As discussed in Section 4.16, project (and cumulative) trip generation within the District would be minimized due to the TOD and pedestrian-oriented nature of the development and therefore cumulative noise impacts would be less than significant.

Population: The project would not displace existing residents and would not contribute to such displacement within the TOD District. The City estimates that the approved TOD District GPA and zone change will lead to the overall development of 752 residential units in the City and increase the City's population by 1,550 people or approximately 4.5%. The project would contribute 215 residential units and approximately 495 new residents to this planned growth. Given that this area of the City is expected to have sufficient public service/utility infrastructure to accommodate this growth, the TOD and pedestrian-oriented nature of the District which is expected to translate into reduced traffic and demand upon local streets, and the plans for mixed-use development within the TOD District thereby adding both homes and jobs, the overall cumulative impact upon population within the District would be less than significant.

Public Services/Recreation: All projects within the District will be required to pay fair share in lieu fees as appropriate, and will generate property taxes, sales taxes and other local revenues that will benefit public services. In additional all residential developments are required to provide recreational amenities and both common and private open spaces. The resulting cumulative impact would therefore be less than significant.

Transportation: The cumulative impacts of full redevelopment of the TOD District have been addressed within the transportation study for the TOD District IS/MND (AGA 2016). Several intersections were identified as needing improvement based on the projected cumulative Districtwide traffic impacts, as described above for Response 4.16.a. The City is currently developing a facilities benefit assessment that will determine the required fair share contribution toward the necessary transportation system improvements. The proposed project's contribution toward the cumulative impacts within the transportation system will be addressed via this required contribution and no significant cumulative impacts would occur. Pursuant to the TOD District IS/MND, all future redevelopment projects within the District will be required to implement a Construction Traffic Control Plan, which would also reduce potentially significant

cumulative construction traffic impacts to less than significant. The project-related and Metrolink Station project pedestrian improvements would ensure that cumulative pedestrian safety impacts would be less than significant. As described in Section 4.16, the project would not contribute to any other transportation safety or airport-related impacts.

Utilities: The project would have a less than significant impact with respect to water and wastewater treatment, water supply/infrastructure, drainage and solid waste infrastructure/ services and would not substantially contribute to cumulative impacts with respect to these utilities. The infrastructure for these utilities is adequate to accommodate the anticipated cumulative development within the District. All developments must meet regulatory requirements associated with the incorporation of water-conserving features, storm water management, and recycling of demolition waste and long-term project waste materials. A sewer study is currently underway to verify that the main sewer line that serves the immediate project area has sufficient capacity to serve the potential cumulative demand that would occur as a result of development of the TOD District with the anticipated development densities. The results of the study will be available for the Final IS/MND. In the absence of this information at this time, a potentially significant impact is assessed with respect to wastewater infrastructure. Should improvements to the main sewer line be required, this work would occur entirely within public street rights of way and the impacts would be consistent with the construction-related impacts addressed throughout this IS/MND. The project contribution to these impacts would be mitigated by the water conservation mitigation that is provided by Measure **Uti-1**, and construction related effects would be mitigated by Measures **Aes-1**, **Cul-1**, and **Noi-2**, as well as other mandatory compliance with other regulatory requirements regarding water quality, hazardous materials handling, construction traffic control, etc., which would also apply to other cumulative developments within the TOD District. With implementation of these mitigation measures, cumulative impacts to sewer service would be less than significant.

In conclusion, cumulative impacts to public utilities associated with cumulative effects would be less than significant, with the exception of cumulative impacts to the sewer line serving the immediate project area, which could require improvements. If it is necessary to replace the sewer line, these potential impacts to sewer infrastructure would be reduced to less than significant with implementation of Mitigation Measures **Uti-1**, **Aes-1**, **Cul-1** and **Noi-2**.

d. Does the project have environmental effects which will have substantial adverse effects on human beings, directly or indirectly?

No Impact. With required adherence to regulatory codes, ordinances, regulations, standards, and guidelines, in conjunction with the discussed mitigation measures, construction and operation of the proposed project would not present a substantial adverse effect on human beings either directly or indirectly. In addition, all resource topics associated with the project have been analyzed in accordance with State CEQA Guidelines and found to pose no impact, less than significant impact, or less than significant impact with mitigation. Further environmental analysis is not required and no related impacts would occur.

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5.0 SUMMARY OF MITIGATION MEASURES

Aesthetics

Aes-1 Nighttime construction or security lighting, if required, shall be shielded, selectively placed, and directed toward the project site, so that light will not spill beyond the boundary of the project site onto off-site sensitive receptors, such as drivers, residents, or train operators.

Aes-2 Building design and/or lighting features shall be incorporated into the final project design to minimize glare, in conformance with the TOD District, such as: (1) overhangs and recessed windows to reduce potential glare from reflective windows; (2) landscaping near the buildings, such as trees along the street frontage, which would shade the building and reduce the potential for drivers to be affected by glare from reflective windows; and/or (3) non-reflective building materials.

Aes-3 Permanent lighting associated with the proposed development shall conform to the TOD District development standards and applicable City Municipal Code requirements. Examples of standard requirements include: (1) lighting along walkways, on exterior signage, within landscaped areas and in parking areas must be appropriately directed and shielded to reflect light away from the public right-of-way and from any adjoining residential premises; (2) lighting is not to blink, flash, flutter, or change light intensity, brightness, or color; and (3) neither direct nor reflected light from primary light sources shall create hazards for pedestrians or operators of motor vehicles. The developer shall submit a detailed lighting plan to the City for approval, prior to issuance of a building permit.

Cultural Resources

Cul-1 Construction monitoring and reporting shall be conducted by a qualified Archaeologist and a Native American monitor in all areas proposed for excavation/disturbance. At the monitors' discretion, monitoring may be reduced or eliminated if there is no indication that cultural resources are present. In the event that an unanticipated discovery of cultural material is made during project construction, all earth-disturbing work within the vicinity of the find must be temporarily suspended or redirected until the monitor has evaluated the nature and significance of the find. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of archaeological materials that might be discovered during site development shall be in accordance with all applicable laws and regulations.

Hazards and Hazardous Materials

Haz-1 If hazardous substances are encountered during project grading, work shall cease and an immediate evaluation shall be conducted and appropriate remediation actions undertaken. The associated assessment and remediation/removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of OCHCA. If additional contamination

is identified, an application would be submitted to OCHCA for review and comment under OCHCA's VICP. A mitigation plan would be prepared detailing the mitigation of on-site soils impacted by PCE and/or other contaminants, as applicable. The plan would be submitted to the OCHCA with the VICP application. Once approved, the mitigation plan would be implemented to the satisfaction of the OCHCA. Potential feasible measures could include, but are not limited to, on-site treatment or stabilization or removal of contaminated soil and disposal at an approved off-site location.

Haz-2 Prior to renovating and/or demolishing the on-site structures, the developer shall conduct a survey at the site to evaluate the extent of lead-based paint (LBP) and asbestos-containing materials (ACM) within those structures. All associated remediation and removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the appropriate regulatory agency.

Noise

Noi-1 Interior noise levels shall not exceed the Title 24 interior noise standard of 45 Community Noise Equivalent Level (CNEL) for residences. The following building materials shall be used in the construction of all units facing East Crowther Avenue and the railway to reduce interior noise to acceptable levels:

- Exterior walls shall have an STC 46 rating
- Windows shall have an STC 31 rating
- Exterior doors shall have an STC 28 rating
- Glass doors shall be at least 0.5 inch thick

Noi-2 The following measures shall be implemented during construction:

- Contractor shall establish a noise complaint response program and shall respond to any noise complaints received for future specific project by measuring noise levels at the affected receptor site. If the noise level exceeds an CNEL of 60 dBA exterior or an CNEL of 45 dBA interior at the sensitive receptor, the applicant will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.

- All construction equipment shall be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities. Equipment not in use for five minutes shall be shut off.

- Equipment shall be maintained and operated such that loads are secured from rattling or banging.

- Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.

- Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

- No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.

- Public notice shall be given 10 days prior to initiating construction. This notice shall be provided to all property owners and residents within 300 feet of the project site and shall be provided to property owners/residents at least one week prior to initiating construction. The notice shall identify the dates of construction and the name and phone number of a construction supervisor (contact person) in case of complaints. One contact person shall be assigned to the project. The public notice shall encourage the adjacent residents to contact the supervisor in the case of a complaint. Residents would be informed if there is a change in the construction schedule. The supervisor shall be available 24/7 throughout construction by mobile phone. If a complaint is received, the contact person shall take all feasible steps to remove or attenuate the sound source causing the complaint.

Traffic

Tra-1 The project contractor would be required to prepare and implement a construction traffic control plan to the satisfaction of the City Traffic Engineer and in compliance with Manual of Uniform Traffic Control Devices (MUTCD) guidelines. The traffic control plan should include ingress and egress to and from the project site, as well as designated haul routes and construction staging areas, and must address the applicable construction traffic control measures listed in the adopted IS/MND for the approved TOD District, as listed below:

- Construction hours will be in accordance with the City Municipal Code.

- Construction traffic will utilize designated driveways along Crowther Avenue and will yield to public traffic when entering and exiting the project site.

- Parking for construction equipment and vehicles will be on the project site or within an approved nearby temporary use site. Such equipment and vehicles will utilize approved driveways to enter the site(s). Construction staging will also be on the site or another approved property, and not within the public streets.

- Trucks transporting equipment and materials to and from the site will use the designated truck routes along Placentia Avenue, Crowther Avenue, Melrose Street, and Orangethorpe Avenue, and will yield to public traffic at all times.

- All construction work within the public right-of-way, will be conducted in compliance with City standards and the construction site shall be posted with the name, company, and a phone number of a person to call for complaints.

- The developer will be responsible for repair of damages to public facilities caused by the hauling or transporting of construction related materials.

Utilities and Service Systems

Uti-1 The project shall incorporate relatively small areas of low water use landscaping, as well as water-conserving features/measures to meet or exceed the current building code requirements. The project applicant shall consult with the City and local water purveyor to determine project design measures that would provide an adequate offset of increased water consumption. Specifically, these may include the following types of standard industry efforts: (1) use of low-flow/water efficient fixtures and appliances; (2) use of native/drought-tolerant landscaping varieties and/or artificial turf, wherever feasible, and using mulch in landscaped areas; (3) use of drip, micro-spray and/or other water-efficient irrigation systems, as well as capture/reuse systems and devices such as rain barrels; (4) use of "smart irrigation" technology where appropriate, such as pertinent watering schedules to reflect local plant/soil/climate conditions, moisture/precipitation and leak/pressure sensors, and automatic shut-off valves for applicable associated events/conditions such as precipitation and leaks; (5) use of recycling/closed water systems for features such as fountains and pools, and regular inspection/maintenance for all water-related features such as irrigation systems and water lines; and (6) provision of educational materials to residents/employees regarding reduction of water use for household and other applications (e.g., limiting washing machine use to full loads, reducing shower time, turning off water while brushing teeth, and using dry methods [sweeping] rather than a hose to clean paved areas).

6.0 DETERMINATION AND PREPARERS

6.1 Determination. Based on this initial evaluation:

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

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described herein have been included in this project. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

6.2 De Minimis Fee Determination. (Chapter 1706, Statutes of 1990-AB 3158)

■ It is hereby found that this project involves no potential for any adverse effect, either individually or cumulatively, on wildlife resources and that a "Certificate of Fee Exemption" shall be prepared for this project.

☐ It is hereby found that this project could potentially impact wildlife, individually or cumulatively, and therefore fees shall be paid to the County Clerk in accordance with Section 711.4(d) of the Fish and Game Code.

6.3 Environmental Determination. The initial study for this project has been reviewed and the environmental determination, contained in Section V. preceding, is hereby approved:

Joe Lambert, Director of Development Services

6.4 Report Preparers

HELIX Environmental Planning, Inc

Tammy Ching, Principal
Dennis Marcin, Senior Environmental Specialist
Joanne Dramko, Principal Planner
Lara Barrett, Environmental Planner
Jason Runyan, Environmental Planner
Charles Terry, Principal Noise Specialist
Victor Ortiz, Principal Air Quality and GHG Specialist
Amy Mila de la Roca, Air Quality and GHG Specialist

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8.0 ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADT	average daily trips
AEC	Advanced Environmental Concepts, Inc.
AGA	Albert Grover & Associates
ALUC	Airport Land Use Commission
AMSL	above mean sea level
AQMP	Air Quality Management Plan
ASM	ASM Affiliates, Inc.
ATCM	Airborne Toxics Control Measure
BACMs	best available control measures
BMPs	best management practices
BNSF	Burlington Northern Santa Fe
CAAQS	California Ambient Air Quality Standards
Cal-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers' Association
CARB	California Air Resources Board
CBC	California Building Code
CDC	California Department of Conservation
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
CGS	California Geological Survey
CH_4	methane
City	City of Placentia
CNEL	Community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CSMP	Construction Site Monitoring Program
CY	cubic yards
dB	decibel
dBA	A-weighted decibel
District	Packing House District
Dodson	Tom Dodson & Associates
DU	Dwelling units
ECOS	ECOS, Inc.
ESA	Environmental Site Assessment
FTA	Federal Transportation Administration

g	Acceleration due to gravity
GHG	greenhouse gas
GPA	General Plan Amendment
gpd	gallons per day
GSWC	Golden State Water Company
HFCs	hydrofluorocarbons
HRER	Historic Resource Evaluation Report
HVAC	Heating, ventilation, and air conditioning
IS/MND	Initial Study/Mitigated Negative Declaration
J&E	Johnson, P. and Ettinger, R.
KHR	KHR Associates
LBP	lead-based paint
Leighton	Leighton and Associates, Inc.
L_{EQ}	noise equivalent
LID	Low Impact development
LOS	level of service
LST	localized significance threshold
M	Manufacturing
MEP	Maximum extent practicable
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
mph	miles per hour
MT	metric ton
MUTCD	Manual of Uniform Traffic Control Devices
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OCHCA	Orange County Health Care Agency
OCSD	Orange County Sanitation District
OCWR	Orange County Waste and Recycling
OSHA	Occupational Safety and Health Administration
Pb	lead
PCE	tetrachloroethene
PM_{10}	Particulate matter (less than 10 microns in diameter)

$PM_{2.5}$	Particulate matter (less than 2.5 microns in diameter)
PYLUSD	Placentia-Yorba Linda Unified School District
REAP	Rain Event Action Plan
REC	Recognized environmental condition
RELOOC	Regional Landfill Options for Orange County
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SF	square foot or square feet
SF_6	sulfur hexafluoride
SO_2	sulfur dioxide
SO_X	sulfur oxides
SR	State Route
STC	Sound Transmission Class
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TOD	Transit-Oriented Development
TOD District	Packing House District TOD Project
tpd	tons per day
USEPA	U.S. Environmental Protection Agency
VdB	vibration decibel
VICP	Voluntary Industrial Cleanup Program
VOC	volatile organic compound
WQMP	Water Quality Management Plan
µg/L	micrograms per liter

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Attachment A

Air Quality/GHG Analysis

HELIX Environmental Planning, Inc.
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www.**helixepi**.com

July 5, 2017 IPQ-23

Mr. Edward A. Galigher
Integral Communities
888 San Clemente, Suite 100
Newport Beach, CA 92660

Subject: Air Quality and Greenhouse Gas Emissions Impact Assessment for the Placentia Crowther Project

Dear Mr. Galigher:

This letter summarizes the air quality and greenhouse gas (GHG) emissions analysis for the proposed Placentia Crowther Project (Project). The Project, located along the south side of East Crowther Avenue, approximately 0.12 mile east of South Melrose Street and 100 feet west of Cameron Street in the City of Placentia (City), California, proposes the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a multi-family residential development and related amenities. The proposed development would include approximately 256,482 square feet of residential area and 179,800 square feet of a parking structure.

Methodology

Emissions were quantified using the California Emission Estimator Model (CalEEMod), Version 2016.3.1. CalEEMod is a computer model developed by South Coast Air Quality Management District (SCAQMD) with the input of several air quality management and pollution control districts to estimate criteria air pollutant emissions and greenhouse gas emissions from various urban land uses. CalEEMod has the ability to calculate both mobile (i.e., vehicular) and area or stationary source emissions (SCAQMD 2016a). CalEEMod contains OFFROAD2011 emission factors and EMFAC2014 emission factors from the California Air Resources Board's (CARB's) models for off-road equipment and on-road vehicles, respectively. For modeling purposes, construction of the Project is assumed to occur over the course of approximately 18 months, starting in June 2018. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner burning construction equipment fleet mix, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval). A complete listing of the assumptions used in the analysis and model output is provided as Attachment A of this letter.

Air Quality

Consistency with Air Quality Plans

The Project is located in the Orange County portion of the South Coast Air Basin (SCAB), where the SCAQMD is the agency principally responsible for comprehensive air pollution control. The SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments, and cooperates actively with all federal and State government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). An AQMP establishes a program of rules and regulations directed at attaining the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The regional plan applicable to the proposed Project is the SCAQMD's AQMP.

On March 3, 2017, the SCAQMD adopted the 2016 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, SCAG, and U.S. Environmental Protection Agency). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methodologies for various source categories; and SCAG's latest growth forecasts (SCAQMD 2016b).

The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and state air quality standards. For a project to be consistent with the AQMP, the project should not (1) result in emissions that exceed the SCAQMD California Environmental Quality Act (CEQA) air quality significance thresholds or (2) conflict with or exceed the assumptions in the AQMP. With respect to the first criterion, as shown below, pollutant emissions from the proposed Project would be less than the SCAQMD thresholds. With respect to the second criterion, although the project would be consistent with the existing TOD District, it should be noted that the development intensities for the TOD District were adopted following certification of the 2016 AQMP and are, therefore, not included in the 2016 AQMP. Even though the project's land use is not consistent with the land uses analyzed in the 2016 AQMP, the project is clearly consistent with SCAG regional programs.

SCAG's 2016 RTP/SCS Plan identifies coordinated transportation and land use planning strategies intended to reduce GHG emissions in accordance with SB 375 and to benefit regional quality of life. The RTP/SCS Plan emphasizes placing high intensity housing and jobs in locations with existing high-quality transit infrastructure that make daily travel via transit or active transportation (biking, walking, etc.) feasible and attractive alternatives to single occupancy vehicle travel. The project is designed to achieve this specific goal with the inclusion of sidewalks, on-site bicycle parking, and most importantly, close proximity to mass transit,

including the new Placentia Metrolink Station. The site is located within a high quality transit area and future TOD development will be within reasonable walking distance of mass transit.

The project would be consistent with SCAG 2016 RTP/SCS Goals as summarized below.

RTP/SCS Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness.

Consistent. The project would replace existing vacant industrial buildings with a transit oriented development to take advantage of a new Metrolink Station adjacent to the site.

RTP/SCS Goal 2: Maximize mobility and accessibility for all people and goods in the region.

Consistent. Through a combination of higher density development; connections to mass transit systems; and incorporation of new mass transit features, the project fulfills this goal.

RTP/SCS Goal 3: Ensure travel safety and reliability for all people and goods in the region.

Consistent. The project will project will re-construct roadways within and surrounding the project site to their ultimate or half-width paved sections. Through fair share contributions improvements to the connecting circulation system will be enhanced. Both routine and emergency response will be enhanced to the project area.

RTP/SCS Goal 4: Preserve and ensure a sustainable regional transportation system.

Consistent. The project will contribute to a sustainable regional transportation system through creation of high density residential development combined with high quality connections to both the local and regional transportation systems. The project is designed specifically to sustain alternative transportation systems to the automobile.

RTP/SCS Goal 5: Maximize the productivity of our transportation system.

Consistent. By creating high density residential adjacent to the new Metrolink Station, the project will maximize productivity of the local and regional transportation systems.

RTP/SCS Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).

Consistent. The project includes sidewalks and on-site bicycle parking that would promote opportunities for pedestrian and bicycle travel. The specific goal of the land use designation is to reduce vehicle trips and related air pollutant emissions while encouraging active alternative modes of transportation.

RTP/SCS Goal 7: Actively encourage and create incentives for energy efficiency, where possible.

Consistent. The project would replace existing older industrial buildings. This transition to modern energy efficient structures will result in substantial energy savings.

RTP/SCS Goal 8: Encourage land use and growth patterns that facilitate transit and active transportation.

Consistent. The project design includes sidewalks and bike trails and connections to mass transit that will facilitate use of transit and active transportation modes throughout the project area. The project is anticipated to foster a substantial reduction in average vehicle trip length, per capita vehicle miles traveled, and the percent of drive-alone vehicle trips.

RTP/SCS Goal 9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

Consistent. The project would have no direct impact on system monitoring, rapid recovery planning, or coordination with other security agencies. However, the project would generate on-going demand and funds that are indirectly designed to make the new Metrolink Station and other mass transit and alternative modes of transportation successful.

The project would, therefore, be consistent with SCAG regional programs to promote the use of alternative modes of transportation. As such, the proposed Project would not conflict with the 2016 AQMP and would not result in a significant impact.

Conformance to Federal and State Air Quality Standards

The SCAQMD establishes significance thresholds to assess the regional impact of Project-related air pollutant emissions in the SCAQMD. Table 1, *SCAQMD Criteria Pollutant Mass Emissions Significance Thresholds*, summarizes the SCAQMD's mass emissions thresholds, which are presented for both long-term operational and short-term construction emissions. A Project with emission rates below these thresholds is considered to have a less than significant effect on air quality.

Table 1
SCAQMD CRITERIA POLLUTANT MASS EMISSIONS SIGNIFICANCE THRESHOLDS
(pounds per day)

Criteria Pollutant	Construction	Operation
Volatile Organic Compounds (VOCs)	75	55
Oxides of Nitrogen (NO_X)	100	55
Carbon Monoxide (CO)	550	550
Oxides of Sulfur (SO_X)	150	150
Particulate Matter (PM_{10})	150	150
Particulate Matter ($PM_{2.5}$)	55	55

Source: SCAQMD 2015

Regional Construction Impacts

The proposed Project would result in emissions during construction activities. These emissions would be limited and short term. Construction emissions include those associated with the transport of construction materials and equipment to the site, and emissions associated with equipment operation and soil movement at the site. Other construction-related emissions would occur as a result of workers' vehicles traveling to and from the Project site for construction activities. Table 2, *Construction Equipment Assumptions*, includes the assumed amount of equipment to be used during each activity of Project construction. See Attachment A for additional model assumptions.

Table 2
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment Type per Construction Activity	Number of Pieces[1]	Horsepower[2]
Demolition		
Concrete/Industrial Saws	1	81
Rubber Tired Dozers	1	247
Tractors/Loaders/Backhoes	3	97
Site Preparation		
Graders	1	187
Scrapers	1	367
Tractors/Loaders/Backhoes	1	97
Grading		
Graders	1	187
Rubber Tired Dozers	1	247
Tractors/Loaders/Backhoes	2	97

Table 2 (cont.)
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment Type per Construction Activity	Number of Pieces[1]	Horsepower[2]
Building Construction		
Cranes	1	231
Forklifts	2	89
Generator Sets	1	84
Tractors/Loaders/Backhoes	1	97
Welders	3	46
Paving		
Cement and Mortar Mixers	1	9
Pavers	1	130
Paving Equipment	1	132
Rollers	2	80
Tractors/Loaders/Backhoes	1	97
Architectural Coating		
Air Compressors	1	78

Notes:
[1] CalEEMod default list of off-road equipment. 2016.
[2] Equipment horsepower contained in CalEEMod.

Maximum daily emissions for the peak work day are shown in Table 3, *Daily Construction Emissions*. As shown, emissions of all criteria pollutants are below the SCAQMD daily thresholds. Thus, regional construction impacts would be less than significant and no mitigation is required.

Table 3
DAILY CONSTRUCTION EMISSIONS

Construction Phase	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SOx	PM_{10}	$PM_{2.5}$
Demolition	3	26	16	<0.1	3	2
Site Preparation	2	24	13	<0.1	3	1
Grading	3	49	17	<0.1	9	5
Building Construction	4	28	26	<0.1	4	2
Paving	1	13	12	<0.1	1	1
Architectural Coating	60	2	3	<0.1	1	<0.5
Maximum Daily Emissions	**61[1]**	**49**	**26**	**<0.1**	**9**	**5**
Significance Thresholds	75	100	550	150	150	55
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: SCAQMD 2015 (Thresholds)
CalEEMod output data provided in Attachment A.
[1] Maximum VOC emissions occur when paving and architectural coatings overlap.

Localized Construction Impacts

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's localized significance threshold (LST) methodology, which utilizes on-site mass emissions rate look up tables and project-specific modeling, where appropriate. LSTs are applicable to the following criteria pollutants: nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter smaller than 10 microns in diameter (PM_{10}), and particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. For PM_{10} and $PM_{2.5}$, LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The SCAQMD provides LST mass rate look-up tables for projects that are less than or equal to five acres.

When quantifying mass emissions for localized analysis, only emissions that occur on-site are considered. Consistent with the SCAQMD's LST methodology guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. The LST thresholds for a 2-acre site located in Source Receptor Area 16, North Orange County, with receptors at a distance of 50 meters were used (the nearest sensitive receptor [residential] is approximately 76 meters from the property). The results of the LST analysis are provided in Table 4, *Localized Construction Emissions*. As shown in Table 4, localized emissions for all criteria pollutants would be less than their respective SCAQMD LST significance thresholds. Thus, impacts would be less than significant and no mitigation is required.

Table 4
LOCALIZED CONSTRUCTION EMISSIONS

Construction Phase	Pollutant Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition	24	15	3	2
Site Preparation	24	13	3	1
Grading	24	10	8	4
Building Construction	21	16	1	1
Paving	13	12	1	1
Architectural Coating	2	2	<0.5	<0.5
Maximum Daily On-site Emissions	**24**	**16**	**8**	**4**
SCAQMD LSTs	143	1,010	17	6
Significant Impact?	***No***	***No***	***No***	***No***

Source: SCAQMD 2009 (Thresholds)
CalEEMod output data provided in Attachment A.

As required by Rule 403 (SCAQMD 1976) and the approved Packing House TOD District in which the Project is located, the following Best Available Control Measures would be applicable to the proposed project during active operations capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads:

- Water or a stabilizing agent will be applied to exposed surfaces to prevent generation of dust plumes.

- The construction contractor will utilize at least one of the following measures at each vehicle egress from the project site to a paved public road:

  - Install a pad consisting of washed gravel maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long;

  - Pave the surface extending at least 100 feet and at least 20 feet wide;

  - Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; and/or

  - Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

- All haul trucks hauling soil, sand, and other loose materials will be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

- Construction activity on unpaved surfaces will be suspended when wind speed exceeds 25 miles per hour (mph; such as instantaneous gusts).

- Heavy-duty equipment operations shall be suspended during first and second stage smog alerts.

- Ground cover in disturbed areas shall be replaced as quickly as possible.

Toxic Air Contaminants

The greatest potential for toxic air contaminant (TAC) emissions during construction would be related to diesel particulate emissions associated with heavy equipment operations during construction activities. The assessment of cancer risk is typically based on a 70-year exposure period. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the proposed Project would be short term (approximately 18 months), especially when compared to the 70-year exposure period. As such, construction of the proposed Project is not anticipated to result in an elevated cancer risk.

As a residential project, the proposed Project would not result in toxic air contaminants during operation. As such, Project-related toxic emission impacts during construction and operation would be less than significant and no mitigation is required.

Regional and Local Operational Impacts

Once construction activity is complete, there would be long-term emissions associated with area, energy, and mobile sources; however, as shown in Table 5, *Daily Operation Emissions*, these emissions would be below the SCAQMD thresholds. Therefore, the proposed Project would not violate air quality standards or contribute substantially to an existing or projected air quality violation. Impacts would be less than significant.

Table 5
DAILY OPERATION EMISSIONS

Source	Pollutant Emissions (pounds per day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	6	<0.5	18	<0.1	<0.1	<0.1
Energy	<0.1	1	<0.5	<0.1	<0.1	<0.1
Mobile	2	7	21	<0.1	7	2
Maximum Daily Emissions	**8**	**8**	**39**	**<0.1**	**7**	**2**
Significance Thresholds	55	55	550	150	150	55
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: SCAQMD 2015 (Thresholds)
CalEEMod output data provided in Attachment A.

Cumulatively Considerable Net Increase

SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. As discussed above, the proposed Project would be consistent with the AQMP, which is intended to bring the SCAB into attainment for all criteria pollutants. In addition, and as discussed above, daily emissions during Project construction would not exceed the SCAQMD significance thresholds. Accordingly, cumulative impacts would be less than significant.

Sensitive Receptors

As described above, the proposed Project would not result in any substantial TAC impacts. Construction criteria pollutant emissions would be less than the LST emissions thresholds. Therefore, Project construction would not expose any nearby sensitive receptors to substantial pollutant concentrations. As such, the proposed Project would have a less than significant impact and no mitigation is required.

Odors

According to the SCAQMD's CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The proposed Project does not include any uses identified by the SCAQMD as being associated with odors and therefore would not produce objectionable long-term operational odors.

Short-term Project construction equipment and activities would generate odors from diesel exhaust emissions. There may be situations where construction activity odors would be noticeable by nearby residents and/or persons working at or visiting the nearby industrial buildings, but these odors would not be unfamiliar or necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the impacts would be short-term; would not be objectionable to a substantial number of people; and would be less than significant. In addition, operation of the Project would not generate objectionable odors. As such, the proposed Project would have a less than significant impact in regard to objectionable odors.

Greenhouse Gases

Global climate change refers to changes in average climatic conditions on Earth, as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), as well as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These "greenhouse" gases (GHGs) allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. Concentrations of GHGs have increased in the atmosphere since the industrial revolution. Human activities that generate GHG emissions include combustion of fossil fuels (CO_2 and N_2O); natural gas generated from landfills, fermentation of manure and cattle farming (CH_4); and industrial processes such as nylon and nitric acid production (N_2O).

Regulations

Assembly Bill (AB) 32, the California Global Warming Solutions Act, established a stated goal of reducing GHG emissions to 1990 levels by the year 2020. As a follow-up to AB 32 and in response to EO B-30-15, Senate Bill (SB) 32 was passed by the California legislature in August 2016 and signed by Governor Brown in September 2016 to codify the EO's California GHG reduction target of 40 percent below 1990 levels by 2030.

There are no established federal, state, or local quantitative thresholds applicable to the Project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the SCAQMD, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance or threshold levels that require the implementation of GHG emission reduction measures. Because the Project is a residential development project, the

SCAQMD adopted interim screening threshold of 3,000 metric tons of CO_2 equivalent (MT CO_2e) is being used for Project consistency with CEQA (SCAQMD 2008).

Emissions

Construction GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road truck trips, and worker commuting trips. Construction GHG emissions were calculated by using CalEEMod. The model and construction assumptions are described above, in the Air Quality section, and are provided in Attachment A. The results are output in MT CO_2e. The estimated construction GHG emissions for the Project are shown in Table 6, *Construction GHG Emissions*.

Table 6
CONSTRUCTION GHG EMISSIONS (MT/yr)

Construction Activity	CO_2e[1]
Demolition	39
Site Preparation	5
Grading	33
Building Construction	885
Paving	12
Architectural Coating	10
TOTAL	**983**
Amortized Construction Emissions[2]	33

Source: CalEEMod emissions modeling by HELIX 2017 (output data is provided in Attachment A).
[1] Totals reflect rounding.
[2] Construction emissions are amortized over 30 years.

GHG emissions generated from construction activities are finite and for a relatively short-term period of time. Unlike the numerous opportunities available to reduce a project's long-term GHG emissions through design features, operational restrictions, use of green-building materials, etc., GHG emissions-reduction measures for construction equipment are relatively limited. As such and in accordance with the SCAQMD's recommendations, construction emissions are amortized over a 30-year project lifetime. As shown in Table 6, *Construction GHG Emissions*, the 30-year amortized construction emissions would be 33 MT CO_2e per year.

Once construction activity is complete, the Project would result in operational emissions. As shown in Table 7, *Estimated Annual GHG Emissions*, the estimated increase in annual GHG emissions, including amortized construction emissions, would be 2,037 MT CO_2e per year. This value may be compared with and is less than the SCAQMD threshold of 3,000 MT CO_2e per year. It is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change; therefore, any impact would be considered on a cumulative basis. Because the proposed Project's GHG emissions would be less than the SCAQMD threshold, the emissions would not be cumulatively considerable. The impact would be less than significant; no mitigation is required.

Table 7
ESTIMATED ANNUAL GHG EMISSIONS (MT/yr)

Emission Sources	CO_2	CH_4	N_2O	CO_2e
Area	4	<0.1	0	4
Energy	615	<0.1	<0.1	617
Mobile	1,270	<0.1	0	1,271
Waste	10	1	0	25
Water	75	<0.5	<0.1	87
Operational Subtotal	**1,973**	**1**	<0.1	**2,004**
Construction Emissions[1]	-	-	-	33
TOTAL PROJECT	-	-	-	**2,037**
Screening Threshold[2]				**3,000**
Significant Impact?				***No***

Source: CalEEMod emissions modeling by HELIX 2017 (output data is provided in Attachment A).
[1] Construction emissions are amortized over 30 years.
[2] SCAQMD 2008.

Consistency with Applicable Plans

The proposed Project would not constitute a significant source of GHG emissions, and would not result in emissions that would adversely affect state-wide attainment of GHG emission reduction goals as described in AB 32 or SB 32. Project emissions would, therefore, have a less than cumulatively considerable contribution to global climate change impacts. Impacts would be less than significant.

The Project is also subject to the development standards and requirements associated with the approved Packing House TOD District. For air quality/GHG purposes, the following actions are required:

Summary

The Project would result in construction and operational emissions of criteria pollutants and GHGs; however, emissions would not exceed applicable SCAQMD thresholds. No mitigation measures are recommended.

Sincerely,

Amy Mila de la Roca
Air Quality Specialist

Victor Ortiz
Senior Air Quality Specialist

Attachments:

A – California Emission Estimator Model (CalEEMod)™ Results

References

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Attachment B

Historic Resource Evaluation Report

ASM affiliates
Archaeology • History • Ethnography • Architectural History

May 19, 2017

Tammy Ching
Vice President
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, California 91942

Historic Resource Evaluation for 110 and 132 East Crowther Avenue, Placentia, Orange County, California

Dear Ms. Ching,

This letter report provides the results of the analysis of the historical significance of buildings at 110 and 132 East Crowther Avenue, Placentia, Orange County, California conducted by ASM Affiliates, Inc. (ASM). ASM evaluated the buildings for eligibility for listing in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), City of Placentia local register, and as a California Environmental Quality Act (CEQA) historical resource. The results of this analysis will assist Integral Communities in determining whether or not the properties need to be considered historically significant for future planning purposes in compliance with CEQA. This letter report is divided into the following sections: Introduction, Methodology, Brief Historic Context, Architectural Description, Eligibility Criteria, Evaluation of Eligibility, and Conclusion. References are included as Attachment A; Attachment B contains the Department of Parks and Recreation (DPR) 523 site record forms.

INTRODUCTION

ASM prepared this historical evaluation to determine the historical and architectural significance of buildings located at 110 and 132 East Crowther Avenue, Placentia, Orange County, California. The Assessor's parcel number is 339-091-09 for 110 and 339-091-08 for 132. The properties are located in an industrial section of a manufacturing and transportation corridor (Crowther Boulevard).

Neither 110 nor 132 East Crowther Avenue has been listed previously in the NRHP, CRHR, or the City of Placentia local register, nor are they listed as California Points of Historical Interest or California Historical Landmarks. In this letter report, ASM evaluates 110 and 132 East Crowther Avenue for their eligibility for designation on the national, state, and local levels as individual resources and as potential contributors to a historic district.

METHODOLOGY

In evaluating 110 and 132 East Crowther Avenue, ASM considered several factors relevant to making a recommendation of eligibility, including:

- the history of Placentia;
- the history of the buildings' construction, use, and associations with Placentia;
- the history of the surrounding community and the buildings' relationship to that community;
- the buildings' association with important people or events;
- whether or not the buildings are the works of a master architect, craftsman, artist, or landscaper;
- whether the buildings are representative of a particular style or method of construction; and
- whether the buildings have undergone structural alterations over the years, the extent to which such alterations have compromised their historical integrity, and the current condition of the property.

ASM conducted an intensive-level field survey on May 2, 2017, to document 110 and 132 East Crowther Avenue. The intensive-level field survey was conducted by ASM Architectural Historian Laura Taylor Kung. During the survey, multiple photographs were taken of the buildings (interior and exterior) to document the resources and their setting. The buildings' plans, architectural features, condition, and historical integrity were noted. In order to determine whether the buildings might be associated with a potential historic district, particular attention was paid to the surrounding neighborhood, including a brief windshield survey. DPR 523 site record forms were prepared to document this field survey and are provided in Attachment B.

To develop the appropriate historic context from which to evaluate the property, Ms. Kung also conducted archival research at the Local History Room at the Placentia Public Library. To determine the site-specific history and confirm construction dates, Ms. Kung was also able to view the original building plans for 110 East Crowther as they were retained by the owner on site. ASM also consulted historic maps and aerial photos to further understand the development of the neighborhood (Historicaerials.com 1963, 1966, 1972, 2012). Sources consulted to develop the appropriate historic context and building-specific information included population data from the United States Census Bureau, zoning maps, the City's general plans, city directories, building permits, historical aerials and topographic maps, and other similar sources.

ASM also requested a records search of a ¼ mile radius surrounding the project area from the South Central Coastal Information Center (SCCIC). As of May 19th, the results of that search are still pending.

BRIEF HISTORIC CONTEXT

Spanish and Mexican Periods

Spanish explorer Juan Rodríguez Cabrillo first encountered California in 1542, claiming it for the King of Spain. More than two centuries later, in 1769, Spain sent Catholic missionaries and Spanish soldiers to colonize California. Don Gaspar de Portolá led the first overland expedition through Orange County that summer. In 1771, Father Junípero Serra founded Mission San Gabriel in what is now Los Angeles County. Five years later, on November 1, 1776, Mission San Juan Capistrano was founded. The two missions laid claim to much of what would become Orange County.

In 1837, Juan Pacifico Ontiveros was granted title to the Rancho San Juan Cajon de Santa Ana by Governor Juan Alvarado. This land grant included the area that today comprises Placentia, Anaheim, Fullerton, and Brea. Ontiveros lived in an adobe house he built near the intersection of today's Crowther Avenue and Kraemer Boulevard. The adobe, which had been the oldest continuously occupied residence in Orange County, was destroyed in the late 1970s to make way for development.

After Mexican independence from Spain in 1821, the process of dismantling of the mission system began to unfold. The 1833 Secularization Act passed by the Mexican Congress ordered half of all mission lands to be transferred to the Native Americans, with the other half to remain in trust and managed by an appointed administrator. These orders were never implemented due to several factors that conspired to prevent the Native Americans from regaining their patrimony. The missions, including the San Gabriel Mission, were secularized by 1835. The Mexican War of the late 1840s ended with the Treaty of Guadalupe Hidalgo, and in 1850, California became a state.

American Period

Ontiveros raised cattle on the rancho until 1857, when he sold part of the land that would become Anaheim to German settlers. Ontiveros moved to Santa Maria, sold all but 3,900 acres of the rancho to Abel Stearns, and gave the remainder of the rancho to his sons. Stearns continued cattle ranching until he went bankrupt during a severe drought and his land was subdivided. The sons sold their 3,900 acres to their brother-in-law. In 1865, 3,900 acres were sold to Daniel Kraemer. Three years later, William McFadden and his wife, Sarah Jane, acquired 100 additional acres in the area. Many other settlers arrived in the following years. Residents built churches and schools as the community slowly developed. The new settlers created a school and irrigation district in 1873 and 1874. In 1876, the settlement was named Placentia, which is Latin for "pleasant place" (Crawford 2007).

The first crops grown in the area included walnuts, vegetables, and lower quality oranges. This changed when the founder of Orange, Alfred B. Chapman, imported the first Valencia orange trees. In 1880, Richard Gilman established the first commercial Valencia orange grove on the eastern edge of Placentia. These oranges proved to be very popular, and orange groves were soon planted throughout the area. Before the founding of Fullerton, citrus growers had to ship their oranges to

the Atchison, Topeka, and Santa Fe Railroad (ATSF) station in Anaheim. By 1894, so many oranges were being produced that a packinghouse was built in the area.

In 1910, the Santa Fe Railroad built tracks into the area and built a depot on land donated by Samuel Kraemer. Richard Melrose and A. S. Bradford then laid out land they owned near the tracks into several blocks, which quickly became residential and commercial buildings. Placentia did not expand much beyond this fraction of a square mile in the next 50 years, but it became a major center for processing oranges as local growers' associations built packinghouses along the railroad tracks (Gardner 2007).

The boundaries of the original town site were Chapman Avenue on the north, Crowther Avenue on the south, Bradford Avenue on the east, and Melrose Street on the west. In 1911, the land that would later become Walnut, Murray and Baker streets was added to the town. Brick and concrete business buildings were constructed along the 100 block of West Santa Fe Avenue, and packinghouses and industrial plants were erected along Crowther Avenue.

Twentieth-Century Placentia

In March of 1919, an oil well on land owned by Charles C. Chapman exploded into a gusher that lasted for several days. By the mid-1920s, derricks dotted the landscape of northern and eastern Placentia. The town of Richfield, later named Atwood, was built to house the oil workers (Carpenter 1977:21). The oil and rich land attracted more residents interested in farming walnuts, avocados, and grapes, but citrus remained the biggest agricultural attraction. Placentia became the center of the Valencia orange growing and packing industry, and in 1926 the city's 800 residents decided to incorporate (City of Placentia 1989). The original town contained 115 acres, 60 of which were subdivided into residential, commercial, and industrial lots north and south of the Santa Fe Railroad line. From 1926 to 1950, Placentia remained a primarily rural town focused on citrus farming. Its population doubled to 1,600 and its acreage expanded from 116 to 160 (City of Placentia 1989).

A virus known as "quick decline" began infecting orange groves throughout the area in the 1940s. At the same time, the population of Orange County was growing exponentially. By 1960, Placentia's population had reached only 5,000, but by 1972, it had grown to 27,450 (City of Placentia 1989). The size of the city increased from 1,086 acres in 1960 to 4,165 acres in 1972, primarily through annexations (City of Placentia 1989). In 1973, 300 acres of citrus land and 150 acres of row crops remained in the city. This accounted for just 10 percent of the city's land use (City of Placentia 1973). Ten percent of the land was also used for extraction of oil, and 12 percent of the land was in commercial or industrial use. By 1988, agricultural open space had dropped to five percent, commercial space to six percent, and industrial to nine percent of the total land use in Placentia. Single-family housing accounted for 43 percent of the community (City of Placentia 1989).

This time of rapid development meant that lands that had been dedicated to orange groves were sold off for housing and industrial developments. As packinghouses closed, new industries moved in. Like other towns in Orange County, Placentia has transformed from a primarily agricultural area to a suburban community where most residents commute to other cities to work. In 2000, its

population had reached 40,000, and today, 53,000 people call Placentia home (City of Placentia 2017).

Site-Specific History: 110 East Crowther Avenue

The plans for 110 East Crowther Avenue indicate that there were several houses and outbuildings located on the site at the time of construction. Aerial photographs suggest that most of Crowther Avenue consisted of orchards and dwellings through the 1940s, but due to the proximity of the railroad, industries not related to citrus began to move into the area in the 1950s and 1960s. The original plans were prepared by Everett Lynn Child (1916-2008), an architect based in Fullerton. A graduate of the University of Oregon, Child worked primarily on industrial, school, and church structures. His most recognized extant building may be The Church of the Blessed Sacrament, also in Placentia. Child was commissioned to build the offices and factory space by Organocerams, a company led by Henry M. Deutsch (1924-1985). Deutsch holds many patents related to chemical milling and plating, and it appears that Organocerams specialized in a coating that aided the chemical etching process. Evidence of the chemical nature of the operations can still be seen in the building today in remnants of venting and plug systems. In 1967, Organocerams was acquired by Hitco Steel, a company based in Gardena, California (Los Angeles Times 1967). The company added a building to the rear of the original industrial spaces at the time of the acquisition. Plans located at 110 East Crowther Avenue indicate that at one time Hitco planned to build five additional buildings at this site, extending west all the way to Melrose Avenue. Instead, they decided to relocate, and the building was purchased by Excalibur Extrusions in 1973 (Los Angeles Times 1973). The owner of Excalibur, Glenn Baldwin, made minimal alterations to the buildings during the company's 43-year occupancy. As they specialize in extruded PVC and other plastic piping, extruding equipment was added to one of the buildings. A wall was removed from one of the front "labs" to add an employee breakroom, and carport structures were added to the north and west façades.

Site-Specific History: 132 East Crowther Avenue

The property at 132 East Crowther Avenue is located to the south of Crowther Avenue and opposite the railroad. The land was purchased by the Charles C. Chapman Memorial Foundation and leased to the new Boys Club of Placentia in July of 1970 for the token amount of one dollar per year (Placentia News-Times 1970). The Boys Club started in the Placentia area in 1961 by buying a bus and transporting children to local parks for recreation. In 1962, they chartered with the Boys and Girls Club of America, and in 1963 they moved into an old school building on Santa Fe Avenue. Many people donated their time and materials for the construction of the new Boys Club, including the architect, Oscar W. Louderback, Jr. (1926-1999) (Placentia News-Times 1971). A graduate of University of California Berkeley, Louderback was an A.I.A member from 1959 to 1976 and lived and worked primarily in Fullerton. Some of his other works include Shadow Lane Apartments and the Fullerton Chamber of Commerce. The builder, Ralph Crosswhite (1916-2014), also donated his time to the cause. Crosswhite lived and worked as a contractor in the Placentia area for most of his life. Plumbers, electricians, and other workers donated their time along with 14,000 concrete blocks and other materials, amounting to a donation estimated at $250,000 (Placentia News-Times 1971). During the construction of the new facility, the Boys Club operated out of Chapman Hall and served about 200 members. The Boys Club of Placentia received their accreditation in 1971, and the new building on Crowther Avenue was

opened in 1972. The 15,000-square-foot facility was built to accommodate up to 1,500 members. The Boys Club facility served the city for many years, and in the 2000s began to expand into Yorba Linda. In 2006, the Chapman Foundation deeded the land to the Club, enabling it to plan for a future expansion, and in 2007 the Placentia-Yorba Linda club merged with the Boys Club of Brea. That same year, plans were made for a new 23,000-square-foot facility in the city of Brea. Two years later, the Boys Club facility at 132 East Crowther Avenue was sold to the City of Placentia with plans to be used as a storage facility for the police department (Orange County Register 2010). It has been vacant since 2010.

ARCHITECTURAL DESCRIPTIONS

110 East Crowther Avenue

The industrial building at 110 East Crowther Avenue was initially constructed in 1964. The original building consisted of several front offices and two large adjoining industrial spaces. When the company expanded in 1968, they added an additional building at the back of the property. The front offices retain much of their mid-century modern character, with regularly spaced tall vertical windows across the primary façade. The front office is located in a one-story concrete block wing with a rectangular plan. It has a flat roof with a thick fascia and overhanging eaves. The north wall, facing Crowther, is punctuated by flanking aluminum-framed vertical windows and a pair of windows slightly off center. A carport was added on this façade sometime in the 1980s. The office entrance is located on the west side of the building and consists of a glazed steel-framed door with a glazed transom and flanking vertical windows. All the windows and doors appear to be original in this part of the building. The wing housing the main entrance contains a reception area, two offices, and a kitchen. Many of the fixtures and surface treatments are original. Connected to the entrance wing is a slightly taller one-story building that once contained additional offices, a break room, and a quality control area. This portion of the building was originally referred to as “The Lab.” It is clad in concrete with two bands of five vertical windows punctuating the north façade. The steel frame windows appear to be replacements, possibly during a remodel to convert one of the labs into a break room. The building has a flat roof with no overhang and no separate entrance. The original industrial building consists of adjoining open spaces, two stories in height. The utilitarian structure has a wood and steel frame, rectangular plan, and concrete foundation and floors. There are several openings to the building, which include two roll-up garage doors on the south façade and one roll-up door on the north end of the west façade. Standard entrances consisting of steel doors with a glazed upper panel are located on the north and south façades. The windows of the building consist of three multi-light metal windows on the upper third of the west façade. The south façade is a loading dock shaded by a metal awning supported by three steel posts. The building has a flat roof with no overhanging eaves.

Connected by a rectangular opening in the east wall, the adjoining room has a similar construction with one large open space, two stories in height. When Excalibur Extrusions took over the building in 1973, they added the extrusion equipment suspended from the ceiling. This section has two roll-up doors; one that extends to the ceiling on the south façade, and a smaller one on the west façade that accesses the loading dock. A standard steel entrance door with a glazed upper panel is located just to the east of the garage door on the south wall. The fenestration in this section consists of three large and one small multi-light metal windows on the upper third of the east façade, and a single large multi-light window on the south façade. The rear building is not connected to the

original two, and accessed via an open area covered with a flat aluminum roof. It is the largest of all the buildings, with a wood and steel frame, concrete walls and floors and a rectangular plan. The flat roof has an overhang on the west façade to shelter the three roll-up doors used for loading. These doors are flanked by pairs of multi-pane metal windows on both ends. Two additional roll-up doors and a standard entrance door with glazed upper panel are located on the south façade. There is no fenestration on the east façade. The front of the rear building contains a wash station area with a single divided multi-light window on the north façade and a steel entrance door with a glazed upper panel just to the west of it.

There have been minimal modifications to the buildings with the exception of the removal of a wall, additions of carport structures, and the removal of a wall in the front offices. Landscape features are limited to the front and consist of hedges and topiary. Parking is located along the north façade of the building, and an additional asphalt lot was added to the west of the property in the 1990s.

132 East Crowther Avenue

The Boys Club of Placentia building at 132 East Crowther was constructed in 1972 and has no major additions. The building consists of a series of connected rooms, although because the building has been gutted, it is difficult to determine the original use or interior configuration of the Boys Club space. As the building was constructed with many donated materials, there is some variation between the sections of the building despite being constructed at the same time. The front sections are constructed of concrete blocks, and the gymnasium at the rear of the property is a wood frame structure clad in concrete. The front section is one story with a flat roof and minimal architectural detail. A pent roof covered with red clay tiles wraps around the northwest corner and provides the only ornamental detail on the building. Below the roof the structure is all concrete block, but above it is covered with smooth concrete. There is one entrance located on the east end of the north façade, and one centered on the west. Both entrances are simple steel doors. There are currently no windows in this room, or throughout the entire structure. The front room has a wood ceiling supported by large wood beams. The second space in the building is also one story and contains an open courtyard that was probably used as basketball court. There are indications that the areas flanking the court were divided into several smaller spaces. The third room is a two-story open space constructed of wood frame and concrete block, with a wood ceiling supported by steel beam. The rear space is a large two-story gymnasium space that was probably not divided into smaller rooms. It has double steel door entrances at the north and south ends of the west façade. The two-story portion of the building has a flat roof with no overhanging eaves.

There may have been an outdoor court or play area at the south (rear) of the building, but it is currently overgrown. There is a paved parking area at the north and driveway that extends along the west side, but no additional landscape features. The building has been vacant for several years and in addition to the gutting, has been vandalized and is in poor condition.

ELIGIBILITY CRITERIA

National Register of Historic Places Significance Criteria

Authorized by the National Historic Preservation Act of 1966, the National Park Service's NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. The NRHP is the official list of the nation's historic places worthy of preservation.

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity and:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or

B. are associated with the lives of persons significant in our past; or

C. embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. have yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years are not considered eligible for the NRHP. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) a religious property deriving primary significance from architectural or artistic distinction or historical importance; or

b) a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

c) a birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or

d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

e) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

f) a property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or

g) a property achieving significance within the past 50 years if it is of exceptional importance.

Integrity

In order to be eligible for listing in the NRHP and CRHR, a property must retain sufficient integrity to convey its significance. The NRHP publication *How to Apply the National Register Criteria for Evaluation*, National Register Bulletin 15, establishes how to evaluate the integrity of a property: "Integrity is the ability of a property to convey its significance" (National Park Service, National Register of Historic Places 1991). The evaluation of integrity must be grounded in an understanding of a property's physical features, and how they relate to the concept of integrity. Determining which of these aspects are most important to a property requires knowing why, where, and when a property is significant. To retain historic integrity, a property must possess several, and usually most, aspects of integrity:

1. **Location** is the place where the historic property was constructed or the place where the historic event occurred.
2. **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
3. **Setting** is the physical environment of a historic property, and refers to the character of the site and the relationship to surrounding features and open space. Setting often refers to the basic physical conditions under which a property was built and the functions it was intended to serve. These features can be either natural or manmade, including vegetation, paths, fences, and relationships between other features or open space.
4. **Materials** are the physical elements that were combined or deposited during a particular period or time, and in a particular pattern or configuration to form a historic property.
5. **Workmanship** is the physical evidence of crafts of a particular culture or people during any given period of history or prehistory, and can be applied to the property as a whole, or to individual components.
6. **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, when taken together, convey the property's historic character.
7. **Association** is the direct link between the important historic event or person and a historic property.

California Register of Historical Resources Significance Criteria

The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. The criteria established for eligibility for the CRHR are directly comparable to the national criteria established for the NRHP.

In order to be eligible for listing in the CRHR, a building must satisfy at least one of the following four criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2) It is associated with the lives of persons important to local, California, or national history.
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Historical resources eligible for listing in the CRHR must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. For the purposes of eligibility for CRHR, integrity is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (Office of Historic Preservation 2001). This general definition is generally strengthened by the more specific definition offered by the NRHP—the criteria and guidelines upon which the CRHR criteria and guidelines are based.

City of Placentia Historic Designation Criteria

Chapter 23.06.030 D of the City of Placentia's Municipal Code defines a "Historic Structure" as a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (California Public Resources Code [PRC] §5024.1, Title 14 California Code of Regulations [CCR] §4850 *et seq.*) (Ord. 0-2015-01, 2015).

According to the City of Placentia's Municipal Code, therefore, the standards for local designation are the same as those stated above for the CRHR.

California Environmental Quality Act Significance Criteria

CEQA Section 15064.5 *Determining the Significance of Impacts to Archeological and Historical Resources* requires that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. It defines historical resources as "any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

Lead agencies have a responsibility to evaluate historical resources against the CRHR criteria prior to making a finding as to a proposed Project's impacts to historical resources. Mitigation of adverse impacts is required if the proposed Project will cause substantial adverse change to a historical resource. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a Project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) can be

considered to materially impair the resource's significance. The CRHR is used in the consideration of historical resources relative to significance for purposes of CEQA. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP, as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be a "historical resource" if it:

1) Is listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC §5024.1, Title 14 CCR §4850 *et seq*.).
2) Is included in a local register of historical resources, or is identified as significant in an historical resource survey meeting the requirements of §5024.1(g) of the PRC.
3) Is a building or structure determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

EVALUTION OF ELIGIBILITY

National Register of Historic Places Evaluation

110 East Crowther Avenue

To determine potential eligibility under Criterion A, ASM considered whether or not 110 East Crowther Avenue adequately represents the historic context of *Industry* (from the framework of the NRHP areas of significance). After conducting research on industry and the general economy of Placentia from the 1950s through the 1970s, ASM carefully considered whether 110 East Crowther Avenue is representative of local industrial buildings from that time period. While the buildings here are typical of the types of manufacturing structures built during this time, neither Organocerams or Excalibur Extrusions is recognized as an important local company. Neither company relates to historically significant industries in Placentia, specifically agriculture or oil, and even these industries were declining in importance to the local economy by the mid-twentieth century. These buildings do not reflect this history of Placentia's important industries in any significant way. As the buildings at 110 East Crowther Avenue are not associated with themes or events that have made a significant contribution to the broad patterns of our history, the buildings are recommended not eligible under NRHP Criterion A.

No significant individuals were identified that were closely associated with Organocerams or Excalibur Extrusions. As such, the buildings at 110 East Crowther Avenue are recommended not eligible under NRHP Criterion B.

The buildings at 110 East Crowther Avenue do not sufficiently represent a particular property type, period, or method of construction to qualify under Criterion C, nor do they represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose

components may lack individual distinction. Although 110 East Crowther Avenue does exhibit some characteristics of the mid-century modern style, it is not an outstanding example of this property type. Additionally, the architect, Everett Lynn Child, while prolific in Orange County, is not considered a master. Therefore, this property is not a good, representative example of a style, period, method of construction, or industrial property type. As such, 110 East Crowther Avenue is recommended not eligible under NRHP Criterion C.

The buildings are recommended not eligible under NRHP Criterion D. It is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research.

Lastly, the property is recommended not eligible as a contributor to a historic district. There are two historic districts located near the property. The packing house district includes the Placentia Orange Growers Association Building located at 209 West Crowther Avenue. The Placentia Santa Fe Commercial District is also located to the north of the railroad tracks. As the building is not associated with the citrus industry or commercial activities, it does not appear to be a potential contributor to these districts. In conducting a windshield survey of the immediate neighborhood, no other potential historic districts were identified with which 110 East Crowther Avenue could be associated. Although other manufacturing and industrial businesses are located nearby, no cohesive area was identified that reflects important aspects of the city's economy nor industry.

In conclusion, the buildings at 110 East Crowther Avenue are recommended not eligible under all four NRHP criteria.

132 East Crowther Avenue

To determine potential eligibility under Criterion A, ASM considered whether or not 132 East Crowther Avenue adequately represents the historic context of *Social History* (from the framework of the NRHP areas of significance). Thorough research was conducted on the history of the Boys Club and other organizations contributing to the social history of Placentia in the late 1960s and early 1970s. Although the club operated out of this location for nearly 40 years, there are other buildings, such as the Edwin T. Powell building (143 South Bradford Avenue), formerly the public library, that are better examples of buildings built to serve the community under the theme of Social History. As most communities in Orange County developed Boys Clubs during the 1950s and 1960s, this activity is not specific or unique to Placentia. As the building at 132 East Crowther Avenue is not associated with themes or events that have made a significant contribution to the broad patterns of our history, the building is recommended not eligible under NRHP Criterion A.

No significant individuals were identified that were closely associated with the Boys Club of Placentia. As such, the building at 132 East Crowther Avenue is recommended not eligible under NRHP Criterion B.

132 East Crowther Avenue does not sufficiently represent a particular property type, period, or method of construction to qualify under Criterion C, nor does it represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. The Boys Club building at 132 East Crowther Avenue displays no distinguishing architectural features and is primarily a utilitarian structure. While Oscar W.

Louderback, Jr. designed many buildings throughout his career, he is not considered a master architect. Therefore, this building is not a good, representative example of a style, period, method of construction, or industrial property type. As such, 132 East Crowther Avenue is recommended not eligible under NRHP Criterion C.

The building is recommended not eligible under NRHP Criterion D. It is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research.

Lastly, 132 East Crowther Avenue is recommended not eligible as a contributor to a historic district. There are two historic districts located near the property. The packing house district includes the Placentia Orange Growers Association Building located at 209 West Crowther Avenue. The Placentia Santa Fe Commercial District is also located to the north of the railroad tracks. As 132 East Crowther is not associated with the citrus industry or commercial activities, it does not appear to be a potential contributor to these districts. In conducting a windshield survey of the immediate neighborhood, no other potential historic districts were identified with which 132 East Crowther Avenue could be associated.

In conclusion, the building at 132 East Crowther Avenue is recommended not eligible under all four NRHP criteria.

California Register of Historical Resources Evaluation

The buildings at 110 and 132 East Crowther Avenue are recommended not eligible for CRHR listing under criteria 1, 2 3, and 4, following the reasons outlined in the preceding sections regarding eligibility under the comparable NRHP criteria.

City of Placentia Criteria Evaluation

The standards for local designation are the same as those stated above for the CRHR. Therefore, the buildings at 110 and 132 East Crowther Avenue are recommended not eligible for local register listing under criteria 1, 2 3, and 4, following the reasons outlined in the preceding sections regarding eligibility under the comparable NRHP criteria.

California Environmental Quality Act Evaluation

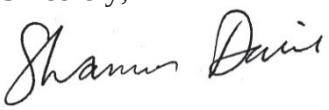
The buildings at 110 and 132 East Crowther Avenue do not qualify as historical resources under the terms of CEQA, as they do not meet any of the definitions set forth by CEQA. The buildings are not listed in, or determined to be eligible for listing, in the CRHR; are not included in a local register, or identified as significant in an historical resource; nor are they determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

CONCLUSION

After documentation and evaluation of the history of buildings at 110 and 132 East Crowther Avenue, and careful consideration of their ability to reflect the historic context with which they are associated, the buildings on Crowther Avenue are recommended not eligible as individual resources nor as contributors to a potential historic district under NRHP/CRHR Criteria A/1, B/2, C/3, or D/4, and subsequently the City of Placentia's criteria that defer to the state. As such, 110 and 132 East Crowther Avenue are found to not contain any CEQA historical resources pursuant to Section 15064.5 and the properties need not to be considered as historically significant for future planning purposes.

Please contact me as needed, if you have questions or concerns.

Sincerely,



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Attachment A: References
Attachment B: Department of Parks and Recreation (DPR) 523 site record forms

ATTACHMENT A: REFERENCES

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2010 "Boys and Girls Clubs Sell Placentia Building," February 17.

Placentia News-Times. On file in Placentia Library History Room.
1970 "Boys' Club Site Secured," July 1.
"Boy's Club Will Host Mexican Fiesta Dinner," October 7.
"Boys Club Campaign Still Going Slowly," October 14.
"Boys Club to Begin Building in February," December 16.

1971 “Boys Club Receives Donation of Labor,” January 20.
“Boys Club Holds Dinner Dance,” March 31.
“Boy’s Club Ticket Sales Begin,” June 16.
“Plumbers and Electricians Donate Time to Boys Club,” July 14,
“Placentia Boys Club Receives Accreditation,” July 28.
“Alpha Zeta Donates Funds to Boy’s Club,” October 6.
“Placentia Boy’s Club Board Holds Meeting,” November 10.
1972 “Boys’ Club August Program Expanded,” August 2.

Ross Publications, Downey, CA.
1969 Placentia City Directory, 1968.
1971 Placentia City Directory, 1971.
1972 Placentia City Directory, 1972.
1973 Placentia City Directory, 1973.

United States Geological Survey
1964 7.5-Minute Quad. Orange, California.
1972 7.5-Minute Quad. Orange, California.
1974 7.5-Minute Quad. Orange, California.
1981 7.5-Minute Quad. Orange, California.

ATTACHMENT B: DEPARTMENT OF PARKS AND RECREATION (DPR) 523 SITE RECORD FORMS

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6z

Other Listings
Review Code | Reviewer | Date 5/2/2017

 ***Resource name or #:** (Assigned by recorder) **Excaliber Extrusion, Inc.**

***P1. Other Identifier:**

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

- ***a. County** Orange **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
- ***b. USGS 7.5′ Quad** Orange **Date** 1981 **T** 3S **; R** 9W **;** ____ ¼ **of** ___ ¼ **of Sec** U **;** SB **B.M.**
- c. Address 110 East Crowther Avenue City Placentia Zip 92870
- d. UTM: (Give more than one for large and/or linear resources.) Zone 11 , S419431 mE/ 3747833 mN
- e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate.)
  APN# 339-091-09

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

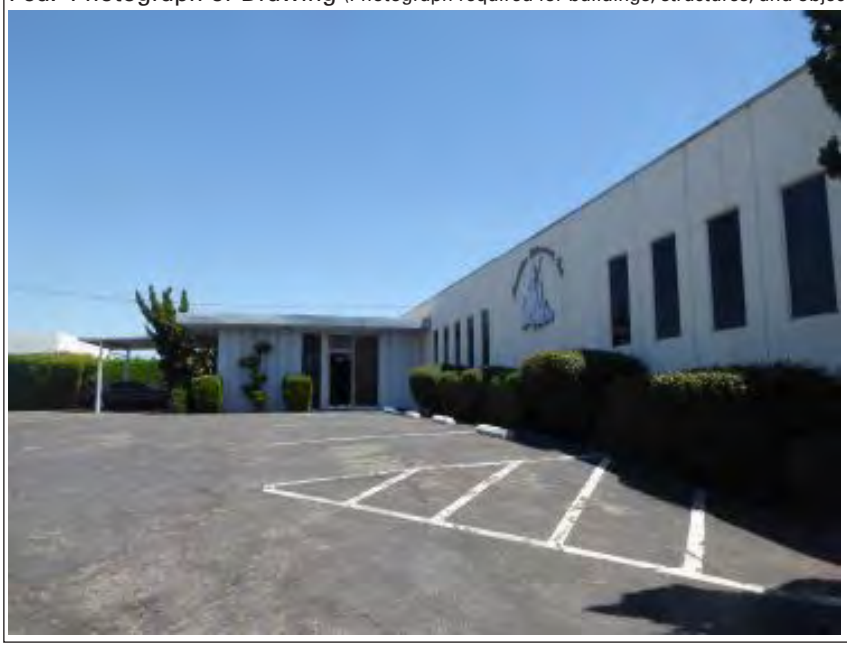
The industrial building at 110 East Crowther Avenue was initially constructed in 1964. The original building consisted of several front offices and two large adjoining industrial spaces. When the company expanded in 1968, they added an additional building at the back of the property . The front offices retain much of their mid-century modern character, with regularly spaced tall vertical windows across the primary façade. The front office is located in a one-story concrete block wing with a rectangular plan . It has a flat roof with a thick fascia and overhanging eaves. The north wall, facing Crowther, is punctuated by flanking aluminum-framed vertical windows and a pair of windows slightly off center. A carport was added on this façade sometime in the 1980s. The office entrance is located on the west side of the building and consists of a glazed steel-framed door with a glazed transom and flanking vertical windows. All the windows and doors appear to be original in this part of the building. The wing housing the main entrance contains a reception area, two offices, and a kitchen. Many of the fixtures and surface treatments are original. Connected to the entrance wing is a slightly taller one-story building that once contained additional offices, a break room, and a quality control area. This portion of the building was originally referred to as "The Lab." It is clad in concrete with two bands of five vertical windows punctuating the north façade. The steel frame windows appear to be replacements, possibly during a remodel to convert one of the labs into a break room. The building has a flat roof with no overhang and no separate entrance. **(continued on p. 3)**

***P3b. Resource Attributes:** (List attributes and codes.) HP8

***P4. Resource Present:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #.) **Front facade looking southeast. Photo taken on 05/02/17**

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P6. Date Constructed/Age & Source:**
■ Historic ☐ Pre-Historic ☐ Both
1964, original building plans

***P7. Owner and Address:**
Glenn Baldwin
same as property

***P8. Recorded by:** (Name, affiliation, and address.)
Laura Taylor Kung, ASM Affiliates
20 N. Raymond Ave., Pasadena

***P9. Date Recorded:**
5/02/17

***P10. Survey Type:** (Describe.)
Intensive Pedestrian

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Historic Resource Evaluation for 110 and 132 East Crowther Avenue, Placentia, Orange County, California

***Attachments:** ☐ NONE ■ Location Map ■ Continuation Sheet ■ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

 *Resource name or #: (Assigned by recorder) Excaliber Extrusion, Inc.

*NRHP Status Code 6z

B1. Historic Name:

B2. Common Name:

B3. Original Use: Manufacturing B4. Present Use: Vacant

*B5. Architectural Style: Mid-Century Modern

*B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed 1964. Additional building added 1968.

B7. Moved? ☐ No ☐ Yes ☐ Unknown Date: Original Location:

B8. Related Features: None

B9a. Architect: Everett Lynn Child b. Builder:

*B10 Significance: Theme Area

Period of Significance Property Type Applicable Criteria

(Discuss importance in terms of historical or architectural context as defined by theme, period, geographic scope. Also address integrity.)

The plans for 110 East Crowther Avenue indicate that there were several houses and outbuildings located on the site at the time of construction. Aerial photographs suggest that most of Crowther Avenue consisted of orchards and dwellings through the 1940s, but due to the proximity of the railroad, industries not related to citrus began to move into the area in the 1950s and 1960s. The original plans were prepared by Everett Lynn Child (1916-2008), an architect based in Fullerton. A graduate of the University of Oregon, Child worked primarily on industrial, school, and church structures. His most recognized extant building may be The Church of the Blessed Sacrament, also in Placentia. Child was commissioned to build the offices and factory space by Organocerams, a company led by Henry M. Deutsch (1924-1985). Deutsch holds many patents related to chemical milling and plating, and it appears that Organocerams specialized in a coating that aided the chemical etching process. Evidence of the chemical nature of the operations can still be seen in the building today in remnants of venting and plug systems. In 1967, Organocerams was acquired by Hitco Steel, a company based in Gardena, California (Los Angeles Times 1967). The company added a building to the rear of the original industrial spaces at the time of the acquisition. Plans located at 110 East Crowther Avenue indicate that at one time Hitco planned to build five additional buildings at this site, extending west all the way to Melrose Avenue. Instead, they decided to relocate, and the building was purchased by Excalibur Extrusions in 1973 (Los Angeles Times 1973). The owner of Excalibur, Glenn Baldwin, made minimal alterations to the buildings during the company's 43-year occupancy. As they specialize in extruded PVC and other plastic piping, extruding equipment was added to one of the buildings. A wall was removed from one of the front "labs" to add an employee breakroom, and carport structures were added to the north and west façades. (continued on p. 3)

B11. Additional Resource Attributes: (List attributes and codes.)

*B12. References:

B13. Remarks:

*B14. Evaluator:
Date of Evaluation:

(This space reserved for official comments.)

* Required information

(P3a continued) The original industrial building consists of adjoining open spaces, two stories in height. The utilitarian structure has a wood and steel frame, rectangular plan, and concrete foundation and floors. There are several openings to the building, which include two roll-up garage doors on the south façade and one roll-up door on the north end of the west façade. Standard entrances consisting of steel doors with a glazed upper panel are located on the north and south façades. The windows of the building consist of three multi-light metal windows on the upper third of the west façade. The south façade is a loading dock shaded by a metal awning supported by three steel posts. The building has a flat roof with no overhanging eaves.

Connected by a rectangular opening in the east wall, the adjoining room has a similar construction with one large open space, two stories in height. When Excalibur Extrusions took over the building in 1973, they added the extrusion equipment suspended from the ceiling. This section has two roll-up doors; one that extends to the ceiling on the south façade, and a smaller one on the west façade that accesses the loading dock. A standard steel entrance door with a glazed upper panel is located just to the east of the garage door on the south wall. The fenestration in this section consists of three large and one small multi-light metal windows on the upper third of the east façade, and a single large multi-light window on the south façade. The rear building is not connected to the original two, and accessed via an open area covered with a flat aluminum roof. It is the largest of all the buildings, with a wood and steel frame, concrete walls and floors and a rectangular plan. The flat roof has an overhang on the west façade to shelter the three roll-up doors used for loading. These doors are flanked by pairs of multi-pane metal windows on both ends. Two additional roll-up doors and a standard entrance door with glazed upper panel are located on the south façade. There is no fenestration on the east façade. The front of the rear building contains a wash station area with a single divided multi-light window on the north façade and a steel entrance door with a glazed upper panel just to the west of it.

There have been minimal modifications to the buildings with the exception of the removal of a wall, additions of carport structures, and the removal of a wall in the front offices. Landscape features are limited to the front and consist of hedges and topiary. Parking is located along the north façade of the building, and an additional asphalt lot was added to the west of the property in the 1990s.

(B10 continued) To determine potential eligibility under Criterion A, ASM considered whether or not 110 East Crowther Avenue adequately represents the historic context of Industry (from the framework of the NRHP areas of significance). After conducting research on industry and the general economy of Placentia from the 1950s through the 1970s, ASM carefully considered whether 110 East Crowther Avenue is representative of local industrial buildings from that time period. While the buildings here are typical of the types of manufacturing structures built during this time, neither Organocerams or Excalibur Extrusions is recognized as an important local company. Neither company relates to historically significant industries in Placentia, specifically agriculture or oil, and even these industries were declining in importance to the local economy by the mid-twentieth century. These buildings do not reflect this history of Placentia's important industries in any significant way. As the buildings at 110 East Crowther Avenue are not associated with themes or events that have made a significant contribution to the broad patterns of our history, the buildings are recommended not eligible under NRHP Criterion A.

No significant individuals were identified that were closely associated with Organocerams or Excalibur Extrusions. As such, the buildings at 110 East Crowther Avenue are recommended not eligible under NRHP Criterion B.

The buildings at 110 East Crowther Avenue do not sufficiently represent a particular property type, period, or method of construction to qualify under Criterion C, nor do they represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. Although 110 East Crowther Avenue does exhibit some characteristics of the mid-century modern style, it is not an outstanding example of this property type. Additionally, the architect, Everett Lynn Child, while prolific in Orange County, is not considered a master. Therefore, this property is not a good, representative example of a style, period, method of construction, or industrial property type. As such, 110 East Crowther Avenue is recommended not eligible under NRHP Criterion C.

The buildings are recommended not eligible under NRHP Criterion D. It is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research. (continued on p. 4)

(B10 continued) Lastly, the property is recommended not eligible as a contributor to a historic district. There are two historic districts located near the property. The packing house district includes the Placentia Orange Growers Association Building located at 209 West Crowther Avenue. The Placentia Santa Fe Commercial District is also located to the north of the railroad tracks. As the building is not associated with the citrus industry or commercial activities, it does not appear to be a potential contributor to these districts. In conducting a windshield survey of the immediate neighborhood, no other potential historic districts were identified with which 110 East Crowther Avenue could be associated. Although other manufacturing and industrial businesses are located nearby, no cohesive area was identified that reflects important aspects of the city's economy nor industry.

In conclusion, the buildings at 110 East Crowther Avenue are recommended not eligible under all four NRHP criteria.

California Register of Historical Resources Evaluation

The buildings at 110 East Crowther Avenue are recommended not eligible for CRHR listing under criteria 1, 2 3, and 4, following the reasons outlined in the preceding sections regarding eligibility under the comparable NRHP criteria.

City of Placentia Criteria Evaluation

The standards for local designation are the same as those stated above for the CRHR. Therefore, the buildings at 110 East Crowther Avenue are recommended not eligible for local register listing under criteria 1, 2 3, and 4, following the reasons outlined in the preceding sections regarding eligibility under the comparable NRHP criteria.

California Environmental Quality Act Evaluation

The buildings at 110 East Crowther Avenue do not qualify as historical resources under the terms of CEQA, as they do not meet any of the definitions set forth by CEQA. The buildings are not listed in, or determined to be eligible for listing, in the CRHR; are not included in a local register, or identified as significant in an historical resource; nor are they determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

CONCLUSION

After documentation and evaluation of the history of buildings at 110 East Crowther Avenue, and careful consideration of their ability to reflect the historic context with which they are associated, the buildings on Crowther Avenue are recommended not eligible as individual resources nor as contributors to a potential historic district under NRHP/CRHR Criteria A/1, B/2, C/3, or D/4, and subsequently the City of Placentia's criteria that defer to the state. As such, 110 East Crowther Avenue is found to not contain any CEQA historical resources pursuant to Section 15064.5 and the property need not to be considered as historically significant for future planning purposes.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PHOTOGRAPH SHEET

Primary # _____
HRI # _____
Trinomial _____

 ***Resource Name or # (Assigned by recorder)** Excalibur Extrusion, Inc.
Recorded by: Laura Taylor Kung **Date:** 5/2/2017
☒ Continuation ☐ Update

Image 1. View of front entrance looking southeast.

Image 2. View of setting looking south.

Image 3. View of west façade of rear addition looking southeast.

Image 4. View of east façade looking southwest.

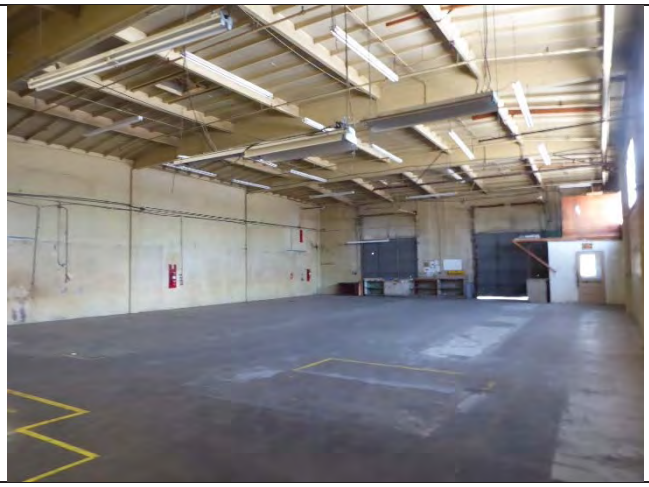


Image 5. View of Building 1 interior looking southeast.

Image 6. View of Building 2 interior looking southeast.

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6z

Other Listings
Review Code | Reviewer | Date 5/2/2017

Page 1 **of** 5 ***Resource name or #:** (Assigned by recorder) **Excaliber Extrusion, Inc.**

***P1. Other Identifier:**

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

* **a. County** Orange **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

* **b. USGS 7.5′ Quad** Orange **Date** 1981 **T** 3S **; R** 9W **;** ____ ¼ **of** ___ ¼ **of Sec** U **;** SB **B.M.**

c. Address 110 East Crowther Avenue City Placentia Zip 92870

d. UTM: (Give more than one for large and/or linear resources.) Zone 11 , S419431 mE/ 3747833 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate.)
APN# 339-091-09

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

The industrial building at 110 East Crowther Avenue was initially constructed in 1964. The original building consisted of several front offices and two large adjoining industrial spaces. When the company expanded in 1968, they added an additional building at the back of the property . The front offices retain much of their mid-century modern character, with regularly spaced tall vertical windows across the primary façade. The front office is located in a one-story concrete block wing with a rectangular plan . It has a flat roof with a thick fascia and overhanging eaves. The north wall, facing Crowther, is punctuated by flanking aluminum-framed vertical windows and a pair of windows slightly off center. A carport was added on this façade sometime in the 1980s. The office entrance is located on the west side of the building and consists of a glazed steel-framed door with a glazed transom and flanking vertical windows. All the windows and doors appear to be original in this part of the building. The wing housing the main entrance contains a reception area, two offices, and a kitchen. Many of the fixtures and surface treatments are original. Connected to the entrance wing is a slightly taller one-story building that once contained additional offices, a break room, and a quality control area. This portion of the building was originally referred to as "The Lab." It is clad in concrete with two bands of five vertical windows punctuating the north façade. The steel frame windows appear to be replacements, possibly during a remodel to convert one of the labs into a break room. The building has a flat roof with no overhang and no separate entrance. **(continued on p. 3)**

***P3b. Resource Attributes:** (List attributes and codes.) HP8

***P4. Resource Present:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #.) **Front facade looking southeast. Photo taken on 05/02/17**

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

***P6. Date Constructed/Age & Source:**
■ Historic ☐ Pre-Historic ☐ Both
1964, original building plans

***P7. Owner and Address:**
Glenn Baldwin
same as property

***P8. Recorded by:** (Name, affiliation, and address.)
Laura Taylor Kung, ASM Affiliates
20 N. Raymond Ave., Pasadena

***P9. Date Recorded:**
5/02/17

***P10. Survey Type:** (Describe.)
Intensive Pedestrian

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Historic Resource Evaluation for 110 and 132 East Crowther Avenue, Placentia, Orange County, California

***Attachments:** ☐ NONE ■ Location Map ■ Continuation Sheet ■ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

 *Resource name or #: (Assigned by recorder) Excaliber Extrusion, Inc.

*NRHP Status Code 6z

B1. Historic Name:

B2. Common Name:

B3. Original Use: Manufacturing B4. Present Use: Vacant

*B5. Architectural Style: Mid-Century Modern

*B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed 1964. Additional building added 1968.

B7. Moved? ☐ No ☐ Yes ☐ Unknown Date: Original Location:

B8. Related Features: None

B9a. Architect: Everett Lynn Child b. Builder:

*B10 Significance: Theme Area

Period of Significance Property Type Applicable Criteria

(Discuss importance in terms of historical or architectural context as defined by theme, period, geographic scope. Also address integrity.)

The plans for 110 East Crowther Avenue indicate that there were several houses and outbuildings located on the site at the time of construction. Aerial photographs suggest that most of Crowther Avenue consisted of orchards and dwellings through the 1940s, but due to the proximity of the railroad, industries not related to citrus began to move into the area in the 1950s and 1960s. The original plans were prepared by Everett Lynn Child (1916-2008), an architect based in Fullerton. A graduate of the University of Oregon, Child worked primarily on industrial, school, and church structures. His most recognized extant building may be The Church of the Blessed Sacrament, also in Placentia. Child was commissioned to build the offices and factory space by Organocerams, a company led by Henry M. Deutsch (1924-1985). Deutsch holds many patents related to chemical milling and plating, and it appears that Organocerams specialized in a coating that aided the chemical etching process. Evidence of the chemical nature of the operations can still be seen in the building today in remnants of venting and plug systems. In 1967, Organocerams was acquired by Hitco Steel, a company based in Gardena, California (Los Angeles Times 1967). The company added a building to the rear of the original industrial spaces at the time of the acquisition. Plans located at 110 East Crowther Avenue indicate that at one time Hitco planned to build five additional buildings at this site, extending west all the way to Melrose Avenue. Instead, they decided to relocate, and the building was purchased by Excalibur Extrusions in 1973 (Los Angeles Times 1973). The owner of Excalibur, Glenn Baldwin, made minimal alterations to the buildings during the company's 43-year occupancy. As they specialize in extruded PVC and other plastic piping, extruding equipment was added to one of the buildings. A wall was removed from one of the front "labs" to add an employee breakroom, and carport structures were added to the north and west façades. (continued on p. 3)

B11. Additional Resource Attributes: (List attributes and codes.)

*B12. References:

B13. Remarks:

*B14. Evaluator:
Date of Evaluation:

(This space reserved for official comments.)

(S

* Required information

(P3a continued) The original industrial building consists of adjoining open spaces, two stories in height. The utilitarian structure has a wood and steel frame, rectangular plan, and concrete foundation and floors. There are several openings to the building, which include two roll-up garage doors on the south façade and one roll-up door on the north end of the west façade. Standard entrances consisting of steel doors with a glazed upper panel are located on the north and south façades. The windows of the building consist of three multi-light metal windows on the upper third of the west façade. The south façade is a loading dock shaded by a metal awning supported by three steel posts. The building has a flat roof with no overhanging eaves.

Connected by a rectangular opening in the east wall, the adjoining room has a similar construction with one large open space, two stories in height. When Excalibur Extrusions took over the building in 1973, they added the extrusion equipment suspended from the ceiling. This section has two roll-up doors; one that extends to the ceiling on the south façade, and a smaller one on the west façade that accesses the loading dock. A standard steel entrance door with a glazed upper panel is located just to the east of the garage door on the south wall. The fenestration in this section consists of three large and one small multi-light metal windows on the upper third of the east façade, and a single large multi-light window on the south façade. The rear building is not connected to the original two, and accessed via an open area covered with a flat aluminum roof. It is the largest of all the buildings, with a wood and steel frame, concrete walls and floors and a rectangular plan. The flat roof has an overhang on the west façade to shelter the three roll-up doors used for loading. These doors are flanked by pairs of multi-pane metal windows on both ends. Two additional roll-up doors and a standard entrance door with glazed upper panel are located on the south façade. There is no fenestration on the east façade. The front of the rear building contains a wash station area with a single divided multi-light window on the north façade and a steel entrance door with a glazed upper panel just to the west of it.

There have been minimal modifications to the buildings with the exception of the removal of a wall, additions of carport structures, and the removal of a wall in the front offices. Landscape features are limited to the front and consist of hedges and topiary. Parking is located along the north façade of the building, and an additional asphalt lot was added to the west of the property in the 1990s.

(B10 continued) To determine potential eligibility under Criterion A, ASM considered whether or not 110 East Crowther Avenue adequately represents the historic context of Industry (from the framework of the NRHP areas of significance). After conducting research on industry and the general economy of Placentia from the 1950s through the 1970s, ASM carefully considered whether 110 East Crowther Avenue is representative of local industrial buildings from that time period. While the buildings here are typical of the types of manufacturing structures built during this time, neither Organocerams or Excalibur Extrusions is recognized as an important local company. Neither company relates to historically significant industries in Placentia, specifically agriculture or oil, and even these industries were declining in importance to the local economy by the mid-twentieth century. These buildings do not reflect this history of Placentia's important industries in any significant way. As the buildings at 110 East Crowther Avenue are not associated with themes or events that have made a significant contribution to the broad patterns of our history, the buildings are recommended not eligible under NRHP Criterion A.

No significant individuals were identified that were closely associated with Organocerams or Excalibur Extrusions. As such, the buildings at 110 East Crowther Avenue are recommended not eligible under NRHP Criterion B.

The buildings at 110 East Crowther Avenue do not sufficiently represent a particular property type, period, or method of construction to qualify under Criterion C, nor do they represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. Although 110 East Crowther Avenue does exhibit some characteristics of the mid-century modern style, it is not an outstanding example of this property type. Additionally, the architect, Everett Lynn Child, while prolific in Orange County, is not considered a master. Therefore, this property is not a good, representative example of a style, period, method of construction, or industrial property type. As such, 110 East Crowther Avenue is recommended not eligible under NRHP Criterion C.

The buildings are recommended not eligible under NRHP Criterion D. It is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research. (continued on p. 4)

(B10 continued)

California Register of Historical Resources Evaluation

The building at 132 East Crowther Avenue is recommended not eligible for CRHR listing under criteria 1, 2 3, and 4, following the reasons outlined in the preceding sections regarding eligibility under the comparable NRHP criteria.

City of Placentia Criteria Evaluation

The standards for local designation are the same as those stated above for the CRHR. Therefore, the building at 132 East Crowther Avenue is recommended not eligible for local register listing under criteria 1, 2 3, and 4, following the reasons outlined in the preceding sections regarding eligibility under the comparable NRHP criteria.

California Environmental Quality Act Evaluation

The building at 132 East Crowther Avenue does not qualify as a historical resource under the terms of CEQA, as it does not meet any of the definitions set forth by CEQA. The building is not listed in, or determined to be eligible for listing, in the CRHR; is not included in a local register, or identified as significant in an historical resource; nor is it determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

CONCLUSION

After documentation and evaluation of the history of 132 East Crowther Avenue, and careful consideration of its ability to reflect the historic context with which it is associated, the building is recommended not eligible as an individual resource nor as a contributor to a potential historic district under NRHP/CRHR Criteria A/1, B/2, C/3, or D/4, and subsequently the City of Placentia's criteria that defer to the state. As such, 132 East Crowther Avenue is found to not contain any CEQA historical resources pursuant to Section 15064.5 and the property need not to be considered as historically significant for future planning purposes.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PHOTOGRAPH SHEET

Primary # _____
HRI # _____
Trinomial _____

Page 5 of 5 ***Resource Name or # (Assigned by recorder)** Boys & Girls Club of Placentia
Recorded by: Laura Taylor Kung **Date:** 5/2/2017
☒ Continuation ☐ Update

Image 1. View of north façade entrance looking south.

Image 2. View of west façade looking northeast.

Image 3. View of west façade looking southwest.

Image 4. View of front room looking northeast.

Image 5. View of courtyard looking north.

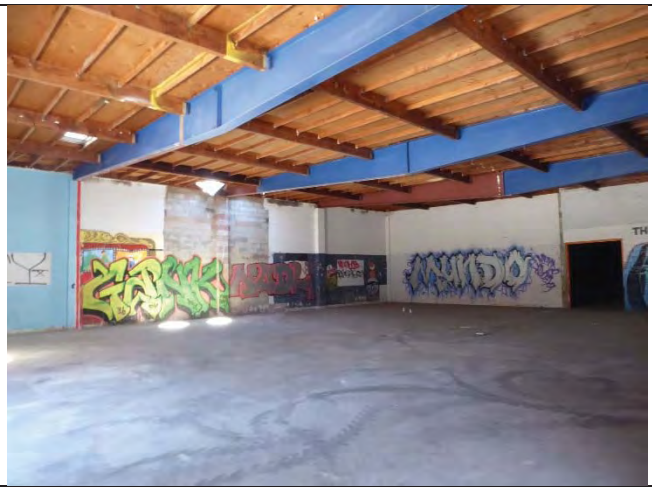


Image 6. View second room looking southeast.

Attachment C

Geotechnical Studies

C1

Geotechnical Engineering Report

GEOTECHNICAL ENGINEERING REPORT
THE HERALD MULTI-FAMILY RESIDENTIAL PROJECT
110 AND 132 EAST CROWTHER AVENUE
PLACENTIA, CALIFORNIA

Prepared for:

The Placentia TOD Project Owner, LLC

888 San Clemente, Suite 100
Newport Beach, California 92660

Project No. 11263.003

June 26, 2017

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

June 26, 2017

Project No. 11263.003

The Placentia TOD Project Owner, LLC
888 San Clemente Drive, Suite 100
Newport Beach, California 92600

Attention: Mr. Ed Galigher, Vice President Acquisitions and Entitlements

Subject: Geotechnical Engineering Report
The Herald Multi-Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Per your request and authorization dated May 25, 2017, Leighton and Associates, Inc. (Leighton) has prepared this geotechnical engineering report for the subject project. Review of site development drawings prepared by Humphreys & Partners Architects, L.P.; dated March 11, 2017; indicates development of the roughly 3-acre project site will consist of a 5-story residential apartment building constructed at grade with a partially subterranean, 6-story reinforced concrete parking garage and a rooftop terrace (seventh level), fitness/pool center, landscaped courtyards, turf block fire access road and turn around, paved entry drive aisle, decorative concrete pavers, subsurface stormwater detention and associated utility infrastructure. The purpose of our study was to evaluate the geotechnical conditions of the site and provide geotechnical recommendations for design and construction of the project as currently proposed.

Based on our subsurface explorations and a review of available data, the site is underlain by approximately 4 to 6 feet of undocumented artificial fill overlying very old alluvial fan deposits consisting of expansive clay and channelized, unconsolidated, silty sand to sand. The proposed development may be supported on shallow spread footings established in engineered fill or undisturbed natural soils.

No known active or potentially active faults are mapped as crossing the site and the site is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, the site is <u>not</u> located within a liquefaction hazard zone as mapped by the California Geological

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Survey (CGS); however, significant ground shaking should be anticipated at the site during the expected life of the proposed structures.

We appreciate the opportunity to work with you on this project. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; specifically at the phone extensions or e-mail as listed below.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

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1.0 INTRODUCTION

1.1 Site Description

The project site is located at 110 and 132 East Crowther Avenue in Placentia, California. The site location (latitude 33.8676°, longitude -117.8711°) and immediate vicinity are shown on Figure 1, *Site Location Map.* The project site is a 2.95-acre$^{\pm}$ trapezoidal-shaped parcel of land consisting of two properties, a western roughly triangular shaped parcel and an eastern narrow rectangular parcel. The site is located within an industrial district and is currently occupied by existing commercial warehouse structures and a Boys and Girls Club facility. The site is bordered by East Crowther Avenue to the north and commercial developments to the west, south, and east.

Review of the United States Geological Survey (USGS) 7.5 Minute Series Orange Quadrangle topographic map of the site vicinity (USGS, 1981) indicates the ground surface at the project site is at approximate Elevation (El.) +235 to +240 feet above mean sea level (msl). Site topography is relatively flat and drainage is accomplished as sheet flow over paved surfaces to curbs and gutters.

Based on review of aerial photographs, the western parcel appears to have been utilized as an orchard prior to 1947 with three to four structures located near the west entrance to the parcel fronting East Crowther Avenue (NETR, 2017). The eastern parcel contained two structures and a large windrow of trees that separated the western and eastern parcels. By 1963 the orchards in the western parcel had been removed while the structures remained onsite, a large windrow of trees remain visible along the boundary between the western and eastern parcels. By 1966, the structures at the property appear to have been demolished. By 1972, construction for the existing commercial buildings in the western parcel and the existing Boys and Girls Club in the eastern parcel appears to have been completed (NETR, 2017).

1.2 Proposed Development

Based on review of the site development drawings prepared by Humphreys & Partners Architects, L.P., dated March,14 2017, we understand the 2.95-acre$^{\pm}$ site will consist of a 5-story residential Type III, wood framed apartment building constructed at grade with a partially subterranean, 6-story reinforced concrete

parking garage and a rooftop terrace (seventh level), fitness/pool center, landscaped courtyards, turf block fire access road and turn around, paved entry drive aisle, decorative concrete pavers, subsurface stormwater detention and associated utility infrastructure.

The current site layout indicates the parking structure will be rectangular in plan shape and generally oriented with its long dimension in an east-west (reference) direction in the southern portion of the site. The residential apartment buildings will be constructed adjacent to the north side of the parking structure and front East Crowther Avenue. Access (fire and occupant) roads are planned in the northwest and eastern portions of the site.

Structural loading information for the proposed parking structure was not available at the time of report preparation.

1.3 Previous Investigations

In 2010, Leighton prepared a Phase 1 Environmental Site Assessment (Leighton, 2010) for the eastern parcel located at 132 East Crowther Avenue, Placentia, California. At the time of our 2010 assessment, the site was occupied by *The Boys and Girls Club of Placentia*.

Leighton has performed a series of investigations at the subject site prior to preparation of this Geotechnical Engineering Report. In March 2016, Leighton performed a *Due-Diligence Level Geotechnical Exploration* (Leighton, 2016) that included a background review, evaluation of geologic hazards and potential geotechnical issues that may significantly impact the site, and field exploration. The field exploration consisted of three (3) cone penetrometer test (CPT) soundings advanced at the site to depths ranging from approximately 38 to 45 feet below ground surface (bgs). The results of our investigation were provided in our report dated March 11, 2016 (Leighton, 2016). The exploration logs are included in Appendix A, *Field Exploration Logs* of this report.

In February 2017, we returned to the subject site and performed additional subsurface exploration in accessible areas of the site (Figure 2) consisting of drilling, logging, and sampling of three (3) hollow-stem auger borings advanced to a depth of approximately 41½ feet bgs. The samples obtained from the borings were retained in our Irvine laboratory for future geotechnical testing. At each boring location, an additional step-out boring was drilled to depth ranging

from approximately 15 to 20 feet bgs and converted to temporary percolation test wells (P-1, P-2 and P-3) for percolation testing. Percolation testing was performed at the site to evaluate the infiltration characteristics of the site soils and to support design of the planned Water Quality Management Plan (WQMP) improvements. The results of our investigation and percolation testing were provided in a *Project Memorandum* dated February 7, 2017 (Leighton, 2017) and are included herein as Appendix C, *Percolation Test Results*. The revised hollow stem auger boring logs are included in Appendix A, *Field Exploration Logs.*

1.4 Purpose and Scope

The purpose of our geotechnical study was to evaluate the subsurface conditions at the site relative to the proposed development through review of available data and exploratory borings in order to provide geotechnical recommendations to aid in design and construction for the project as currently proposed. The scope of this evaluation included the following tasks:

- *Background Review* – A background review was performed of readily available, relevant geotechnical and geological literature pertinent to the project site. References reviewed in preparation of this report are listed in Section 6.0.

- *Field Exploration* – As indicated in Section 1.3, we performed two prior phases of field exploration at the site that included a total of three (3) CPT soundings (Leighton, 2016) and six (6) hollow-stem auger borings, B-1, B-2, B-3, P-1, P-2 and P-3 (Leighton, 2017). Prior to the field explorations, the boring and CPT locations were marked and Underground Service Alert (USA) was notified for utility clearance. In addition, a private utility locator was utilized to locate any unknown or unmarked utilities in the areas of the proposed boring locations prior to drilling.

  The CPTs (CPT-1, CPT-2 and CPT-3) were pushed with a 30-ton CPT rig in which a standard Cone equipped with a 15 cm^2 tip was advanced at a constant rate of approximately 1 inch per second to depths ranging from approximately 38 to 45 feet bgs where refusal was encountered. Shear wave velocities were recorded in CPT-2.

  During drilling of the hollow-stem auger borings (B-1 through B-3 and P-1 through P-3), both bulk and drive samples were obtained for future geotechnical laboratory testing. Drive samples were collected from the

borings using a Modified California Ring sampler conducted in accordance with ASTM Test Method D3550. Standard Penetration Tests (SPTs) were also performed within the hollow-stem auger borings in accordance with ASTM Test Method D1586. The samplers were driven for a total penetration of 18 inches, unless practical refusal was encountered, using a 140-pound automatic hammer falling freely for 30 inches. The number of blows per 6 inches of penetration was recorded on the boring logs. The number of blows to drive the sampler the final 12 inches of the 18-inch drive interval is termed the "blowcount" or SPT N-value. The N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils

The borings were logged in the field by a member of our technical staff. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory. After completion of drilling, three (3) of the borings (B-1 through B-3) were backfilled with soils generated during the exploration and three (3) of the borings (P-1 through P-3) were converted to temporary percolation test wells for subsequent percolation testing, and backfilled with excess soil cuttings after completion of the percolation test. In-situ percolation testing was performed in borings P-1 through P-3 in general accordance with the Orange County Public Works *Technical Guidance Document (TGD) for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Programs (WQMPs) (OCPW, 2013).* Refer to the discussion of infiltration rate presented in Section 2.4 *Infiltration Characteristics*.

The approximate locations of the borings, CPTs, and percolation test wells are shown on Figure 2, *Boring Location Map*. Copies of the exploration logs are included in Appendix A, *Field Exploration Logs* and copies of the percolation test results are included in Appendix C, *Percolation Test Results*.

- *Laboratory Testing* – Laboratory tests were recently performed on representative soil samples retained from our field exploration to evaluate geotechnical engineering properties of subsurface materials. The following laboratory tests were performed:

  - In-situ Moisture Content and Dry Density (ASTM D2216 and ASTM D2937);

- Expansion Index (ASTM D4829);
- Modified Proctor Compaction Test (ASTM D1557);
- Direct Shear (ASTM D 3080);
- Consolidation (ASTM D2435);
- R-value (DOT CA 301); and
- Corrosivity (Soluble Sulfate ASTM C1580, Soluble Chloride ASTM C1411-09, pH ASTM D4972, and Resistivity ASTM G187-12a).

All laboratory tests were performed in general conformance with American Society of the International Association for Testing and Materials (ASTM) or Caltrans procedures (DOT CA). The in-situ moisture and density of soil samples at depths are shown on the borings logs included in Appendix A. The results of the remaining laboratory tests are presented in Appendix B, *Laboratory Test Results.*

- *Engineering Analysis* – Geotechnical engineering analysis was performed on the collected data, including the results and findings of the previous investigations, to develop conclusions and recommendations for design and construction of the planned improvements.
- *Report Preparation* – This report presents our findings, conclusions, and recommendations for the proposed development.

It should be noted that the recommendations in this report are subject to the limitations presented in Section 5.0 of the report.

2.0 GEOTECHNICAL FINDINGS

2.1 Geologic Setting

The subject site is located in the northeastern portion of the Coastal Plain of Orange County within the southeastern margin of the Los Angeles Basin, a large structural depression within the Peninsular Ranges geomorphic province of California. In general, the Coastal Plain is bordered by the Puente and Chino Hills to the north; the Santa Ana Mountains to the east; the San Joaquin Hills to the south; the Pacific Ocean to the southwest; and Los Angeles County to the northwest.

As the Santa Ana Mountains and Puente Hills were uplifted along mountain frontal faults, a system of southwesterly draining canyons formed on the mountain flank that carried detritus out into the Coastal Plain. Geologic mapping of the project area (Dibblee, 2001) indicates near-surface native soils consist of Quaternary age very old alluvial fan deposits (map symbol: Qvof) that have coalesced along the range front forming the broad alluvial plain, which extends across the southern margin of the mountain front into the Coastal Plain. These alluvial materials are comprised of varying proportions of gravel, sand, silt, and expansive clay derived primarily from the Santa Ana Mountains and Puente Hills (Morton and Miller, 2006). These alluvial fan deposits are underlain by a thick (several thousands of feet) sequence of Tertiary and Quaternary age sediments of marine and continental origin. The geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

2.2 Subsurface Soil Conditions

Based on our subsurface explorations, the site is underlain by undocumented artificial fill materials overlying Quaternary-age very old alluvial fan deposits (Morton and Miller, 2006). The CPT explorations suggest fluvial and alluvial deposition has occurred at the site with massive thick sand channels grading laterally to thinly bedded sand, silty, and expansive clay. The stratigraphy of the subsurface soils encountered in each soil boring and CPT is presented in the boring and CPT logs (Appendix A), and a general description of the earth materials as encountered are described below:

Artificial Fill, undocumented: The existing near-surface artificial fill soils encountered in our exploratory borings are approximately 4 to 6 feet thick across the project site and consist primarily of light brown to dark brown, slightly moist, sandy silt, fat clay and clayey sand with man-made debris and some organic material. Localized thicker accumulations of fill materials should be anticipated during future earthwork construction between explored locations. No exploration was performed below existing structures. The existing artificial fill materials encountered at the site are likely associated with the existing improvements and initial development of the site. However, records documenting observation and testing during fill placement were not available for review. Deeper fill may be encountered between unexplored locations in association with abandonment of underground storage tanks as verbally reported to Leighton during our field exploration, or below the structures. No documentation of tank abandonment has been provided for our review.

Quaternary-Age Very Old Alluvial Fan Deposits: The Quaternary age very old alluvial fan deposits encountered beneath the artificial fill materials in our exploratory borings generally consist of orange brown to medium brown, slightly moist to moist, loose to dense silty sand to sand with gravel. Localized thin to thick interbeds of silt and fat, expansive clay exist below the fill materials primarily in the upper approximate 10 to 12 feet bgs. Below these depths the site material is generally characterized as silty sand and sand with fine gravel to maximum depth explored of 45 feet bgs, generally increasing in grainsize and density with depth. For a description of earth materials encountered at this site see Appendix A.

2.2.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

Variance in expansion potential of onsite soil is anticipated; therefore, additional testing is recommended upon completion of site grading to confirm the expansion potential presented in this report.

The results of expansion index (EI) testing of two near surface soils from borings **B-1** and **B-2** indicate expansive clay soils are present onsite with EI values of **68** and **106**, respectively. Expansive soils may impact the proposed construction. Implementation of standard engineering and earthwork construction practices, such as proper foundation design and proper moisture conditioning of earthen fills will reduce the impacts associated with expansive soils to tolerable levels.

2.2.2 Corrosivity

The chemical analysis test results for the onsite soils from a representative bulk sample performed at the site are included in Appendix B of this report. The test results are also summarized in the table below.

Table 1 – Summary of Corrosivity Test Results

Test Parameter	Test Results	General Classification of Hazard
Water-Soluble Sulfate in Soil (ppm)	126	Negligible sulfate exposure to buried concrete
Water-Soluble Chloride in Soil (ppm)	263	Non-corrosive to buried concrete (per Caltrans Specifications)
pH	7.51	Mildly Alkaline
Minimum Resistivity (saturated, ohm-cm)	1435	Corrosive to buried ferrous pipes

The results of the resistivity test indicate that the underlying soil is corrosive to buried ferrous metals per ASTM STP 1013. Based on the measured water-soluble sulfate content from the soil sample tested, concrete in contact with the soil is expected to have negligible exposure to sulfate attack per ACI 318-11. The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

2.2.3 Soil Compressibility

Several samples of the onsite soils recovered from the borings were subjected to consolidation testing to evaluate the compressibility of these

materials under loads representative of anticipated structural bearing stresses. The results of testing indicate these soils did not exhibit a significant compressibility potential. The results of testing are presented in Appendix B.

2.2.4 Excavation Characteristics

Based on the our subsurface explorations performed at the site (Leighton, 2016 and 2017) and our experience from grading jobs in the vicinity of the site, we anticipate that the onsite artificial fill and near surface alluvial materials can be readily excavated using conventional excavation equipment in good operating condition.

2.3 Groundwater Conditions

Groundwater was not encountered at the site to the maximum depth explored of 45 feet bgs where refusal was met during the CPT exploration. According to groundwater information obtained through the California Geological Survey (CGS) and presented in the Seismic Hazard Zone Report for the Orange Quadrangle (CGS, 1997), the historically shallowest groundwater depth in the vicinity of the project site is greater than 50 feet bgs.

According to data provided by GeoTracker, groundwater levels for a site less than a mile to the west of the project site are reported to be greater than 100 feet bgs between 2006 and 2016 (PES, 2016) and the direction of groundwater flow is to the west/southwest. Accordingly, groundwater is not expected to impact the proposed development

Although groundwater is not considered a constraint for the project, fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture should be anticipated during and following the rainy seasons or periods of locally intense rainfall or storm water runoff.

2.4 Infiltration Characteristics

In-situ percolation testing was performed to evaluate the infiltration characteristics of the site soil in the vicinity of the proposed stormwater infiltration areas as indicated to us by the project design team (Leighton, 2017). The tests were performed in general accordance with the Orange County *Technical*

Guidance Document (TGD) for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Programs (WQMPs) (OCPW, 2013).

Borings P-1 through P-3 were converted to temporary percolation test wells upon completion of drilling and sampling (Figure 2, *Boring Location Map*). A 2-inch-diameter, perforated PVC pipe was placed in each borehole and the annulus was filled with clean sand (#3 Monterey Sand) to approximately 1 foot above the zone to be tested. The 2-inch-diameter PVC pipe within the zone to be tested contained 0.020-inch slots or perforations. After the conclusion of the percolation test, the PVC pipe was removed and the test hole was backfilled with excess soil cuttings.

The test was performed using a falling-head method which records the drop of water levels inside the well over the testing period. The measured infiltration rate for the percolation test was calculated by dividing the rate of discharge (i.e., volume of water discharged from the well during the test) by the infiltration surface area, or flow area. Taking into consideration of the drop in water level during the test, the flow area was determined based on the average water height within the test well at the end of each test period. Detailed results of the field testing data and measured infiltration rate for each test well are presented in Appendix C, *Percolation Test Results*. The test results are summarized in the table below:

Table 2 – Measured (Unfactored) Infiltration Rate

Boring-Percolation Test Well Designation and Location Onsite	Approximate Depth of Test Zone Below Ground Surface (feet bgs)	Measured Infiltration Rate (inches per hour)
P-1, northwest corner Fire Access Road	10 to 15	3.71
P-2, northeastern portion of drive access	10 to 15	0.27
P-3, southeastern portion of drive access	15 to 20	0.72

The percolation test performed at test well location P-1, yielded an infiltration rate of 3.71 inches per hour within the test zone of 10 to 15 feet bgs. The percolation tests performed at test well locations P-2 and P-3 yielded much lower infiltration rates of 0.27 inches per hour (test zone between 10 to 15 feet bgs) and 0.72

inches per hour (test zone between 15 to 20 feet bgs), respectively. Our subsurface exploration (Leighton, 2016) and current study indicate the site is generally capped by interbedded, thin to thick clay, silt and silty sand to a depth ranging from approximately 10 to 12 feet below grade. Below these depths the site material is generally characterized as silty sand and sand with fine gravel to maximum depth explored. The more granular materials encountered within the test zone at test well P-1 and below 10 to 12 feet in P-2 and P-3 are generally more permeable and provide higher infiltration potential.

The test results indicate variable infiltration rates at the tested locations and depths. It should be noted that the measured infiltration rate at test well locations P-2 does not meet the minimum requirement for stormwater infiltration feasibility (0.3 inches per hour) after accounting for soil amendments per the Orange County *Technical Guidance Document* (OCPW, 2013).

3.0 GEOLOGIC AND SEISMIC HAZARDS

Geologic and seismic hazards include surface fault rupture, seismic shaking, liquefaction, seismically-induced settlement, lateral spreading, seismically-induced landslides, seismically-induced flooding, flooding, seiches and tsunamis, and methane hazard. The following sections discuss these hazards and their potential impact at the project site.

3.1 Surface Fault Rupture

No active faults are mapped or known to cross the site, and the site is not currently located within an Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007). Based on the current geologic framework, the potential for surface fault rupture at the site is expected to be low. The locations of the nearest known active and potentially active faults with the potential for surface fault rupture in the region surrounding the project site are shown on Figure 4, *Regional Seismicity Map.*

Distances to the closest known active surface faults were calculated using the United States Geological Survey (USGS) Earthquake Hazards Program (USGS, 2008b). The closest active fault is the Puente Hills Blind Thrust Fault. This subsurface (blind-thrust) fault is mapped at a distance of approximately 1.7 miles to the northeast and is responsible for uplift of the Puente Hills. The closest active faults to the site with surface expression are the Whittier-Elsinore and Newport-Inglewood Fault Zone, located 4.3 miles to the north and 14.9 miles to the southwest, respectively. The San Andreas Fault, which is the largest active fault in California, is approximately 36 miles northeast of the site.

The closest mapped fault to the site, located 2.1 miles to the southeast, is the potentially active El Modeno fault (Figure 4). The El Modeno fault is a northwest trending, southwest dipping normal fault mapped for 10 to 18 km (6.2 to 11 miles) from Peter's Canyon Wash to Burrell Point. The El Modeno fault is poorly defined as it is covered by Quaternary alluvium for all of its length. A fault investigation study performed by Woodward-Clyde Consultants (1997a and 1997b) concluded that the El Modena fault is masked over large areas by Quaternary age sediments and that contradictory evidence exists as to its precise location and age of most recent activity. The State of California does not consider it an active fault.

3.2 Strong Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California. The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Peak horizontal ground accelerations are generally used to evaluate the intensity of ground motion. Using the United States Geological Survey (USGS) Seismic Design Maps (USGS, 2013), the peak ground acceleration for the Maximum Considered Earthquake (MCE_G) adjusted for the Site Class effects (PGA_M) is 0.648g. Based on the USGS online interactive deaggregation program (USGS, 2008a), the modal seismic event has a moment magnitude (M_W) of 7.0 at a distance of 6.9 kilometers. The seismicity data are also included in Appendix D.

3.3 Historical Seismicity

Although Southern California has been seismically active during the past 200 years, written accounts of only the strongest shocks survive the early part of this period. Early descriptions of earthquakes are rarely specific enough to allow an association with any particular fault zone. It is also not possible to precisely locate epicenters of earthquakes that have occurred prior to the twentieth century.

A search of historical earthquakes was performed using the computer program EQ Search (Blake, 2015) for the time period between 1800 and 2016. Within that time frame, 555 earthquakes between magnitude 4.00 and 9.0 were found within a 62-mile (100-kilometer) radius of the site. Of these earthquakes, the closest was an earthquake located approximately 4.9 miles (8.0 kilometers) from the site, and occurred in 1902 (Appendix D, *Seismicity Data*). Although not precisely located, the epicenter for this earthquake event was located to the south of the project site and registered a magnitude 4.3 Mw and induced an estimated peak ground acceleration (PGA) of 0.117g at the project site. The largest PGA at the site is estimated to have been roughly 0.174g from a magnitude 5.1 Mw earthquake that occurred on March 29, 2014.

There are records of two earthquakes with a magnitude 7.0 or larger within the search performed, which were both magnitude 7.0 Mw earthquakes that occurred on December 8, 1812 and December 16, 1858. For a general view of recorded historical seismic activity see Figure 4, *Regional Seismicity Map*.

Review of additional data available from the Center for Engineering Strong Motion Data (CESMD) website (http://strongmotioncenter.org/) indicates that the highest recorded ground acceleration in the vicinity of the project site was 0.154g for a station located approximately 1.2 miles southeast from the site. The recorded ground acceleration was from the magnitude 5.4 Mw earthquake that occurred in Chino Hills on July 29, 2008.

3.4 Liquefaction Potential

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: 1) shallow groundwater; 2) low density, fine, clean sandy soils; and 3) high-intensity ground motion. Studies indicate that saturated, loose and medium dense, near-surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential.

As shown on Figure 5, *Seismic Hazard Map*, the site is not mapped within a liquefaction hazard zone as delineated by the State of California (CGS, 1998). Because the site is underlain predominantly by medium dense and stiff soils, and the historic high groundwater level is greater than 50 feet bgs, the potential for liquefaction is considered low and should not impact the planned development.

3.5 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater). These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

Based on our analysis of the subsurface soil profile as encountered in the hollow-stem auger borings and CPTs performed at the site, the total seismically-induced settlement was estimated to be less than 1 inch. Seismically-induced differential settlement can be taken as half the total settlement over a horizontal distance of 30 feet.

3.6 Seismically-Induced Lateral Ground Displacements

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. As the site has a low liquefaction potential and it is relatively constrained laterally, the potential for earthquake-induced lateral spreading at the site is low.

3.7 Seismically-Induced Landslides

As shown on Figure 5, *Seismic Hazard Map*, the site is not mapped within a seismically-induced landslide hazard zone identified by the State of California (CGS, 1998). In addition, due to project site being relatively flat, it is our opinion that the potential for seismically-induced landslide hazard at the site is negligible.

3.8 Flooding

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. Prado Dam is an earth-fill dam across the Santa Ana River in the Chino Hills near Corona, California in Riverside County with the resulting impounded water creating Prado Flood Control Basin reservoir. The U.S. Army Corps of Engineers (ACOE) completed the dam in the Lower Santa Ana River Canyon in 1941 for the primary purpose of downstream flood control. The area upstream from the dam contains 2,255 square miles (5,840 km^2) of the watershed's 2,650 square miles (6,900 km^2). The Prado Flood Control Basin also provides water storage for groundwater recharge operations. The height of Prado Dam was raised approximately 28 feet adding 140,000 acre-feet to the basin and increasing the dam's level of protection to 190-years. New outlet works and a new outlet channel increased Prado Dam's controlled discharge capacity from 9,500 cubic feet per second (cfs) to 30,000 cfs.

As shown on Figure 6, *Dam Inundation Map*, the project is located approximately 13.4 miles downstream from Prado Dam and is mapped within a Prado Dam inundation zone. Catastrophic failure of the dam is a very unlikely event as dam safety regulations are enforced by the Division of Dams, Army Corp of Engineers and Department of Water Resources. Inspectors may require dam owners to perform work, maintenance or implement controls if issues are found with the safety of the dam. Due to the new improvements, raising the height of Prado Dam and continuous monitoring by the ACOE and others, it is our opinion that the potential for earthquake-induced flooding to affect the site is low.

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2008), the project site is not located within a flood hazard zone as indicated on Figure 7, *Flood Hazard Zone Map*. Regionally, storm runoff flow is generally directed to the southwest. The majority of this area is urbanized and storm water runoff is directed through streets and storm drain channels to the Pacific Ocean located approximately 15.5 miles from the site.

3.9 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

3.10 Methane

The Subject Property is located in Township 3 South, Range 9 West, Section 31, San Bernardino Baseline and Meridian, within the City of Placentia, County of Orange, California. Leighton reviewed the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) online Regional Oilfield Map 108 (DOGGR, 2003). The Subject Property is located within the southwestern portion of the Richfield Oil Field. The Orange County Fire Authority (OCFA) requires that a methane survey be conducted prior to any new construction for any property located within their jurisdiction and within an oil field. There are three wells described as “plugged and abandoned - dry holes” or “idle” located within 1,000 feet of the Subject Property to the east; these wells were named “TEPI ‘Bennett’ 1”, “Majestic Oil Co. 1,” and “CalResources LLC ‘Peter J. Allec’ 1.” Based on review of readily available data and maps, no known oil wells are depicted within the project site area.

4.0 DESIGN RECOMMENDATIONS

Geotechnical recommendations for the proposed development are presented in the following sections and are intended to provide sufficient geotechnical information to develop the project in general accordance with 2016 CBC requirements. The geotechnical consultant should review the grading plan, foundation plan and specifications as they become available to verify that the recommendations presented in this report have been incorporated into the plans prepared for the project.

4.1 Earthwork

All site grading should be performed in accordance with the applicable local codes and in accordance with the project specifications that are prepared by the appropriate design professional. Site grading recommendations are presented in the following paragraphs. The General Earthwork and Grading Recommendations are included in Appendix E. In case of conflict the following recommendations shall supersede those provided in Appendix E.

4.1.1 Site Preparation

Prior to construction, the site should be cleared of any vegetation, trash, and/or debris within the area of proposed grading. Foundation elements from previous structures and/or septic wells or underground storage tanks, if discovered during grading should be removed from the site. Any underground obstructions onsite should be removed. Efforts should be made to locate any existing utility lines to be removed or rerouted where interfering with the proposed construction. Any resulting cavities should be properly backfilled and compacted. After the site is cleared, the soils should be carefully observed for the removal of all unsuitable deposits. All unsuitable deposits should be excavated and removed from proposed building/structure footprint prior to fill placement.

4.1.2 Overexcavation

To provide a uniform support and reduce the potential for differential settlement, all undocumented fill should be removed under the proposed improvements to expose suitable bearing soils and replaced as engineered fill. The depth of undocumented fill soils encountered at the site that will require remedial removal ranged from approximately 4 to 6 feet bgs across the site. These recommended depths should be verified

during grading as local conditions may be encountered that may require variations in removal depths. The exact extent of removals can best be determined during grading when direct observation and evaluation of materials are possible. Any soft or unsuitable earth materials encountered at the bottom of the excavations should be removed and replaced with compacted fill.

4.1.3 Subgrade Preparation

After completion of the overexcavation and prior to fill placement, the exposed soils should be scarified to a minimum depth of 12 inches, moisture conditioned as necessary and compacted to at least 90 percent relative compaction based on ASTM Test Method D 1557. The moisture content of the soils should be determined, and the soils slowly and uniformly moistened (or dried) as necessary to bring the soils to a uniform moist condition.

To reduce the effects of expansive soils we recommend all concrete slabs-on-grade should be underlain by at least 2 feet of relatively non-expansive soil (EI<20). Based on the results of the exploration (Appendix A) there may be sufficient non-expansive, granular onsite soil for this purpose within excavation depths. However, verification Expansion Index testing will be required to confirm the adequacy of onsite soils for this use.

The moisture content of relatively non-expansive and predominantly granular soils should be brought to within 2 percent of optimum moisture content to a depth of 18 inches. The moisture content of any clayey soils should be brought to about 4 percent over optimum moisture content to a depth of 18 inches. The moisture content of the subgrade should be checked and approved by Leighton prior to placing the required fill.

It is essential that excavation not undermine adjacent building foundations or retaining walls that are to remain to the west and south of this site.

Excavations must not encroach within a 1:1 (horizontal:vertical) wedge extending down and out from existing shallow footings to remain. Shoring or underpinning of existing building foundations or retaining walls will likely be required if excavations will undermine adjacent existing structures.

In addition, ABC slot cutting techniques are recommended along the perimeter of the overexcavation area to the west and south should remedial grading removals encroach into these areas as described above.

In no instance should the slot-cut excavations be left open overnight and care must be used to coordinate excavation/backfilling with forecasted weather to ensure excavations will not be open during periods of rainfall. Furthermore, the slot-cut excavations are recommended to be backfilled the same day as excavated. The maximum widths of the slot-cuts are recommended to be no greater than 8 feet along the southern and western property lines; the widths of the slots may be increased but may be no greater than 12 feet pending field confirmation of actual excavation stability. In addition, the heights of the slot-cuts are recommended to be no greater than 10 feet.

4.1.4 Fill Materials

On-site soil that is free of construction debris, organics, cobbles, boulders, rubble, or rock larger than 4-inches in largest dimension is suitable to be used as fill for support of structures. Any imported fill soil should be approved by the geotechnical engineer prior to placement as fill.

4.1.5 Fill Placement and Compaction

Fill soils should be placed in loose lifts not exceeding 8 inches, moisture-conditioned to within 2 percent of optimum moisture content for sandy soils and at least 4 percent above optimum moisture content for clayey soils, and compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557. Aggregate base should be compacted to a minimum of 95 percent relative compaction.

4.1.6 Construction Dewatering

Groundwater was not encountered in our explorations and the historic high groundwater is reported to be greater than 50 feet bgs (CGS, 1997) at the site. Therefore, groundwater is not expected to be encountered within the proposed overexcavation. Construction dewatering is not anticipated to be needed during development of the site.

4.2 Foundation Design

Conventional spread footings established in engineered fill or undisturbed natural soils may be used to support the proposed structures. Footings should be embedded a minimum 12 inches below the lowest adjacent grade. An allowable soil bearing pressure of 4,000 pounds per square foot (psf) may be used for footings with a minimum width of 12 inches for continuous footings and 18 inches for isolated footings.

A one-third increase in the bearing value for short duration loading, such as wind or seismic forces may be used. The ultimate bearing capacity can be taken as 12,000 psf, which does not incorporate a factor of safety. A resistance factor of 0.5 should be used for initial bearing capacity evaluation with factored loads.

The allowable bearing capacity for shallow footings is based on a total static settlement of ½ inch. Differential settlement can be taken as half the total settlement over a horizontal distance of 30 feet.

Since settlement is a function of footing size and contact bearing pressure, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Leighton should review the settlement estimates when final foundation plans and loads for the proposed structures become available. Additional recommendations may be warranted.

Resistance to lateral loads will be provided by a combination of friction between the soil and structure interface and passive pressure acting against the vertical portion of the footings structures. For calculating lateral resistance, a passive pressure of 300 psf per foot of depth to a maximum of 3,000 psf and a frictional coefficient of 0.30 may be used. Note that the passive and frictional coefficients do not include a factor of safety. The frictional resistance and the passive resistance of the soils can be combined without reduction in determining the total lateral resistance.

4.3 Retaining Wall Design

The following soil parameters may be used for the design of retaining walls with level backfill:

Table 3 – Conventional Retaining Wall Design Parameters

Condition	Equivalent Fluid Pressure (psf per foot)
Active	35
At-Rest	55
Passive	300
Seismic Increment (add to active pressure)	30

Care should be taken to provide appropriate drainage so as no water is allowed to remain behind retaining walls for any significant length of time. In addition to the recommended earth pressures, walls below grade adjacent to existing structures or streets and areas of traffic should be designed to accommodate surcharge loads. For traffic surcharge, a uniform lateral pressure of 100 pounds per square foot acting as a result of an assumed 300 pounds per square foot surcharge behind the wall due to normal traffic; the traffic surcharge load may be neglected provided a minimum of 10 foot clearance between the wall and the traffic is maintained. We will provide surcharge loading from adjacent foundations if applicable based on future design.

4.3.1 Retaining Wall Drainage

Adequate drainage may be provided by a subdrain system positioned behind the walls. Typically, this system consists of a 4-inch-diameter perforated pipe placed near the base of the wall (perforations placed downward). The pipe should be bedded and backfilled with pervious backfill material described in Section 300-3.5.2 of the *Standard Specifications for Public Works Construction* (Green Book), current edition. This pervious backfill should extend at least 2 feet out from the wall and to within 2 feet of the outside finished grade. This pervious backfill and pipe should be wrapped in filter fabric, such as Mirafi 140N or equivalent, placed as described in Section 300-8.1 of the *Standard Specifications for Public Works Construction* (Green Book), 2015 Edition. The subdrain outlet should be connected to a free-draining outlet or sump. See Figure 8, *Retaining Wall Subdrain Detail.*

Miradrain, Geotech Drainage Panels, or Enkadrain drainage geocomposites, or similar, may be used for wall drainage as an alternative

to the Class 2 Permeable Material or drain rock backfill, particularly where horizontal space is limited adjacent to shoring (where walls are cast against shoring) or property lines. These drainage panels should be connected to the perforated drainpipe at the base of the wall.

4.4 Slabs-on-Grade

All concrete slabs-on-grade should be underlain by at least 2 feet of relatively non-expansive soil. There may be sufficient non-expansive onsite soil for this purpose. Expansion Index testing of onsite soil should be performed during grading an excavation to ensure onsite material is non-expansive (EI<20).

Concrete slabs may be designed using a modulus of subgrade reaction of 100 pci provided the subgrade is prepared as described in Section 4.1.3. From a geotechnical standpoint, we recommend slab-on-grade be a minimum 5 inches thick with No. 3 rebar placed at the center of the slab at 24 inches on center in each direction. The structural engineer should design the actual thickness and reinforcement based on anticipated loading conditions. Where moisture-sensitive floor coverings or equipment is planned, the slabs should be protected by a minimum 10-mil-thick vapor barrier between the slab and subgrade. A coefficient of friction of 0.35 can be used between the floor slab and the vapor barrier.

Minor cracking of concrete after curing due to drying and shrinkage is normal and should be expected; however, concrete is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected. The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Additionally, our experience indicates that the use of reinforcement in slabs and foundations can generally reduce the potential but not eliminate for concrete cracking.

To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or weakened plane joints at frequent intervals. Joints should be laid out to form approximately square panels.

4.5 Seismic Design Considerations

To accommodate effects of ground shaking produced by regional seismic events, seismic design performed by the designing structural engineer, should be in accordance with the 2016 edition of the California Building Code (CBC). Table 4, *2016 CBC Code-Based Seismic Design Parameters*, below tabulates seismic design parameters based on the 2016 CBC methodology, which is based on ASCE/SEI 7-10.

Table 4 – 2016 CBC Code-Based Seismic Design Parameters

CBC Categorization/Coefficient	Design Value
Site Longitude (decimal degrees)	-117.8711
Site Latitude (decimal degrees)	33.8676
Site Class Definition	D
Seismic Design Category	D
Mapped Spectral Response Acceleration at 0.2 sec period, S_S	1.755 g
Mapped Spectral Response Acceleration at 1 sec period, S_1	0.634 g
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1.0 sec) Site Coefficient, F_v	1.5
Adjusted Spectral Response Acceleration at 0.2 sec period, S_{MS}	1.755 g
Adjusted Spectral Response Acceleration at 1 sec period, S_{M1}	0.952 g
Design Spectral Response Acceleration at 0.2 sec period, S_{DS}	1.170 g
Design Spectral Response Acceleration at 1 sec period, S_{D1}	0.634 g
Peak Ground Acceleration, PGA_M	0.648 g

1. All were derived from the USGS web page: http://earthquake.usgs.gov/designmaps/us/application.php
2. All coefficients in units of g (spectral acceleration)

4.6 Temporary Excavation and Shoring Design

All temporary excavations, including utility trenches, retaining wall excavations, and foundation excavations should be performed in accordance with project plans, specifications, and all OSHA requirements. Excavations 5 feet or deeper should be laid back or shored in accordance with OSHA requirements before personnel are allowed to enter.

No surcharge loads should be permitted within a horizontal distance equal to the height of cut or 5 feet, whichever is greater from the top of the cut, unless the cut is shored appropriately. Excavations that extend below an imaginary plane inclined

at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structure.

Typical cantilever shoring should be designed based on the active fluid pressure of 35 pcf. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 30H, where H is equal to the depth of the excavation being shored.

If any planned excavation will be adjacent to existing buildings, the shoring should be designed to accommodate the surcharge pressure from existing structures and vehicular loading within a 1:1 plane projected upward from the bottom of the excavation perimeter. A uniform horizontal pressure equal to ½ of the foundation bearing pressure may be assumed for preliminary design.

4.7 Trench Backfill

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the Standard Specifications for Public Works Construction, ("Greenbook"), Latest Edition. Utility trenches can be backfilled with onsite material free of rubble, debris, organic and oversized material up to 3 inches in largest dimension. Prior to backfilling trenches, pipes should be bedded in and covered with either:

(1) **Granular Bedding:** 1) ½-inch open grade aggregate or 2) a uniform sand material with a Sand Equivalent (SE) greater-than-or-equal-to 30, passing the No. 4 U.S. Standard Sieve (or as specified by the pipe manufacturer), water densified in place, or

(2) **CLSM:** Controlled Low Strength Material (CLSM) conforming to Section 201-6 of the *Standard Specifications for Public Works Construction,* ("Greenbook"), latest Edition.

Pipe bedding should extend at least 4 inches below the pipeline invert and at least 12 inches over the top of the pipeline. Native and clean fill soils can be used as backfill over the pipe bedding zone, and should be placed in thin lifts, moisture conditioned above optimum, and mechanically compacted to at least 90 percent relative compaction, relative to the ASTM D1557 laboratory maximum density.

4.8 Corrosion Protection Measures

Based on the results of laboratory testing, concrete structures in contact with the onsite soil are expected to have negligible exposure to water-soluble sulfates in the soil. Common Type II cement may be used for concrete construction onsite and the concrete should be designed in accordance with CBC 2016 requirements. However, concrete exposed to recycled water should be designed using Type V cement.

Based on our laboratory testing, the onsite soil is considered corrosive to ferrous metals. Ferrous pipe should be avoided by using high-density polyethylene (HDPE) or other non-ferrous pipe when possible. Ferrous pipe, if used, should be protected by polyethylene bags, tap or coatings, di-electric fittings or other means to separate the pipe from onsite soils.

4.9 Pavement Design

Driveways and fire access road can be constructed using conventional asphalt concrete (AC) over aggregate base (AB). In preparation of design, we have collected representative soil samples and performed R-value testing of near surface soil. The test results are attached and indicate an R-value of 29. Confirmation R-value testing of representative near surface soils should be performed at the end of grading. We have designed the pavement sections using the R-value of 25 for different Traffic Indices (TI) and the minimum pavement section is presented Table 5 below. These pavement sections are preliminary and may change depending on confirmation R-value testing. The pavement design was performed using the method in the California *Highway Design Manual*.

Table 1 - Pavement Sections

Traffic Index	Flexible Pavement (inches)	
	AC	AB
5	3	8
6	3	10
7	4	12

All pavement construction should be performed in accordance with the Standard Specifications for Public Works Construction. Field inspection and periodic

testing, as needed during placement of the base course materials, should be undertaken to ensure that the requirements of the standard specifications are fulfilled. Prior to placement of aggregate base, the subgrade soil should be processed to a minimum depth of 8 inches, moisture-conditioned, as necessary, and recompacted to a minimum of 90 percent relative compaction.

If wet and pumping soils are encountered, a layer of geofabric (Mirafi HP570 or equivalent) may be placed to stabilize the subgrade and provide a firm working surface for placement of compacted fill and aggregate base. Localized areas of loose soils may be encountered that require deeper removal and recompaction. The actual extent of the removal depth will be best determined during construction when direct observation of the subgrade soils can be made.

Aggregate base should be moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction.

Aggregate base and asphalt materials should conform to Sections 200-2 and 203, respectively, of the *Standard Specifications for Public Works Construction*. PCC should conform to Section 201 of the *Standard Specifications for Public Works Construction*.

4.9.1 Portland Cement Concrete Paving

Portland cement concrete paving sections as well as all other concrete slabs and walks supported on grade should be underlain by at least 2 feet of properly compacted fill consisting of relatively non-expansive soils. We have assumed that such a subgrade will have an R-value of at least 40, which will need to be verified during grading.

A thicker layer of non-expansive fill is recommended if it is desired to provide even greater protection against heaving of slabs.

Portland cement concrete (PCC) paving sections were determined in accordance with procedures developed by the Portland Cement Association. PCC paving sections for a range of Traffic Indices are presented in the following table. We have assumed that the Portland Cement Concrete will have a compressive strength of at least 3,000 pounds per square inch.

Table 6 - PCC Paving Sections

Area	Traffic Index	PCC (inches)	Base Course (inches)
Car Parking	4	6½	4
Light Truck	5	7	4
Heavy Truck	6	8	4

The paving should be provided with expansion joints at regular intervals no more than 15 feet in each direction. Load transfer devices, such as dowels or keys, are recommended at joints in the paving to reduce possible offsets. The paving sections in the above table have been developed based on the strength of unreinforced concrete. Steel reinforcing may be added to the paving to reduce cracking and to prolong the life of the paving.

4.10 Infiltration BMP Design Considerations

The measured infiltration rates were the result of small-scale tests performed at specific locations. The actual infiltration rate over the area of the proposed infiltration device could vary significantly from the test location. Therefore, care must be used in the selection of infiltration rate for use in design and the potential for variances in soil conditions that could significantly affect field performance. The small-scale infiltration rates should be converted to a large-scale rate using a reduction factor. In addition, infiltration rates will degrade over time due to complete saturation of underlying soils, and fines build-up and plugging if pretreatment of the storm water is not performed. As such, in accordance with the TGD, a minimum factor of safety of 2 or more should be used to establish a more realistic infiltration rate for the service life of the system.

In general, a vast majority of geotechnical distress issues are related to improper drainage. Distress in the form of foundation movement could occur. Direct infiltration to the subsurface is not recommended adjacent to curb and gutter and public pavements as soil saturation could lead to a loss of soil support, settlement or collapse, and internal erosion (piping). Additionally, infiltration water can and will migrate along pipe backfill (typically sand or gravel bedding) affecting improvements far from the point of infiltration.

We understand that WQMP improvements are proposed in the central and southwestern portions of the project site; including a subsurface detention system, a proprietary filtration/biofiltration device, and an infiltration well with discharge zones from approximately 10 to 15 feet below the ground surface. The planned underground detention/infiltration devices and design saturation zone should be established at least 10 feet away from planned foundations. The design saturation zone may be assumed as a 1:1 plane projected downward from the top of an infiltration device's discharge zone.

Prior to construction of any infiltration device intended for the site, the WQMP and foundation/grading plans should be reviewed by the geotechnical consultant to verify that our geotechnical recommendations have been appropriately incorporated into the plans and not compromised by the addition of an infiltration system to the site. The designer of any infiltration system should contact the geotechnical consultant for geotechnical input during the design process as they feel necessary. Proper compaction oversight during construction is required to ensure the bottoms of infiltration facilities are not overly compacted. Facilities that do not have proper compaction oversight should have more restrictive safety factors applied (double the factor of safety, but may be higher at the discretion of the design engineer)

4.11 Drainage and Landscaping

Building walls below grade should be waterproofed or at least damp proofed, depending upon the degree of moisture protection desired. Surface drainage should be designed to direct water away from foundations and toward approved drainage devices. Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without overwatering.

4.12 Additional Geotechnical Services

The geotechnical recommendations presented in this report are based on subsurface conditions as interpreted from limited subsurface explorations, limited laboratory testing and information available at the time the report is prepared. Additional geotechnical investigation and analysis may be required based on final improvement plans. Leighton should review the site and grading plans when available and comment further on the geotechnical aspects of the project. Geotechnical observation and testing should be conducted during excavation

and all phases of grading operations. Our conclusions and recommendations should be reviewed and verified by Leighton during construction and revised accordingly if geotechnical conditions encountered vary from our preliminary findings and interpretations.

Geotechnical observation and testing should be provided during the following activities:

- Grading and excavation of the site;
- During overexcavation and removal of unsuitable soil;
- Subgrade preparation;
- Compaction of all fill materials;
- Utility trench backfilling and compaction;
- Footing excavation and slab-on-grade preparation;
- Pavement subgrade and base preparation;
- Placement of asphalt concrete and/or concrete; and
- When any unusual conditions are encountered.

5.0 LIMITATIONS

This report does not address the potential for encountering hazardous materials in site soils.

This report was necessarily based in part upon data obtained from a limited number of observances, site visits, soil samples, tests, analyses, histories of occurrences, spaced subsurface explorations and limited information on historical events and observations. Such information is necessarily incomplete. The nature of many sites is such that differing characteristics can be experienced within small distances and under various climatic conditions. Changes in subsurface conditions can and do occur over time.

This report was prepared for *The Placentia TOD Project Owner, LLC* based on their needs, directions and requirements at the time of our exploration, in accordance with generally accepted geotechnical engineering practices at this time in California for similar projects. This report is not authorized for use by, and is not to be relied upon by, any party except *The Placentia TOD Project Owner, LLC* and their design and construction management team, with whom Leighton and Associates, Inc. has contracted for this work. Use of or reliance on this report by any other party is at that party's risk. Unauthorized use of or reliance on this report constitutes an agreement to defend and indemnify Leighton and Associates, Inc. from and against any liability which may arise as a result of such use or reliance, regardless of any fault, negligence, and/or strict liability of Leighton and Associates, Inc.

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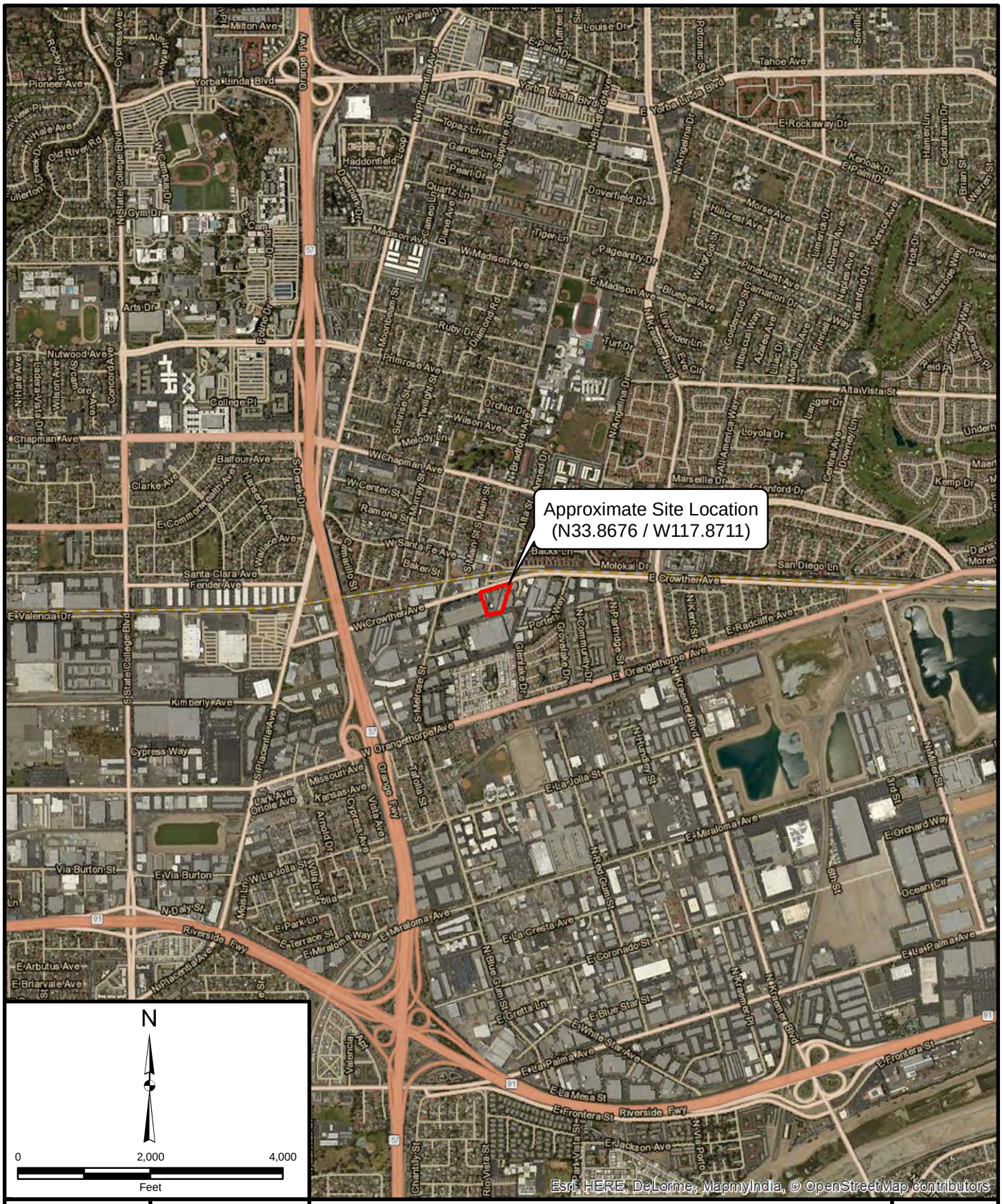

Project: 11263.003	Eng/Geol:CCK/JAR
Scale:1 " = 2,000 '	Date: June 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton
Author: Leighton Geomatics (btran)

SITE LOCATION MAP

The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 1

Leighton

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BORING LOCATION MAP

The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 2

Proj: 11263.003	Eng/Geol: CCK/JAR
Scale: As Shown	Date: June 2017

Leighton

LEGEND

Afu	Artificial Fill; Undocumented
Qvof	Quaternary Very Old Alluvial Fan Deposits
B-3 T.D.41.5' Afu 0-4' Qvof 4-41.5'	Approximate boring location shown with total depth (T.D.) and thickness of earth units in feet below grand surface
P-3 T.D.15-20'	Approximate location of percolation well shown with test zone in feet below grand surface
CPT-3 T.D.45'	Approximate cone penetration test location showing total depth (T.D.) in feet below grand surface

PARKING PROVIDED:

GARAGE:	388 SPACES	1.80 PER UNIT
SURFACE:	6 SPACES	
TOTAL:	394 SPACES	

	REQ	NUMBER	MIN.	MAX.
1BR	1 min./1.5 max.	100	100	150
2BR	1.5 min./2 max.	115	173	230
GUEST/10UNITS	2 min./3 max.	215	43	65
TOTAL			316	445

TOTAL PROVIDED ON SITE: 394 SPACES

AREA BREAK DOWN:

NET RESIDENTIAL:	193,778 S.F.
BALCONIES:	15,132 S.F.
CORRIDOR&STOR.:	44,290 S.F.
STAIRS & ELEV:	882 S.F.
LEASING:	2,400 S.F.
GROSS RES. AREA:	256,482 S.F.
GROSS GARAGE: (INCLUDING ROOF TOP CLUB)	182,400 S.F.

A-1

E. CROWTHER AVE. SITE
PLACENTIA, CA
HPA# 16150

PLANS
March 11, 2017

INTEGRAL COMMUNITIES

HUMPHREYS & PARTNERS ARCHITECTS, L.P.
5339 Alpha Rd., Suite 300, Dallas, TX 75240 | 972.701.9636 | www.humphreys.com

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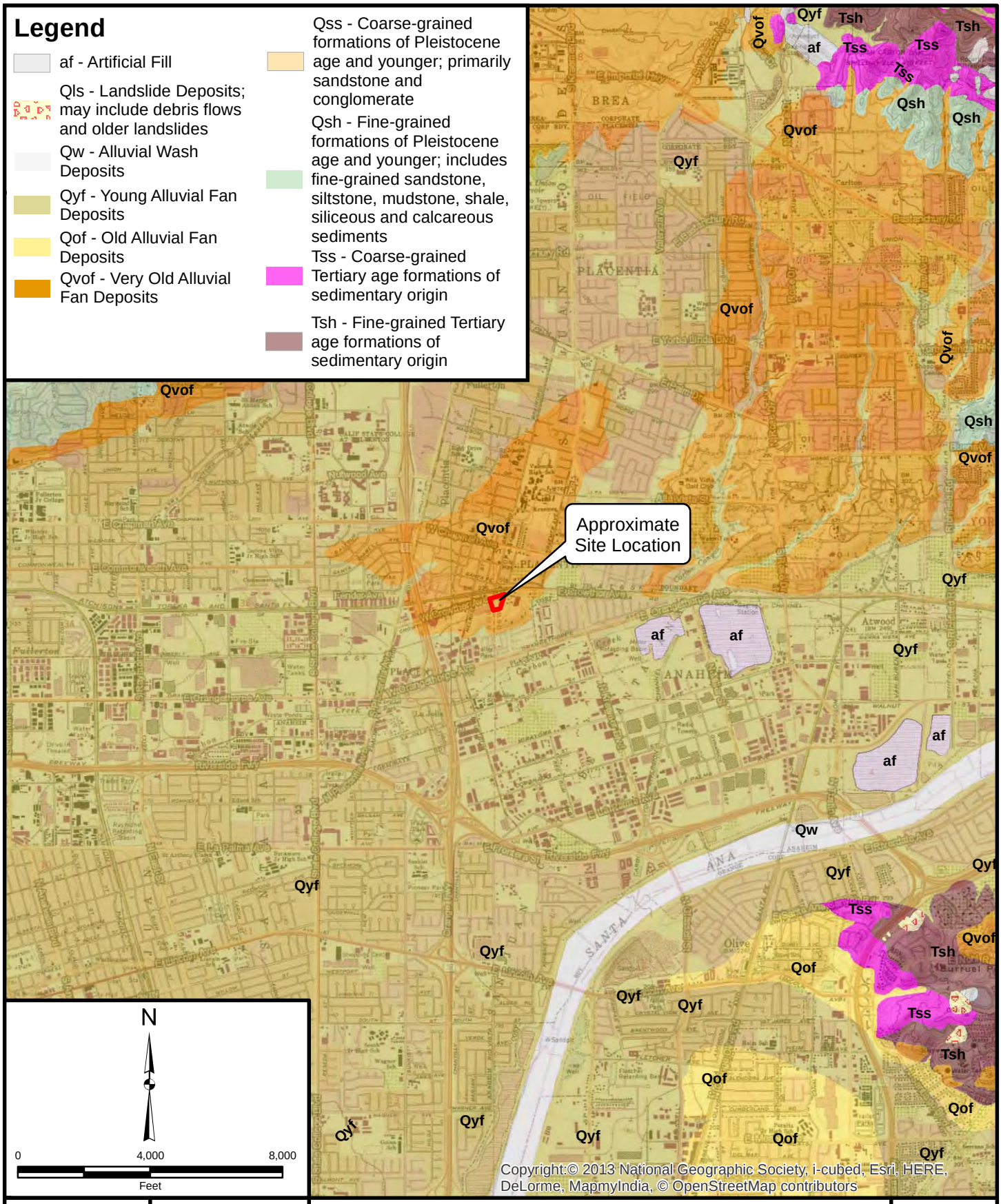

Project: 11263.003	Eng/Geol:CCK/JAR
Scale:1 " = 4,000 '	Date: June 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton, USGS
Author: Leighton Geomatics (btran)

REGIONAL GEOLOGY MAP

The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 3

Leighton

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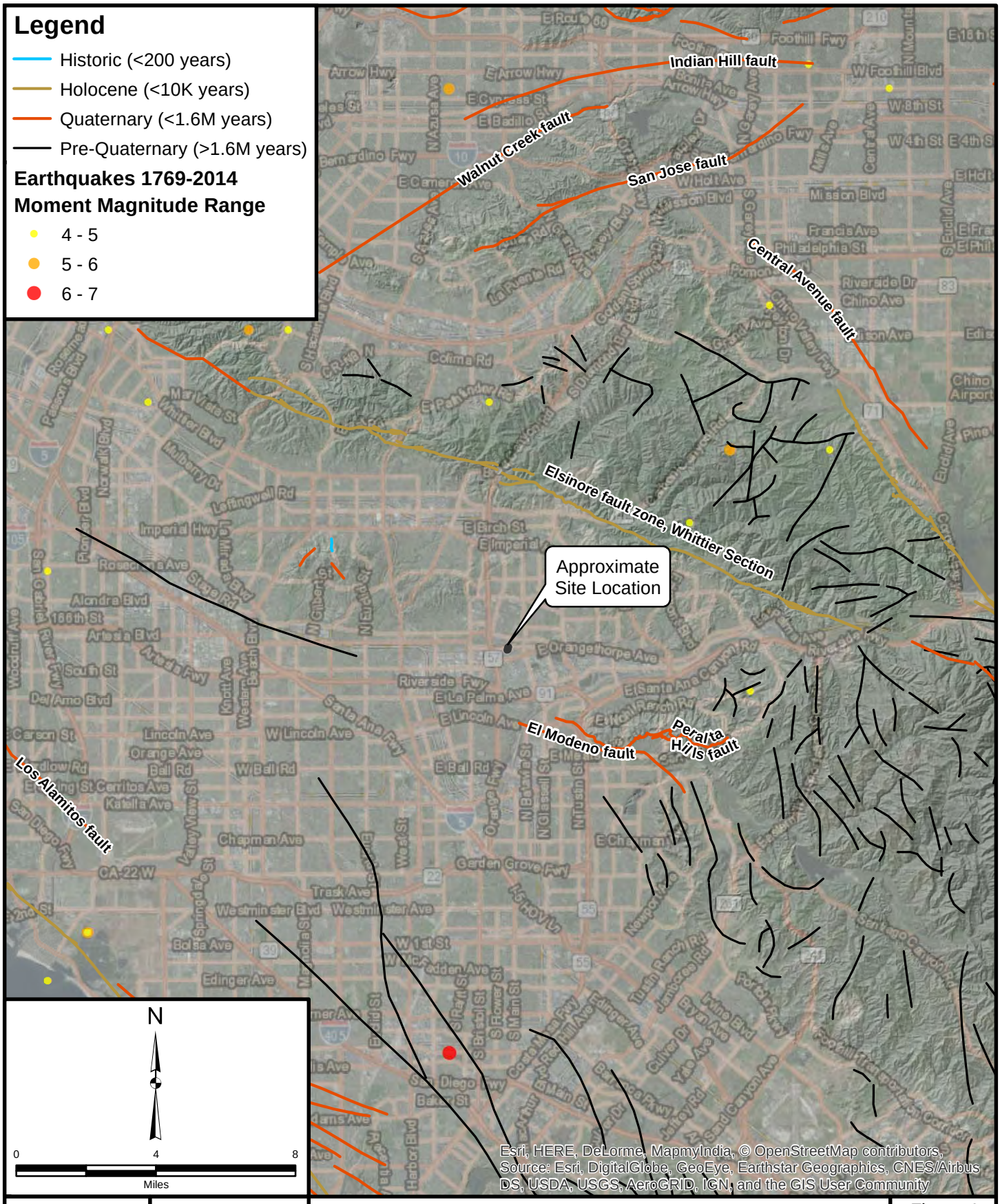

Project: 11263.003	Eng/Geol:CCK/JAR
Scale:1 " = 4 miles	Date: June 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton, CGS, Bryant 2010
Author: Leighton Geomatics (btran)

REGIONAL SEISMICITY MAP

The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 4

Leighton

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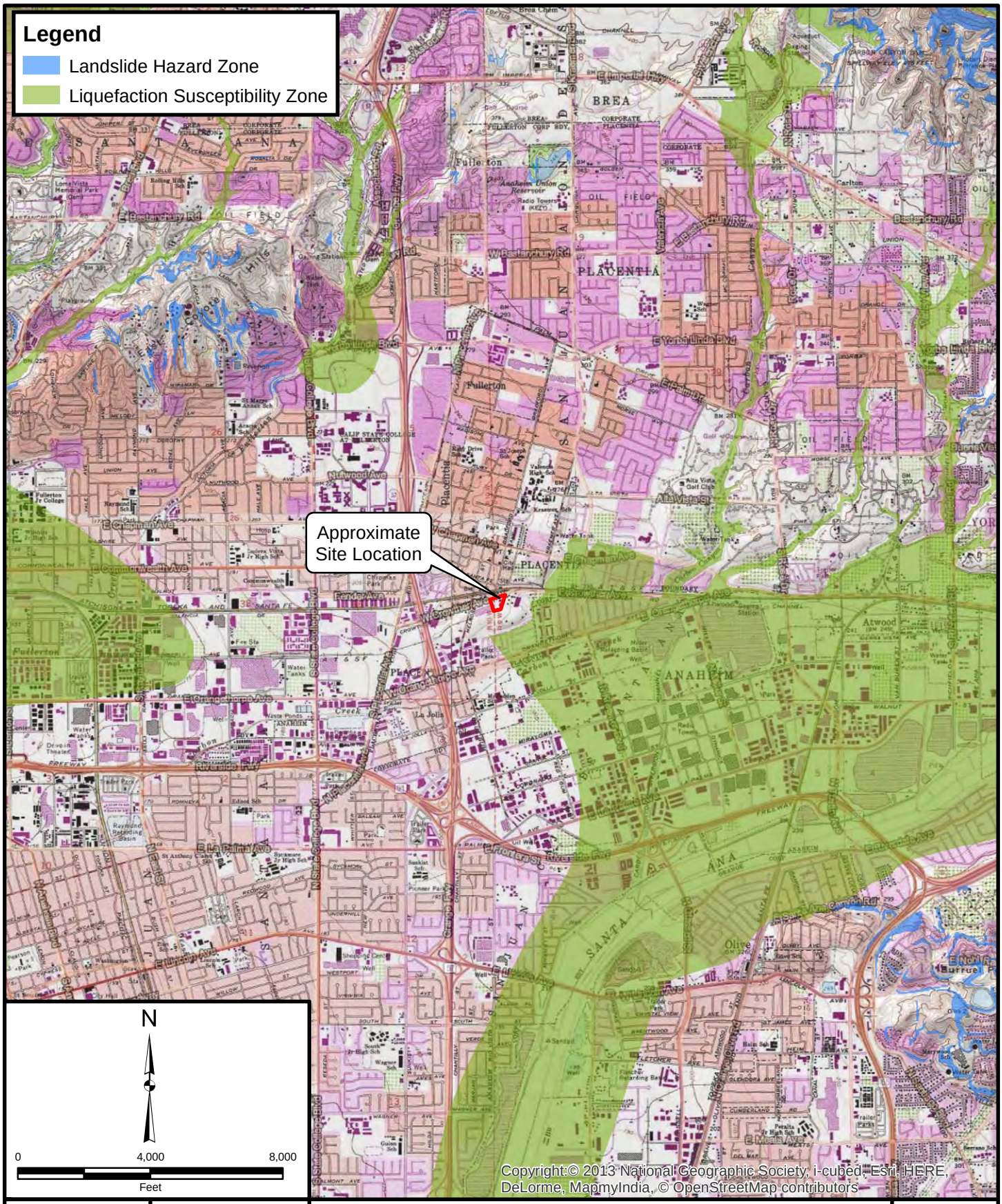

Project: 11263.003	Eng/Geol:CCK/JAR
Scale:1 " = 4,000 '	Date: June 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton, CGS
Author: Leighton Geomatics (btran)

SEISMIC HAZARD MAP

The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 5

Leighton

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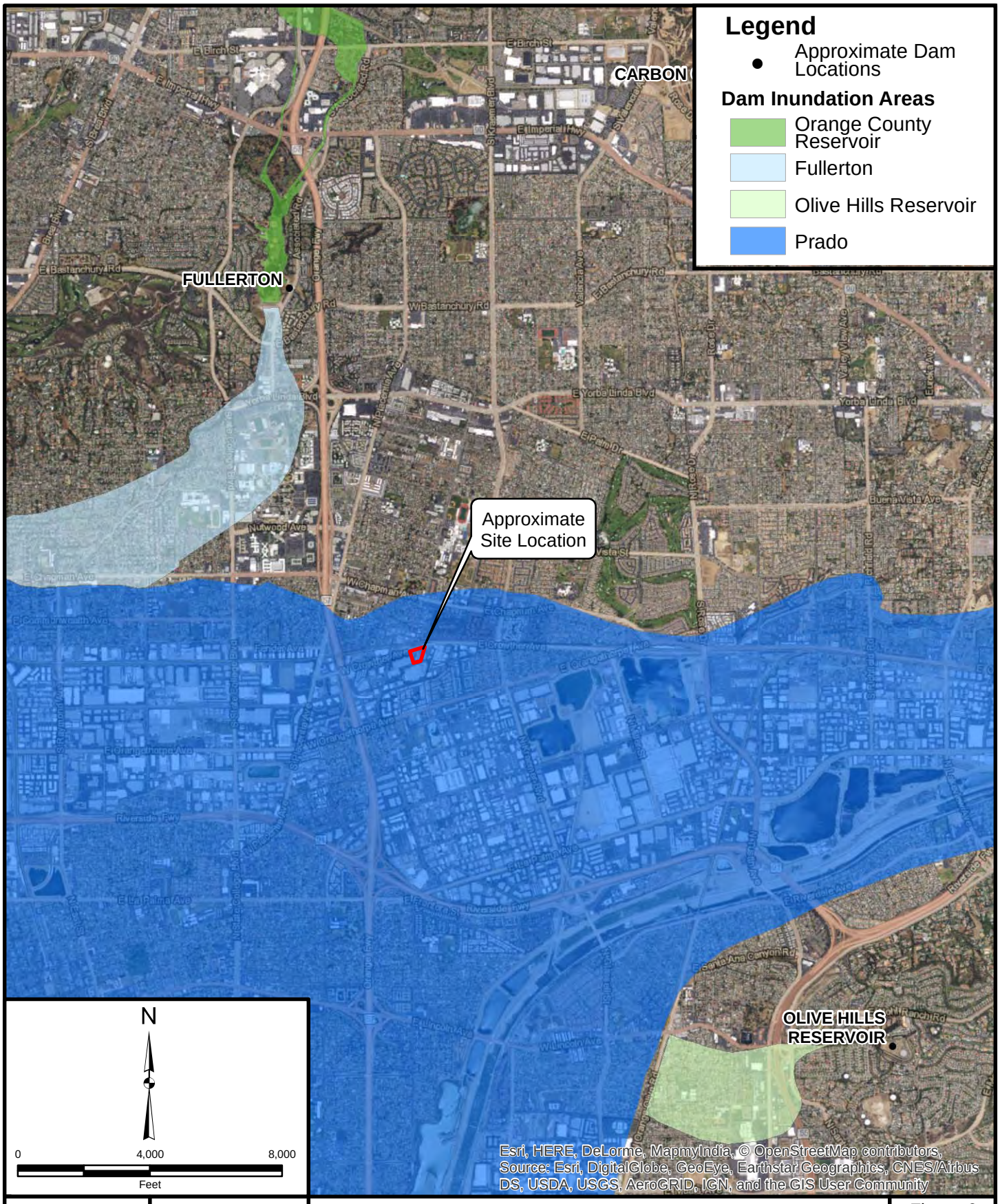


Project: 11263.003	Eng/Geol:CCK/JAR
Scale:1 " = 4,000 '	Date: June 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton, CA DWR, FEMA
Author: Leighton Geomatics (btran)

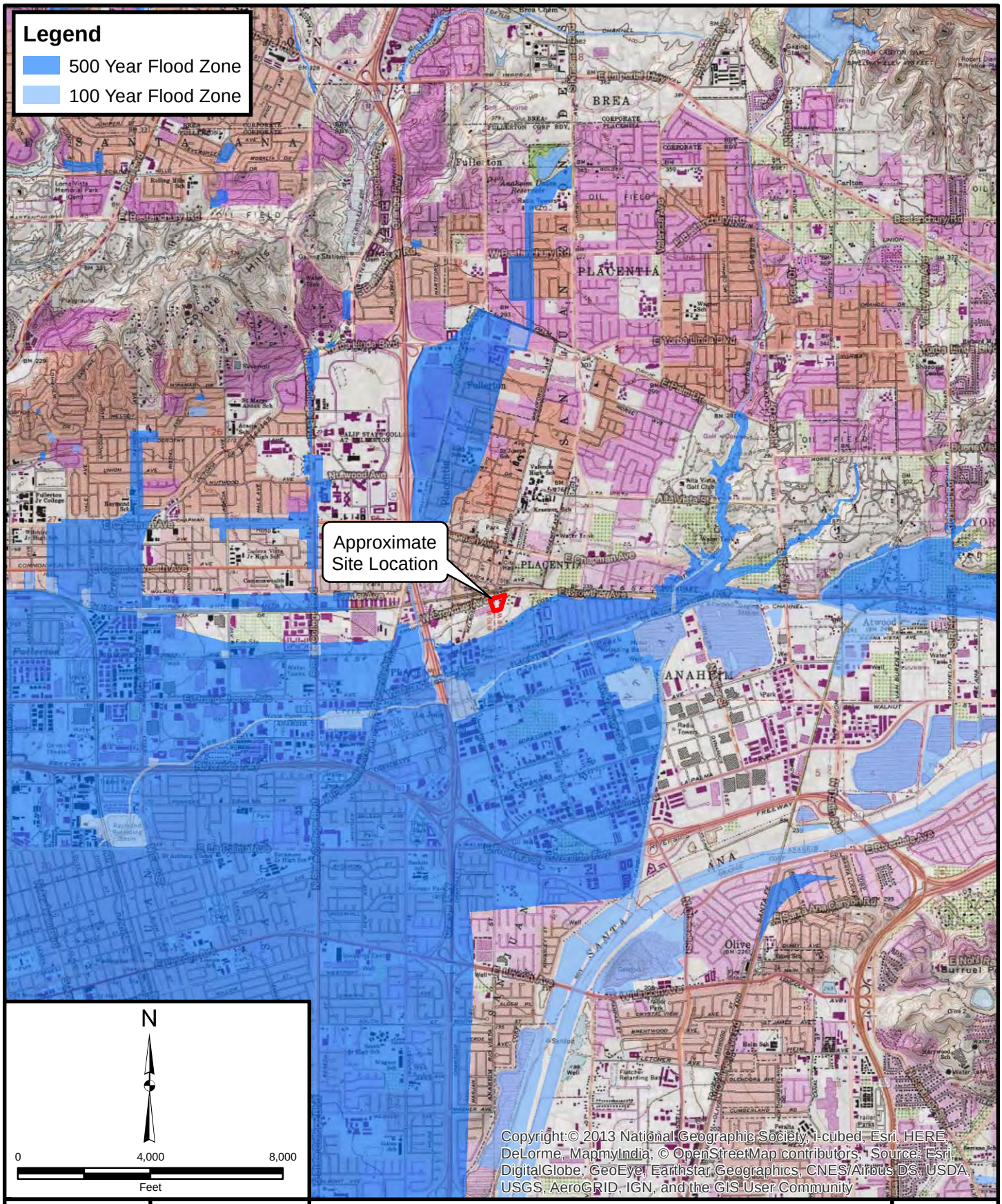
DAM INUNDATION MAP

The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 6

Leighton

Map Saved as V:\Drafting\11263\003\Maps\11263.003_F06_DAM_2017-06-09.mxd on 6/1/2017 9:21:11 AM



Project: 11263.003	Eng/Geol:CCK/JAR
Scale:1 " = 4,000 '	Date: June 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton, CA DWR, FEMA
Author: Leighton Geomatics (btran)

FLOOD HAZARD ZONE MAP

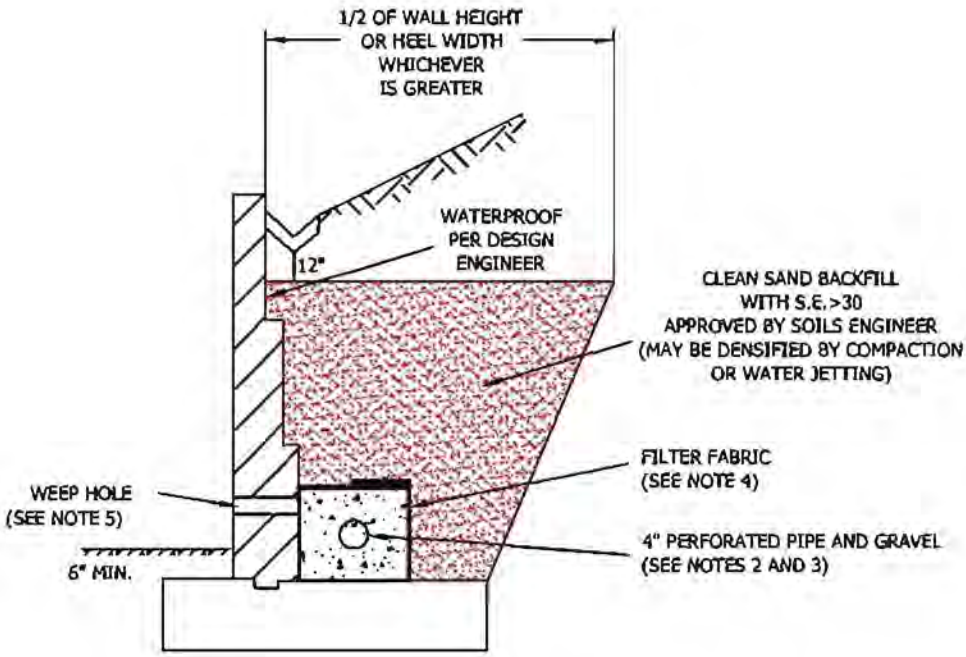
The Herald Multi Family Residential Project
110 and 132 East Crowther Avenue
Placentia, California

Figure 7

Leighton

Map Saved as V:\Drafting\11263\003\Maps\11263.003_F07_FHM_2017-06-09.mxd on 6/1/2017 9:22:33 AM

SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF >50



NOTE: AS AN ALTERNATE TO CLEAN SAND BACKFILL, CLEAN GRAVEL MAY BE UTILIZED WITH APPROVED FILTER FABRIC. A SECOND ALTERNATE IS TO UTILIZE AN AGGREGATE BASE MATERIAL COMPACTED TO 90% RELATIVE COMPACTION. A SAMPLE OF THE PROPOSED BASE MUST BE APPROVED BY THE GEOTECHNICAL CONSULTANT PRIOR TO BACKFILL FOR SUITABILITY. COMPACTION SHOULD BE ACHIEVED WITHOUT DAMAGING THE WALL.

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF >50

Leighton

APPENDIX A

FIELD EXPLORATION LOGS

Leighton

GEOTECHNICAL BORING LOG B-1

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	235'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
235	0			BB-1				SC	@Surface: 3 inches of Asphalt Concrete over 6 inches of Aggregate Base **Artificial Fill; undocumented (Afu)** @0.75': Clayey Sand, medium brown to orange brown, slightly moist, fine to coarse sand, few subangular gravels >1-inch diameter, few organics, moderately plastic, EI=68 @3': Sandy SILT, medium brown, very stiff, moist, fine to coarse sand, trace fine angular gravels	EI
230	5			R1	8 15 19			ML		
									Quaternary Very Old Alluvial Fan Deposits (Qvof)	
				S1	3 5 4			SMg	@6': Silty SAND with Gravel, reddish brown, loose, slightly moist, fine to coarse grained sand, fine angular gravels	
225	10			R2	7 23 44			SM	@10': Silty SAND, orange brown, dense, slightly moist, fine to coarse sand, trace subrounded to subangular gravels	
				S2	10 12 15				@12': Medium brown/orange to tan, medium dense, dry, fine to medium sand	
220	15			R3	11 22 31				@15': Fine to coarse sand, trace gravel approximately 1-inch diameter, dense	
215	20			S3	8 16 21				@20': Silty SAND, grades medium brown to tan, medium dense, slightly moist, fine to coarse sand	
210	25			R4	15 21 33				@25': Tan, dense, trace subrounded gravel	
205	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-1

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	235'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
205	30			S4	6 16 18			SM/ML	@30': Interbedded Silty SAND and SILT, tan, medium dense/very stiff, slightly moist to moist, fine to coarse sand, 3-inch thick silt bed at top of sample	
200	35			R5	28 50/4"			SPg	@35': SAND, tan, very dense, slightly moist, fine to coarse sand, trace silt and subrounded gravels approximately 1 inch diameter	
195	40			S5	10 22 27				@40': No recovery	
									Total Depth of Boring: 41.5 feet bgs No groundwater encountered during drilling Boring backfilled with soil cuttings and patched with cold-patch asphalt on 2/1/2017	
190	45									
185	50									
180	55									
175	60									

The Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
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- H HYDROMETER
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- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-2

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	238'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
238	0			BB-1				CH	@Surface: 3 inches of Asphalt Concrete over 2 inches of Aggregate Base **Artificial Fill; undocumented (Afu)** @0.42': Fat CLAY, very dark brown to light brown, slightly moist, trace asphalt debris and fine sand, EI=106	EI
235								SC	**Quaternary Very Old Alluvial Fan Deposits (Qvof)** @4': becomes Clayey SAND, dark brown, moist, fine sand	
	5			S1	2 3 5			ML	@5': Sandy SILT, reddish brown, medium stiff, moist, fine to medium sand, carbonate stringers	
230				R1	8 10 13				@7': stiff	CN, DS
	10			S2	2 3 5			SM	@10': Silty SAND with clay, orange brown, loose, moist, fine to coarse sand	
225				R2	7 11 12					
	15			S3	7 11 15			SM/ML	@15': Interbedded Silty SAND and Clayey SILT, orange brown, very stiff/medium dense, moist, 4-inch thick beds	
220										
	20			R3	8 36 45			SM	@20': Silty SAND, tan, very dense, slightly moist, fine to coarse sand, some subrounded gravel up to 1-inch diameter	
215										
	25			S4	7 14 25				@25': medium dense, trace subrounded gravel less than 1/2-inch diameter	
210										
	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-2

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	238'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			R4	13 25 42			SM	@20': Silty SAND, tan, very dense, slightly moist, fine to coarse sand, some subrounded gravel up to 1-inch diameter @30': Silty SAND, tan, dense, slightly moist, fine to coarse sand, trace angular gravel	
205										
	35			S5	12 18 29				@35': same as above	
200										
	40			R5	21 50/5" 27				@40': No recovery	
									Total Depth of Boring: 41.5 feet bgs No groundwater encountered during drilling Boring backfilled with soil cuttings and patched with cold-patch asphalt on 2/1/2017	
195										
	45									
190										
	50									
185										
	55									
180										
	60									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-3

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	240'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
240	0			BB-1				SC	@Surface: Grass **Artificial Fill; undocumented (Afu)** @0': Clayey SAND, dark brown, slighlty moist, fine to coarse sand, trace organics	CN,CR, DS,MD, RV
									Quaternary Very Old Alluvial Fan Deposits (Qvof)	
235	5			R1	5 13 22			SC	@5': Clayey SAND, dark brown, medium dense, slightly moist, carbonate stringers	DS
230	10			S1	1 2 2			CL ML	@10': Silty CLAY, dark brown, soft, slightly moist, some organics @10.5': Clayey SILT, medium brown, soft, moist, trace fine to medium sand	
				R2	4 8 12			SM	@12': Silty SAND, dark brown, medium dense, slightly moist, fine to coarse sand, trace subrounded gravel	CN
225	15			S2	6 7 7				@15': Silty SAND, orange brown, medium dense, slightly moist, fine to coarse sand, trace subrounded gravel	
				R3	6 18 41				@17': Silty SAND, orange brown, dense, slightly moist, subangular gravel	
220	20			S3	9 17 23			SP	@20': SAND, tan, dense, slighlty moist, fine to coarse sand	
215	25			R4	16 29 40			SPg	@25': SAND, tan, dense, slighlty moist, fine to coarse sand, some subrounded gravel	
210	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
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- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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GEOTECHNICAL BORING LOG B-3

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	240'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
210	30			S4	13 20 24			SP	@20': SAND, tan, dense, slighlty moist, fine to coarse sand @30': SAND, tan, dense, slightly moist, fine to coarse sand	
205	35			R5	29 37 50/4"			SW	@35': Gravelly SAND, tan, very dense, slightlymoist, fine to coarse sand, subangular gravels, trace silt	
200	40			S5	20 50/5"				@40': SAND with Gravel, tan, very dense, slightly moist, broken cobble in bottom of sample, poor recovery	
									Total Depth of Boring: 41.5 feet bgs No groundwater encountered during drilling Boring backfilled with soil cuttings and patched with cold-patch asphalt on 2/1/2017	
195	45									
190	50									
185	55									
180	60									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG P-1

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	235'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
235	0							SC	@Surface: 3 inches of Asphalt Concrete over 6 inches of Aggregate Base **Artificial Fill; undocumented (Afu)** @0.75': Clayey Sand, medium brown to orange brown, slightly moist, fine to coarse sand, few subangular gravels >1-inch diameter, few organics, moderately plastic, EI=68	
								ML	@3': Sandy SILT, medium brown, very stiff, moist, fine to coarse sand, trace fine angular gravels	
230	5							SMg	**Quaternary Very Old Alluvial Fan Deposits (Qvof)** @5': Silty SAND with Gravel, reddish brown, loose, slightly moist, fine to coarse grained sand, fine angular gravels	
225	10									
220	15								Total Depth of Boring: 15 feet bgs No groundwater encountered during drilling Boring converted to percolation test well (See Section 2.4 of this report) **Test Zone 10-15 feet bgs - Infiltration Rate=3.71 in/hr** Boring backfilled with soil cuttings and patched with cold-patch asphalt on 2/2/2017 upon completion of testing	
215	20									
210	25									
205	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG P-2

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	238'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
238	0								@Surface: 3 inches of Asphalt Concrete over 2 inches of Aggregate Base	
									Artificial Fill; undocumented (Afu)	
235								CH	@0.42': Fat CLAY, very dark brown to light brown, slightly moist, trace asphalt debris and fine sand, EI=106	
	5								**Quaternary Very Old Alluvial Fan Deposits (Qvof)**	
								SC	@4': becomes Clayey SAND, dark reddish brown, moist, fine sand, moderately plastic	
230										
	10									
225										
	15								Total Depth of Boring: 15 feet bgs No groundwater encountered during drilling Boring converted to percolation test well (See Section 2.4 of this report) **Test Zone 10-15 feet bgs - Infiltration Rate= 0.27 in/hr (Not feasible at this depth)** Boring backfilled with soil cuttings and patched with cold-patch asphalt on 2/2/2017 upon completion of testing	
220										
	20									
215										
	25									
210										
	30									

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG P-3

Project No.	11263.002	**Date Drilled**	2-1-17
Project	Crowther Avenue	**Logged By**	SAM
Drilling Co.	Martini Drilling Co	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	240'
Location	See Figure 2 Boring Location Map	**Sampled By**	SAM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
240	0							SC	@Surface: Grass **Artificial Fill; undocumented (Afu)** @0': Clayey SAND, dark brown, slighlty moist, fine to coarse sand, trace organics, becomes Sandy SILT at 2'	
								ML		
235	5							SC	**Quaternary Very Old Alluvial Fan Deposits (Qvof)** Clayey SAND, very dark reddish brown, moist, fine to medium sand	
230	10							ML	@10': Sandy SILT, medium brown to reddish brown, moderate carbonate development (stringers), slightly moist	
225	15							ML	@15': Sandy SILT with some clay in matrix, reddish brown, carbonate stringers, slightly moist	
220	20								Total Depth of Boring: 20 feet bgs No groundwater encountered during drilling Boring converted to percolation test well (See Section 2.4 of this report) **Test Zone 15-20 feet bgs - Infiltration Rate= 0.72 in/hr** Boring backfilled with soil cuttings on 2/2/2017 upon completion of testing	
215	25									
210	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

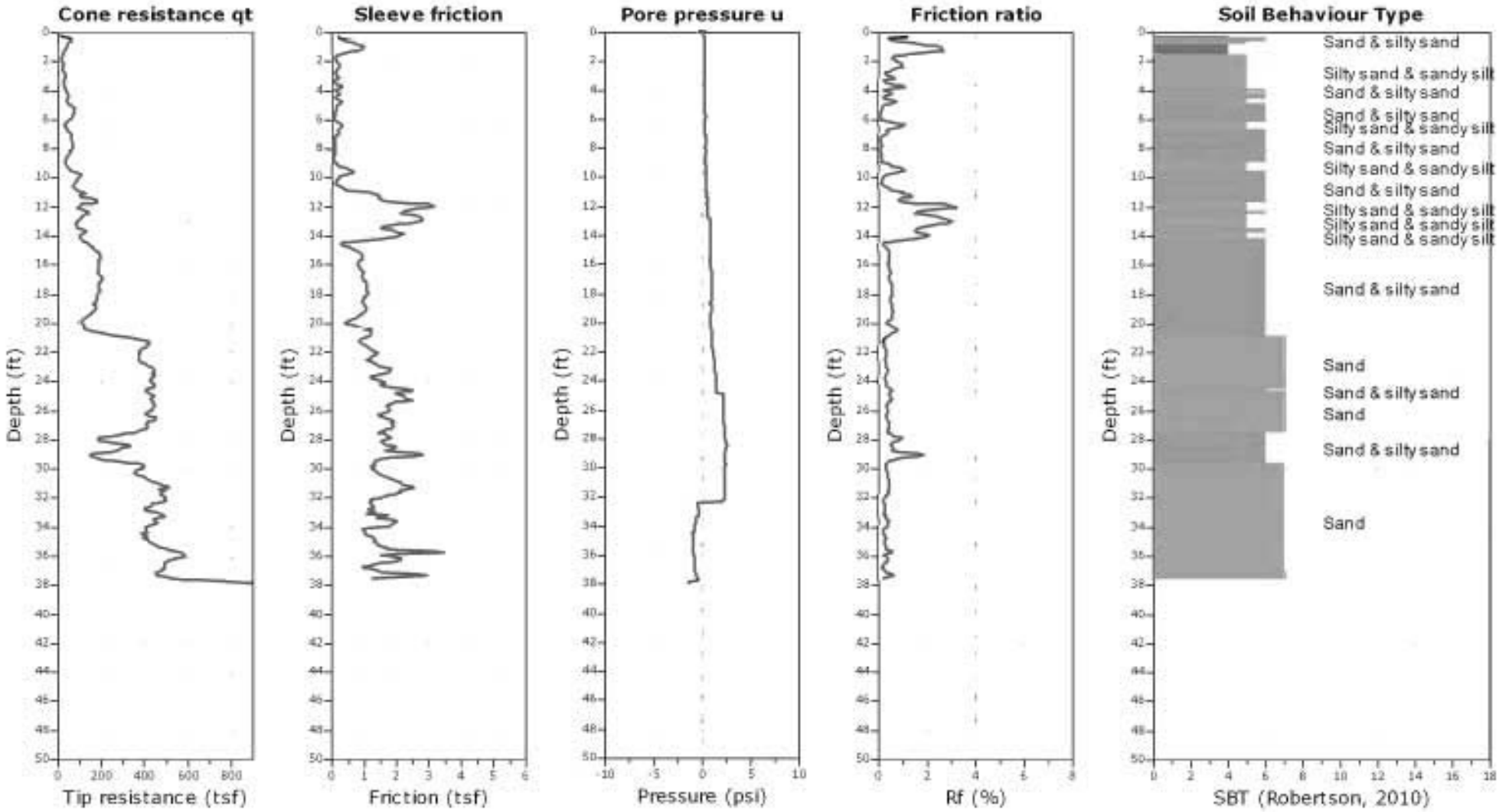
*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-1

Project: Leighton & Associates/Integral/Crowther Avenue
Location: 110 & 132 E. Crowther Ave Placentia, CA

Total depth: 37.84 ft, Date: 3/8/2016
Cone Type: Vertek

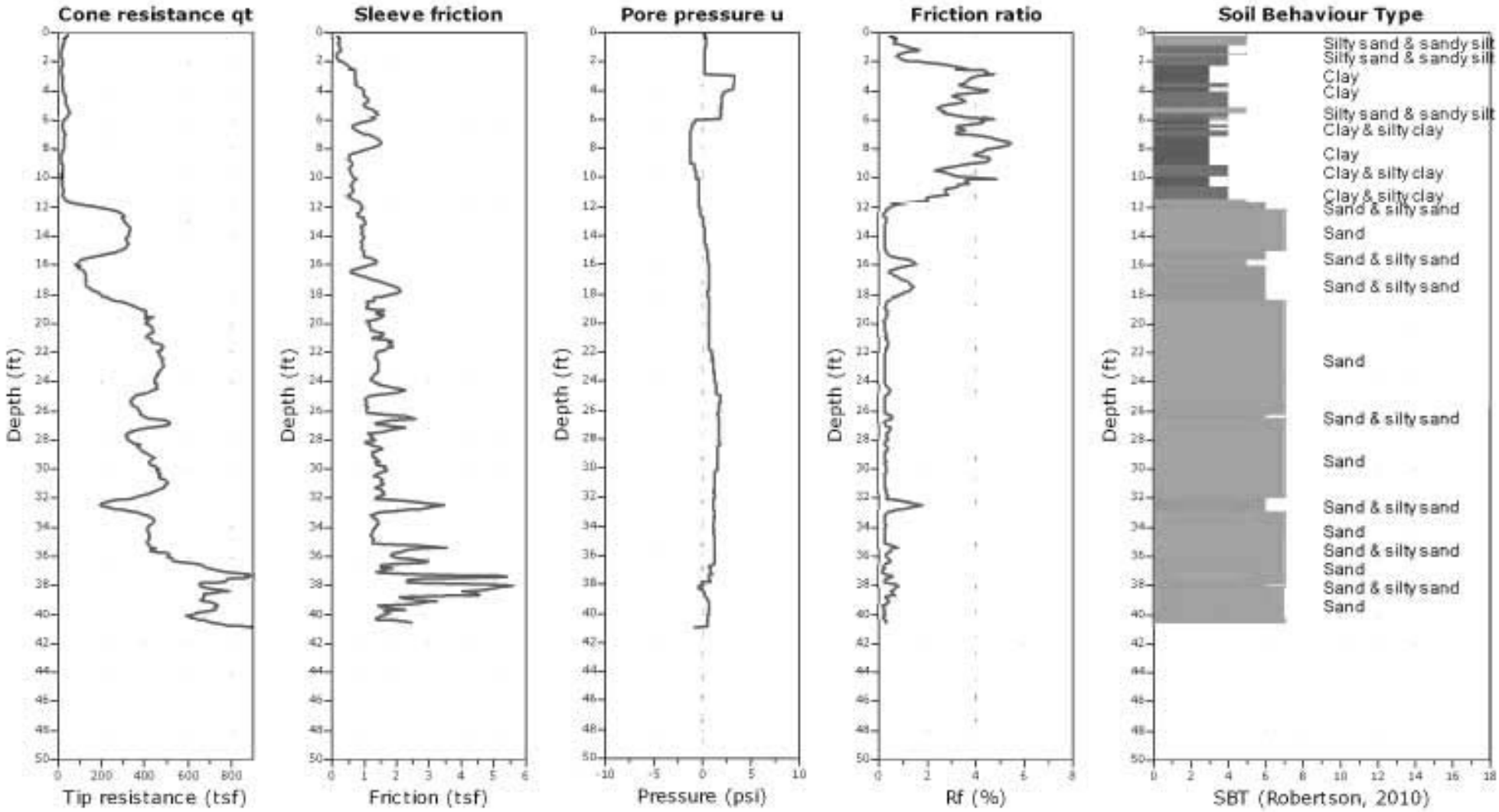


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-2

Project: Leighton & Associates/Integral/Crowther Avenue
Location: 110 & 132 E. Crowther Ave Placentia, CA

Total depth: 40.89 ft, Date: 3/8/2016
Cone Type: Vertek

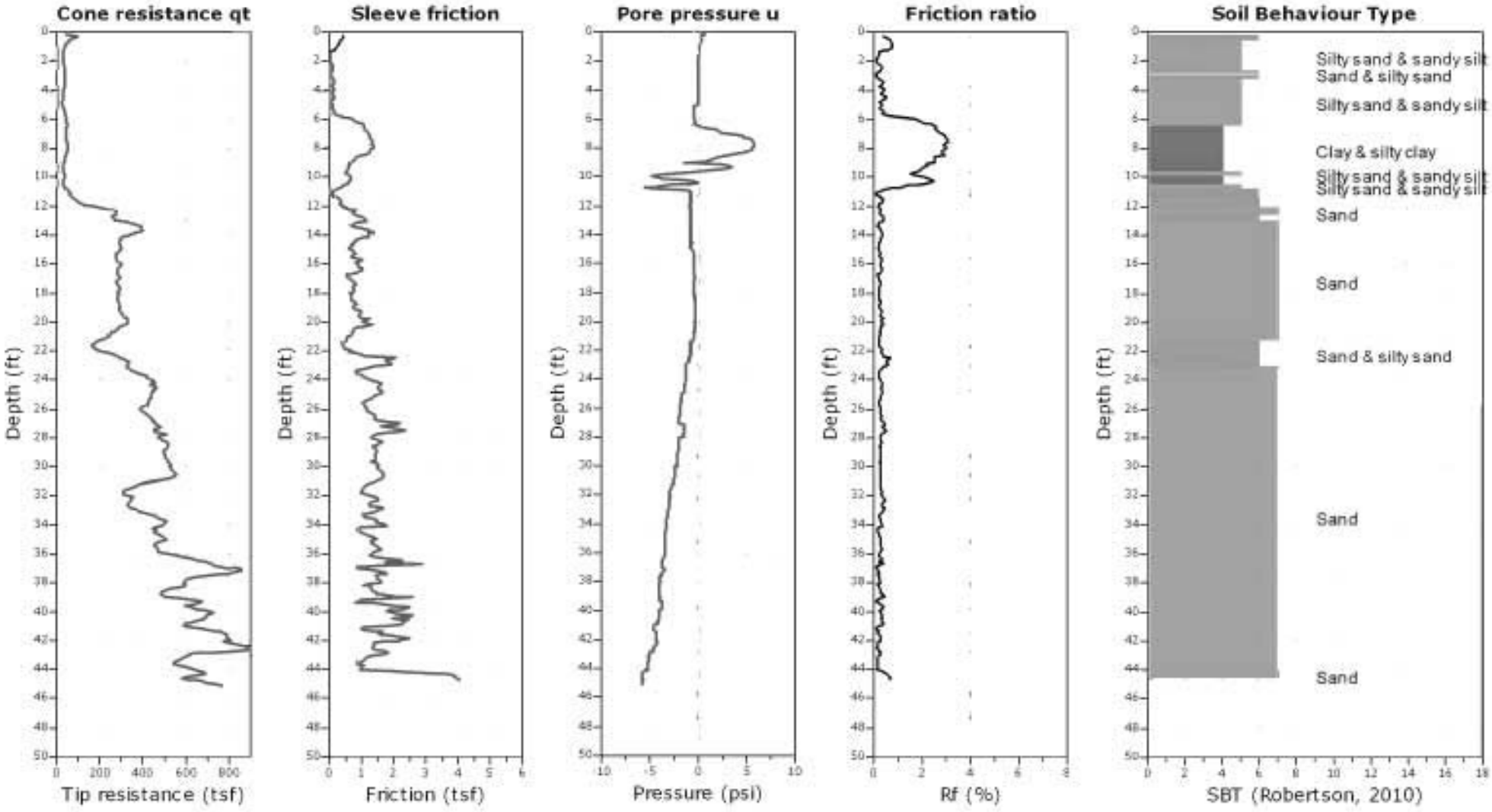


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-3

Project: Leighton & Associates/Integral/Crowther Avenue
Location: 110 & 132 E. Crowther Ave Placentia, CA

Total depth: 45.02 ft, Date: 3/8/2016
Cone Type: Vertek



APPENDIX B

LABORATORY TEST RESULTS

Leighton

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Crowther	Tested By:	O. Figueroa	Date:	06/05/17
Project No.:	11263.002	Input By:	J. Ward	Date:	06/05/17
Boring No.:	B-3	Depth (ft.):	0-5		
Sample No.:	BB-1				
Soil Identification:	Dark olive brown clayey sand (SC)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3814	3918	3901			
Weight of Mold (g)	1864	1864	1864			
Net Weight of Soil (g)	1950	2054	2037			
Wet Weight of Soil + Cont. (g)	752.2	787.0	758.1			
Dry Weight of Soil + Cont. (g)	716.3	736.7	697.9			
Weight of Container (g)	223.7	223.0	222.9			
Moisture Content (%)	7.29	9.79	12.67			
Wet Density (pcf)	129.1	136.0	134.9			
Dry Density (pcf)	120.3	123.9	119.7			

Maximum Dry Density (pcf) 124.0 **Optimum Moisture Content (%)** 10.0

PROCEDURE USED

[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

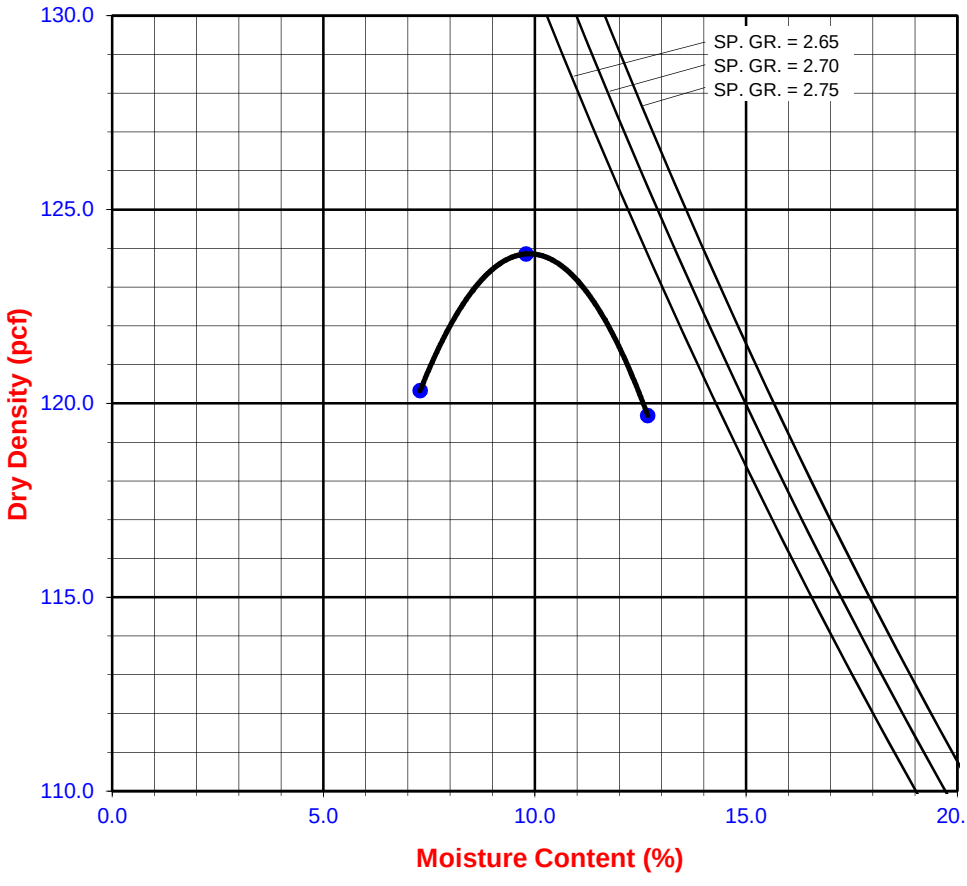
[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:

GR:SA:FI

Atterberg Limits:

LL,PL,PI



MX B-3, BB-1 @ 0-5

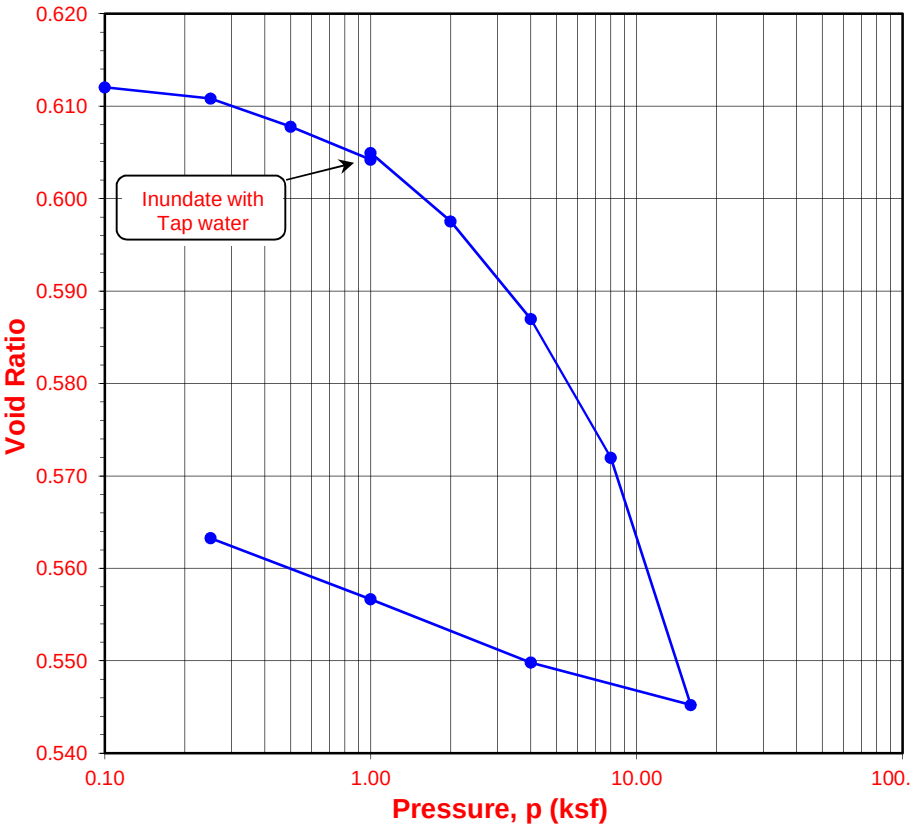
ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Leighton

Project Name:	Crowther	Tested By: G. Bathala	Date: 06/01/17
Project No.:	11263.003	Checked By: J. Ward	Date: 06/13/17
Boring No.:	B-2	Depth (ft.): 7.0	
Sample No.:	R1	Sample Type: Ring	
Soil Identification:	Brown sandy silt s(ML)		

Sample Diameter (in.)	2.415
Sample Thickness (in.)	1.000
Wt. of Sample + Ring (g)	182.87
Weight of Ring (g)	43.35
Height after consol. (in.)	0.9696
Before Test	
Wt.Wet Sample+Cont. (g)	180.16
Wt.of Dry Sample+Cont. (g)	167.37
Weight of Container (g)	50.95
Initial Moisture Content (%)	11.0
Initial Dry Density (pcf)	104.5
Initial Saturation (%)	48
Initial Vertical Reading (in.)	0.2922
After Test	
Wt.of Wet Sample+Cont. (g)	251.53
Wt. of Dry Sample+Cont. (g)	229.03
Weight of Container (g)	59.07
Final Moisture Content (%)	17.77
Final Dry Density (pcf)	108.6
Final Saturation (%)	87
Final Vertical Reading (in.)	0.2586
Specific Gravity (assumed)	2.70
Water Density (pcf)	62.43

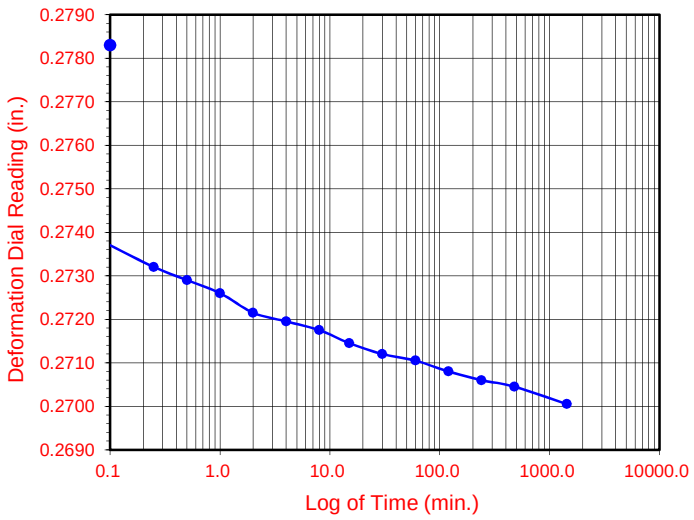


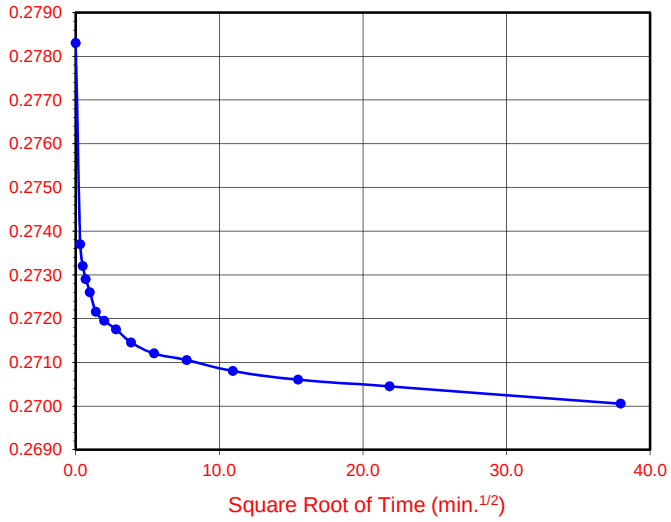
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.2920	0.9999	0.00	0.02	0.612	0.02
0.25	0.2907	0.9985	0.06	0.15	0.611	0.09
0.50	0.2878	0.9956	0.16	0.44	0.608	0.28
1.00	0.2841	0.9919	0.31	0.81	0.604	0.50
1.00	0.2845	0.9924	0.31	0.77	0.605	0.46
2.00	0.2783	0.9862	0.47	1.39	0.598	0.92
4.00	0.2701	0.9779	0.64	2.21	0.587	1.57
8.00	0.2591	0.9669	0.81	3.31	0.572	2.50
16.00	0.2406	0.9484	1.00	5.16	0.545	4.16
4.00	0.2455	0.9534	0.79	4.67	0.550	3.88
1.00	0.2522	0.9600	0.55	4.00	0.557	3.45
0.25	0.2586	0.9664	0.32	3.36	0.563	3.04

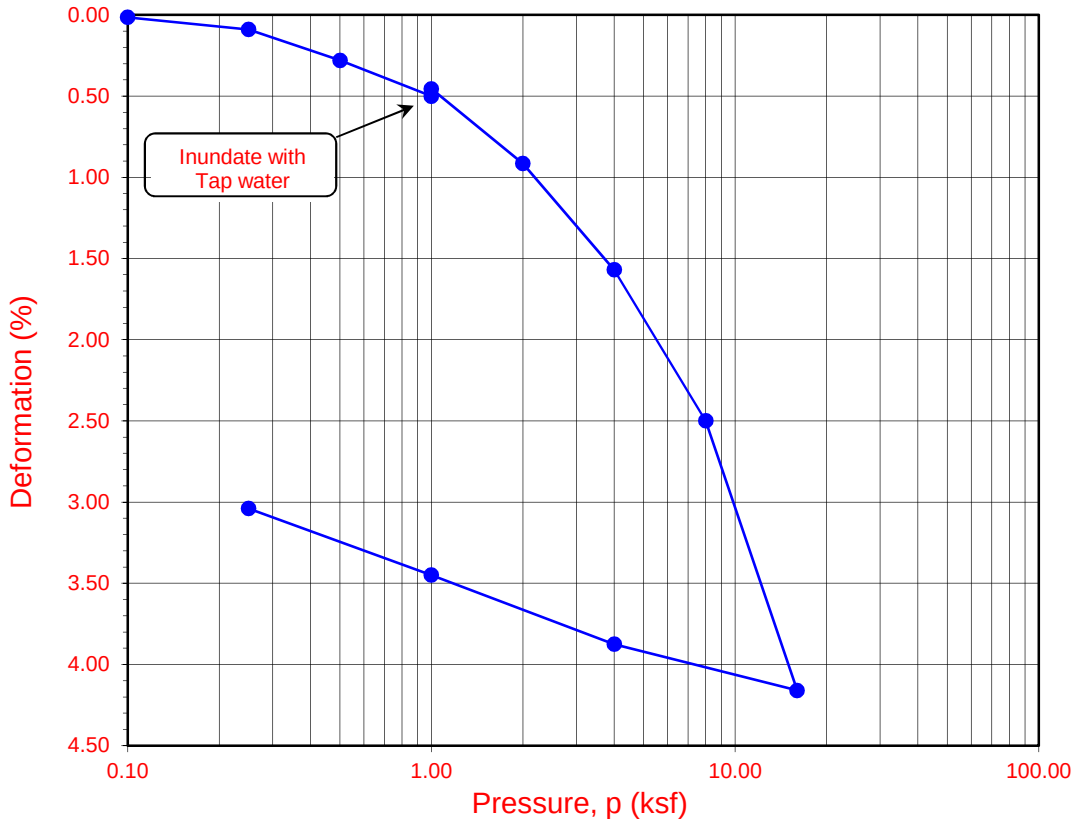
Time Readings @ 4.0 ksf

Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)
6/5/17	9:10:00	0.0	0.0	0.2783
6/5/17	9:10:06	0.1	0.3	0.2737
6/5/17	9:10:15	0.2	0.5	0.2732
6/5/17	9:10:30	0.5	0.7	0.2729
6/5/17	9:11:00	1.0	1.0	0.2726
6/5/17	9:12:00	2.0	1.4	0.2722
6/5/17	9:14:00	4.0	2.0	0.2720
6/5/17	9:18:00	8.0	2.8	0.2718
6/5/17	9:25:00	15.0	3.9	0.2715
6/5/17	9:40:00	30.0	5.5	0.2712
6/5/17	10:10:00	60.0	7.7	0.2711
6/5/17	11:10:00	120.0	11.0	0.2708
6/5/17	13:10:00	240.0	15.5	0.2706
6/5/17	17:08:00	478.0	21.9	0.2705
6/6/17	9:10:00	1440.0	37.9	0.2701

Time Readings @ 4.0 ksf







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
B-2	**R1**	**7.0**	**11.0**	**17.8**	**104.5**	**108.6**	**0.612**	**0.563**	**48**	**87**

Soil Identification: Brown sandy silt s(ML)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 11263.003

Crowther

06-17

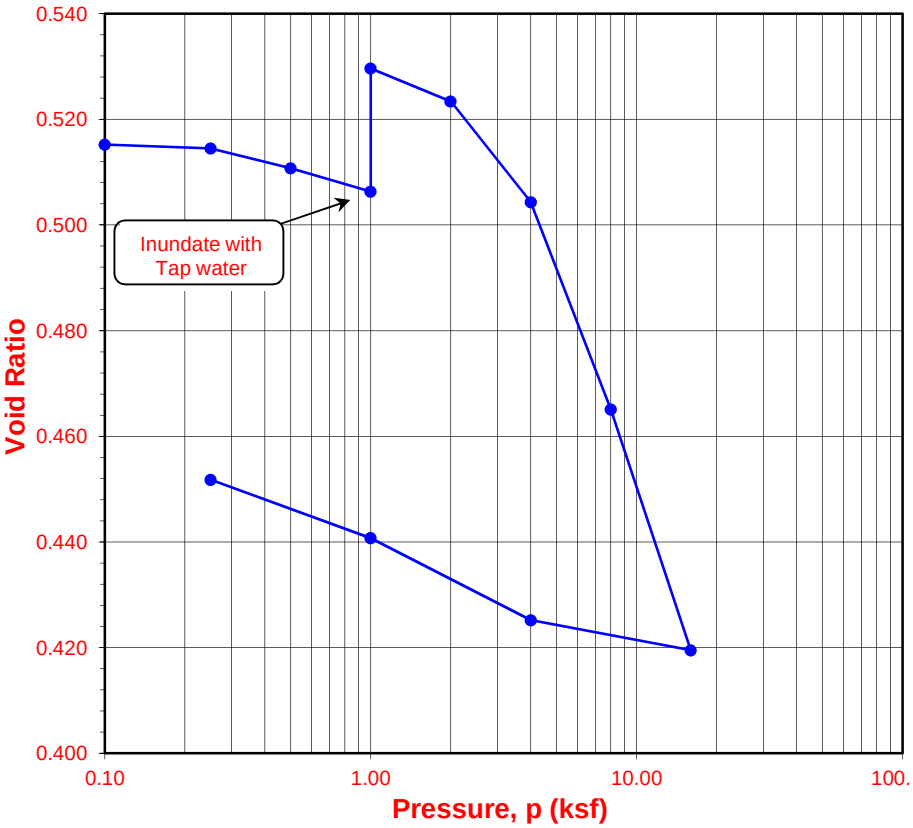
Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Crowther	Tested By: G. Bathala	Date: 06/06/17
Project No.:	11263.003	Checked By: J. Ward	Date: 06/15/17
Boring No.:	B-3	Depth (ft.): 0-5	
Sample No.:	BB-1	Sample Type:	90% Remold
Soil Identification:	Dark olive brown clayey sand (SC)		

Sample Diameter (in.)	2.415
Sample Thickness (in.)	1.000
Wt. of Sample + Ring (g)	191.05
Weight of Ring (g)	43.26
Height after consol. (in.)	0.9585
Before Test	
Wt.Wet Sample+Cont. (g)	183.54
Wt.of Dry Sample+Cont. (g)	169.96
Weight of Container (g)	39.93
Initial Moisture Content (%)	10.4
Initial Dry Density (pcf)	111.3
Initial Saturation (%)	55
Initial Vertical Reading (in.)	0.2559
After Test	
Wt.of Wet Sample+Cont. (g)	255.00
Wt. of Dry Sample+Cont. (g)	233.77
Weight of Container (g)	57.14
Final Moisture Content (%)	15.92
Final Dry Density (pcf)	115.7
Final Saturation (%)	94
Final Vertical Reading (in.)	0.2124
Specific Gravity (assumed)	2.70
Water Density (pcf)	62.43

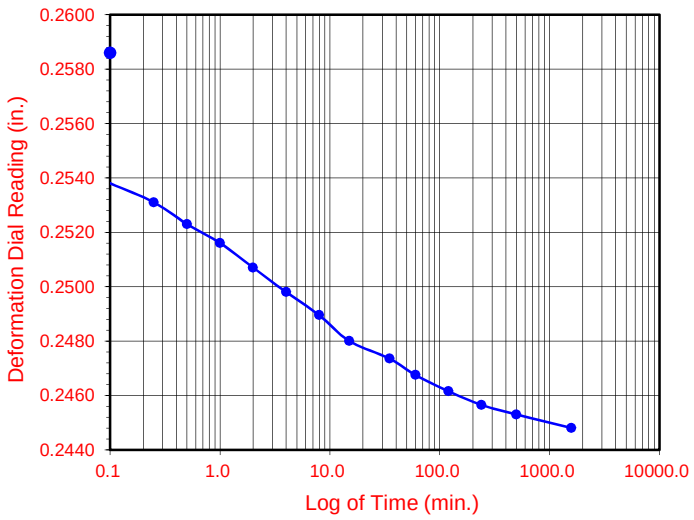


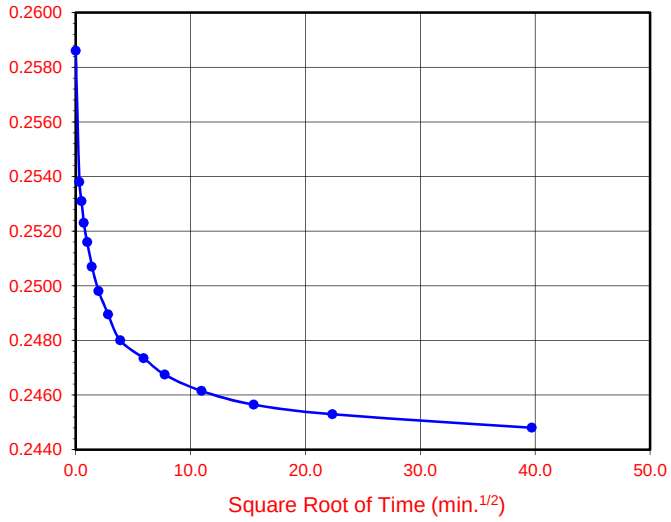
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.2563	1.0004	0.00	-0.04	0.515	-0.04
0.25	0.2551	0.9992	0.07	0.08	0.514	0.01
0.50	0.2521	0.9962	0.13	0.39	0.511	0.26
1.00	0.2483	0.9924	0.21	0.76	0.506	0.55
1.00	0.2637	1.0078	0.21	-0.78	0.530	-0.99
2.00	0.2586	1.0027	0.31	-0.27	0.523	-0.58
4.00	0.2448	0.9889	0.43	1.11	0.504	0.68
8.00	0.2172	0.9613	0.60	3.87	0.465	3.27
16.00	0.1845	0.9286	0.86	7.14	0.420	6.28
4.00	0.1916	0.9357	0.53	6.44	0.425	5.91
1.00	0.2035	0.9476	0.36	5.24	0.441	4.88
0.25	0.2124	0.9565	0.20	4.35	0.452	4.15

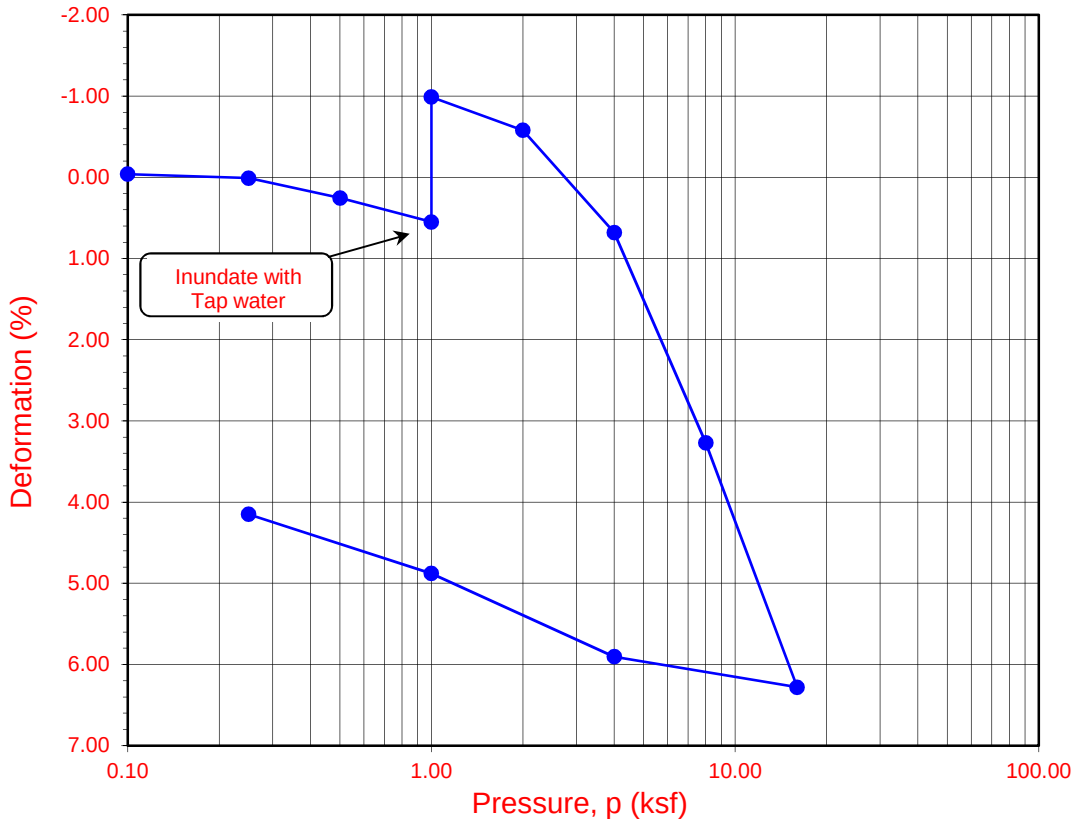
Time Readings @ 4.0 ksf

Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)
6/9/17	8:10:00	0.0	0.0	0.2586
6/9/17	8:10:06	0.1	0.3	0.2538
6/9/17	8:10:15	0.2	0.5	0.2531
6/9/17	8:10:30	0.5	0.7	0.2523
6/9/17	8:11:00	1.0	1.0	0.2516
6/9/17	8:12:00	2.0	1.4	0.2507
6/9/17	8:14:00	4.0	2.0	0.2498
6/9/17	8:18:00	8.0	2.8	0.2490
6/9/17	8:25:00	15.0	3.9	0.2480
6/9/17	8:45:00	35.0	5.9	0.2474
6/9/17	9:10:00	60.0	7.7	0.2468
6/9/17	10:10:00	120.0	11.0	0.2462
6/9/17	12:10:00	240.0	15.5	0.2457
6/9/17	16:29:00	499.0	22.3	0.2453
6/10/17	10:25:00	1575.0	39.7	0.2448

Time Readings @ 4.0 ksf







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
B-3	**BB-1**	**0-5**	**10.4**	**15.9**	**111.3**	**115.7**	**0.515**	**0.452**	**55**	**94**

Soil Identification: Dark olive brown clayey sand (SC)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 11263.003

Crowther

06-17

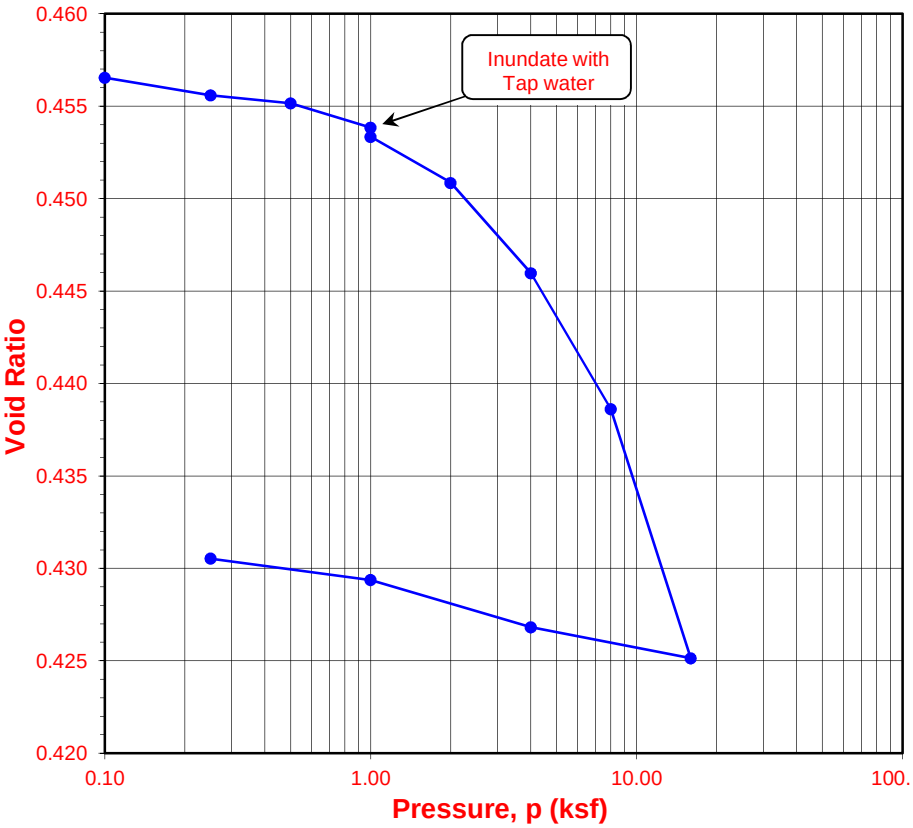
ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Leighton

Project Name:	Crowther	Tested By: G. Bathala	Date: 06/01/17
Project No.:	11263.003	Checked By: J. Ward	Date: 06/13/17
Boring No.:	B-3	Depth (ft.): 12.0	
Sample No.:	R2	Sample Type: Ring	
Soil Identification:	Light olive brown silty sand (SM)		

Sample Diameter (in.)	2.415
Sample Thickness (in.)	1.000
Wt. of Sample + Ring (g)	189.65
Weight of Ring (g)	43.67
Height after consol. (in.)	0.9820
Before Test	
Wt.Wet Sample+Cont. (g)	188.43
Wt.of Dry Sample+Cont. (g)	182.33
Weight of Container (g)	58.54
Initial Moisture Content (%)	4.9
Initial Dry Density (pcf)	115.7
Initial Saturation (%)	29
Initial Vertical Reading (in.)	0.2700
After Test	
Wt.of Wet Sample+Cont. (g)	272.23
Wt. of Dry Sample+Cont. (g)	255.56
Weight of Container (g)	75.50
Final Moisture Content (%)	12.22
Final Dry Density (pcf)	115.5
Final Saturation (%)	72
Final Vertical Reading (in.)	0.2480
Specific Gravity (assumed)	2.70
Water Density (pcf)	62.43

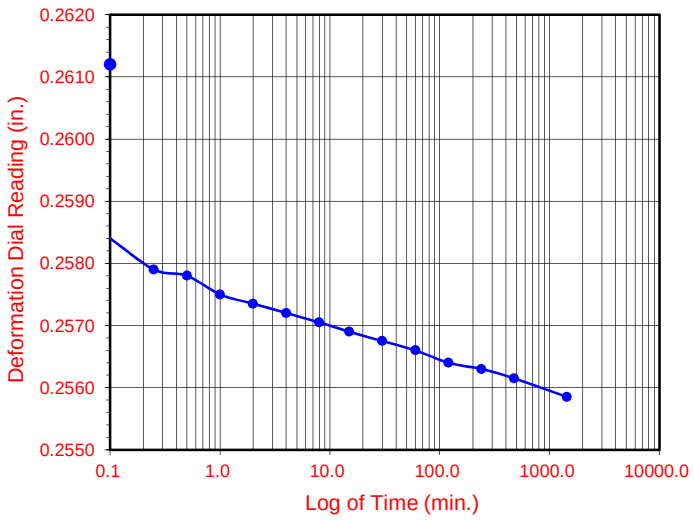


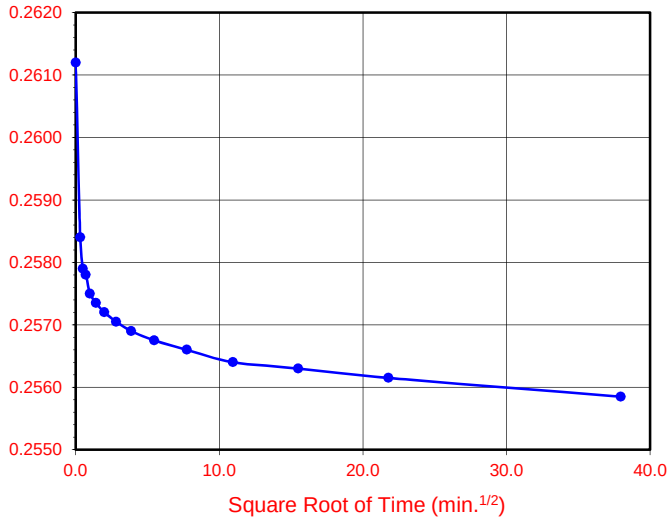
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.2698	0.9998	0.00	0.02	0.457	0.02
0.25	0.2688	0.9988	0.04	0.12	0.456	0.08
0.50	0.2675	0.9975	0.14	0.26	0.455	0.12
1.00	0.2652	0.9952	0.28	0.49	0.454	0.21
1.00	0.2648	0.9948	0.28	0.52	0.453	0.24
2.00	0.2612	0.9912	0.47	0.88	0.451	0.41
4.00	0.2559	0.9859	0.67	1.42	0.446	0.75
8.00	0.2485	0.9785	0.90	2.15	0.439	1.25
16.00	0.2365	0.9665	1.18	3.36	0.425	2.18
4.00	0.2406	0.9706	0.88	2.94	0.427	2.06
1.00	0.2449	0.9749	0.63	2.52	0.429	1.89
0.25	0.2480	0.9780	0.40	2.21	0.431	1.81

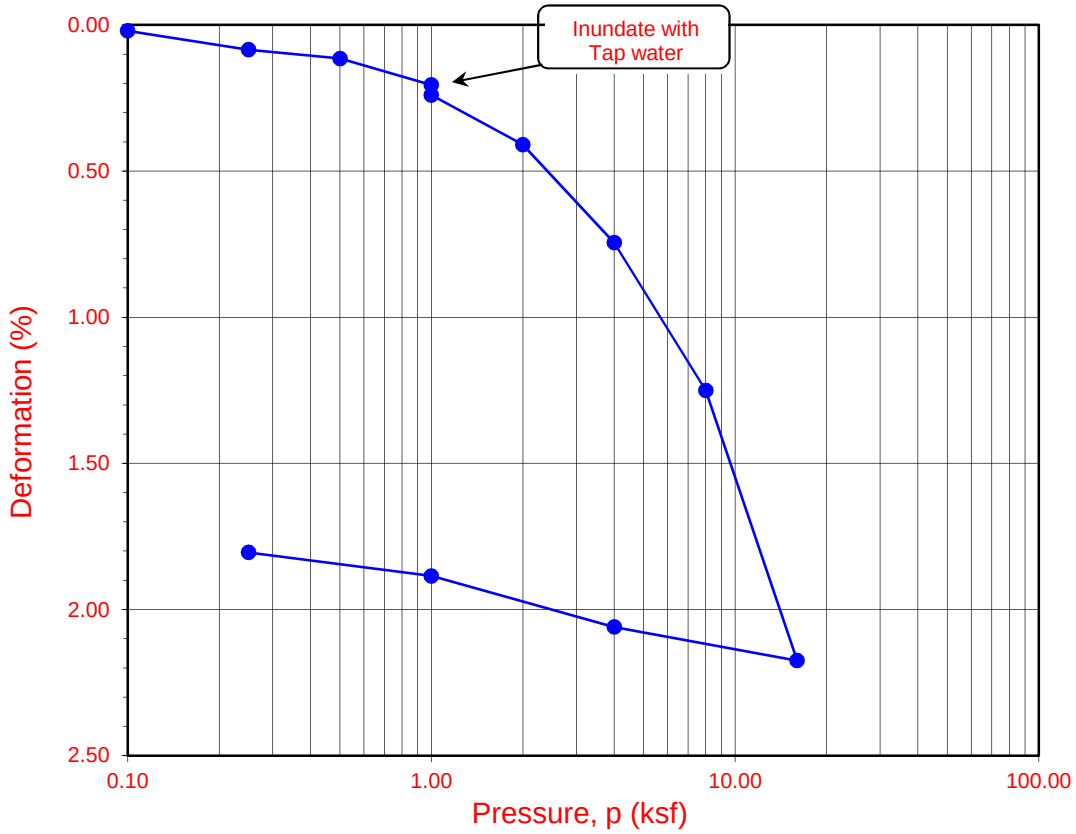
Time Readings @ 4.0 ksf

Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)
6/5/17	9:15:00	0.0	0.0	0.2612
6/5/17	9:15:06	0.1	0.3	0.2584
6/5/17	9:15:15	0.2	0.5	0.2579
6/5/17	9:15:30	0.5	0.7	0.2578
6/5/17	9:16:00	1.0	1.0	0.2575
6/5/17	9:17:00	2.0	1.4	0.2574
6/5/17	9:19:00	4.0	2.0	0.2572
6/5/17	9:23:00	8.0	2.8	0.2571
6/5/17	9:30:00	15.0	3.9	0.2569
6/5/17	9:45:00	30.0	5.5	0.2568
6/5/17	10:15:00	60.0	7.7	0.2566
6/5/17	11:15:00	120.0	11.0	0.2564
6/5/17	13:15:00	240.0	15.5	0.2563
6/5/17	17:09:00	474.0	21.8	0.2562
6/6/17	9:15:00	1440.0	37.9	0.2559

Time Readings @ 4.0 ksf







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
B-3	**R2**	**12.0**	**4.9**	**12.2**	**115.7**	**115.5**	**0.457**	**0.431**	**29**	**72**

Soil Identification: Light olive brown silty sand (SM)

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ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 11263.003

Crowther

06-17

Leighton

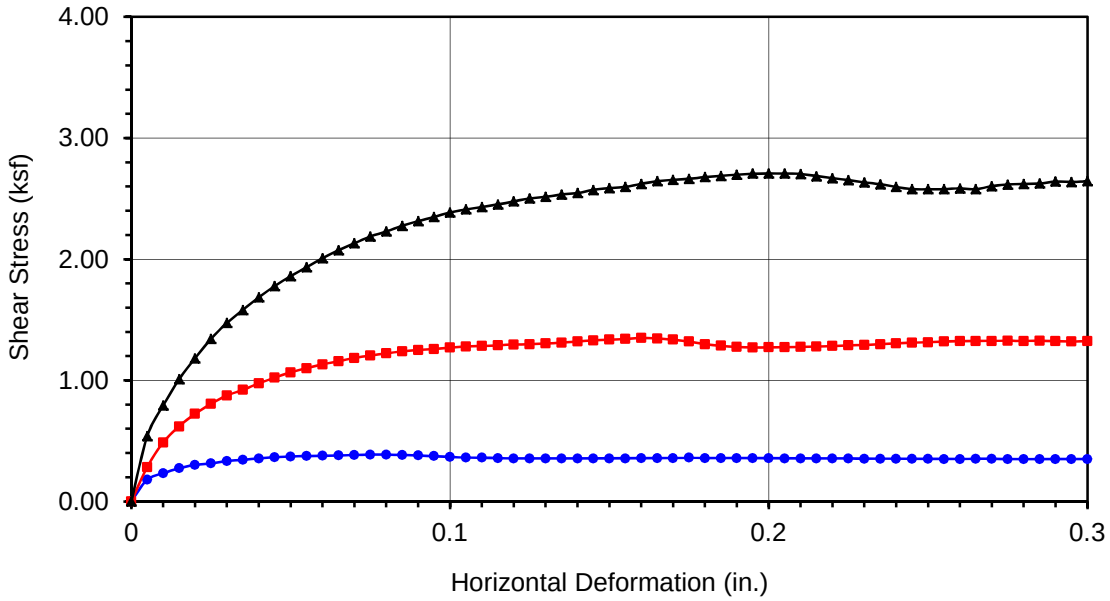
DIRECT SHEAR TEST

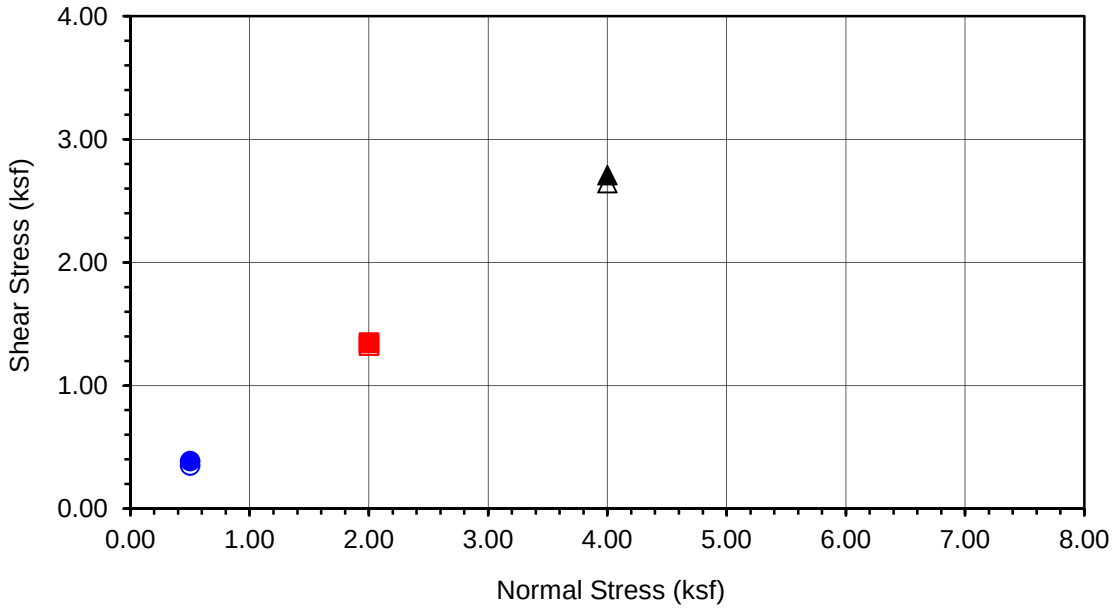
Consolidated Drained - ASTM D 3080

Project Name:	Crowther	Tested By:	G. Bathala	Date:	06/07/17
Project No.:	11263.003	Checked By:	J. Ward	Date:	06/13/17
Boring No.:	B-2	Sample Type:	Ring		
Sample No.:	R1	Depth (ft.):	7.0		

Soil Identification: Brown sandy silt s(ML)

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	170.63	173.34	174.64
Weight of Ring(gm):	42.92	45.12	43.69
Before Shearing			
Weight of Wet Sample+Cont.(gm):	168.18	168.18	168.18
Weight of Dry Sample+Cont.(gm):	156.89	156.89	156.89
Weight of Container(gm):	66.54	66.54	66.54
Vertical Rdg.(in): Initial	0.0000	0.3435	0.2665
Vertical Rdg.(in): Final	-0.0050	0.3602	0.2840
After Shearing			
Weight of Wet Sample+Cont.(gm):	212.78	200.82	198.65
Weight of Dry Sample+Cont.(gm):	190.37	179.51	178.33
Weight of Container(gm):	71.79	61.24	58.64
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**B-2**
Sample No.	**R1**
Depth (ft)	**7**
Sample Type:	
Ring	
Soil Identification:	
Brown sandy silt s(ML)	

Normal Stress (kip/ft²)	0.500	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.387	■ 1.349	▲ 2.707
Shear Stress @ End of Test (ksf)	○ 0.349	□ 1.324	△ 2.644
Deformation Rate (in./min.)	0.0025	0.0025	0.0025
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	12.50	12.50	12.50
Dry Density (pcf)	94.4	94.8	96.8
Saturation (%)	43.0	43.4	45.5
Soil Height Before Shearing (in.)	0.9950	0.9833	0.9825
Final Moisture Content (%)	18.9	18.0	17.0

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DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 11263.003

Crowther

06-17

Leighton

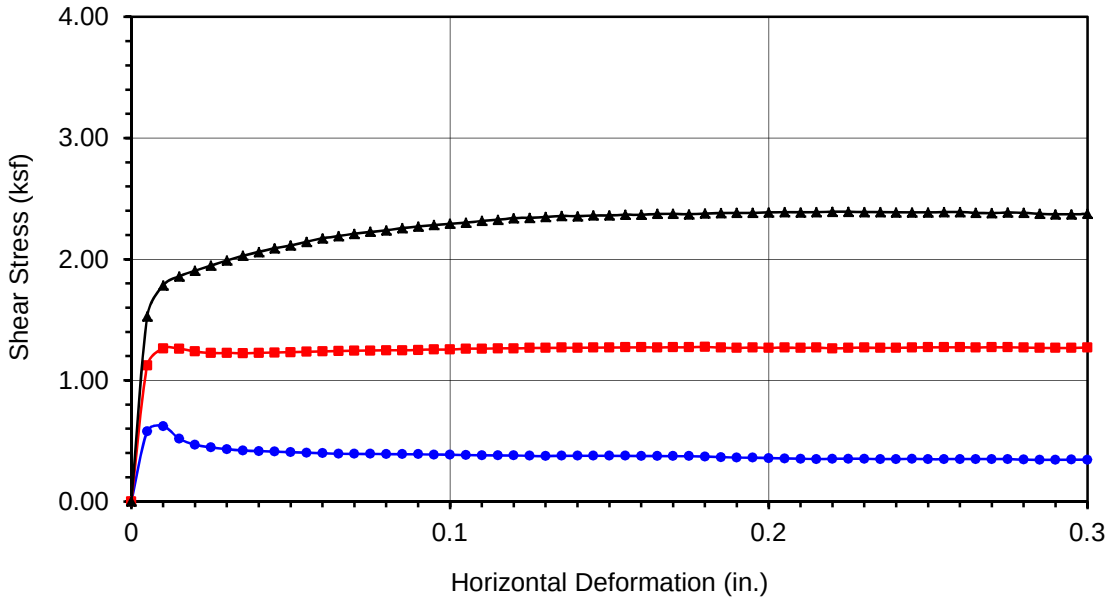
DIRECT SHEAR TEST

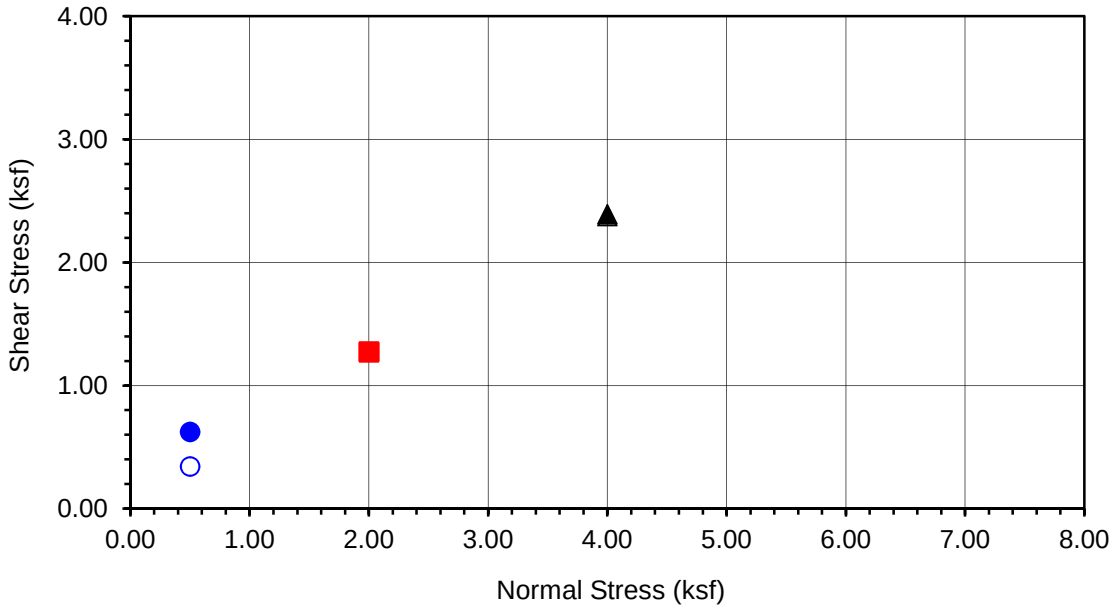
Consolidated Drained - ASTM D 3080

Project Name:	Crowther	Tested By:	G. Bathala	Date:	06/06/17
Project No.:	11263.003	Checked By:	J. Ward	Date:	06/13/17
Boring No.:	B-3	Sample Type:	90% Remold		
Sample No.:	BB-1	Depth (ft.):	0-5		

Soil Identification: Dark olive brown clayey sand (SC)

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	191.22	190.85	190.79
Weight of Ring(gm):	43.43	43.01	42.97
Before Shearing			
Weight of Wet Sample+Cont.(gm):	183.54	183.54	183.54
Weight of Dry Sample+Cont.(gm):	169.96	169.96	169.96
Weight of Container(gm):	39.93	39.93	39.93
Vertical Rdg.(in): Initial	0.3354	0.3094	0.3146
Vertical Rdg.(in): Final	0.3073	0.3031	0.3205
After Shearing			
Weight of Wet Sample+Cont.(gm):	233.29	194.86	212.75
Weight of Dry Sample+Cont.(gm):	207.37	171.42	190.15
Weight of Container(gm):	75.49	39.05	57.91
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**B-3**
Sample No.	**BB-1**
Depth (ft)	**0-5**
Sample Type: 90% Remold	
Soil Identification: Dark olive brown clayey sand (SC)	

Normal Stress (kip/ft²)	0.500	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.622	■ 1.276	▲ 2.392
Shear Stress @ End of Test (ksf)	○ 0.343	□ 1.270	△ 2.374
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	10.44	10.44	10.44
Dry Density (pcf)	111.3	111.3	111.3
Saturation (%)	54.8	54.8	54.8
Soil Height Before Shearing (in.)	N/A	1.0063	0.9941
Final Moisture Content (%)	19.7	17.7	17.1

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DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 11263.003

Crowther

06-17

Leighton

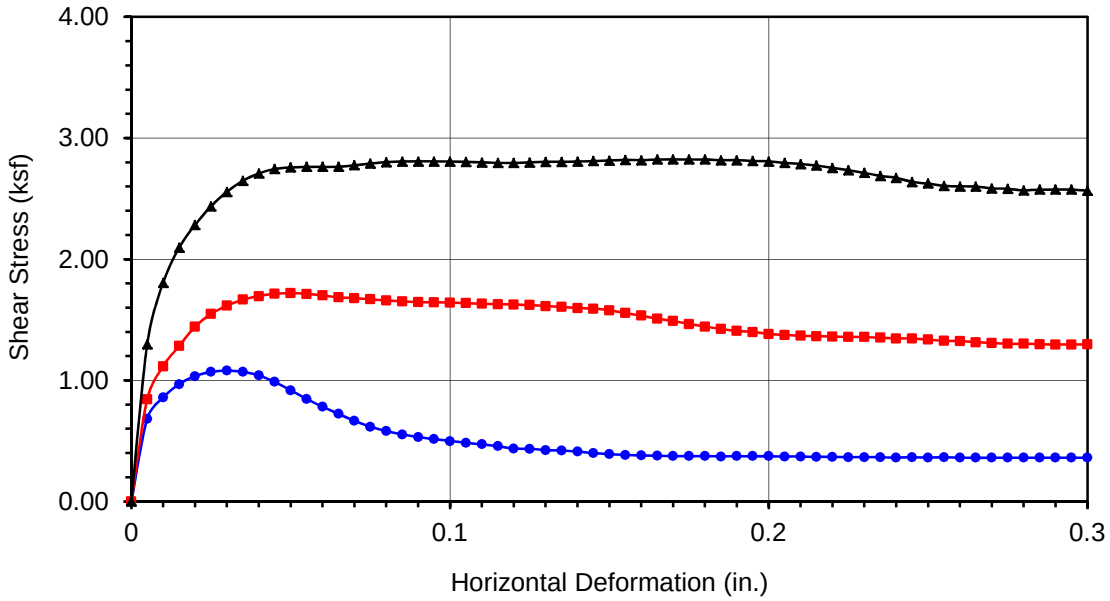
DIRECT SHEAR TEST

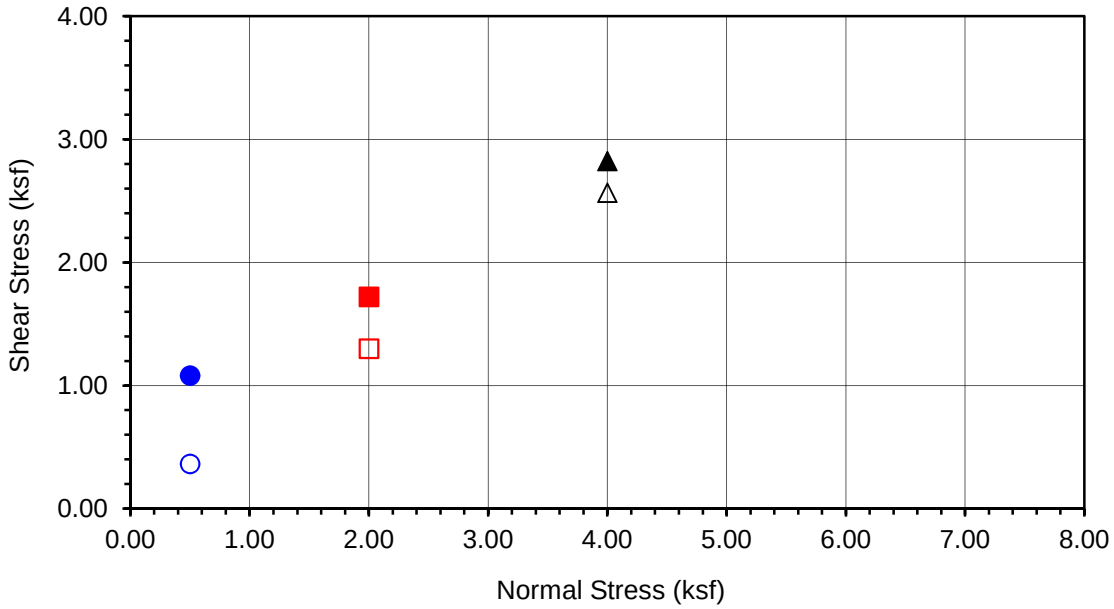
Consolidated Drained - ASTM D 3080

Project Name:	Crowther	Tested By:	G. Bathala	Date:	06/06/17
Project No.:	11263.003	Checked By:	J. Ward	Date:	06/13/17
Boring No.:	B-3	Sample Type:	Ring		
Sample No.:	R1	Depth (ft.):	5.0		

Soil Identification: Dark yellowish brown clayey sand (SC)

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	202.78	203.25	206.56
Weight of Ring(gm):	41.90	42.34	45.40
Before Shearing			
Weight of Wet Sample+Cont.(gm):	218.02	218.02	218.02
Weight of Dry Sample+Cont.(gm):	198.16	198.16	198.16
Weight of Container(gm):	58.18	58.18	58.18
Vertical Rdg.(in): Initial	0.3369	0.3399	0.3554
Vertical Rdg.(in): Final	N/A	0.3501	0.3639
After Shearing			
Weight of Wet Sample+Cont.(gm):	218.55	201.61	223.28
Weight of Dry Sample+Cont.(gm):	195.18	179.31	201.30
Weight of Container(gm):	56.05	39.51	62.79
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**B-3**
Sample No.	**R1**
Depth (ft)	**5**
Sample Type: Ring	
Soil Identification: Dark yellowish brown clayey sand (SC)	

Normal Stress (kip/ft²)	0.500	2.000	4.000
Peak Shear Stress (kip/ft²)	● 1.081	■ 1.720	▲ 2.823
Shear Stress @ End of Test (ksf)	○ 0.362	□ 1.298	△ 2.565
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	14.19	14.19	14.19
Dry Density (pcf)	117.2	117.2	117.4
Saturation (%)	87.3	87.4	87.8
Soil Height Before Shearing (in.)	N/A	0.9898	0.9915
Final Moisture Content (%)	16.8	16.0	15.9

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DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 11263.003

Crowther

06-17

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R-VALUE TEST RESULTS

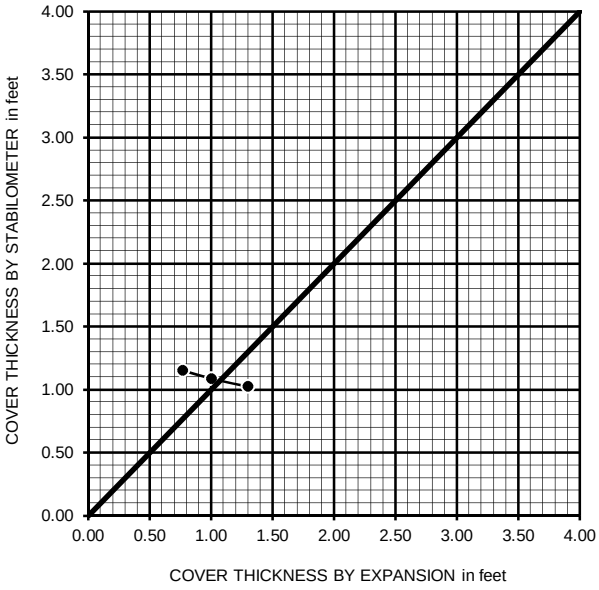
DOT CA Test 301

PROJECT NAME:	Crowther	PROJECT NUMBER:	11263.003
BORING NUMBER:	B-3	DEPTH (FT.):	0-5
SAMPLE NUMBER:	BB-1	TECHNICIAN:	S. Felter
SAMPLE DESCRIPTION:	Dark olive brown clayey sand (SC)	DATE COMPLETED:	6/7/2017

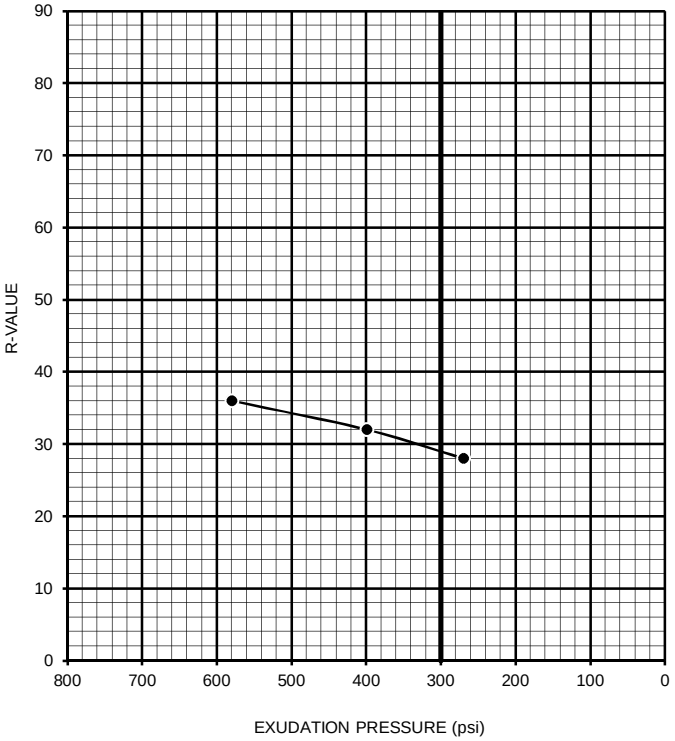
TEST SPECIMEN	a	b	c
MOISTURE AT COMPACTION %	14.6	15.3	15.9
HEIGHT OF SAMPLE, Inches	2.41	2.48	2.45
DRY DENSITY, pcf	120.0	117.0	117.1
COMPACTOR PRESSURE, psi	125	90	50
EXUDATION PRESSURE, psi	580	399	270
EXPANSION, Inches x 10exp-4	39	30	23
STABILITY Ph 2,000 lbs (160 psi)	93	100	107
TURNS DISPLACEMENT	2.95	3.20	3.13
R-VALUE UNCORRECTED	38	32	28
R-VALUE CORRECTED	36	32	28

DESIGN CALCULATION DATA	a	b	c
GRAVEL EQUIVALENT FACTOR	1.0	1.0	1.0
TRAFFIC INDEX	5.0	5.0	5.0
STABILOMETER THICKNESS, ft.	1.02	1.09	1.15
EXPANSION PRESSURE THICKNESS, ft.	1.30	1.00	0.77

EXPANSION PRESSURE CHART



EXUDATION PRESSURE CHART



R-VALUE BY EXPANSION:	33
R-VALUE BY EXUDATION:	29
EQUILIBRIUM R-VALUE:	29

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TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: Crowther | Tested By : ACS/OHF | Date: 06/05/17

Project No. : 11263.003 | Data Input By: J. Ward | Date: 06/13/17

Boring No.	B-3			
Sample No.	BB-1			
Sample Depth (ft)	0-5			
Soil Identification:	Dark olive brown SC			
Wet Weight of Soil + Container (g)	104.81			
Dry Weight of Soil + Container (g)	103.14			
Weight of Container (g)	70.35			
Moisture Content (%)	5.09			
Weight of Soaked Soil (g)	100.13			

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	95			
Crucible No.	9			
Furnace Temperature (°C)	860			
Time In / Time Out	9:10/9:55			
Duration of Combustion (min)	45			
Wt. of Crucible + Residue (g)	21.1998			
Wt. of Crucible (g)	21.1969			
Wt. of Residue (g) (A)	0.0029			
PPM of Sulfate (A) x 41150	119.34			
PPM of Sulfate, Dry Weight Basis	**126**			

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	30			
ml of AgNO3 Soln. Used in Titration (C)	2.7			
PPM of Chloride (C -0.2) * 100 * 30 / B	250			
PPM of Chloride, Dry Wt. Basis	**263**			

pH TEST, DOT California Test 643

pH Value	**7.51**			
Temperature °C	21.1			

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SOIL RESISTIVITY TEST

DOT CA TEST 643

Project Name:	Crowther		Tested By :	A. Santos	Date: 06/06/17
Project No. :	11263.003		Data Input By:	J. Ward	Date: 06/13/17
Boring No.:	B-3		Depth (ft.) :	0-5	
Sample No. :	BB-1				

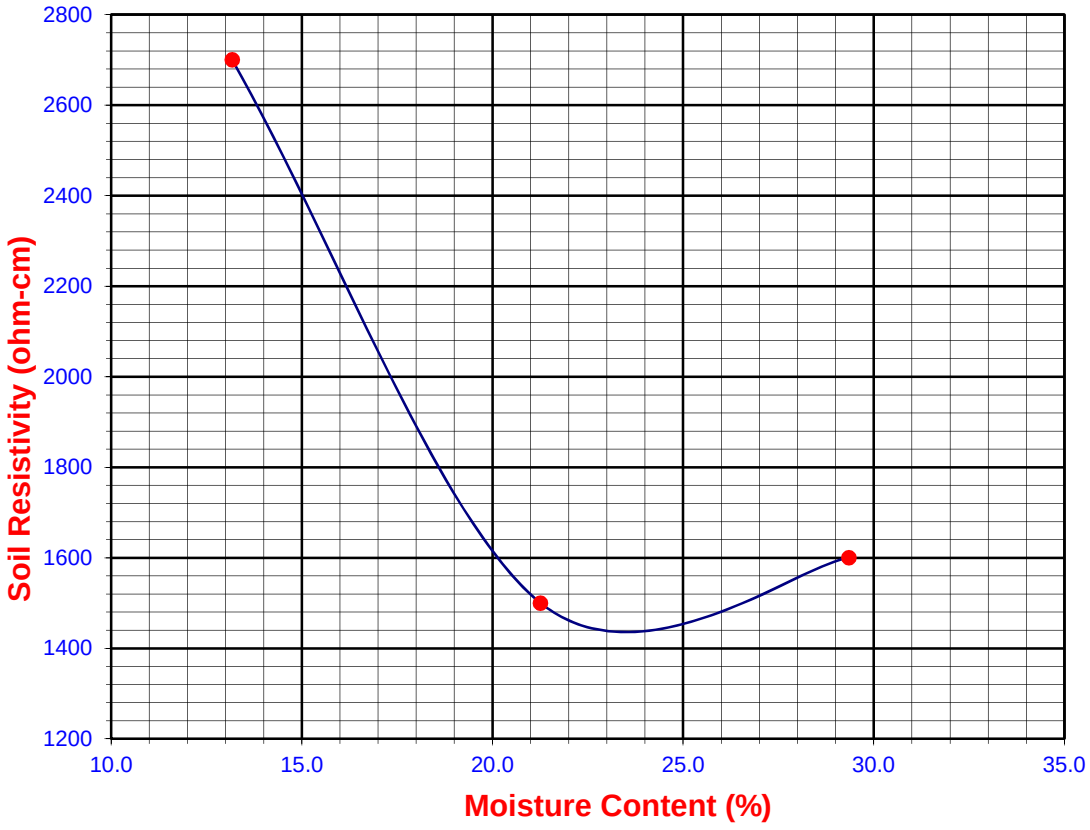
Soil Identification:* Dark olive brown SC

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	13.18	2700	2700
2	20	21.26	1500	1500
3	30	29.35	1600	1600
4				
5				

Moisture Content (%) (MCi)	5.09
Wet Wt. of Soil + Cont. (g)	104.81
Dry Wt. of Soil + Cont. (g)	103.14
Wt. of Container (g)	70.35
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 643	
1435	**23.5**	**126**	**263**	**7.51**	**21.1**



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EXPANSION INDEX of SOILS

ASTM D 4829

Project Name:	Crowther	Tested By:	OHF/ACS	Date:	06/23/17
Project No.:	11263.003	Checked By:	J. Ward	Date:	06/24/17
Boring No.:	B-2	Depth (ft.):	0-5		
Sample No.:	BB-1				
Soil Identification:	Very dark brown fat clay with sand (CH)s				

Dry Wt. of Soil + Cont.	(g)	1000.00
Wt. of Container No.	(g)	0.00
Dry Wt. of Soil	(g)	1000.00
Weight Soil Retained on #4 Sieve		0.00
Percent Passing # 4		100.00

MOLDED SPECIMEN		Before Test	After Test
Specimen Diameter	(in.)	4.01	4.01
Specimen Height	(in.)	1.0000	1.1058
Wt. Comp. Soil + Mold	(g)	569.10	436.40
Wt. of Mold	(g)	188.10	0.00
Specific Gravity (Assumed)		2.70	2.70
Container No.		O	O
Wet Wt. of Soil + Cont.	(g)	766.70	624.50
Dry Wt. of Soil + Cont.	(g)	687.00	529.50
Wt. of Container	(g)	0.00	188.10
Moisture Content	(%)	11.60	27.83
Wet Density	(pcf)	114.9	119.0
Dry Density	(pcf)	103.0	93.1
Void Ratio		0.637	0.810
Total Porosity		0.389	0.448
Pore Volume	(cc)	80.6	102.4
Degree of Saturation (%) [S meas]		**49.2**	92.7

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
06/23/17	13:08	1.0	0	0.1752
06/23/17	13:18	1.0	10	0.1750
Add Distilled Water to the Specimen				
06/23/17	14:40	1.0	82	0.2560
06/24/17	7:00	1.0	1062	0.2810
06/24/17	8:45	1.0	1167	0.2810

Expansion Index (EI meas) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**106**

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EXPANSION INDEX of SOILS

ASTM D 4829

Project Name:	Crowther	Tested By:	OHF/ACS	Date:	06/23/17
Project No.:	11263.003	Checked By:	J. Ward	Date:	06/24/17
Boring No.:	B-1	Depth (ft.):	0-5		
Sample No.:	BB-1				
Soil Identification:	Dark brown clayey sand (SC)				

Dry Wt. of Soil + Cont.	(g)	1000.00
Wt. of Container No.	(g)	0.00
Dry Wt. of Soil	(g)	1000.00
Weight Soil Retained on #4 Sieve		0.00
Percent Passing # 4		100.00

MOLDED SPECIMEN	Before Test	After Test
Specimen Diameter (in.)	4.01	4.01
Specimen Height (in.)	1.0000	1.0680
Wt. Comp. Soil + Mold (g)	608.20	436.20
Wt. of Mold (g)	209.00	0.00
Specific Gravity (Assumed)	2.70	2.70
Container No.	O	O
Wet Wt. of Soil + Cont. (g)	787.90	645.20
Dry Wt. of Soil + Cont. (g)	713.10	570.27
Wt. of Container (g)	0.00	209.00
Moisture Content (%)	10.49	20.74
Wet Density (pcf)	120.4	123.2
Dry Density (pcf)	109.0	102.0
Void Ratio	0.547	0.652
Total Porosity	0.354	0.395
Pore Volume (cc)	73.2	87.3
Degree of Saturation (%) [S_{meas}]	**51.8**	85.9

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
06/23/17	13:50	1.0	0	0.0830
06/23/17	14:00	1.0	10	0.0830
Add Distilled Water to the Specimen				
06/23/17	15:40	1.0	100	0.1205
06/24/17	7:00	1.0	1020	0.1510
06/24/17	8:45	1.0	1125	0.1510

Expansion Index (EI_{meas}) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**68**

APPENDIX C

PERCOLATION TEST RESULTS

Leighton

Boring Percolation Test Data Sheet

Project Number:	11263.002		**Test Hole Number:**	P-1	
Project Name:	Integral Crowther		**Date Excavated:**	2/1/2017	
Earth Description:	Alluvium		**Date Tested:**	2/1/2017	
Liquid Description:	Tap water		**Depth of boring (ft):**	15	
Tested By:	SM		**Diameter of boring (in):**	8	
Time Interval Standard			**Diameter of casing (in):**	2	
Start Time for Pre-Soak:	2/1/2017	12:00am	**Length of slotted of casing (ft):**		5
Start Time for Standard:	2/1/2017	12:33pm	**Depth to Initial Water Depth (ft):**		10
Standard Time Interval			**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10		**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	12:33	10	10.00	60.0	37.2	0.27	4.02
	12:43		13.10	22.8			
2	12:45	10	10.00	60.0	35.0	0.29	3.69
	12:55		12.92	25.0			
3	12:57	10	10.00	60.0	35.6	0.28	3.78
	13:07		12.97	24.4			
4	13:08	10	10.00	60.0	34.8	0.29	3.66
	13:18		12.90	25.2			
5	13:19	10	10.00	60.0	34.2	0.29	3.57
	13:29		12.85	25.8			
6	13:31	10	10.00	60.0	34.9	0.29	3.68
	13:41		12.91	25.1			
7	13:42	10	10.00	60.0	34.0	0.29	3.54
	13:52		12.83	26.0			
8	13:55	10	10.00	60.0	33.7	0.30	3.50
	14:05		12.81	26.3			
9	14:07	10	10.00	60.0	35.2	0.28	3.71
	14:17		12.93	24.8			

Infiltration Rate (I) = Flow Volume/Flow Area/Δt

Infiltration Rate, I (Last Reading) = 3.71 in./hr.

Boring Percolation Test Data Sheet

Project Number:	11263.002		**Test Hole Number:**	P-2	
Project Name:	Integral Crowther		**Date Excavated:**	2/1/2017	
Earth Description:	Alluvium		**Date Tested:**	2/2/2017	
Liquid Description:	Tap water		**Depth of boring (ft):**	15	
Tested By:	JMP		**Diameter of boring (in):**	8	
Time Interval Standard			**Diameter of casing (in):**	2	
Start Time for Pre-Soak:	2/1/2017	9:30am	**Length of slotted of casing (ft):**		5
Start Time for Standard:	2/2/2017	9:26am	**Depth to Initial Water Depth (ft):**		10
Standard Time Interval			**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	30		**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	9:26	30	10.00	60.0	6.2	4.81	0.17
	9:56		10.52	53.8			
2	10:03	30	10.00	60.0	10.6	2.84	0.29
	10:33		10.88	49.4			
3	10:38	30	10.00	60.0	10.7	2.81	0.29
	11:08		10.89	49.3			
4	11:10	30	10.00	60.0	10.7	2.81	0.29
	11:40		10.89	49.3			
5	11:42	30	10.00	60.0	10.2	2.94	0.28
	12:12		10.85	49.8			
6	12:13	30	10.00	60.0	10.4	2.87	0.29
	12:43		10.87	49.6			
7	12:44	30	10.00	60.0	10.3	2.91	0.28
	13:14		10.86	49.7			
8	13:15	30	10.00	60.0	10.1	2.98	0.28
	13:45		10.84	49.9			
9	13:46	30	10.00	60.0	10.1	2.98	0.28
	14:16		10.84	49.9			
10	14:18	30	10.00	60.0	10.0	3.01	0.27
	14:48		10.83	50.0			
11	14:50	30	10.00	60.0	10.0	3.01	0.27
	15:20		10.83	50.0			

Infiltration Rate (I) = Flow Volume/Flow Area/Δt

Infiltration Rate, I (Last Reading) = **0.27** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	11263.002		**Test Hole Number:**	P-3	
Project Name:	Integral Crowther		**Date Excavated:**	2/1/2017	
Earth Description:	Alluvium		**Date Tested:**	2/2/2017	
Liquid Description:	Tap water		**Depth of boring (ft):**	20	
Tested By:	JMP		**Diameter of boring (in):**	8	
Time Interval Standard			**Diameter of casing (in):**	2	
Start Time for Pre-Soak:	2/1/2017	11:00am	**Length of slotted of casing (ft):**		5
Start Time for Standard:	2/2/2017	8:40am	**Depth to Initial Water Depth (ft):**		15
Standard Time Interval			**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	30		**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	8:40	30	15.00	60.0	23.3	1.29	0.72
	9:10		16.94	36.7			
2	9:12	30	15.00	60.0	23.2	1.30	0.72
	9:42		16.93	36.8			
3	9:43	30	15.00	60.0	23.0	1.30	0.71
	10:13		16.92	37.0			
4	10:15	30	15.00	60.0	23.2	1.30	0.72
	10:45		16.93	36.8			
5	10:47	30	15.00	60.0	23.2	1.30	0.72
	11:17		16.93	36.8			
6	11:18	30	15.00	60.0	22.7	1.32	0.70
	11:48		16.89	37.3			
7	11:50	30	15.00	60.0	22.4	1.34	0.69
	12:20		16.87	37.6			
8	12:21	30	15.00	60.0	23.0	1.30	0.71
	12:51		16.92	37.0			
9	12:53	30	15.00	60.0	23.2	1.30	0.72
	13:23		16.93	36.8			
10	13:24	30	15.00	60.0	23.2	1.30	0.72
	13:54		16.93	36.8			
11	13:56	30	15.00	60.0	23.2	1.30	0.72
	14:26		16.93	36.8			
12	14:27	30	15.00	60.0	23.2	1.30	0.72
	14:57		16.93	36.8			

Infiltration Rate (I) = Flow Volume/Flow Area/Δt

Infiltration Rate, I (Last Reading) = **0.72** **in./hr.**

APPENDIX D

SEISMICITY DATA

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USGS Design Maps Detailed Report

ASCE 7-10 Standard (33.8676°N, 117.8711°W)

Site Class D – "Stiff Soil", Risk Category I/II/III

Section 11.4.1 — Mapped Acceleration Parameters

Note: Ground motion values provided below are for the direction of maximum horizontal spectral response acceleration. They have been converted from corresponding geometric mean ground motions computed by the USGS by applying factors of 1.1 (to obtain S_S) and 1.3 (to obtain S_1). Maps in the 2010 ASCE-7 Standard are provided for Site Class B. Adjustments for other Site Classes are made, as needed, in Section 11.4.3.

From Figure 22-1 [1]	S_S = 1.755 g
From Figure 22-2 [2]	S_1 = 0.634 g

Section 11.4.2 — Site Class

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class D, based on the site soil properties in accordance with Chapter 20.

Table 20.3–1 Site Classification

Site Class	$\overline{v}_s$	$\overline{N}$ or $\overline{N}_{ch}$	$\overline{s}_u$
A. Hard Rock	>5,000 ft/s	N/A	N/A
B. Rock	2,500 to 5,000 ft/s	N/A	N/A
C. Very dense soil and soft rock	1,200 to 2,500 ft/s	>50	>2,000 psf
D. Stiff Soil	600 to 1,200 ft/s	15 to 50	1,000 to 2,000 psf
E. Soft clay soil	<600 ft/s	<15	<1,000 psf
	Any profile with more than 10 ft of soil having the characteristics: • Plasticity index *PI* > 20, • Moisture content *w* ≥ 40%, and • Undrained shear strength $\overline{s}_u$ < 500 psf		
F. Soils requiring site response analysis in accordance with Section 21.1	See Section 20.3.1		

For SI: 1ft/s = 0.3048 m/s 1lb/ft² = 0.0479 kN/m²

Section 11.4.3 — Site Coefficients and Risk–Targeted Maximum Considered Earthquake (MCE_R) Spectral Response Acceleration Parameters

Table 11.4–1: Site Coefficient F_a

Site Class	Mapped MCE_R Spectral Response Acceleration Parameter at Short Period				
	$S_S \le 0.25$	$S_S = 0.50$	$S_S = 0.75$	$S_S = 1.00$	$S_S \ge 1.25$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of S_S

For Site Class = D and S_S = 1.755 g, F_a = 1.000

Table 11.4–2: Site Coefficient F_v

Site Class	Mapped MCE_R Spectral Response Acceleration Parameter at 1–s Period				
	$S_1 \le 0.10$	$S_1 = 0.20$	$S_1 = 0.30$	$S_1 = 0.40$	$S_1 \ge 0.50$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of S_1

For Site Class = D and S_1 = 0.634 g, F_v = 1.500

Equation (11.4–1): $S_{MS} = F_a S_S = 1.000 \times 1.755 = 1.755$ g

Equation (11.4–2): $S_{M1} = F_v S_1 = 1.500 \times 0.634 = 0.952$ g

Section 11.4.4 — Design Spectral Acceleration Parameters

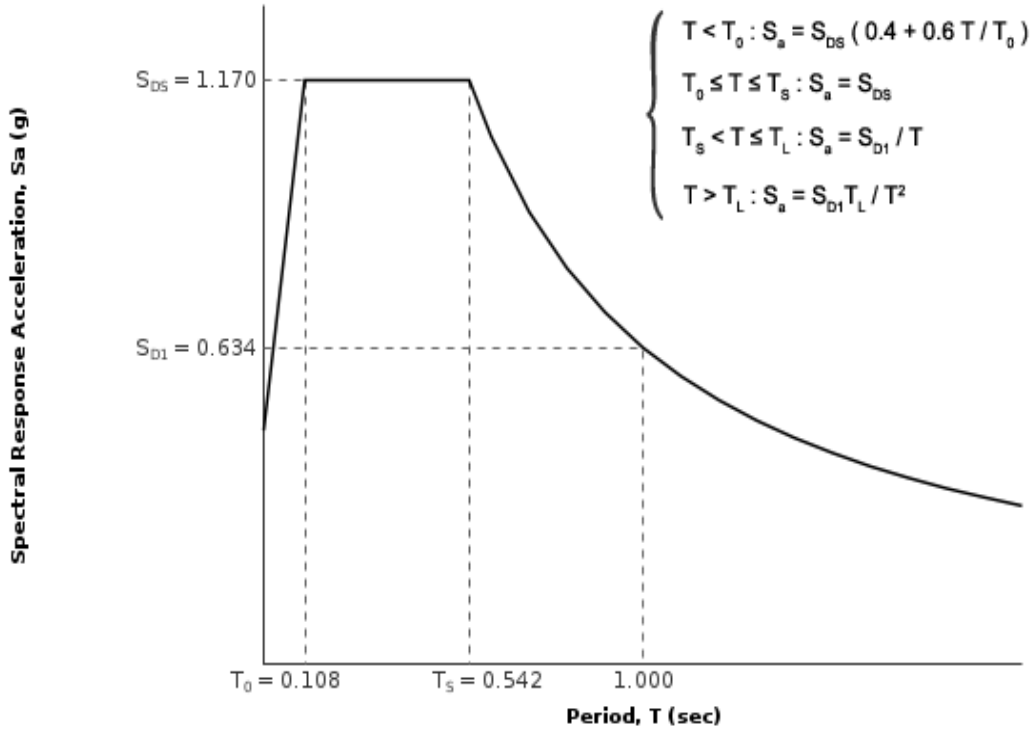
Equation (11.4–3): $S_{DS} = \frac{2}{3} S_{MS} = \frac{2}{3} \times 1.755 = 1.170$ g

Equation (11.4–4): $S_{D1} = \frac{2}{3} S_{M1} = \frac{2}{3} \times 0.952 = 0.634$ g

Section 11.4.5 — Design Response Spectrum

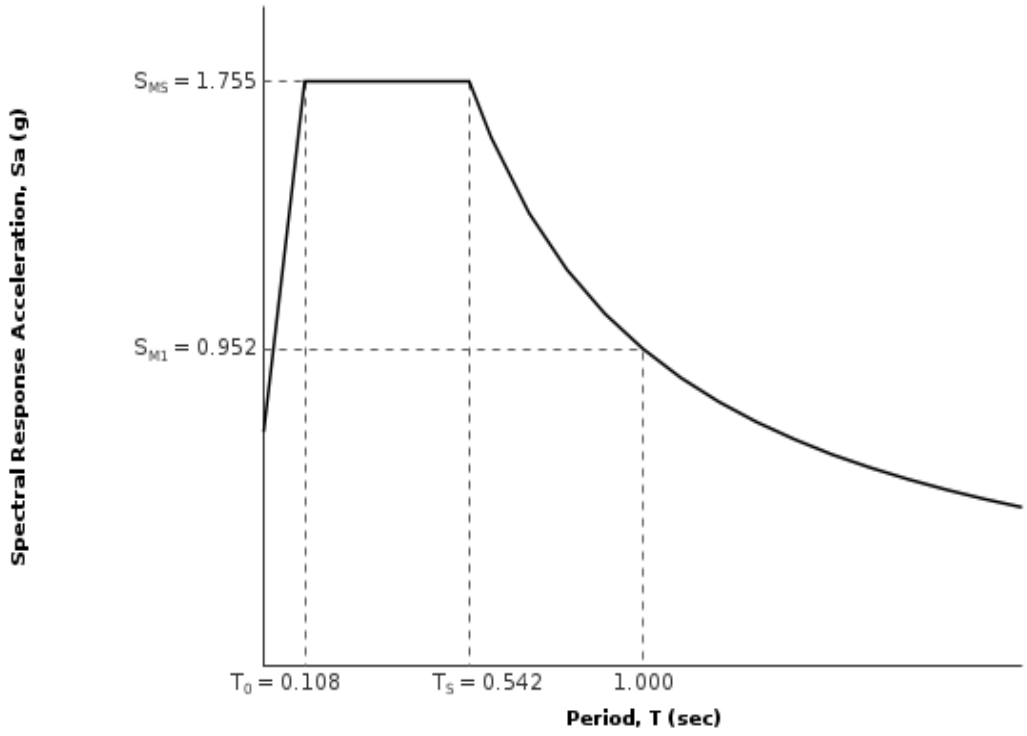
From Figure 22-12 [3] $T_L = 8$ seconds

Figure 11.4–1: Design Response Spectrum



Section 11.4.6 — Risk-Targeted Maximum Considered Earthquake (MCE_R) Response Spectrum

The MCE_R Response Spectrum is determined by multiplying the design response spectrum above by 1.5.



Section 11.8.3 — Additional Geotechnical Investigation Report Requirements for Seismic Design Categories D through F

From Figure 22-7 [4] PGA = 0.648

Equation (11.8–1): $PGA_M = F_{PGA}PGA = 1.000 \times 0.648 = 0.648$ g

Table 11.8–1: Site Coefficient F_{PGA}

Site Class	Mapped MCE Geometric Mean Peak Ground Acceleration, PGA				
	PGA ≤ 0.10	PGA = 0.20	PGA = 0.30	PGA = 0.40	PGA ≥ 0.50
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of PGA

For Site Class = D and PGA = 0.648 g, F_{PGA} = 1.000

Section 21.2.1.1 — Method 1 (from Chapter 21 – Site-Specific Ground Motion Procedures for Seismic Design)

From Figure 22-17 [5] C_{RS} = 0.994

From Figure 22-18 [6] C_{R1} = 1.019

Section 11.6 — Seismic Design Category

Table 11.6-1 Seismic Design Category Based on Short Period Response Acceleration Parameter

VALUE OF S_{DS}	RISK CATEGORY		
	I or II	III	IV
$S_{DS} < 0.167g$	A	A	A
$0.167g \le S_{DS} < 0.33g$	B	B	C
$0.33g \le S_{DS} < 0.50g$	C	C	D
$0.50g \le S_{DS}$	D	D	D

For Risk Category = I and S_{DS} = 1.170 g, Seismic Design Category = D

Table 11.6-2 Seismic Design Category Based on 1-S Period Response Acceleration Parameter

VALUE OF S_{D1}	RISK CATEGORY		
	I or II	III	IV
$S_{D1} < 0.067g$	A	A	A
$0.067g \le S_{D1} < 0.133g$	B	B	C
$0.133g \le S_{D1} < 0.20g$	C	C	D
$0.20g \le S_{D1}$	D	D	D

For Risk Category = I and S_{D1} = 0.634 g, Seismic Design Category = D

Note: When S_1 is greater than or equal to 0.75g, the Seismic Design Category is **E** for buildings in Risk Categories I, II, and III, and **F** for those in Risk Category IV, irrespective of the above.

Seismic Design Category ≡ "the more severe design category in accordance with Table 11.6-1 or 11.6-2" = D

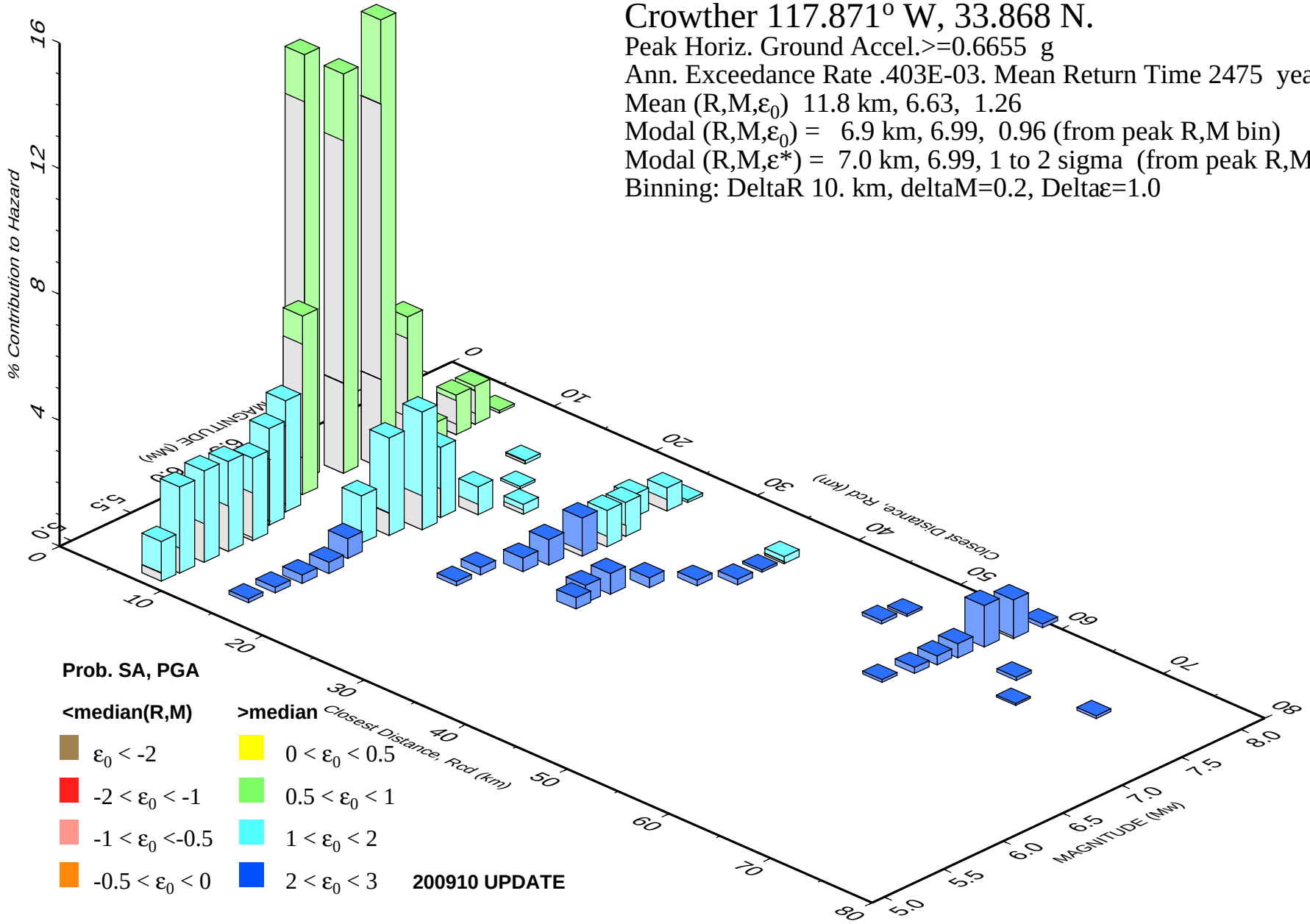
Note: See Section 11.6 for alternative approaches to calculating Seismic Design Category.

References

1. *Figure 22-1*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-1.pdf
2. *Figure 22-2*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-2.pdf
3. *Figure 22-12*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-12.pdf
4. *Figure 22-7*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-7.pdf
5. *Figure 22-17*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-17.pdf
6. *Figure 22-18*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-18.pdf

PSH Deaggregation on NEHRP D soil
Crowther 117.871º W, 33.868 N.

Peak Horiz. Ground Accel.>=0.6655 g
Ann. Exceedance Rate .403E-03. Mean Return Time 2475 years
Mean (R,M,ε_0) 11.8 km, 6.63, 1.26
Modal (R,M,ε_0) = 6.9 km, 6.99, 0.96 (from peak R,M bin)
Modal (R,M,ε*) = 7.0 km, 6.99, 1 to 2 sigma (from peak R,M,ε bin)
Binning: DeltaR 10. km, deltaM=0.2, Deltaε=1.0



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*    E Q S E A R C H     *
*                        *
*      Version 3.00      *
*                        *
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ESTIMATION OF
PEAK ACCELERATION FROM
CALIFORNIA EARTHQUAKE CATALOGS

JOB NUMBER: 11263.003

DATE: 06-09-2017

JOB NAME: Crowther

EARTHQUAKE-CATALOG-FILE NAME: ALLQUAKE.DAT

MAGNITUDE RANGE:
MINIMUM MAGNITUDE: 4.00
MAXIMUM MAGNITUDE: 9.00

SITE COORDINATES:
SITE LATITUDE: 33.8676
SITE LONGITUDE: 117.8711

SEARCH DATES:
START DATE: 1800
END DATE: 2016

SEARCH RADIUS:
62.0 mi
99.8 km

ATTENUATION RELATION: 3) Boore et al. (1997) Horiz. - NEHRP D (250)
UNCERTAINTY (M=Median, S=Sigma): M Number of Sigmas: 0.0
ASSUMED SOURCE TYPE: DS [SS=Strike-slip, DS=Reverse-slip, BT=Blind-thrust]
SCOND: 0 Depth Source: A
Basement Depth: 5.00 km Campbell SSR: Campbell SHR:
COMPUTE PEAK HORIZONTAL ACCELERATION

MINIMUM DEPTH VALUE (km): 0.0

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
MGI	33.8000	117.9000	05/22/1902	740 0.0	0.0	4.30	0.117	VII	4.9(8.0)
GSG	33.9325	117.9172	03/29/2014	040942.3	4.8	5.10	0.174	VIII	5.2(8.4)
GSP	33.9050	117.7920	08/08/2012	062334.1	10.0	4.50	0.127	VIII	5.2(8.4)
GSP	33.9040	117.7910	08/08/2012	163322.1	10.0	4.50	0.126	VIII	5.2(8.4)
GSP	33.9090	117.7920	06/14/2012	031715.7	9.0	4.00	0.096	VII	5.4(8.6)
GSP	33.9070	117.7880	08/29/2012	203100.3	9.0	4.10	0.100	VII	5.5(8.8)
MGI	33.8000	117.8000	11/07/1926	1948 0.0	0.0	4.60	0.121	VII	6.2(10.0)
MGI	33.8000	117.8000	11/09/1926	1535 0.0	0.0	4.60	0.121	VII	6.2(10.0)
MGI	33.8000	117.8000	05/20/1917	945 0.0	0.0	4.00	0.088	VII	6.2(10.0)
MGI	33.8000	117.8000	11/04/1926	2238 0.0	0.0	4.60	0.121	VII	6.2(10.0)
MGI	33.8000	117.8000	05/19/1917	635 0.0	0.0	4.00	0.088	VII	6.2(10.0)
MGI	33.8000	117.8000	05/19/1917	719 0.0	0.0	4.00	0.088	VII	6.2(10.0)
MGI	33.8000	117.8000	11/10/1926	1723 0.0	0.0	4.60	0.121	VII	6.2(10.0)
GSP	33.9170	117.7760	09/03/2002	070851.9	12.0	4.80	0.132	VIII	6.4(10.3)
GSG	33.9613	117.8923	03/29/2014	213245.9	9.4	4.14	0.092	VII	6.6(10.6)
PAS	33.9650	117.8860	01/01/1976	172012.9	6.2	4.20	0.093	VII	6.8(10.9)
DMG	33.8540	117.7520	10/04/1961	22131.6	4.3	4.10	0.087	VII	6.9(11.1)
DMG	33.7670	117.8170	08/22/1936	521 0.0	0.0	4.00	0.078	VII	7.6(12.2)
GSG	33.9530	117.7610	07/29/2008	184215.7	14.0	5.30	0.142	VIII	8.6(13.9)
DMG	33.8000	118.0000	10/21/1913	938 0.0	0.0	4.00	0.071	VI	8.7(14.1)
GSP	33.9550	117.7460	12/14/2001	120135.5	13.0	4.00	0.068	VI	9.4(15.1)
GSP	33.8060	117.7150	03/07/2000	002028.2	11.0	4.00	0.065	VI	9.9(15.9)
DMG	33.9960	117.9750	06/15/1967	458 5.5	10.0	4.10	0.065	VI	10.7(17.2)
GSP	33.9510	117.7090	01/05/1998	181406.5	11.0	4.30	0.071	VI	10.9(17.6)
DMG	33.7500	118.0000	11/16/1934	2126 0.0	0.0	4.00	0.061	VI	11.0(17.7)
MGI	33.7000	117.9000	07/08/1902	945 0.0	0.0	4.00	0.058	VI	11.7(18.8)
MGI	34.0000	118.0000	05/05/1929	1 7 0.0	0.0	4.60	0.079	VII	11.7(18.9)
MGI	34.0000	118.0000	12/25/1903	1745 0.0	0.0	5.00	0.098	VII	11.7(18.9)
MGI	34.0000	118.0000	05/05/1929	735 0.0	0.0	4.00	0.058	VI	11.7(18.9)
PAS	34.0060	117.7390	02/18/1989	717 4.8	3.3	4.30	0.066	VI	12.2(19.6)
DMG	33.9670	118.0500	01/30/1941	13446.9	0.0	4.10	0.059	VI	12.3(19.8)
DMG	33.9000	118.1000	07/08/1929	1646 6.7	13.0	4.70	0.076	VII	13.3(21.4)
MGI	34.0000	117.7000	12/03/1929	9 5 0.0	0.0	4.00	0.052	VI	13.4(21.6)
DMG	33.7500	118.0830	03/11/1933	611 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	11 0 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	2354 0.0	0.0	4.50	0.064	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1129 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1138 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/19/1933	2123 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/21/1933	326 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	2231 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	04/01/1933	642 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	553 0.0	0.0	4.00	0.049	VI	14.6(23.5)

DMG	33.7500	118.0830	03/11/1933	22 0 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	832 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	618 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	740 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	635 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	027 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1045 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	1738 0.0	0.0	4.50	0.064	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	1825 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	2128 0.0	0.0	4.10	0.052	VI	14.6(23.5)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
DMG	33.7500	118.0830	03/11/1933	259 0.0	0.0	4.60	0.068	VI	14.6(23.5)
DMG	33.7500	118.0830	03/13/1933	343 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/13/1933	432 0.0	0.0	4.70	0.071	VI	14.6(23.5)
DMG	33.7500	118.0830	03/13/1933	617 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/13/1933	131828.0	0.0	5.30	0.098	VII	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	751 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	759 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	546 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	6 1 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	837 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/14/1933	2242 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/15/1933	2 8 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1547 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1653 0.0	0.0	4.80	0.075	VII	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1944 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1956 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/16/1933	1529 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/16/1933	1530 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/17/1933	1651 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/18/1933	2052 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	2240 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/20/1933	1358 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	2 9 0.0	0.0	5.00	0.083	VII	14.6(23.5)
DMG	33.7500	118.0830	03/23/1933	840 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/23/1933	1831 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/25/1933	1346 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/30/1933	1225 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/31/1933	1049 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	227 0.0	0.0	4.60	0.068	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	910 0.0	0.0	5.10	0.088	VII	14.6(23.5)
DMG	33.7500	118.0830	03/15/1933	540 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	926 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1025 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	258 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	524 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	3 5 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	3 9 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	311 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1141 0.0	0.0	4.20	0.055	VI	14.6(23.5)

DMG	33.7500	118.0830	03/13/1933	1532	0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	339	0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/13/1933	1929	0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1357	0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/14/1933	1219	0.0	0.0	4.50	0.064	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	440	0.0	0.0	4.70	0.071	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	616	0.0	0.0	4.60	0.068	VI	14.6(23.5)
DMG	33.7500	118.0830	03/15/1933	432	0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	515	0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	252	0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	521	0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/16/1933	1456	0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	216	0.0	0.0	4.80	0.075	VII	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	555	0.0	0.0	4.00	0.049	VI	14.6(23.5)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
DMG	33.7500	118.0830	03/11/1933	2232 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	439 0.0	0.0	4.90	0.079	VII	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	23 5 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	2 5 0.0	0.0	4.30	0.058	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	210 0.0	0.0	4.60	0.068	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	448 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	034 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	211 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	222 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	257 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	230 0.0	0.0	5.10	0.088	VII	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	911 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	04/02/1933	1536 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	1147 0.0	0.0	4.40	0.061	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	1651 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/14/1933	036 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	436 0.0	0.0	4.60	0.068	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	15 2 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	8 8 0.0	0.0	4.50	0.064	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	323 0.0	0.0	5.00	0.083	VII	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	336 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/12/1933	835 0.0	0.0	4.20	0.055	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	347 0.0	0.0	4.10	0.052	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	513 0.0	0.0	4.70	0.071	VI	14.6(23.5)
DMG	33.7500	118.0830	04/02/1933	8 0 0.0	0.0	4.00	0.049	VI	14.6(23.5)
DMG	33.7500	118.0830	03/11/1933	2 4 0.0	0.0	4.90	0.079	VII	14.6(23.5)
DMG	33.6800	117.9930	11/20/1961	85334.7	4.4	4.00	0.049	VI	14.7(23.7)
GSP	33.9920	118.0820	03/16/2010	110400.2	18.0	4.40	0.060	VI	14.8(23.8)
DMG	33.6650	117.9790	10/20/1961	214240.7	7.2	4.00	0.048	VI	15.3(24.6)
DMG	33.7670	118.1170	11/04/1939	2141 0.0	0.0	4.00	0.047	VI	15.7(25.3)
DMG	33.6590	117.9810	10/20/1961	20 714.5	6.1	4.00	0.047	VI	15.7(25.3)
DMG	33.6710	118.0120	10/20/1961	223534.2	5.6	4.10	0.049	VI	15.8(25.4)
DMG	33.9500	118.1330	10/25/1933	7 046.0	0.0	4.30	0.054	VI	16.0(25.8)
DMG	33.7330	118.1000	03/11/1933	1447 0.0	0.0	4.40	0.057	VI	16.1(25.9)
DMG	33.7330	118.1000	03/11/1933	15 9 0.0	0.0	4.40	0.057	VI	16.1(25.9)

DMG	33.7330	118.1000	03/11/1933	1350 0.0	0.0	4.40	0.057	VI	16.1(25.9)
DMG	33.7830	118.1330	01/13/1940	749 7.0	0.0	4.00	0.046	VI	16.1(25.9)
DMG	33.7830	118.1330	11/20/1933	1032 0.0	0.0	4.00	0.046	VI	16.1(25.9)
DMG	33.7830	118.1330	10/02/1933	91017.6	0.0	5.40	0.096	VII	16.1(25.9)
DMG	33.7000	118.0670	03/11/1933	85457.0	0.0	5.10	0.082	VII	16.1(26.0)
DMG	33.7000	118.0670	03/11/1933	51022.0	0.0	5.10	0.082	VII	16.1(26.0)
DMG	33.7000	118.0670	02/08/1940	165617.0	0.0	4.00	0.046	VI	16.1(26.0)
DMG	33.7000	118.0670	07/20/1940	4 113.0	0.0	4.00	0.046	VI	16.1(26.0)
DMG	33.8000	117.6000	09/16/1903	1210 0.0	0.0	4.00	0.046	VI	16.2(26.1)
MGI	33.8000	117.6000	04/22/1918	2115 0.0	0.0	5.00	0.077	VII	16.2(26.1)
DMG	33.6540	117.9940	10/20/1961	194950.5	4.6	4.30	0.053	VI	16.3(26.3)
DMG	33.6830	118.0500	03/11/1933	658 3.0	0.0	5.50	0.100	VII	16.4(26.3)
DMG	33.6830	118.0500	03/11/1933	1250 0.0	0.0	4.40	0.056	VI	16.4(26.3)
DMG	34.1000	117.8000	03/31/1931	2033 0.0	0.0	4.00	0.045	VI	16.5(26.6)
DMG	33.7500	118.1330	03/11/1933	11 4 0.0	0.0	4.60	0.060	VI	17.1(27.5)
GSP	33.6200	117.9000	04/07/1989	200730.2	13.0	4.50	0.057	VI	17.2(27.6)
DMG	33.9500	117.5830	04/11/1941	12024.0	0.0	4.00	0.043	VI	17.5(28.1)
PAS	34.0770	118.0470	02/11/1988	152555.7	12.5	4.70	0.062	VI	17.6(28.3)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
PAS	34.0500	118.0870	10/01/1987	155953.5	10.4	4.00	0.043	VI	17.6(28.4)
MGI	34.1000	118.0000	01/27/1930	2026 0.0	0.0	4.60	0.059	VI	17.7(28.4)
PAS	34.0520	118.0900	10/01/1987	151231.8	10.8	4.70	0.061	VI	17.9(28.7)
PAS	34.0610	118.0790	10/01/1987	144220.0	9.5	5.90	0.115	VII	17.9(28.8)
DMG	33.6170	117.9670	03/11/1933	154 7.8	0.0	6.30	0.141	VIII	18.2(29.2)
PAS	34.0490	118.1010	10/01/1987	144541.5	13.6	4.70	0.061	VI	18.2(29.2)
PAS	34.0600	118.1000	10/01/1987	1449 5.9	11.7	4.70	0.059	VI	18.7(30.0)
DMG	33.7500	118.1670	05/16/1933	205855.0	0.0	4.00	0.041	V	18.8(30.3)
GSP	34.1100	117.7200	04/17/1990	223227.2	4.0	4.60	0.056	VI	18.8(30.3)
DMG	33.8670	118.2000	11/13/1933	2128 0.0	0.0	4.00	0.041	V	18.9(30.3)
MGI	33.9000	118.2000	10/08/1927	1914 0.0	0.0	4.60	0.056	VI	19.0(30.5)
PAS	34.0760	118.0900	10/01/1987	1448 3.1	11.7	4.10	0.043	VI	19.1(30.7)
DMG	33.6170	118.0170	10/02/1933	1326 1.0	0.0	4.00	0.040	V	19.2(30.9)
DMG	33.6170	118.0170	03/15/1933	111332.0	0.0	4.90	0.065	VI	19.2(30.9)
DMG	33.6170	118.0170	03/14/1933	19 150.0	0.0	5.10	0.072	VI	19.2(30.9)
PAS	34.0730	118.0980	10/04/1987	105938.2	8.2	5.30	0.080	VII	19.2(30.9)
DMG	34.1000	117.6830	01/09/1934	1410 0.0	0.0	4.50	0.052	VI	19.3(31.1)
DMG	34.1000	117.6830	01/18/1934	214 0.0	0.0	4.00	0.040	V	19.3(31.1)
DMG	33.6170	118.0330	05/21/1938	944 0.0	0.0	4.00	0.040	V	19.6(31.6)
DMG	33.7500	118.1830	08/04/1933	41748.0	0.0	4.00	0.039	V	19.6(31.6)
DMG	33.7830	118.2000	12/27/1939	192849.0	0.0	4.70	0.057	VI	19.7(31.8)
DMG	33.9390	118.2050	01/11/1950	214135.0	0.4	4.10	0.041	V	19.8(31.8)
DMG	33.8670	118.2170	06/19/1944	3 6 7.0	0.0	4.40	0.048	VI	19.8(31.9)
DMG	33.8670	118.2170	06/19/1944	0 333.0	0.0	4.50	0.051	VI	19.8(31.9)
DMG	33.6000	118.0000	03/11/1933	217 0.0	0.0	4.50	0.051	VI	19.9(32.0)
DMG	33.6000	118.0000	03/11/1933	231 0.0	0.0	4.40	0.048	VI	19.9(32.0)
DMG	33.8170	118.2170	10/22/1941	65718.5	0.0	4.90	0.062	VI	20.1(32.4)
DMG	33.6000	118.0170	12/25/1935	1715 0.0	0.0	4.50	0.050	VI	20.3(32.6)
GSP	34.0200	118.1800	06/12/1989	172225.5	16.0	4.10	0.040	V	20.6(33.1)
GSP	34.1300	117.7000	03/01/1990	003457.1	4.0	4.00	0.038	V	20.6(33.1)
MGI	34.1000	118.1000	07/11/1855	415 0.0	0.0	6.30	0.128	VIII	20.7(33.3)

PAS	34.1360	117.7090	06/26/1988	15 458.5	7.9	4.60	0.052	VI	20.7(33.3)
MGI	34.0000	118.2000	02/13/1917	13 5 0.0	0.0	4.60	0.052	VI	20.9(33.7)
MGI	34.0000	118.2000	06/26/1917	2120 0.0	0.0	4.60	0.052	VI	20.9(33.7)
MGI	34.0000	118.2000	06/26/1917	2130 0.0	0.0	4.60	0.052	VI	20.9(33.7)
MGI	34.0000	118.2000	06/26/1917	2115 0.0	0.0	4.60	0.052	VI	20.9(33.7)
MGI	34.0000	118.2000	06/26/1917	424 0.0	0.0	4.00	0.038	V	20.9(33.7)
GSP	34.0300	118.1800	06/12/1989	165718.4	16.0	4.40	0.046	VI	20.9(33.7)
DMG	33.5750	117.9830	03/11/1933	518 4.0	0.0	5.20	0.070	VI	21.2(34.1)
GSP	34.1400	117.7000	02/28/1990	234336.6	5.0	5.20	0.070	VI	21.2(34.1)
GSP	34.1500	117.7200	03/01/1990	032303.0	11.0	4.70	0.054	VI	21.3(34.3)
GSP	34.1400	117.6900	03/02/1990	172625.4	6.0	4.60	0.051	VI	21.5(34.6)
DMG	33.5670	117.9830	07/07/1937	1112 0.0	0.0	4.00	0.037	V	21.7(35.0)
DMG	33.5670	117.9830	04/17/1934	1833 0.0	0.0	4.00	0.037	V	21.7(35.0)
DMG	33.6820	117.5530	07/05/1938	18 655.7	10.0	4.50	0.047	VI	22.3(35.9)
DMG	33.6170	118.1170	01/20/1934	2117 0.0	0.0	4.50	0.047	VI	22.3(35.9)
DMG	33.7830	118.2500	11/14/1941	84136.3	0.0	5.40	0.075	VII	22.5(36.2)
DMG	33.5450	117.8070	10/27/1969	1316 2.3	6.5	4.50	0.046	VI	22.6(36.3)
DMG	33.8500	118.2670	03/11/1933	629 0.0	0.0	4.40	0.044	VI	22.7(36.6)
DMG	33.8500	118.2670	03/11/1933	1425 0.0	0.0	5.00	0.060	VI	22.7(36.6)
DMG	33.7170	117.5170	06/19/1935	1117 0.0	0.0	4.00	0.035	V	22.8(36.7)
DMG	34.2000	117.9000	07/13/1935	105416.5	0.0	4.70	0.051	VI	23.0(37.0)
DMG	34.2000	117.9000	08/28/1889	215 0.0	0.0	5.50	0.077	VII	23.0(37.0)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
MGI	34.0000	117.5000	12/16/1858	10 0 0.0	0.0	7.00	0.170	VIII	23.1(37.2)
DMG	34.0000	117.5000	07/03/1908	1255 0.0	0.0	4.00	0.035	V	23.1(37.2)
DMG	33.7590	118.2530	08/31/1938	31814.2	10.0	4.50	0.045	VI	23.2(37.3)
GSP	33.9220	118.2700	10/28/2001	162745.6	21.0	4.00	0.035	V	23.2(37.3)
DMG	33.7170	117.5070	08/06/1938	22 056.0	10.0	4.00	0.035	V	23.3(37.5)
T-A	34.0000	118.2500	01/10/1856	0 0 0.0	0.0	5.00	0.058	VI	23.5(37.9)
T-A	34.0000	118.2500	05/04/1857	6 0 0.0	0.0	4.30	0.040	V	23.5(37.9)
T-A	34.0000	118.2500	03/21/1880	1425 0.0	0.0	4.30	0.040	V	23.5(37.9)
T-A	34.0000	118.2500	03/26/1860	0 0 0.0	0.0	5.00	0.058	VI	23.5(37.9)
T-A	34.0000	118.2500	09/23/1827	0 0 0.0	0.0	5.00	0.058	VI	23.5(37.9)
T-A	34.0000	118.2500	01/17/1857	1 0 0.0	0.0	4.30	0.040	V	23.5(37.9)
T-A	34.0000	118.2500	05/02/1856	810 0.0	0.0	4.30	0.040	V	23.5(37.9)
DMG	33.7250	117.4980	01/03/1956	02548.9	13.7	4.70	0.050	VI	23.6(37.9)
DMG	33.6990	117.5110	05/31/1938	83455.4	10.0	5.50	0.075	VII	23.7(38.2)
DMG	33.5610	118.0580	01/15/1937	183547.0	10.0	4.00	0.034	V	23.7(38.2)
DMG	33.7480	117.4790	06/22/1971	104119.0	8.0	4.20	0.038	V	24.0(38.6)
MGI	34.2000	118.0000	01/09/1921	530 0.0	0.0	4.60	0.046	VI	24.1(38.8)
PAS	34.1490	118.1350	12/03/1988	113826.4	13.3	4.90	0.053	VI	24.6(39.6)
MGI	34.1000	118.2000	01/27/1860	830 0.0	0.0	4.30	0.039	V	24.7(39.8)
MGI	34.1000	118.2000	05/02/1916	1432 0.0	0.0	4.00	0.033	V	24.7(39.8)
MGI	34.1000	118.2000	04/21/1921	1538 0.0	0.0	4.00	0.033	V	24.7(39.8)
DMG	33.6330	118.2000	11/01/1940	20 046.0	0.0	4.00	0.033	V	24.9(40.0)
DMG	33.7330	117.4670	10/26/1954	162226.0	0.0	4.10	0.035	V	25.0(40.2)
DMG	33.6300	118.2000	09/13/1929	132338.2	0.0	4.00	0.033	V	25.0(40.2)
GSP	33.7330	117.4660	09/02/2007	172914.0	2.0	4.70	0.048	VI	25.0(40.3)
DMG	33.8000	118.3000	11/03/1931	16 5 0.0	0.0	4.00	0.033	V	25.0(40.3)
MGI	33.8000	118.3000	12/31/1928	1045 0.0	0.0	4.00	0.033	V	25.0(40.3)

DMG	33.8830	118.3170	03/11/1933	1457 0.0	0.0	4.90	0.052	VI	25.6(41.2)
DMG	33.9830	118.3000	02/11/1940	192410.0	0.0	4.00	0.032	V	25.8(41.6)
MGI	34.0000	118.3000	06/30/1920	350 0.0	0.0	4.00	0.032	V	26.2(42.2)
MGI	34.0000	118.3000	09/03/1905	540 0.0	0.0	5.30	0.063	VI	26.2(42.2)
MGI	34.0000	118.3000	06/22/1920	2035 0.0	0.0	4.00	0.032	V	26.2(42.2)
MGI	34.0800	118.2600	07/16/1920	18 8 0.0	0.0	5.00	0.053	VI	26.7(42.9)
DMG	34.1270	117.5210	12/27/1938	10 928.6	10.0	4.00	0.031	V	26.9(43.2)
T-A	34.1700	118.1700	03/07/1888	1554 0.0	0.0	4.30	0.036	V	27.0(43.4)
GSP	33.9380	118.3360	05/18/2009	033936.3	13.0	4.70	0.045	VI	27.1(43.6)
DMG	33.8330	117.4000	06/05/1940	82727.0	0.0	4.00	0.031	V	27.1(43.6)
GSP	34.2500	117.9900	06/28/1991	170055.5	9.0	4.30	0.036	V	27.3(43.9)
DMG	34.1830	117.5830	10/03/1948	24628.0	0.0	4.00	0.031	V	27.3(43.9)
PAS	33.5080	118.0710	11/20/1988	53928.7	6.0	4.50	0.040	V	27.4(44.0)
T-A	34.0000	117.4200	09/10/1920	1415 0.0	0.0	4.30	0.036	V	27.4(44.1)
T-A	34.0000	117.4200	04/12/1888	1315 0.0	0.0	4.30	0.036	V	27.4(44.1)
DMG	33.5170	118.1000	03/22/1941	82240.0	0.0	4.00	0.031	V	27.5(44.3)
DMG	34.1400	117.5150	01/01/1965	8 418.0	5.9	4.40	0.038	V	27.7(44.6)
GSP	34.2620	118.0020	06/28/1991	144354.5	11.0	5.40	0.063	VI	28.2(45.4)
DMG	34.1670	117.5330	03/01/1948	81213.0	0.0	4.70	0.043	VI	28.3(45.6)
DMG	34.1160	117.4750	06/28/1960	20 048.0	12.0	4.10	0.031	V	28.4(45.7)
MGI	34.0000	117.4000	05/22/1907	652 0.0	0.0	4.60	0.041	V	28.5(45.8)
DMG	34.1240	117.4800	05/15/1955	17 326.0	7.6	4.00	0.030	V	28.5(45.9)
DMG	34.1830	117.5480	09/01/1937	163533.5	10.0	4.50	0.039	V	28.6(46.0)
DMG	33.9330	117.3670	10/24/1943	02921.0	0.0	4.00	0.029	V	29.2(47.0)
MGI	34.1000	118.3000	07/26/1920	1215 0.0	0.0	4.00	0.029	V	29.3(47.2)
MGI	34.1000	118.3000	07/16/1920	2127 0.0	0.0	4.60	0.040	V	29.3(47.2)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
MGI	34.1000	118.3000	07/16/1920	2022 0.0	0.0	4.60	0.040	V	29.3(47.2)
MGI	34.1000	118.3000	07/16/1920	2130 0.0	0.0	4.60	0.040	V	29.3(47.2)
DMG	33.7000	117.4000	05/15/1910	1547 0.0	0.0	6.00	0.083	VII	29.4(47.3)
DMG	33.7000	117.4000	04/11/1910	757 0.0	0.0	5.00	0.049	VI	29.4(47.3)
DMG	33.7000	117.4000	05/13/1910	620 0.0	0.0	5.00	0.049	VI	29.4(47.3)
PAS	33.4710	118.0610	02/27/1984	101815.0	6.0	4.00	0.029	V	29.5(47.4)
PAS	33.5380	118.2070	05/25/1982	134430.3	13.7	4.10	0.030	V	29.8(48.0)
GSP	34.1390	117.4650	03/09/2008	092232.1	3.0	4.00	0.029	V	29.9(48.0)
PAS	34.1350	117.4480	01/08/1983	71930.4	4.6	4.10	0.030	V	30.4(49.0)
GSP	34.1250	117.4380	01/06/2005	143527.7	4.0	4.40	0.035	V	30.5(49.1)
DMG	34.1120	117.4260	03/19/1937	12338.4	10.0	4.00	0.028	V	30.6(49.2)
PAS	34.2110	117.5300	10/19/1979	122237.8	4.9	4.10	0.030	V	30.7(49.4)
DMG	34.2110	117.5300	09/01/1937	1348 8.2	10.0	4.50	0.037	V	30.7(49.4)
GSG	34.1430	117.4425	01/15/2014	093518.9	3.6	4.43	0.035	V	31.0(49.9)
DMG	34.2000	117.5000	06/14/1892	1325 0.0	0.0	4.90	0.045	VI	31.3(50.3)
DMG	34.1320	117.4260	04/15/1965	20 833.3	5.5	4.50	0.036	V	31.3(50.4)
MGI	34.0000	118.4000	10/01/1930	040 0.0	0.0	4.60	0.038	V	31.6(50.9)
MGI	34.0000	118.4000	02/07/1927	429 0.0	0.0	4.60	0.038	V	31.6(50.9)
MGI	34.0000	118.4000	02/22/1920	1610 0.0	0.0	4.60	0.038	V	31.6(50.9)
MGI	34.0000	118.4000	01/29/1927	2324 0.0	0.0	4.00	0.027	V	31.6(50.9)
DMG	33.7830	118.4170	10/12/1940	024 0.0	0.0	4.00	0.027	V	31.8(51.3)
DMG	33.7830	118.4170	10/14/1940	205111.0	0.0	4.00	0.027	V	31.8(51.3)
DMG	33.7830	118.4170	11/01/1940	725 3.0	0.0	4.00	0.027	V	31.8(51.3)

DMG	33.7830	118.4170	11/02/1940	25826.0	0.0	4.00	0.027	V	31.8(51.3)
DMG	34.0330	117.3500	04/18/1940	184343.9	0.0	4.40	0.034	V	32.0(51.4)
DMG	33.9030	118.4310	11/29/1938	192115.8	10.0	4.00	0.027	V	32.2(51.8)
GSG	33.6580	118.3720	05/15/2013	200006.2	1.2	4.00	0.027	V	32.2(51.8)
GSG	33.6583	118.3722	05/15/2013	200006.2	1.2	4.00	0.027	V	32.2(51.8)
GSP	34.0590	118.3870	09/09/2001	235918.0	4.0	4.20	0.030	V	32.4(52.1)
DMG	34.0000	118.4170	12/07/1938	338 0.0	0.0	4.00	0.027	V	32.6(52.4)
DMG	34.2170	117.4670	03/25/1941	234341.0	0.0	4.00	0.026	V	33.4(53.8)
DMG	33.5000	118.2500	06/18/1920	10 8 0.0	0.0	4.50	0.034	V	33.4(53.8)
USG	34.1390	117.3860	02/21/1987	231530.1	2.6	4.07	0.027	V	33.5(53.9)
DMG	34.2700	117.5400	09/12/1970	143053.0	8.0	5.40	0.055	VI	33.6(54.1)
DMG	34.3000	117.6000	07/30/1894	512 0.0	0.0	6.00	0.075	VII	33.6(54.1)
DMG	34.0330	117.3170	09/03/1935	647 0.0	0.0	4.50	0.034	V	33.7(54.3)
DMG	34.2810	117.5520	09/13/1970	44748.6	8.0	4.40	0.032	V	33.9(54.5)
DMG	33.7670	118.4500	10/11/1940	55712.3	0.0	4.70	0.038	V	33.9(54.6)
DMG	33.6630	118.4130	01/08/1967	738 5.3	17.7	4.00	0.026	V	34.2(55.0)
DMG	34.2670	117.5180	09/12/1970	141011.2	8.0	4.10	0.027	V	34.2(55.0)
DMG	33.6330	118.4000	10/17/1934	938 0.0	0.0	4.00	0.026	V	34.4(55.4)
DMG	34.3040	117.5700	05/05/1969	16 2 9.6	8.8	4.40	0.032	V	34.7(55.8)
DMG	34.0000	117.2830	11/07/1939	1852 8.4	0.0	4.70	0.037	V	34.9(56.2)
DMG	34.1180	117.3410	09/22/1951	82239.1	11.9	4.30	0.030	V	34.9(56.2)
DMG	33.5430	118.3400	09/14/1963	35116.2	2.2	4.20	0.028	V	35.0(56.4)
DMG	34.1270	117.3380	02/23/1936	222042.7	10.0	4.50	0.033	V	35.4(56.9)
DMG	34.2000	117.4000	07/22/1899	046 0.0	0.0	5.50	0.056	VI	35.4(57.0)
GSP	34.1900	117.3900	12/28/1989	094108.1	15.0	4.50	0.033	V	35.4(57.0)
DMG	33.9960	117.2700	02/17/1952	123658.3	16.0	4.50	0.033	V	35.6(57.2)
DMG	33.7700	118.4800	04/24/1931	182754.8	0.0	4.40	0.031	V	35.6(57.2)
DMG	34.1400	117.3390	02/26/1936	93327.6	10.0	4.00	0.025	V	35.8(57.6)
MGI	33.8000	118.5000	06/18/1915	15 5 0.0	0.0	4.00	0.025	V	36.4(58.5)
DMG	34.1000	117.3000	02/16/1931	1327 0.0	0.0	4.00	0.025	V	36.4(58.6)

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FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
MGI	34.1000	117.3000	12/27/1901	11 0 0.0	0.0	4.60	0.034	V	36.4(58.6)
MGI	34.1000	117.3000	11/22/1911	257 0.0	0.0	4.00	0.025	V	36.4(58.6)
MGI	34.1000	117.3000	07/15/1905	2041 0.0	0.0	5.30	0.049	VI	36.4(58.6)
GSP	34.1070	117.3040	01/09/2009	034946.3	14.0	4.50	0.032	V	36.4(58.6)
DMG	34.3000	117.5000	07/22/1899	2032 0.0	0.0	6.50	0.092	VII	36.6(58.9)
DMG	34.0000	117.2500	07/23/1923	73026.0	0.0	6.25	0.080	VII	36.7(59.1)
DMG	34.0000	117.2500	11/01/1932	445 0.0	0.0	4.00	0.024	V	36.7(59.1)
DMG	34.3700	117.6500	12/08/1812	15 0 0.0	0.0	7.00	0.118	VII	36.9(59.4)
GSP	34.1680	117.3370	06/28/1997	214525.1	9.0	4.20	0.027	V	36.9(59.4)
DMG	34.4000	117.8000	02/24/1946	6 752.0	0.0	4.10	0.026	V	37.0(59.5)
DMG	34.0000	118.5000	11/08/1914	1140 0.0	0.0	4.50	0.032	V	37.2(59.8)
MGI	34.0000	118.5000	03/08/1918	1230 0.0	0.0	4.00	0.024	V	37.2(59.8)
DMG	34.0000	118.5000	06/22/1920	248 0.0	0.0	4.90	0.039	V	37.2(59.8)
MGI	34.0000	118.5000	06/23/1920	1220 0.0	0.0	4.00	0.024	V	37.2(59.8)
DMG	34.0000	118.5000	08/04/1927	1224 0.0	0.0	5.00	0.041	V	37.2(59.8)
MGI	34.0000	118.5000	11/19/1918	2018 0.0	0.0	5.00	0.041	V	37.2(59.8)
DMG	34.0000	118.5000	03/06/1918	1820 0.0	0.0	4.00	0.024	V	37.2(59.8)
GSP	34.3740	117.6490	08/20/1998	234958.4	9.0	4.40	0.030	V	37.2(59.9)
GSP	34.0470	117.2550	02/21/2000	134943.1	15.0	4.50	0.031	V	37.4(60.2)

PAS	34.0230	117.2450	10/02/1985	234412.4	15.2	4.80	0.037	V	37.4(60.2)
T-A	34.1700	117.3200	12/02/1859	2210 0.0	0.0	4.30	0.028	V	37.8(60.9)
DMG	33.6320	118.4670	01/08/1967	73730.4	11.4	4.00	0.024	IV	37.9(61.0)
DMG	33.3670	118.1500	04/16/1942	72833.0	0.0	4.00	0.024	IV	38.1(61.3)
GSP	34.3850	117.6350	10/16/2007	085344.1	8.0	4.20	0.026	V	38.2(61.4)
GSP	34.0240	117.2300	03/11/1998	121851.8	14.0	4.50	0.031	V	38.3(61.6)
T-A	34.0800	117.2500	10/07/1869	0 0 0.0	0.0	4.30	0.028	V	38.5(61.9)
DMG	33.9000	117.2000	12/19/1880	0 0 0.0	0.0	6.00	0.068	VI	38.5(62.0)
DMG	34.0430	117.2280	04/03/1939	25044.7	10.0	4.00	0.023	IV	38.8(62.4)
GSG	34.0958	118.4912	06/02/2014	023643.9	4.4	4.16	0.026	V	38.8(62.5)
GSG	34.1347	118.4858	03/17/2014	132536.9	9.9	4.39	0.028	V	39.7(63.9)
MGI	34.2000	117.3000	04/13/1913	1045 0.0	0.0	4.00	0.023	IV	39.9(64.3)
DMG	33.7380	117.1870	04/27/1962	91232.1	5.7	4.10	0.024	V	40.3(64.8)
GSP	34.0050	117.1800	02/13/2010	213906.6	8.0	4.10	0.024	IV	40.7(65.5)
DMG	34.3350	118.3310	02/09/1971	155820.7	14.2	4.80	0.034	V	41.6(67.0)
MGI	34.1000	117.2000	04/23/1923	2113 0.0	0.0	4.00	0.022	IV	41.6(67.0)
GSP	34.2930	118.3890	12/06/1994	034834.5	9.0	4.50	0.029	V	41.7(67.1)
DMG	34.3390	118.3320	02/09/1971	141612.9	11.1	4.10	0.023	IV	41.9(67.4)
GSP	34.2840	118.4040	01/14/2001	022614.1	8.0	4.30	0.026	V	41.9(67.4)
GSP	34.2890	118.4030	01/14/2001	025053.7	8.0	4.00	0.022	IV	42.1(67.7)
DMG	34.3610	118.3060	02/09/1971	141021.5	5.0	4.70	0.032	V	42.2(67.9)
DMG	34.3700	118.3020	02/10/1971	31212.0	0.8	4.00	0.022	IV	42.5(68.5)
GSP	34.2310	118.4750	03/20/1994	212012.3	13.0	5.30	0.043	VI	42.7(68.7)
GSP	34.3120	118.3930	05/25/1994	125657.1	7.0	4.40	0.027	V	42.8(68.9)
DMG	34.3680	118.3140	04/25/1971	1448 6.5	-2.0	4.00	0.022	IV	42.8(68.9)
DMG	34.2680	118.4450	08/30/1964	225737.1	15.4	4.00	0.022	IV	42.9(69.1)
GSP	34.3110	118.3980	06/15/1994	055948.6	7.0	4.20	0.024	V	42.9(69.1)
GSP	34.2450	118.4710	01/18/1994	155144.9	12.0	4.00	0.022	IV	43.1(69.3)
PAS	33.9190	118.6270	01/19/1989	65328.8	11.9	5.00	0.036	V	43.5(69.9)
GSB	34.2990	118.4280	01/23/1994	085508.7	6.0	4.20	0.024	IV	43.6(70.2)
GSP	34.2150	118.5100	01/19/1994	140914.8	17.0	4.50	0.028	V	43.7(70.4)
DMG	33.9500	118.6320	08/31/1930	04036.0	0.0	5.20	0.040	V	44.0(70.8)
GSP	34.2990	118.4390	02/03/1994	162335.4	8.0	4.20	0.024	IV	44.1(70.9)
GSP	34.2870	118.4660	01/19/1994	071406.2	11.0	4.00	0.021	IV	44.7(71.9)

EARTHQUAKE SEARCH RESULTS

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FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
GSP	34.3010	118.4520	01/21/1994	185244.2	7.0	4.30	0.025	V	44.7(71.9)
GSP	34.2970	118.4580	01/21/1994	185344.6	7.0	4.30	0.025	V	44.8(72.1)
GSP	34.2920	118.4660	01/19/1994	144635.2	6.0	4.00	0.021	IV	44.9(72.2)
GSP	34.2130	118.5370	01/17/1994	123055.4	18.0	6.70	0.087	VII	44.9(72.3)
DMG	34.2960	118.4640	03/30/1971	85443.3	2.6	4.10	0.022	IV	45.0(72.4)
DMG	34.3080	118.4540	02/09/1971	144346.7	6.2	5.20	0.039	V	45.1(72.6)
GSB	34.3000	118.4660	01/21/1994	183915.3	10.0	4.70	0.030	V	45.3(72.8)
GSP	34.2910	118.4760	02/06/1994	131926.9	11.0	4.10	0.022	IV	45.3(72.9)
GSP	34.3110	118.4560	01/17/1994	193534.3	2.0	4.00	0.021	IV	45.3(73.0)
DMG	34.3570	118.4060	02/09/1971	141950.2	11.8	4.00	0.021	IV	45.6(73.3)
GSP	34.3170	118.4550	01/17/1994	132644.7	2.0	4.70	0.030	V	45.6(73.3)
DMG	34.3870	118.3640	02/09/1971	143917.8	-1.6	4.00	0.021	IV	45.6(73.4)
GSP	34.3310	118.4420	01/17/1994	141430.3	1.0	4.50	0.027	V	45.7(73.5)
DMG	33.7000	117.1000	06/11/1902	245 0.0	0.0	4.50	0.027	V	45.7(73.6)
DMG	34.4110	118.3290	02/10/1971	5 636.0	4.7	4.30	0.024	V	45.7(73.6)

GSP	34.3040	118.4730	01/17/1994	150703.2	2.0	4.20	0.023	IV	45.7(73.6)
GSP	33.9530	117.0760	09/14/2011	144451.0	16.0	4.10	0.022	IV	45.9(73.9)
PAS	33.9330	118.6690	10/17/1979	205237.3	5.5	4.20	0.023	IV	45.9(73.9)
GSB	34.3100	118.4740	01/21/1994	184228.8	7.0	4.20	0.023	IV	46.1(74.1)
DMG	34.3960	118.3660	02/10/1971	173855.1	6.2	4.20	0.023	IV	46.2(74.3)
GSP	34.2610	118.5340	01/17/1994	123939.8	14.0	4.50	0.026	V	46.6(75.1)
PAS	33.9440	118.6810	01/01/1979	231438.9	11.3	5.00	0.034	V	46.7(75.2)
DMG	34.2860	118.5150	03/31/1971	145222.5	2.1	4.60	0.028	V	46.8(75.3)
GSP	34.2540	118.5450	01/17/1994	130627.9	0.0	4.60	0.028	V	46.9(75.4)
DMG	34.2730	118.5320	06/21/1971	16 1 8.5	4.1	4.00	0.020	IV	47.0(75.7)
GSP	34.2280	118.5730	01/17/1994	175608.2	19.0	4.60	0.028	V	47.2(76.0)
DMG	34.2840	118.5280	04/02/1971	54025.0	3.0	4.00	0.020	IV	47.3(76.1)
DMG	34.3530	118.4560	03/07/1971	13340.5	3.3	4.50	0.026	V	47.3(76.2)
GSP	34.3390	118.4750	09/01/2011	204708.0	7.0	4.20	0.022	IV	47.4(76.4)
GSG	34.3340	118.4840	01/17/1994	223152.1	10.0	4.20	0.022	IV	47.6(76.6)
DMG	34.0170	117.0500	02/19/1940	12 655.7	0.0	4.60	0.027	V	48.1(77.5)
DMG	34.3920	118.4270	02/21/1971	71511.7	7.2	4.50	0.026	V	48.2(77.5)
DMG	34.4310	118.3690	08/14/1974	144555.2	8.2	4.20	0.022	IV	48.2(77.5)
DMG	34.4110	118.4010	02/09/1971	14 041.8	8.4	6.40	0.070	VI	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 838.0	8.0	4.50	0.026	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 853.0	8.0	4.60	0.027	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 434.0	8.0	4.20	0.022	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 439.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	141028.0	8.0	5.30	0.039	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 159.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 231.0	8.0	4.70	0.029	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 2 3.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 230.0	8.0	4.30	0.023	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 4 7.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 154.0	8.0	4.20	0.022	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 444.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 133.0	8.0	4.20	0.022	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 150.0	8.0	4.50	0.026	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 730.0	8.0	4.00	0.020	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 8 7.0	8.0	4.20	0.022	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 745.0	8.0	4.50	0.026	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 346.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 710.0	8.0	4.00	0.020	IV	48.2(77.6)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
DMG	34.4110	118.4010	02/09/1971	14 8 4.0	8.0	4.00	0.020	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 541.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 244.0	8.0	5.80	0.051	VI	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 550.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 140.0	8.0	4.10	0.021	IV	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 1 8.0	8.0	5.80	0.051	VI	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 325.0	8.0	4.40	0.024	V	48.2(77.6)
DMG	34.4110	118.4010	02/09/1971	14 446.0	8.0	4.20	0.022	IV	48.2(77.6)
DMG	34.3560	118.4740	03/25/1971	2254 9.9	4.6	4.20	0.022	IV	48.2(77.6)
DMG	34.3990	118.4190	02/10/1971	134953.7	9.7	4.30	0.023	IV	48.2(77.6)
GSP	34.2740	118.5630	01/27/1994	171958.8	14.0	4.60	0.027	V	48.5(78.1)

GSP	34.3570	118.4800	02/25/1994	125912.6	1.0	4.10	0.021	IV	48.5(78.1)
GSP	34.2180	118.6070	01/18/1994	113509.9	12.0	4.20	0.022	IV	48.6(78.1)
DMG	34.5190	118.1980	08/23/1952	10 9 7.1	13.1	5.00	0.033	V	48.7(78.4)
PAS	34.3800	118.4590	08/12/1977	21926.1	9.5	4.50	0.026	V	48.8(78.5)
GSP	33.9320	117.0230	01/16/2010	120325.7	13.0	4.30	0.023	IV	48.8(78.5)
DMG	34.2650	118.5770	04/15/1971	111432.0	4.2	4.20	0.022	IV	48.8(78.6)
DMG	34.3840	118.4550	02/10/1971	113134.6	6.0	4.20	0.022	IV	48.8(78.6)
DMG	34.3970	118.4390	02/21/1971	55052.6	6.9	4.70	0.028	V	48.9(78.7)
GSP	34.2690	118.5760	01/17/1994	125546.8	16.0	4.10	0.021	IV	48.9(78.7)
DMG	34.3610	118.4870	02/10/1971	143526.7	4.4	4.20	0.022	IV	49.0(78.8)
DMG	34.4330	118.3980	02/09/1971	144017.4	-2.0	4.10	0.021	IV	49.3(79.3)
DMG	34.4260	118.4140	02/10/1971	518 7.2	5.8	4.50	0.025	V	49.5(79.6)
DMG	34.4280	118.4130	04/01/1971	15 3 3.6	8.0	4.10	0.020	IV	49.6(79.7)
GSB	34.3010	118.5650	01/17/1994	204602.4	9.0	5.20	0.036	V	49.7(80.0)
DMG	34.2000	117.1000	09/20/1907	154 0.0	0.0	6.00	0.056	VI	49.7(80.0)
GSP	34.1920	117.0950	04/06/1994	190104.1	7.0	4.80	0.030	V	49.7(80.0)
GSP	34.0540	117.0300	06/27/2005	221733.6	12.0	4.00	0.019	IV	49.9(80.2)
GSP	34.3740	118.4950	01/28/1994	200953.4	0.0	4.20	0.021	IV	49.9(80.4)
DMG	34.5650	118.1130	02/28/1969	45612.4	5.3	4.30	0.023	IV	50.1(80.6)
GSB	34.3190	118.5580	01/18/1994	132444.1	1.0	4.50	0.025	V	50.1(80.7)
DMG	33.8000	117.0000	12/25/1899	1225 0.0	0.0	6.40	0.068	VI	50.2(80.7)
DMG	34.3990	118.4730	03/09/1974	05431.9	24.4	4.70	0.028	V	50.3(80.9)
GSP	34.3050	118.5790	01/29/1994	112036.0	1.0	5.10	0.034	V	50.5(81.3)
DMG	33.7500	117.0000	06/06/1918	2232 0.0	0.0	5.00	0.032	V	50.6(81.5)
DMG	33.7500	117.0000	04/21/1918	223225.0	0.0	6.80	0.084	VII	50.6(81.5)
DMG	34.0000	117.0000	06/30/1923	022 0.0	0.0	4.50	0.025	V	50.7(81.6)
GSP	34.2780	118.6110	01/29/1994	121656.4	2.0	4.30	0.022	IV	50.9(81.9)
GSB	34.3450	118.5520	01/24/1994	041518.8	6.0	4.80	0.029	V	51.0(82.1)
GSP	34.0580	117.0100	06/16/2005	205326.0	11.0	4.90	0.031	V	51.0(82.1)
DMG	34.3000	118.6000	04/04/1893	1940 0.0	0.0	6.00	0.054	VI	51.3(82.5)
PAS	34.4630	118.4090	09/24/1977	212824.3	5.0	4.20	0.021	IV	51.3(82.6)
DMG	34.4460	118.4360	02/10/1971	185441.7	8.1	4.20	0.021	IV	51.3(82.6)
DMG	34.4570	118.4270	02/09/1971	161926.5	-1.0	4.20	0.021	IV	51.6(83.1)
GSB	34.2850	118.6240	01/17/1994	135602.4	19.0	4.70	0.027	V	51.8(83.4)
GSP	34.3000	118.6200	08/09/2007	075849.0	4.0	4.40	0.023	IV	52.2(84.0)
GSB	34.3600	118.5710	01/19/1994	044048.0	2.0	4.50	0.024	V	52.5(84.5)
GSP	34.0970	116.9960	12/05/1997	170438.9	4.0	4.10	0.020	IV	52.5(84.6)
T-A	33.5000	117.0700	12/29/1880	7 0 0.0	0.0	4.30	0.022	IV	52.6(84.6)
GSP	34.0850	116.9890	06/30/1992	214900.3	3.0	4.40	0.023	IV	52.7(84.8)
GSP	34.3790	118.5610	01/18/1994	152346.9	7.0	4.80	0.028	V	52.9(85.2)
GSP	34.1200	116.9980	06/29/1992	144126.0	4.0	4.40	0.023	IV	52.9(85.2)
GSP	34.3790	118.5630	01/18/1994	003935.0	7.0	4.40	0.023	IV	53.0(85.3)

EARTHQUAKE SEARCH RESULTS

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
GSP	34.1800	117.0200	12/04/1991	081703.5	11.0	4.00	0.018	IV	53.3(85.7)
GSB	34.3330	118.6230	01/18/1994	072356.0	14.0	4.30	0.021	IV	53.7(86.4)
GSP	34.0840	116.9680	10/02/2008	094149.3	12.0	4.10	0.019	IV	53.8(86.6)
GSG	34.4080	118.5590	01/17/1994	200205.4	0.0	4.00	0.018	IV	54.2(87.2)
GSP	34.3620	118.6150	03/20/1996	073759.8	13.0	4.10	0.019	IV	54.5(87.7)
GSB	34.3580	118.6220	01/18/1994	040126.8	1.0	4.50	0.023	IV	54.7(88.0)
DMG	34.3440	118.6360	02/09/1971	143436.1	-2.0	4.90	0.029	V	54.7(88.1)

DMG	34.1670	116.9830	10/16/1951	1241 5.0	0.0	4.00	0.018	IV	54.9(	88.3)
GSP	34.1570	116.9760	12/19/2007	121409.0	7.0	4.00	0.018	IV	55.0(	88.5)
GSP	34.3590	118.6290	01/24/1994	055024.3	12.0	4.30	0.021	IV	55.0(	88.5)
PAS	34.1510	116.9720	11/20/1978	655 9.5	6.1	4.30	0.021	IV	55.1(	88.6)
GSP	34.3630	118.6270	01/24/1994	055421.1	10.0	4.20	0.020	IV	55.1(	88.7)
GSP	34.3780	118.6180	01/19/1994	211144.9	11.0	5.10	0.032	V	55.4(	89.1)
GSP	34.3740	118.6220	01/17/1994	155410.8	12.0	4.80	0.027	V	55.4(	89.1)
DMG	33.7100	116.9250	09/23/1963	144152.6	16.5	5.00	0.030	V	55.4(	89.1)
DMG	34.1000	118.8000	05/10/1911	1340 0.0	0.0	4.00	0.018	IV	55.5(	89.4)
DMG	34.3800	118.6230	10/29/1936	223536.1	10.0	4.00	0.018	IV	55.7(	89.6)
PAS	34.3470	118.6560	04/08/1976	152138.1	14.5	4.60	0.024	V	55.8(	89.7)
GSP	34.3680	118.6370	01/17/1994	194353.4	13.0	4.10	0.019	IV	55.8(	89.7)
GSP	34.3970	118.6090	07/22/1999	095724.0	11.0	4.00	0.018	IV	55.8(	89.8)
DMG	34.1330	116.9500	06/10/1938	1440 0.0	0.0	4.00	0.018	IV	55.8(	89.8)
MGI	33.8000	116.9000	06/14/1918	1024 0.0	0.0	4.00	0.018	IV	55.9(	89.9)
MGI	33.8000	116.9000	04/23/1918	1415 0.0	0.0	4.00	0.018	IV	55.9(	89.9)
MGI	33.8000	116.9000	04/29/1918	2 0 0.0	0.0	4.00	0.018	IV	55.9(	89.9)
MGI	33.8000	116.9000	12/18/1920	1726 0.0	0.0	4.00	0.018	IV	55.9(	89.9)
GSG	34.2800	117.0278	07/05/2014	165934.1	8.7	4.58	0.024	V	56.0(	90.1)
GSB	34.3430	118.6660	01/17/1994	234925.4	8.0	4.30	0.021	IV	56.1(	90.2)
DMG	33.5000	117.0000	08/08/1925	1013 0.0	0.0	4.50	0.023	IV	56.1(	90.3)
GSP	34.3610	118.6570	01/29/2002	055328.9	14.0	4.20	0.020	IV	56.4(	90.7)
DMG	34.4850	118.5210	07/16/1965	74622.4	15.1	4.00	0.018	IV	56.5(	91.0)
GSP	34.3770	118.6490	04/27/1997	110928.4	15.0	4.80	0.027	V	56.7(	91.2)
GSP	34.1210	116.9280	08/16/1998	133440.2	6.0	4.70	0.025	V	56.7(	91.3)
GSP	34.3260	118.6980	01/17/1994	233330.7	9.0	5.60	0.041	V	56.9(	91.6)
PAS	34.1980	116.9590	04/01/1978	105227.4	8.0	4.00	0.017	IV	57.0(	91.7)
GSP	34.1120	116.9200	10/01/1998	181816.0	4.0	4.70	0.025	V	57.0(	91.7)
DMG	33.9680	116.8820	06/27/1959	162211.1	13.8	4.00	0.017	IV	57.1(	91.9)
GSG	34.3040	118.7220	01/17/1994	221922.3	10.0	4.00	0.017	IV	57.2(	92.1)
GSP	34.3690	118.6720	04/26/1997	103730.7	16.0	5.10	0.031	V	57.4(	92.4)
GSP	33.9660	116.8760	01/12/2010	023608.4	10.0	4.30	0.020	IV	57.4(	92.4)
PAS	33.0330	117.9440	02/22/1983	21830.4	10.0	4.30	0.020	IV	57.8(	93.0)
GSP	34.3040	118.7370	01/19/1994	091310.9	13.0	4.10	0.018	IV	58.0(	93.3)
GSP	34.3540	118.7040	05/01/1996	194956.4	14.0	4.10	0.018	IV	58.3(	93.8)
GSP	34.3940	118.6690	06/26/1995	084028.9	13.0	5.00	0.029	V	58.3(	93.8)
GSP	34.1780	116.9220	06/28/1992	170131.9	13.0	4.70	0.025	V	58.4(	94.0)
DMG	34.1800	116.9200	01/16/1930	02433.9	0.0	5.20	0.032	V	58.5(	94.2)
DMG	34.1800	116.9200	01/16/1930	034 3.6	0.0	5.10	0.030	V	58.5(	94.2)
DMG	34.2670	116.9670	08/29/1943	35754.0	0.0	4.00	0.017	IV	58.6(	94.3)
DMG	34.2670	116.9670	08/29/1943	34513.0	0.0	5.50	0.038	V	58.6(	94.3)
DMG	34.2670	116.9670	08/29/1943	51630.0	0.0	4.00	0.017	IV	58.6(	94.3)
GSP	34.5000	118.5600	07/05/1991	174157.1	11.0	4.10	0.018	IV	58.8(	94.6)
DMG	33.9500	116.8500	09/28/1946	719 9.0	0.0	5.00	0.029	V	58.8(	94.6)
DMG	34.1000	116.8830	10/24/1935	1452 0.0	0.0	4.50	0.022	IV	58.8(	94.6)
DMG	34.1000	116.8830	10/24/1935	1527 0.0	0.0	4.00	0.017	IV	58.8(	94.6)

EARTHQUAKE SEARCH RESULTS

Page 11

FILE CODE	LAT. NORTH	LONG. WEST	DATE	TIME (UTC) H M Sec	DEPTH (km)	QUAKE MAG.	SITE ACC. g	SITE MM INT.	APPROX. DISTANCE mi [km]
DMG	34.1000	116.8830	10/24/1935	1451 0.0	0.0	4.50	0.022	IV	58.8(94.6)
USG	33.0170	117.8170	07/16/1986	1247 3.7	10.0	4.11	0.018	IV	58.8(94.6)
USG	33.0170	117.8170	07/14/1986	11112.6	10.0	4.12	0.018	IV	58.8(94.6)

GSP	34.3650	118.7080	01/19/1994	044314.5	12.0	4.10	0.018	IV	58.9(94.8)
GSP	34.3770	118.6980	01/18/1994	004308.9	11.0	5.20	0.032	V	58.9(94.8)
DMG	34.3330	117.0000	02/27/1942	1 853.0	0.0	4.00	0.017	IV	59.3(95.4)
GSP	34.0690	118.8820	05/02/2009	011113.7	14.0	4.40	0.021	IV	59.5(95.8)
GSB	34.3790	118.7110	01/19/1994	210928.6	14.0	5.50	0.037	V	59.6(95.9)
MGI	34.2000	116.9000	10/10/1915	5 6 0.0	0.0	4.00	0.017	IV	60.1(96.7)
DMG	33.5000	116.9170	11/04/1935	355 0.0	0.0	4.50	0.022	IV	60.4(97.2)
GSP	34.2900	116.9460	02/10/2001	210505.8	9.0	5.10	0.030	V	60.4(97.2)
PAS	33.7010	116.8370	08/22/1979	2 136.3	5.0	4.10	0.018	IV	60.4(97.3)
GSP	34.2870	116.9420	02/11/2001	003916.0	8.0	4.20	0.018	IV	60.5(97.4)
PAS	32.9900	117.8490	07/13/1986	14 133.0	12.0	4.60	0.023	IV	60.6(97.5)
PAS	32.9860	117.8440	10/01/1986	201218.6	6.0	4.00	0.017	IV	60.9(98.0)
GSP	32.9850	117.8180	06/21/1995	211736.2	6.0	4.30	0.019	IV	61.0(98.2)
GSP	34.1410	116.8570	09/19/1997	223714.5	10.0	4.10	0.017	IV	61.0(98.2)
GSP	34.2560	116.9120	06/28/1992	170557.5	8.0	4.60	0.023	IV	61.1(98.3)
GSP	34.0490	118.9150	02/19/1995	212418.1	15.0	4.30	0.019	IV	61.1(98.3)
PAS	34.2460	116.9010	06/29/1979	55320.5	5.7	4.60	0.023	IV	61.3(98.7)
PAS	34.2490	116.9000	06/30/1979	7 353.0	5.6	4.50	0.021	IV	61.5(98.9)
PAS	34.2430	116.8960	06/30/1979	03411.6	5.8	4.90	0.026	V	61.5(99.0)
GSP	34.1630	116.8550	06/28/1992	144321.0	6.0	5.30	0.033	V	61.6(99.2)
DMG	33.9670	116.8000	09/07/1945	153424.0	0.0	4.30	0.019	IV	61.7(99.4)
PAS	32.9710	117.8700	07/13/1986	1347 8.2	6.0	5.30	0.032	V	61.9(99.6)

****

-END OF SEARCH- 555 EARTHQUAKES FOUND WITHIN THE SPECIFIED SEARCH AREA.

TIME PERIOD OF SEARCH: 1800 TO 2016

LENGTH OF SEARCH TIME: 217 years

THE EARTHQUAKE CLOSEST TO THE SITE IS ABOUT 4.9 MILES (8.0 km) AWAY.

LARGEST EARTHQUAKE MAGNITUDE FOUND IN THE SEARCH RADIUS: 7.0

LARGEST EARTHQUAKE SITE ACCELERATION FROM THIS SEARCH: 0.174 g

COEFFICIENTS FOR GUTENBERG & RICHTER RECURRENCE RELATION:
a-value= 3.636
b-value= 0.813
beta-value= 1.873

TABLE OF MAGNITUDES AND EXCEEDANCES:

Earthquake Magnitude	Number of Times Exceeded	Cumulative No. / Year
4.0	555	2.56944
4.5	213	0.98611
5.0	76	0.35185
5.5	25	0.11574
6.0	15	0.06944
6.5	5	0.02315
7.0	2	0.00926

APPENDIX E

GENERAL EARTHWORK AND GRADING RECOMMENDATIONS

Leighton

APPENDIX E
LEIGHTON AND ASSOCIATES, INC.
GENERAL EARTHWORK AND GRADING SPECIFICATIONS FOR ROUGH GRADING

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1.0 GENERAL

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction.

The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 PREPARATION OF AREAS TO BE FILLED

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical

Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 FILL MATERIAL

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 FILL PLACEMENT AND COMPACTION

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify

adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 SUBDRAIN INSTALLATION

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 EXCAVATION

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of

the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 TRENCH BACKFILLS

7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

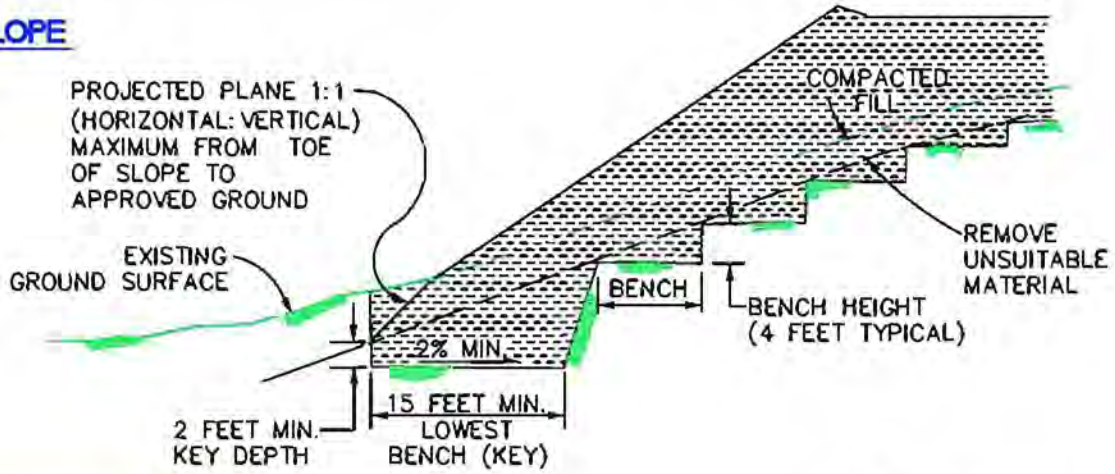
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

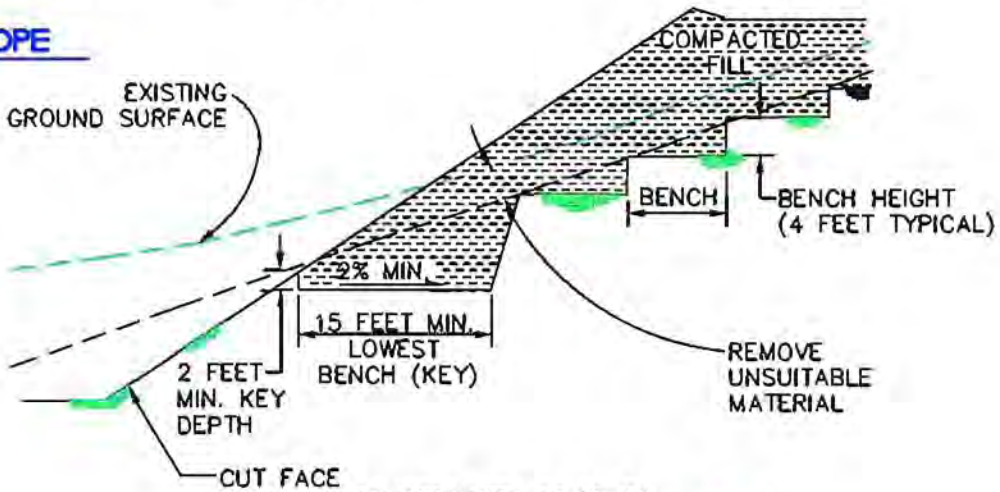
7.4 Observation and Testing

The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

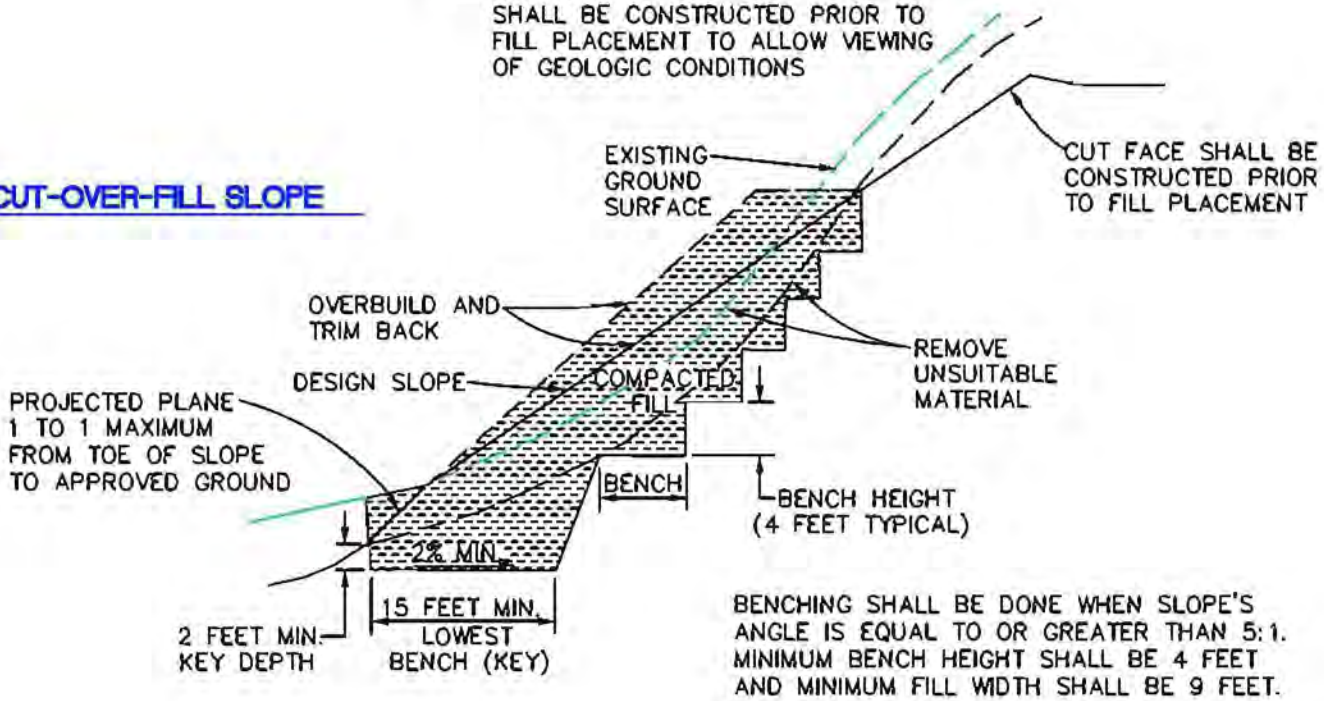
FILL SLOPE



FILL-OVER-CUT SLOPE

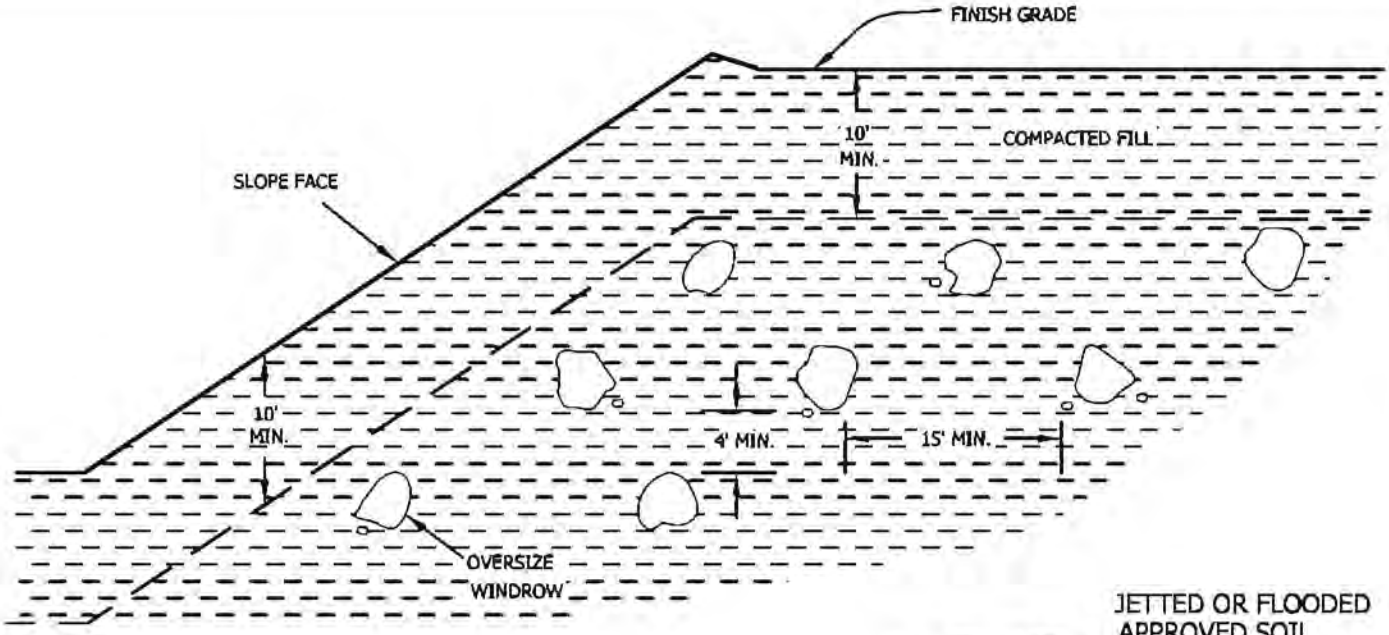


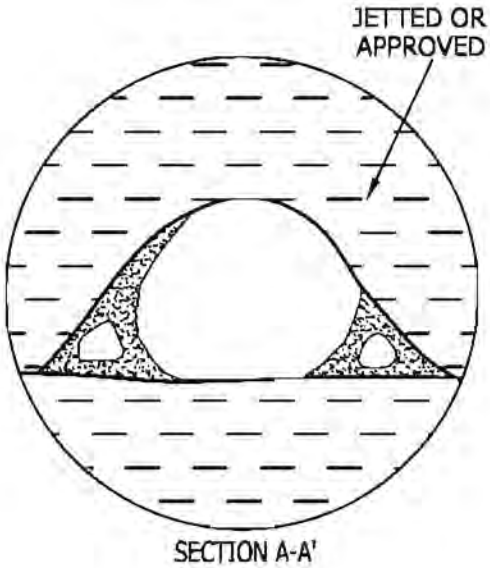
CUT-OVER-FILL SLOPE



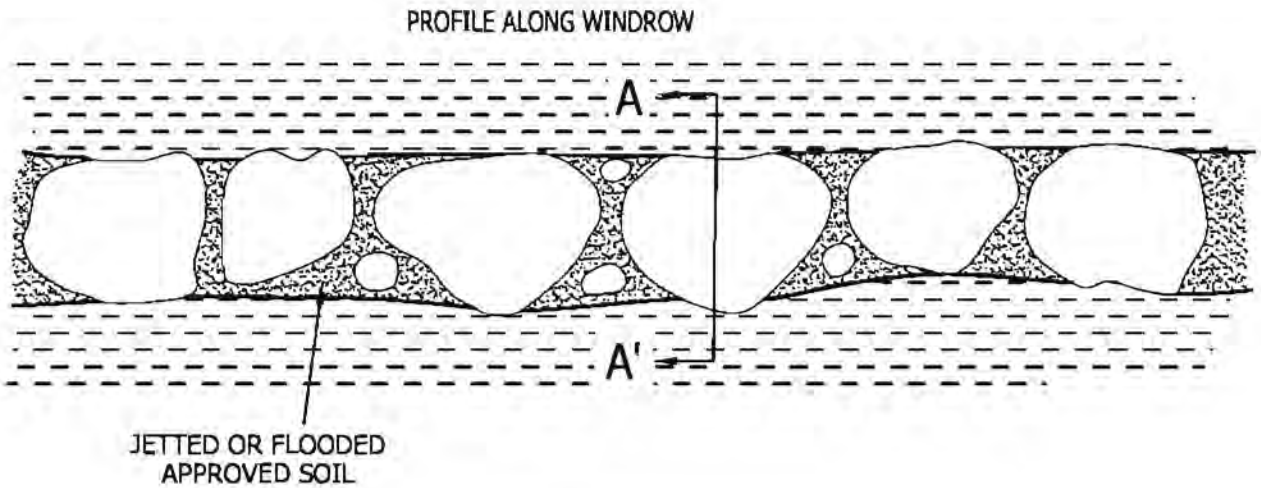
BENCHING SHALL BE DONE WHEN SLOPE'S ANGLE IS EQUAL TO OR GREATER THAN 5:1. MINIMUM BENCH HEIGHT SHALL BE 4 FEET AND MINIMUM FILL WIDTH SHALL BE 9 FEET.

KEYING AND BENCHING	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS A	Leighton





- Oversize rock is larger than 8 inches in largest dimension.
- Backfill with approved soil jetted or flooded in place to fill all the voids.
- Do not bury rock within 10 feet of finish grade.
- Windrow of buried rock shall be parallel to the finished slope face.



OVERSIZE ROCK DISPOSAL

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS B

Leighton

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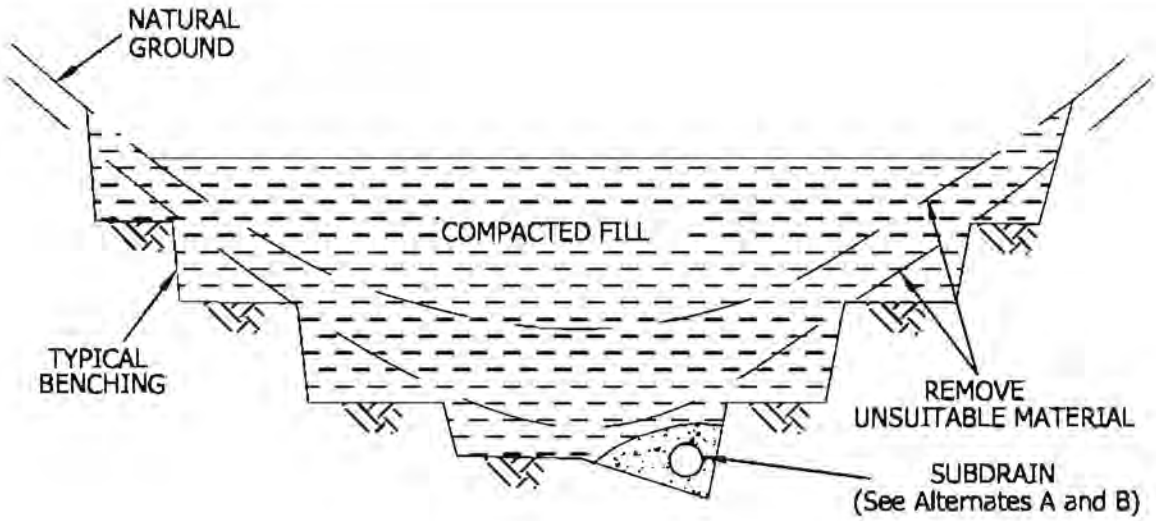
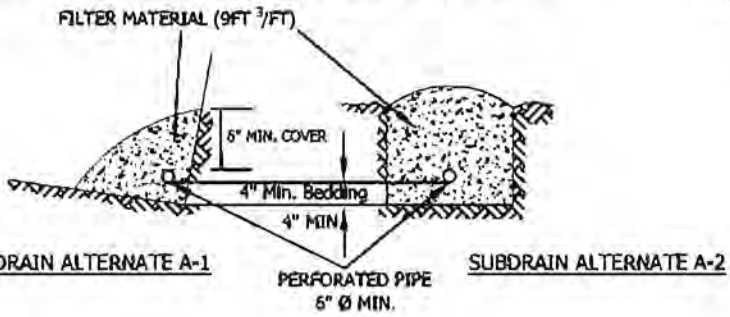


SUBDRAIN ALTERNATE A

PERFORATED PIPE SURROUNDED WITH FILTER MATERIAL

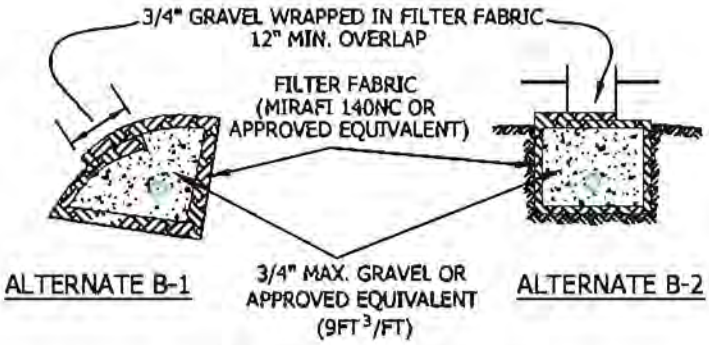


FILTER MATERIAL

FILTER MATERIAL SHALL BE CLASS 2 PERMEABLE MATERIAL PER STATE OF CALIFORNIA STANDARD SPECIFICATION, OR APPROVED ALTERNATE. CLASS 2 GRADING AS FOLLOWS:

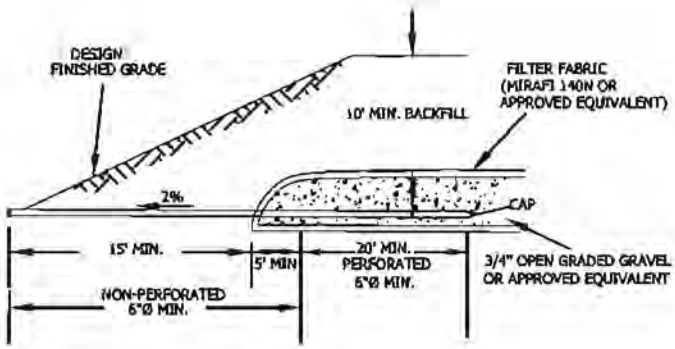
Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

SUBDRAIN ALTERNATE B



O PERFORATED PIPE IS OPTIONAL PER GOVERNING AGENCY'S REQUIREMENTS

DETAIL OF CANYON SUBDRAIN TERMINAL



CANYON SUBDRAIN	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS C	Leighton

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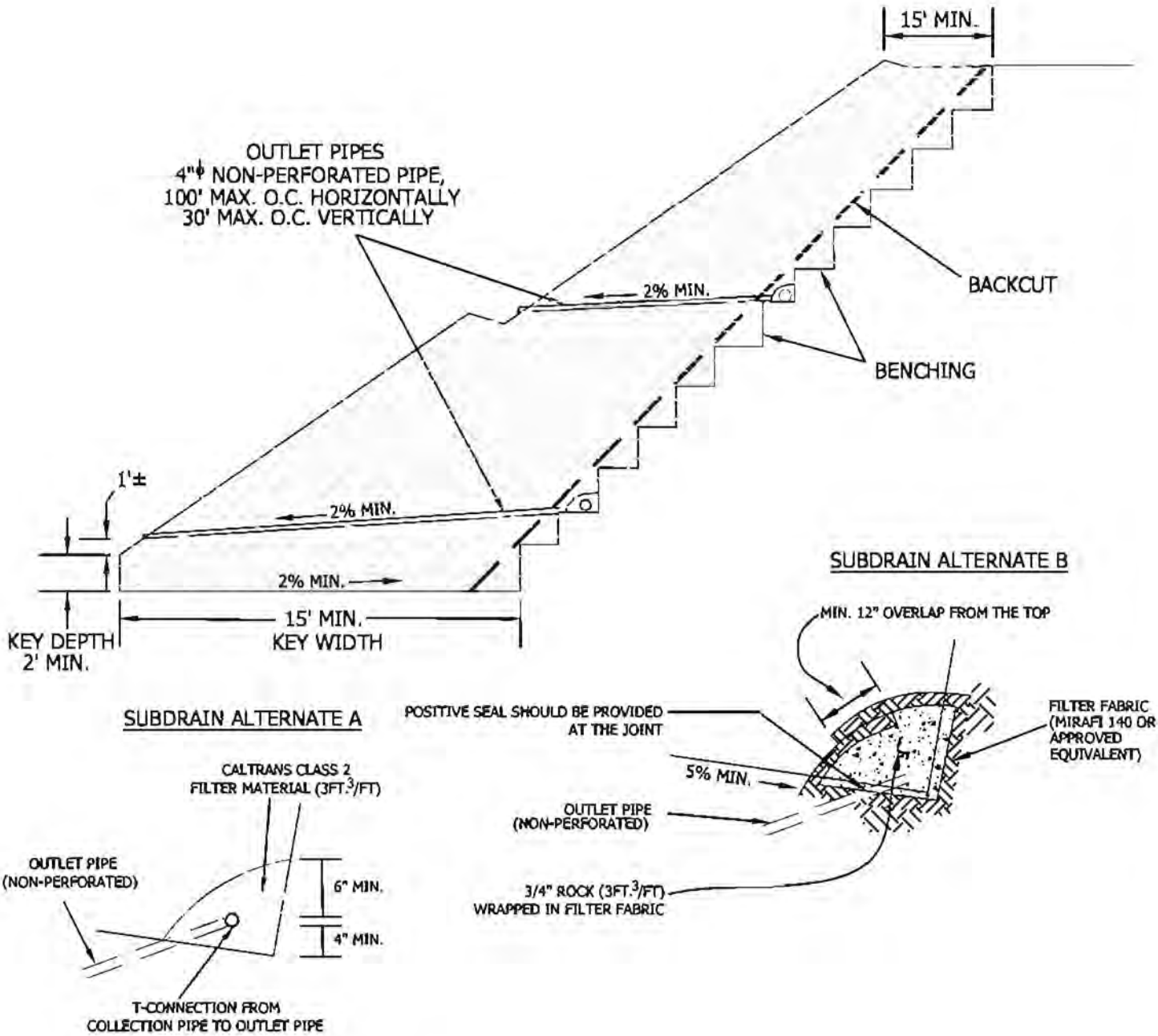

- SUBDRAIN INSTALLATION - Subdrain collector pipe shall be installed with perforations down or, unless otherwise designated by the geotechnical consultant. Outlet pipes shall be non-perforated pipe. The subdrain pipe shall have at least 8 perforations uniformly spaced per foot. Perforation shall be 1/4" to 1/2" if drilled holes are used. All subdrain pipes shall have a gradient at least 2% towards the outlet.
- SUBDRAIN PIPE - Subdrain pipe shall be ASTM D2751, ASTM D1527 (Schedule 40) or SDR 23.5 ABS pipe or ASTM D3034 (Schedule 40) or SDR 23.5 PVC pipe.
- All outlet pipe shall be placed in a trench and, after fill is placed above it, rodded to verify integrity.

BUTTRESS OR REPLACEMENT FILL SUBDRAINS	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS D	Leighton

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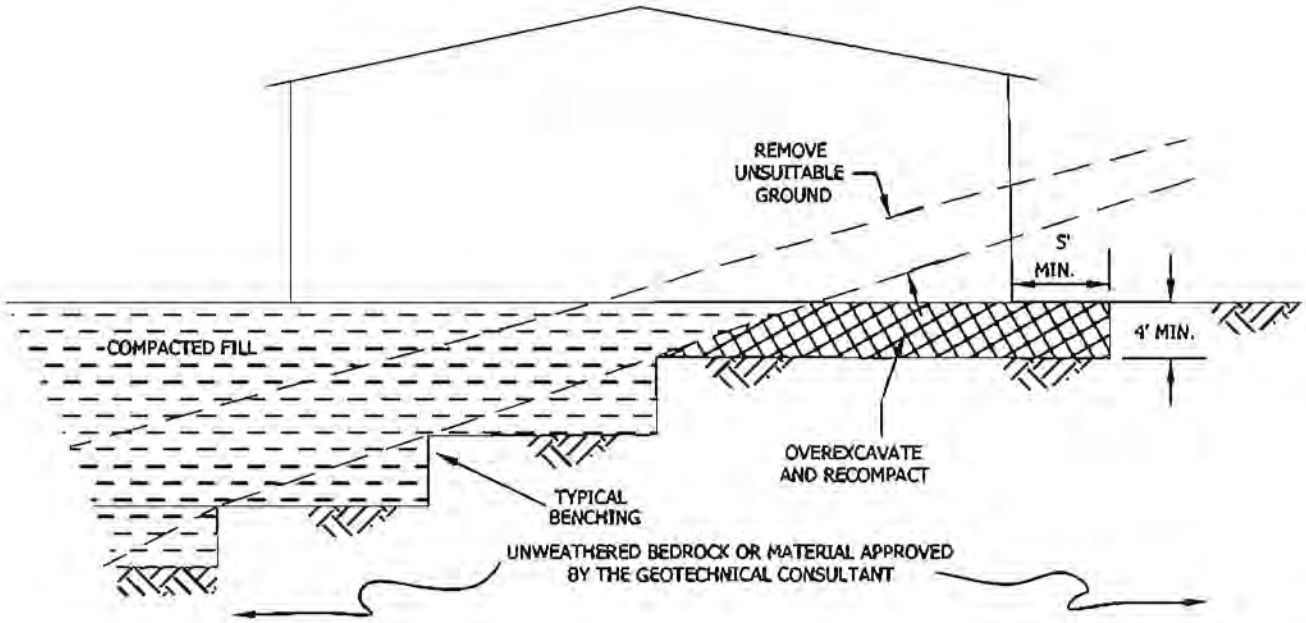
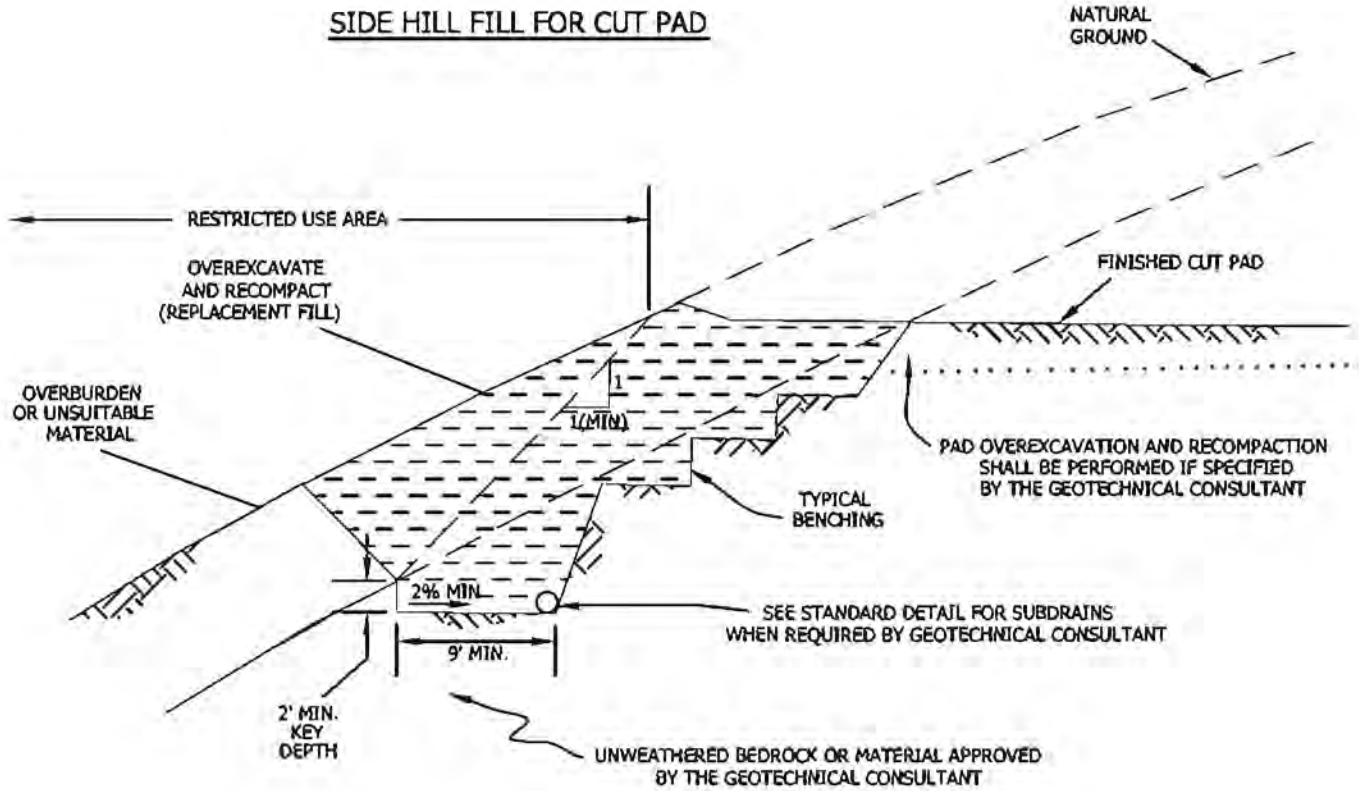
CUT-FILL TRANSITION LOT OVEREXCAVATION



SIDE HILL FILL FOR CUT PAD



TRANSITION LOT FILLS AND SIDE HILL FILLS

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS E

Leighton

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Due-Diligence Level Geotechnical Exploration Report

DUE-DILIGENCE LEVEL GEOTECHNICAL EXPLORATION REPORT PROPOSED APARTMENT BUILDING 110 AND 132 EAST CROWTHER AVENUE PLACENTIA, CALIFORNIA

Prepared for:

Integral Communities

888 San Clemente, Suite 100
Newport Beach, California 92660

Project No. 11263.001

March 11, 2016

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

March 11, 2016

Project No. 11263.001

Integral Communities
888 San Clemente Drive, Suite 100
Newport Beach, California 92600

Attention: Mr. Erik Weeks, Vice President

Subject: Due-Diligence Level Geotechnical Exploration Report
Proposed Apartment Building
110 and 132 East Crowther Avenue
Placentia, California

Per your request and authorization, Leighton and Associates, Inc. (Leighton) has prepared this due-diligence level geotechnical exploration report for the subject project. Review of a conceptual development plan for the project (Urban Arena, 2015) indicates the 3-acre project site will consist of a 5-story apartment building, a 5-level parking structure with an amenities rooftop deck that includes a lounge and pool, paving, hardscaping, landscaping, and associated utility infrastructure. No subterranean levels are currently being considered. The purpose of our work was to evaluate the general geotechnical conditions of the site and provide preliminary geotechnical recommendations for project planning.

Based on our due-diligence level exploration and a review of available data, the site is underlain by 8 to 10 feet of undocumented artificial fill overlying very old alluvial fan deposits. The proposed development may be supported on shallow spread footings established in engineered fill or undisturbed natural soils.

No known active or potentially active faults are mapped as crossing the site and the site is not located within an Alquist-Priolo Special Studies Zones. In addition, the site is not located within a liquefaction hazard zone as mapped by the California Geological Survey (CGS); however, significant ground shaking should be anticipated at the site during the expected life of the proposed structures.

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We appreciate the opportunity to work with you on this project. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; specifically at the phone extensions or e-mail as listed below.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

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1.0 INTRODUCTION

1.1 Site Description and Proposed Development

The project site is located at 110 and 132 East Crowther Avenue in Placentia, California. The site location (latitude 33.8676°, longitude -117.8711°) and immediate vicinity are shown on Figure 1, *Site Location Map.* The project site is a 3-acre trapezoidal-shaped parcel of land consisting of two properties, a western roughly triangular shaped parcel and an eastern narrow rectangular parcel. The site is located within an industrial district and is currently occupied by warehouse structures. The site is bordered by East Crowther Avenue to the north and commercial developments to the west, south, and east.

Review of a topographic map of the vicinity (USGS, 1981) indicates that the ground surface at the project site is approximately at Elevation (El.) +236 feet mean sea level (msl). Site topography is relatively flat and drainage is accomplished as sheet flow over paved surfaces to curbs and gutters.

Based on review of aerial photographs, the site appears to have been utilized as an orchard prior to 1947 with three to four wood framed farm dwellings located near the west entrance to the parcel fronting East Crowther Avenue. By 1963 the orchards had been removed while the farm buildings remained onsite, a large windrow of trees remain visible along the eastern boundary of the site. The residential structure remained at the property until it was demolished in 1973. Construction of the existing Boys and Girls Club began in 1972 and appears to have been completed by approximately 1976 (NETR, 2015).

Leighton prepared a Phase 1 Environmental Site Assessment (Leighton, 2010) for the eastern parcel located at 132 East Crowther Avenue, Placentia, California. At the time of our assessment, the site was occupied by The Boys and Girls Club of Placentia.

Review of a conceptual development plan for the project (Urban Arena, 2015) indicates the 3-acre project site will consist of a 5-story apartment building, a 5-level parking structure with an amenities rooftop deck that includes a lounge and pool, paving, hardscaping, landscaping, fire access road and associated utility infrastructure.

1.2 Purpose and Scope

The purpose of our work was to evaluate the subsurface conditions at the site relative to the proposed development and provide preliminary geotechnical recommendations to aid in project planning. The scope of this evaluation included the following tasks:

- *Background Review* – We reviewed in-house geotechnical reports, reports published in the literature, aerial photographs, and maps relevant to the site. We evaluated geological hazards and potential geotechnical issues that may significantly impact the site. The documents reviewed are listed in Section 4.0.

- *Field Exploration* – Prior to field exploration, we marked proposed exploration locations and contacted Underground Service Alert (USA) for utility clearance. We advanced 3 Cone Penetrometer Test soundings (CPT-1, CPT-2, and CPT-3) to depths ranging from 38 feet to 45 feet below the existing ground surface (bgs) at the locations shown on Figure 2, *Exploration Map*. Shear wave velocity measurements were recorded in CPT-2 to develop seismic design parameters. Upon completion, the CPTs were backfilled with bentonite grout to the ground surface and patched with cold patch asphalt concrete (AC) where AC was penetrated.

- *Engineering Analysis* – The data obtained from our background review and field exploration were analyzed to develop preliminary recommendations for the proposed development.

- *Report Preparation* – This report presents our findings, conclusions, and preliminary recommendations for the proposed development.

2.0 GEOTECHNICAL FINDINGS

2.1 Regional Geologic Setting

The subject site is located in the Coastal Plain within the southeastern margin of the Los Angeles Basin, a large structural depression within the Peninsular Ranges geomorphic province of California. In general, the Coastal Plain is bordered by the Puente Hills on the north and northeast; the Santa Ana Mountains, Peralta Hills, and Tustin Plain to the east; the Pacific Ocean to the south; and Los Angeles County to the west.

As the Santa Ana Mountains and Puente Hills were uplifted along mountain frontal faults, a system of southwesterly draining canyons formed on the mountain flank that carried detritus out into the Coastal Plain. Geologic mapping of the project area indicates near-surface native soils consist of Quaternary-aged very old alluvial fan deposits (map symbol: Qvof) that have coalesced along the range front forming the broad alluvial plain, which extends across the southern margin of the mountain front into the Coastal Plain. These alluvial materials are comprised of varying proportions of gravel, sand, silt, and clay derived primarily from the Santa Ana Mountains and Puente Hills (Morton, 2004). These fan deposits are underlain by a thick (several thousands of feet) sequence of Tertiary and Quaternary age sediments of marine and continental origin. The geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

The subsurface conditions at the site are summarized below. Descriptions of the materials interpreted from the CPTs and the approximate stratigraphy are presented on the CPT logs included in Appendix A, *Exploration Logs*.

2.2 Subsurface Soil Conditions

As indicated above, the project site is generally underlain by Quaternary-aged dense very old alluvial fan deposits (Morton, 2004). Undocumented artificial fill (8 to 10 feet thick), which likely predates modern methods of fill placement, certification, and documentation overlies the native alluvial materials. The CPT explorations suggest fluvial and alluvial deposition has occurred at the site with massive thick sand channels grading laterally to thinly bedded sand, silty, and clay.

2.2.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

Although sandy materials (silty sand and sandy silt) are anticipated within the foundation level, the exploration indicates thin layers of expansive clay are present. These clay layers should not be left in place or used as fill under the proposed foundations or slab on grade. Expansive soils will likely not impact the proposed construction. Nonetheless, laboratory testing is recommended during future geotechnical exploration to confirm the expansion potential of onsite soils.

2.2.2 Excavation Characteristics

Based on the recent subsurface exploration performed at the site and our experience from grading jobs in the vicinity of the site, we anticipate that the onsite artificial fill and near surface alluvial materials can be readily excavated using conventional excavation equipment in good operating condition.

2.3 Groundwater Conditions

Groundwater was not encountered at the site to the maximum depth explored of 45 feet bgs where refusal was met during the CPT exploration. In the vicinity of the project site, the historically shallowest groundwater depth is reported to be between approximately 50 to 60 feet bgs (CGS, 1997).

Groundwater levels are on the order of Elevation +154 feet msl (80 feet bgs) and the direction of groundwater flow is southwest, according to data provided by GeoTracker for Unocal Station 4629, 820 West Chapman Avenue, located approximately 0.6 mile northwest of the Subject Property (Leighton, 2010). Accordingly, groundwater is not expected to impact the proposed development

Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture should be anticipated during and following the rainy

seasons or periods of locally intense rainfall or storm water runoff. Stormwater infiltration potential was not addressed during this study. Future design level geotechnical investigation(s) should take into account the underlying stratigraphy and suitable infiltration testing should be performed to quantify the infiltration rate for use in design of any stormwater infiltration systems. Based on the results of the current study future infiltration testing should target the thick sand beds located at 12 to 14 feet below grade at this site.

2.4 Surface Fault Rupture

No active faults are mapped or known to cross the site, and the site is not currently located within an Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007). The locations of the nearest known active and potentially active faults with the potential for surface fault rupture in the region surrounding the project site are shown on Figure 4, *Regional Seismicity Map.*

Distances to the closest known active surface faults were calculated using the United States Geological Survey (USGS) Earthquake Hazards Program (USGS, 2008b). The closest active fault is the Puente Hills Blind Thrust Fault. This subsurface (blind-thrust) fault is mapped at a distance of approximately 1.7 miles to the northeast and is responsible for uplift of the Puente Hills. The closest active faults to the site with surface expression are the Whittier-Elsinore and Newport-Inglewood Fault Zone, located 4.3 miles to the north and 14.9 miles to the southwest, respectively. The San Andreas Fault, which is the largest active fault in California, is approximately 36 miles northeast of the site.

The closest mapped fault to the site, located 2.1 miles to the southeast, is the potentially active El Modeno fault (Figure 4). The El Modeno fault is a northwest trending, southwest dipping normal fault mapped for 10 to 18 km (6.2 to 11 miles) from Peter's Canyon Wash to Burrell Point. The El Modeno fault is poorly defined as it is covered by Quaternary alluvium for all of its length. A fault investigation study and report prepared by Woodward-Clyde Consultants (1997) concluded that the El Modena fault is masked over large areas by Quaternary age sediments and that contradictory evidence exists as to its precise location and age of most recent activity. The State of California does not consider it an active fault.

2.5 Seismicity and Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California. The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Peak horizontal ground accelerations are generally used to evaluate the intensity of ground motion. Using the United States Geological Survey (USGS) Seismic Design Maps (USGS, 2013), the peak ground acceleration for the Maximum Considered Earthquake (MCE_G) adjusted for the Site Class effects (PGA_M) is 0.648g. Based on the USGS online interactive deaggregation program (USGS, 2008a), the modal seismic event has a moment magnitude (M_W) of 7.0 at a distance of 6.9 kilometers.

2.6 Secondary Seismic Hazards

Secondary seismic hazards in the region could include soil liquefaction and associated surface manifestation, earthquake-induced landsliding and flooding, seiches, and tsunamis. The potential for seismic hazards at the site is discussed below.

2.6.1 Liquefaction Potential

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: 1) shallow groundwater; 2) low density, fine, clean sandy soils; and 3) high-intensity ground motion. Studies indicate that saturated, loose and medium dense, near-surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential.

As shown on Figure 5, *Seismic Hazard Map*, the site is not mapped within a liquefaction hazard zone as delineated by the State of California (CGS, 1998).

Because the site is underlain predominantly by medium dense and stiff soils, and the historic high groundwater level is deeper than 50 feet bgs,

the potential for liquefaction is considered low and should not impact the planned development.

2.6.2 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater). These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

If the grading recommendations presented below are implemented, the potential total earthquake-induced settlement is estimated to be on the order of ½ inch or less. The differential settlement can be taken as half the total settlement over a horizontal distance of 30 feet.

2.6.3 Lateral Spreading

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. As the site has a low liquefaction potential and it is relatively constrained laterally, the potential for earthquake-induced lateral spreading at the site is low.

2.6.4 Earthquake-Induced Landsliding

As shown on Figure 5, the site is not mapped within a seismically-induced landslide hazard zone identified by the State of California (CGS, 1998). In addition, due to project site being relatively flat, it is our opinion that the potential for seismically-induced landslide hazard at the site is negligible.

2.6.5 Earthquake-Induced Flooding

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. Prado Dam is an earth-fill dam across the Santa Ana River in the Chino Hills near Corona, California in Riverside County with the resulting impounded water creating Prado Flood Control Basin reservoir. The U.S. Army Corps of Engineers

(ACOE) completed the dam in the Lower Santa Ana River Canyon in 1941 for the primary purpose of downstream flood control. The area upstream from the dam contains 2,255 square miles (5,840 km^2) of the watershed's 2,650 square miles (6,900 km^2). The Prado Flood Control Basin also provides water storage for groundwater recharge operations. The height of Prado Dam was raised approximately 28 feet adding 140,000 acre-feet to the basin and increasing the dam's level of protection to 190-years. New outlet works and a new outlet channel increased Prado Dam's controlled discharge capacity from 9,500 cubic feet per second (cfs) to 30,000 cfs.

As shown on Figure 6, *Dam Inundation Map*, the project is located approximately 13.4 miles downstream from Prado Dam and is mapped within a Prado Dam inundation zone. Catastrophic failure of the dam is a very unlikely event and dam safety regulations are enforced by the Division of Dams, Army Corp of Engineers and Department of Water Resources. Inspectors may require dam owners to perform work, maintenance or implement controls if issues are found with the safety of the dam. Due to the new improvements, raising the height of the dam and continuous monitoring by the ACOE and others, it is our opinion that the potential for earthquake induced flooding to affect the site is low.

2.6.6 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

2.7 Flooding

The project site is not located within a flood hazard zone as indicated on Figure 7, *Flood Hazard Zone Map*. Regionally, storm runoff flow is generally directed to the southwest. The majority of this area is urbanized and storm water runoff is directed through streets and storm drains to the Pacific Ocean located approximately 15.5 miles from the site.

2.8 Methane

The Subject Property is located in Township 3 South, Range 9 West, Section 31, San Bernardino Baseline and Meridian, within the City of Placentia, County of Orange, California. Leighton reviewed the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) online Regional Oilfield Map 108 (DOGGR, 2003). The Subject Property is located within the Richfield Oil Field. The Orange County Fire Authority (OCFA) requires that a methane survey be conducted prior to any new construction for any property located within their jurisdiction and within an oil field. There are three wells described as "plugged and abandoned - dry holes" or "idle" located within 1,000 feet of the Subject Property to the east; these wells were named "TEPI 'Bennett' 1", "Majestic Oil Co. 1," and "CalResources LLC 'Peter J. Allec' 1." Oil wells are not depicted on the Subject Property.

3.0 PRELIMINARY RECOMMENDATIONS

Presented below are the preliminary geotechnical recommendations for planning purposes. A design-level geotechnical investigation that includes additional subsurface explorations will be required once the proposed design and project plan become available. Design of the project in accordance with standard engineering practice, including requirements of the 2013 California Building Code (CBC), and the recommendations of the project civil and structural engineers, geotechnical consultant, and others will reduce the potential for adverse geotechnical conditions impacting the proposed improvements.

The proposed building may be supported on shallow spread footings established in undisturbed natural soils or engineered fill.

3.1 Site Grading

All site grading should be performed in accordance with the applicable local codes and in accordance with the project specifications that are prepared by the appropriate design professional.

3.1.1 Site Preparation

Prior to construction, the site should be cleared of any vegetation, trash, and/or debris within the area of proposed grading. Foundation elements from previous structures and/or septic wells, if discovered during grading should be removed from the site. Any underground obstructions onsite should be removed. Efforts should be made to locate any existing utility lines to be removed or rerouted where interfering with the proposed construction. Any resulting cavities should be properly backfilled and compacted. After the site is cleared, the soils should be carefully observed for the removal of all unsuitable deposits. All unsuitable deposits should be excavated and removed from proposed building/structure footprint prior to fill placement.

3.1.2 Overexcavation

To provide a uniform support and reduce the potential for differential settlement, all undocumented fill should be removed under the proposed improvements to expose suitable bearing soils and replaced as

engineered fill. The depths of remedial removals should be considered to range from 8 to 10 feet bgs. These recommended depths should be verified during the next stage of investigation and during grading as local conditions may be encountered that may require variations in removal depths. The exact extent of removals can best be determined during grading when direct observation and evaluation of materials are possible.

After completion of the overexcavation and prior to fill placement, the exposed soils should be scarified to a minimum depth of 12 inches, moisture conditioned and compacted to at least 95 percent relative compaction based on ASTM Test Method D 1557. Any soft or unsuitable earth materials encountered at the bottom of the excavations should be removed and replaced with compacted fill.

3.1.3 Subgrade Preparation

After completion of the excavation and prior to fill placement, any exposed disturbed soils should be scarified to a minimum depth of 12 inches, moisture conditioned as necessary and compacted to at least 95 percent relative compaction based on ASTM Test Method D 1557. The moisture content of the soils should be determined, and the soils slowly and uniformly moistened (or dried) as necessary to bring the soils to a uniform moist condition. The moisture content of relatively non-expansive and predominantly granular soils should be brought to within 2 percent of optimum moisture content to a depth of 18 inches. The moisture content of any clayey soils should be brought to about 4 percent over optimum moisture content to a depth of 18 inches. The moisture content of the subgrade should be checked and approved by Leighton prior to placing the required fill.

3.1.4 Fill Materials

On-site soil that is free of construction debris, organics, cobbles, boulders, rubble, or rock larger than 4-inches in largest dimension is suitable to be used as fill for support of structures. Any imported fill soil should be approved by the geotechnical engineer prior to placement as fill.

3.1.5 Fill Placement and Compaction

Fill soils should be placed in loose lifts not exceeding 8 inches, moisture-conditioned to within 2 percent of optimum moisture content for sandy soils and at least 4 percent above optimum moisture content for clayey soils, and compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM Test Method D 1557. Aggregate base should be compacted to a minimum of 95 percent relative compaction.

3.1.6 Construction Dewatering

Groundwater was not encountered in our explorations and the historic high groundwater is reported to be greater than 50 feet bgs (CGS, 1997) at the site. Therefore, groundwater is not expected to be encountered within the proposed overexcavation. Construction dewatering is not anticipated to be needed during development.

3.2 Preliminary Foundation Design

Conventional spread footings established in engineered fill or undisturbed natural soils may be used to support the proposed building. Footings should be embedded a minimum 12 inches below the lowest adjacent grade. An allowable soil bearing pressure of 4,000 pounds per square foot (psf) may be used for footings with a minimum width of 12 inches for continuous footings and 18 inches for isolated footings.

A one-third increase in the bearing value for short duration loading, such as wind or seismic forces may be used. The ultimate bearing capacity can be taken as 12,000 psf, which does not incorporate a factor of safety. A resistance factor of 0.5 should be used for initial bearing capacity evaluation with factored loads.

The allowable bearing capacity for shallow footings is based on a total static settlement of ½ inch. Differential settlement can be taken as half the total settlement over a horizontal distance of 30 feet.

Since settlement is a function of footing size and contact bearing pressure, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Leighton should review the

settlement estimates when final foundation plans and loads for the proposed structures become available.

Resistance to lateral loads will be provided by a combination of friction between the soil and structure interface and passive pressure acting against the vertical portion of the footings structures. For calculating lateral resistance, a passive pressure of 300 psf per foot of depth to a maximum of 3,000 psf and a frictional coefficient of 0.30 may be used. Note that the passive and frictional coefficients do not include a factor of safety. The frictional resistance and the passive resistance of the soils can be combined without reduction in determining the total lateral resistance.

3.3 Preliminary Retaining Wall Design

The following soil parameters may be used for the design of retaining walls with level backfill:

Conditions	Equivalent Fluid Pressure (psf per foot)
Active	35
At-Rest	55
Passive	300
Seismic Increment (add to active pressure)	30

Care should be taken to provide appropriate drainage so as no water is allowed to remain behind retaining walls for any significant length of time. In addition to the recommended earth pressures, walls below grade adjacent to existing structures or streets and areas of traffic should be designed to accommodate surcharge loads. For traffic surcharge, a uniform lateral pressure of 100 pounds per square foot acting as a result of an assumed 300 pounds per square foot surcharge behind the wall due to normal traffic; the traffic surcharge load may be neglected provided a minimum of 10 foot clearance between the wall and the traffic is maintained. We will provide surcharge loading from adjacent foundations if applicable based on future design.

3.4 Slabs-on-Grade

Concrete slabs may be designed using a modulus of subgrade reaction of 100 pci provided the subgrade is prepared as described in Section 3.1. From a geotechnical standpoint, we recommend slab-on-grade be a minimum 5 inches thick with No. 3 rebar placed at the center of the slab at 24 inches on center in each direction. The structural engineer should design the actual thickness and reinforcement based on anticipated loading conditions. Where moisture-sensitive floor coverings or equipment is planned, the slabs should be protected by a minimum 10-mil-thick vapor barrier between the slab and subgrade. A coefficient of friction of 0.35 can be used between the floor slab and the vapor barrier.

Minor cracking of concrete after curing due to drying and shrinkage is normal and should be expected; however, concrete is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected. The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Additionally, our experience indicates that the use of reinforcement in slabs and foundations can generally reduce the potential but not eliminate for concrete cracking.

To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or weakened plane joints at frequent intervals. Joints should be laid out to form approximately square panels.

3.5 Temporary Excavation and Shoring Design

All temporary excavations, including utility trenches, retaining wall excavations, and foundation excavations should be performed in accordance with project plans, specifications, and all OSHA requirements. Excavations 5 feet or deeper should be laid back or shored in accordance with OSHA requirements before personnel are allowed to enter.

No surcharge loads should be permitted within a horizontal distance equal to the height of cut or 5 feet, whichever is greater from the top of the cut, unless the cut is shored appropriately. Excavations that extend below an imaginary plane inclined

at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structure.

Typical cantilever shoring should be designed based on the active fluid pressure of 35 pcf. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 30H, where H is equal to the depth of the excavation being shored.

If any planned excavation will be adjacent to existing buildings, the shoring should be designed to accommodate the surcharge pressure from existing structures and vehicular loading within a 1:1 plane projected upward from the bottom of the excavation perimeter. A uniform horizontal pressure equal to ½ of the foundation bearing pressure may be assumed for preliminary design.

3.6 Seismic Design Parameters

To accommodate effects of ground shaking produced by regional seismic events, seismic design can performed by the designing structural engineer, should be performed in accordance with the 2013 edition of the California Building Code (CBC). Table 1, *2013 CBC Seismic Parameters*, below tabulates seismic design parameters based on the 2013 CBC methodology, which is based on ASCE/SEI 7-10.

2013 CBC Based Seismic Design Parameter

CBC Categorization/Coefficient	Design Value
Site Longitude (decimal degrees)	-117.8711
Site Latitude (decimal degrees)	33.8676
Site Class Definition	D
Seismic Design Category	E
Mapped spectral response acceleration parameter at short period, S_S	1.755 g
Mapped spectral response acceleration parameter at a period of 1 sec, S_1	0.634 g
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1.0 sec) Site Coefficient, F_v	1.5
Adjusted spectral response acceleration parameter at short period, S_{MS}	1.755 g
Adjusted spectral response acceleration parameter at a period of 1 sec, S_{M1}	0.952 g
Design spectral response acceleration parameter at short period, S_{DS}	1.170 g
Design spectral response acceleration parameter at a period of 1 sec, S_{D1}	0.634 g
Peak Ground Acceleration, PGA_M	0.648 g

3.7 Drainage and Landscaping

Building walls below grade should be waterproofed or at least damp proofed, depending upon the degree of moisture protection desired. Surface drainage should be designed to direct water away from foundations and toward approved drainage devices. Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without overwatering.

3.8 Future Geotechnical Exploration

Geotechnical recommendations presented in this report are preliminary based on the information gained from our limited subsurface exploration, review of available documents, and our understanding of the current conceptual plan. A comprehensive geotechnical investigation should be performed to develop specific geotechnical recommendations with respect to the site grading,

foundation design, infiltration facilities and other geotechnical aspects of a proposed project.

3.9 Limitations

It should be noted that the recommendations in this report are subject to the limitations presented in this section. This report was based in part on data obtained from a limited number of observations, site visits, and soil excavations. Such information is, by necessity, incomplete. The nature of many sites is such that differing soil or geologic conditions can be present within small distances and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions, and recommendations presented in this report are only valid if Leighton has the opportunity to observe subsurface conditions during future geotechnical exploration, grading, and construction, to confirm that our preliminary data are representative for the site. Leighton should also review the construction plans and project specifications, when available, to comment on the geotechnical aspects.

Our professional services were performed in accordance with the prevailing standard of professional care as practiced by other geotechnical engineers in the area. We make no other warranty either expressed or implied. The report may not be used by others or for other projects without the expressed written consent of our client and our firm.

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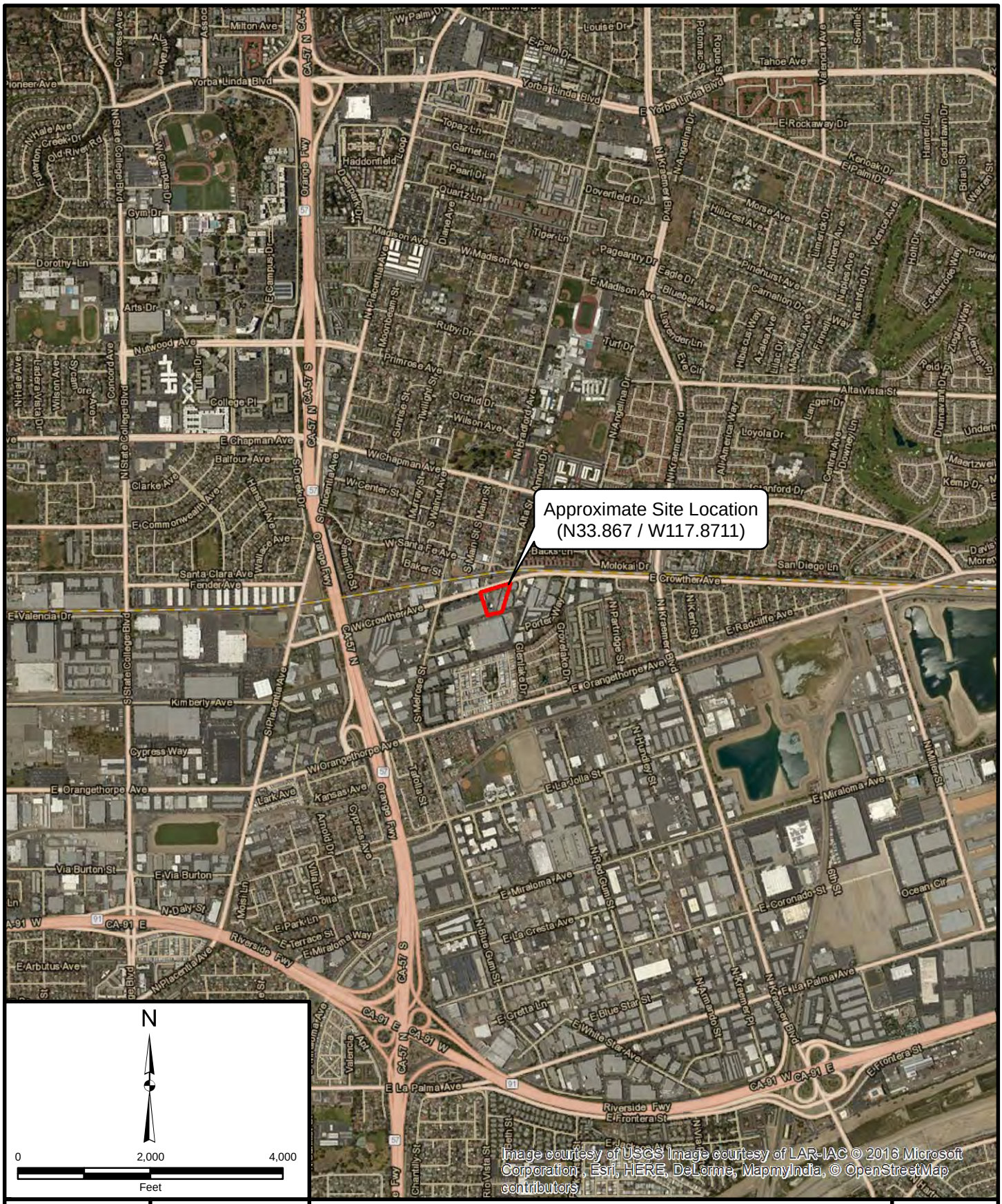

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Scale:1 " = 2,000 '	Date: March 2016

Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton
Author: Leighton Geomatics (asakowicz)

SITE LOCATION MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 1

Leighton

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Scale:1 " = 100 '	Date: March 2016

Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton
Author: Leighton Geomatics (asakowicz)

EXPLORATION MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 2

Leighton

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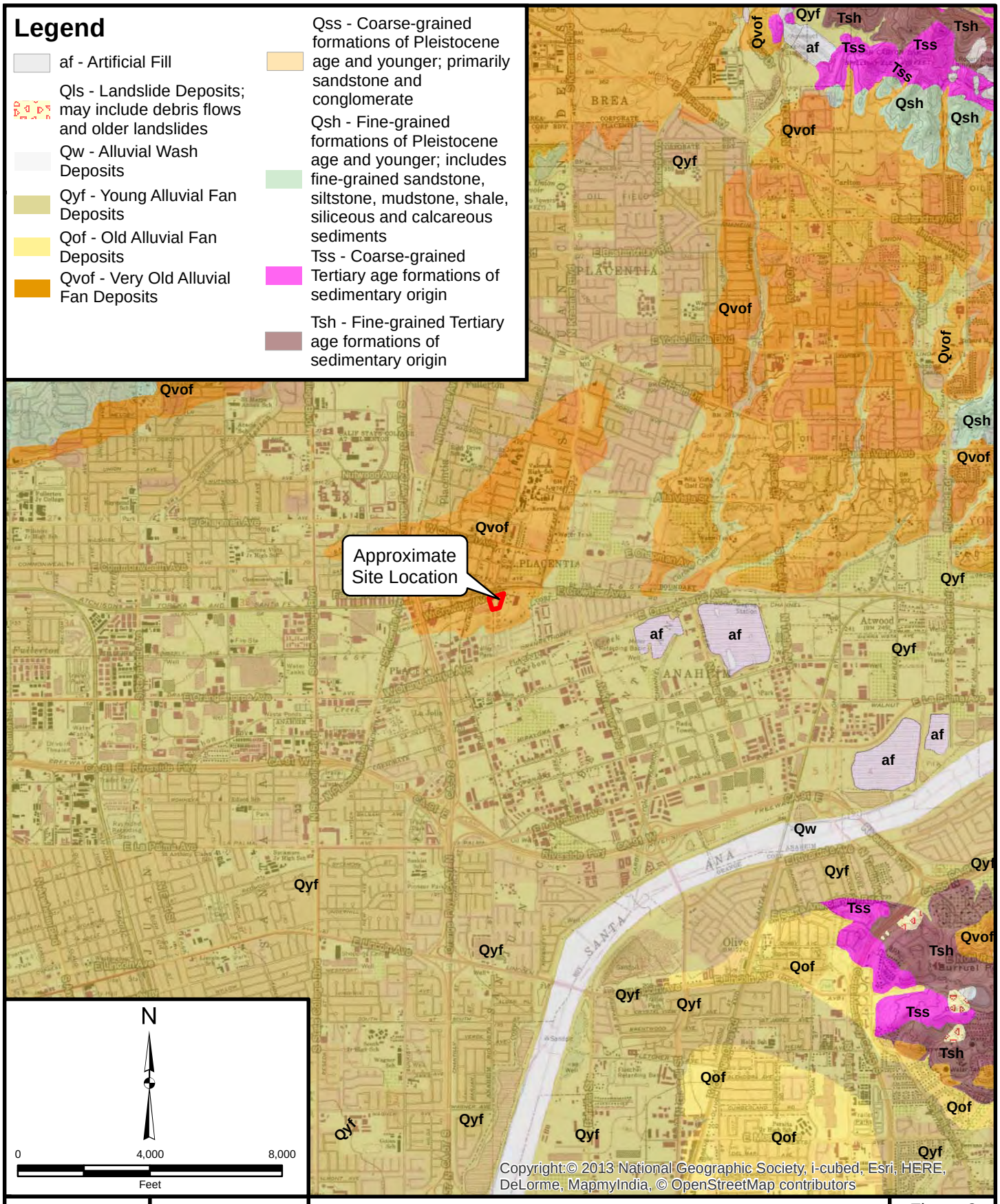

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Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton, USGS
Author: Leighton Geomatics (asakowicz)

REGIONAL GEOLOGY MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 3

Leighton

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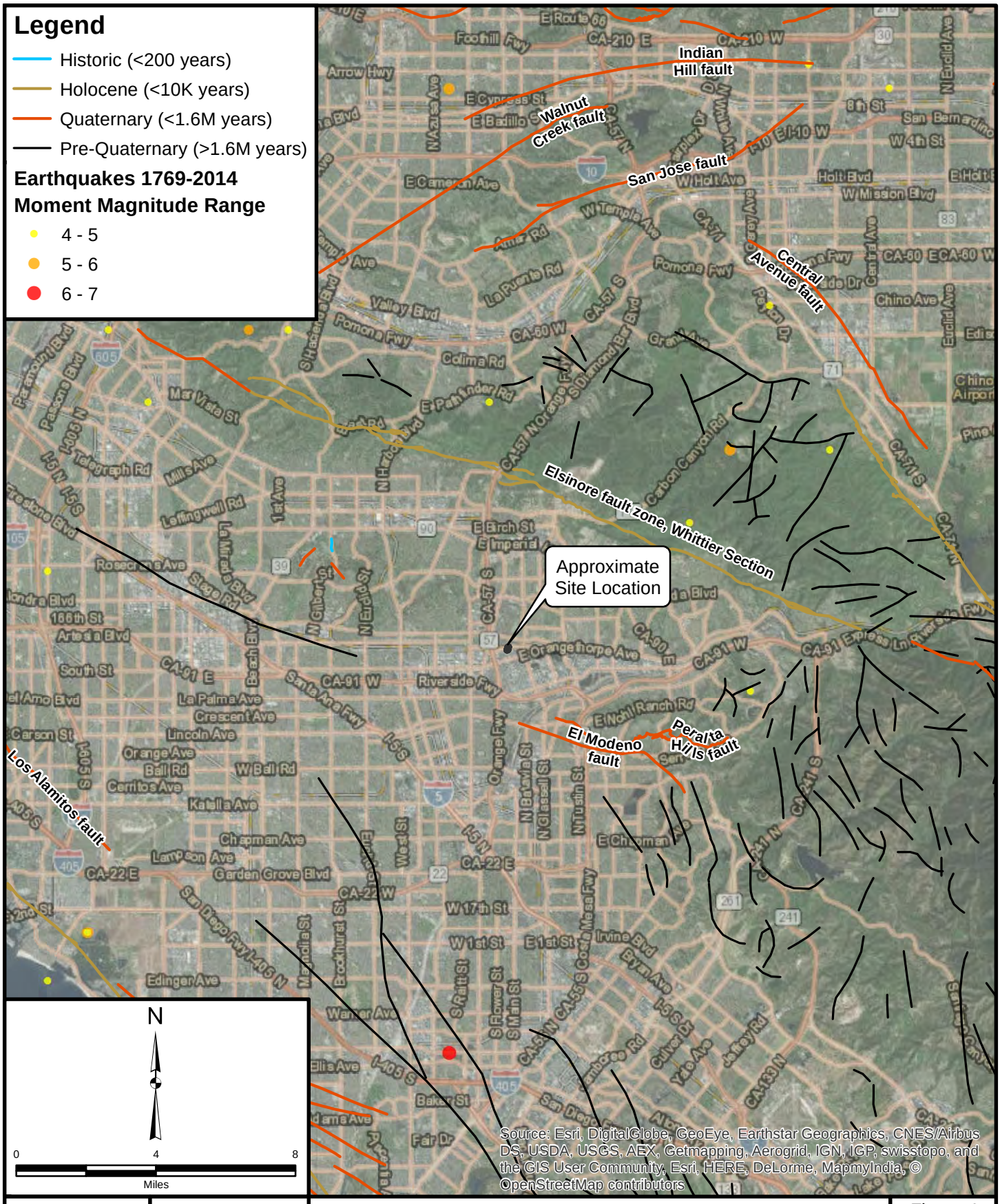

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Scale:1 " = 4 miles	Date: March 2016

Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton, CGS, Bryant 2010
Author: Leighton Geomatics (asakowicz)

REGIONAL SEISMICITY MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 4

Leighton

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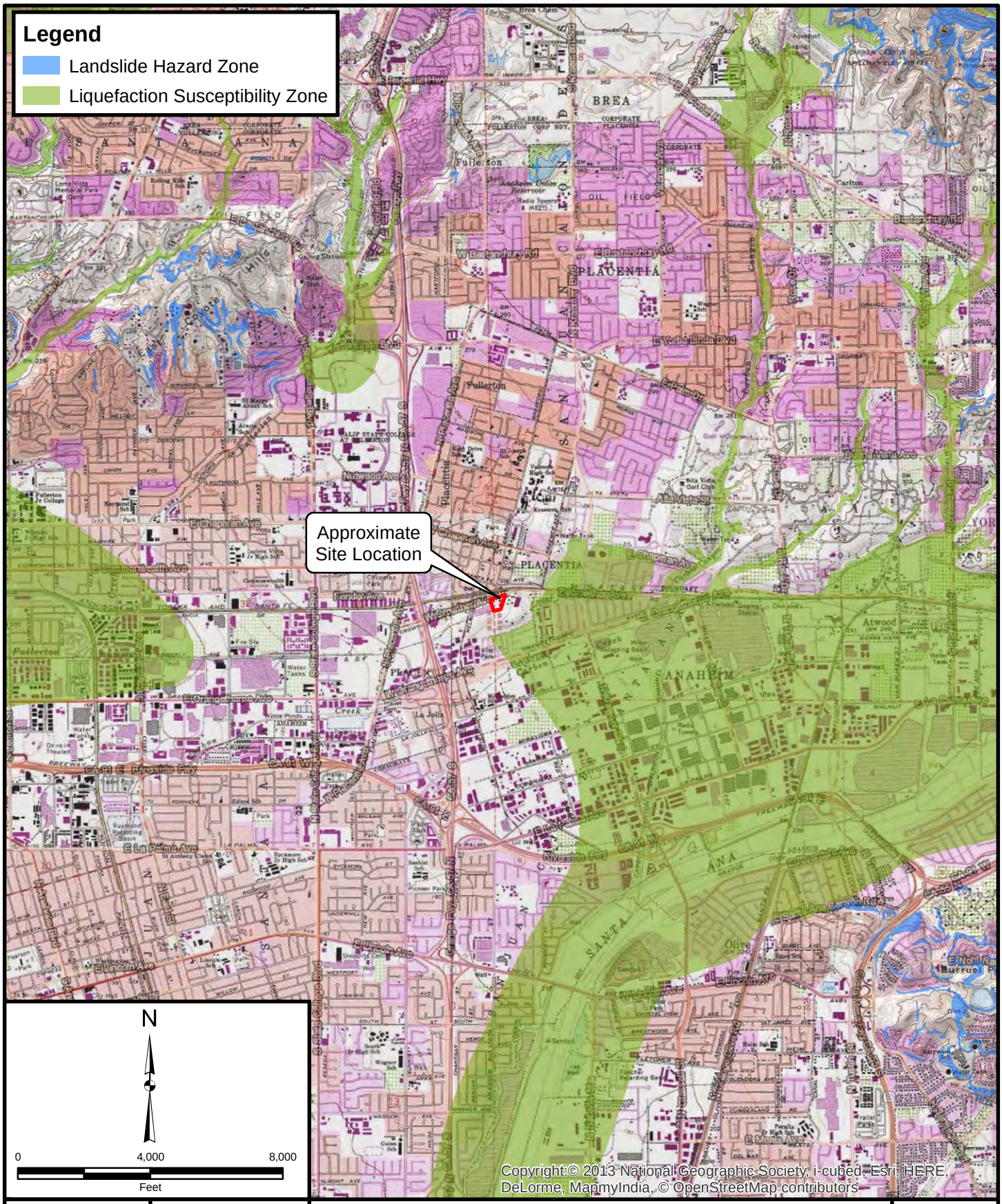

Project: 11263.001	Eng/Geol:CCK/JAR
Scale:1 " = 4,000 '	Date: March 2016

Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton, CGS
Author: Leighton Geomatics (asakowicz)

SEISMIC HAZARD MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 5

Leighton

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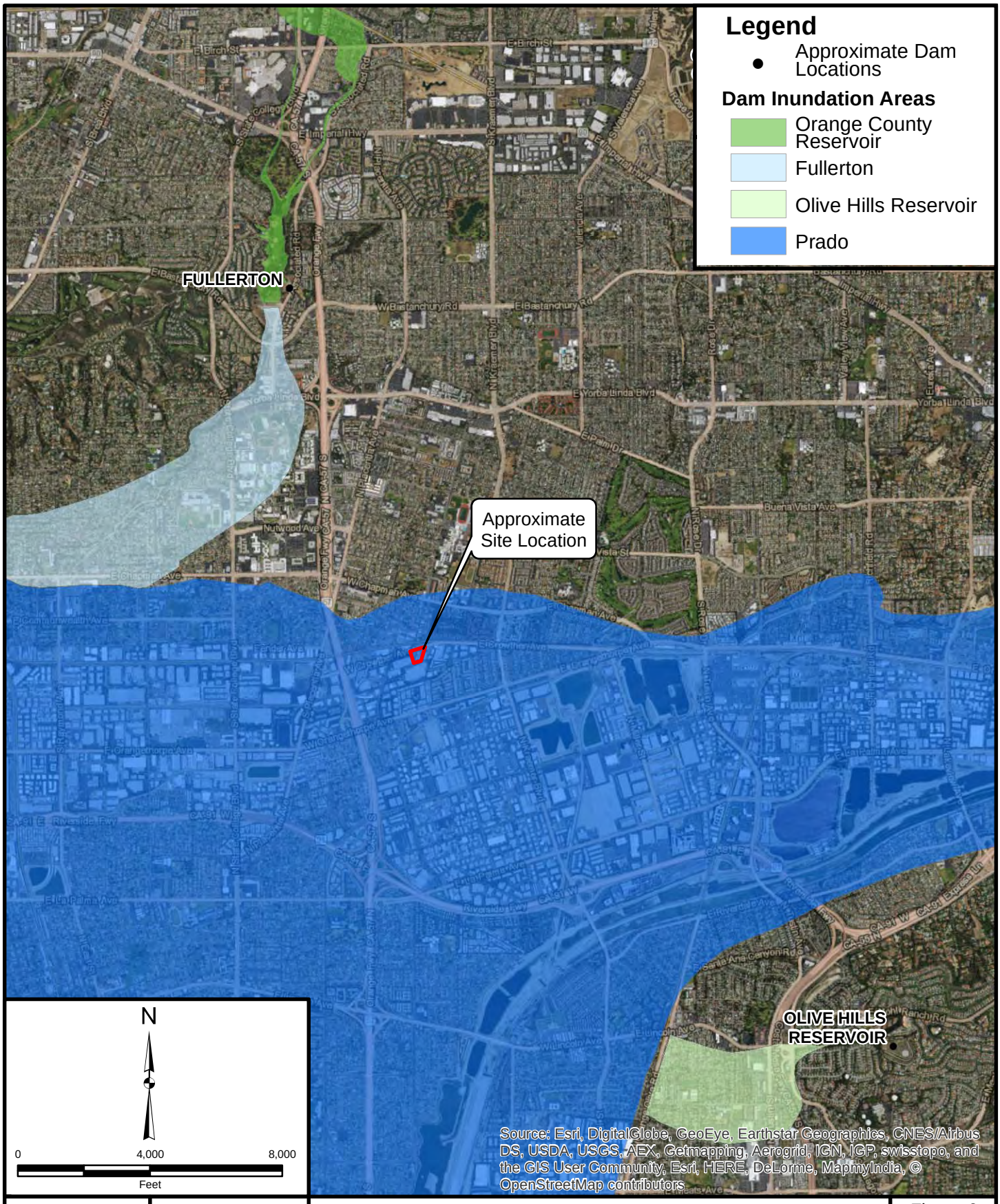

Project: 11263.001	Eng/Geol:CCK/JAR
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Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton, CA DWR, FEMA
Author: Leighton Geomatics (asakowicz)

DAM INUNDATION MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 6

Leighton

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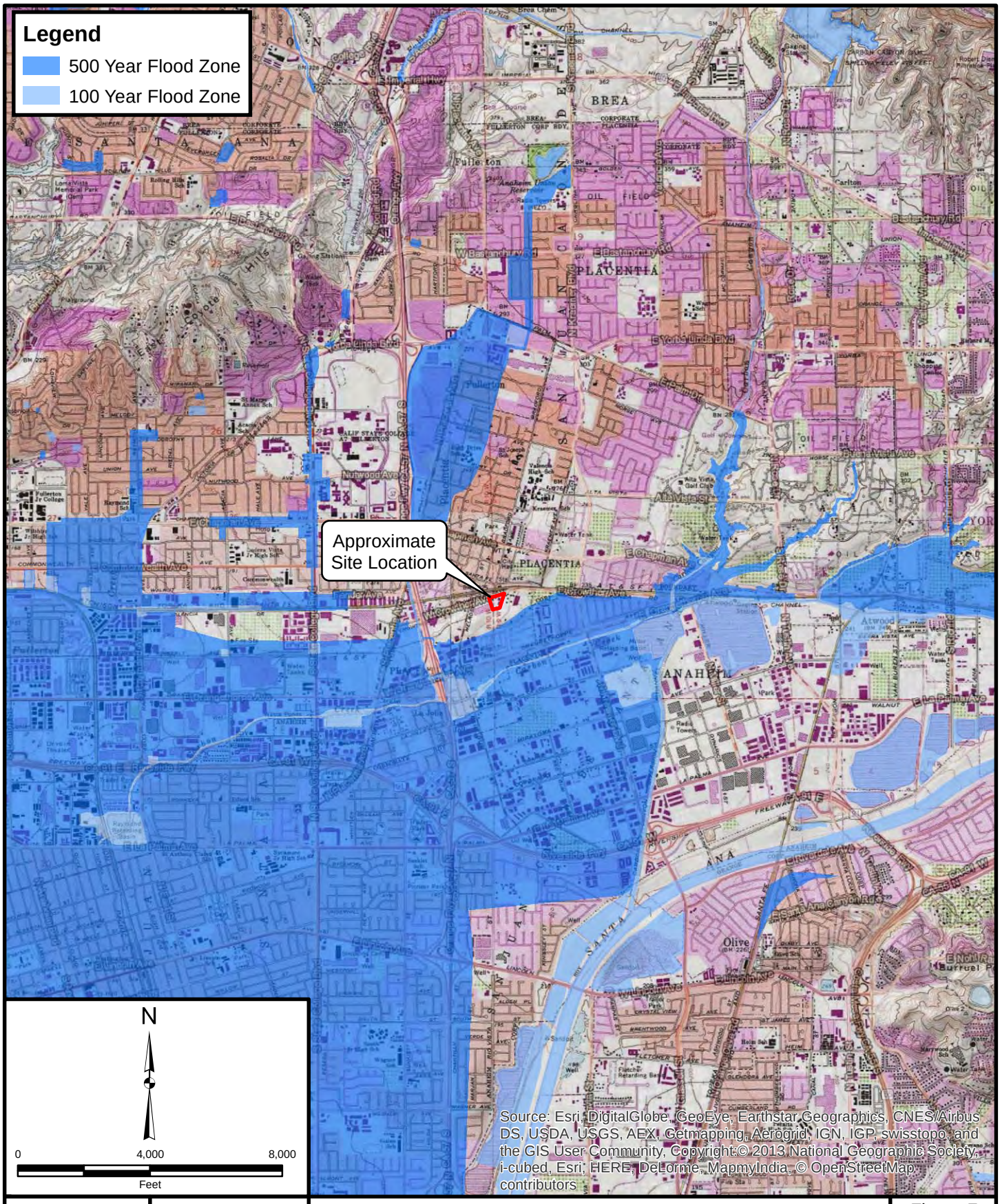

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Base Map: ESRI ArcGIS Online 2016
Thematic Information: Leighton, CA DWR, FEMA
Author: Leighton Geomatics (asakowicz)

FLOOD HAZARD ZONE MAP

110 and 132 East Crowther Avenue
Placentia, California

Figure 7

Leighton

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APPENDIX A

CONE PENETROMETER TEST (CPT) LOGS

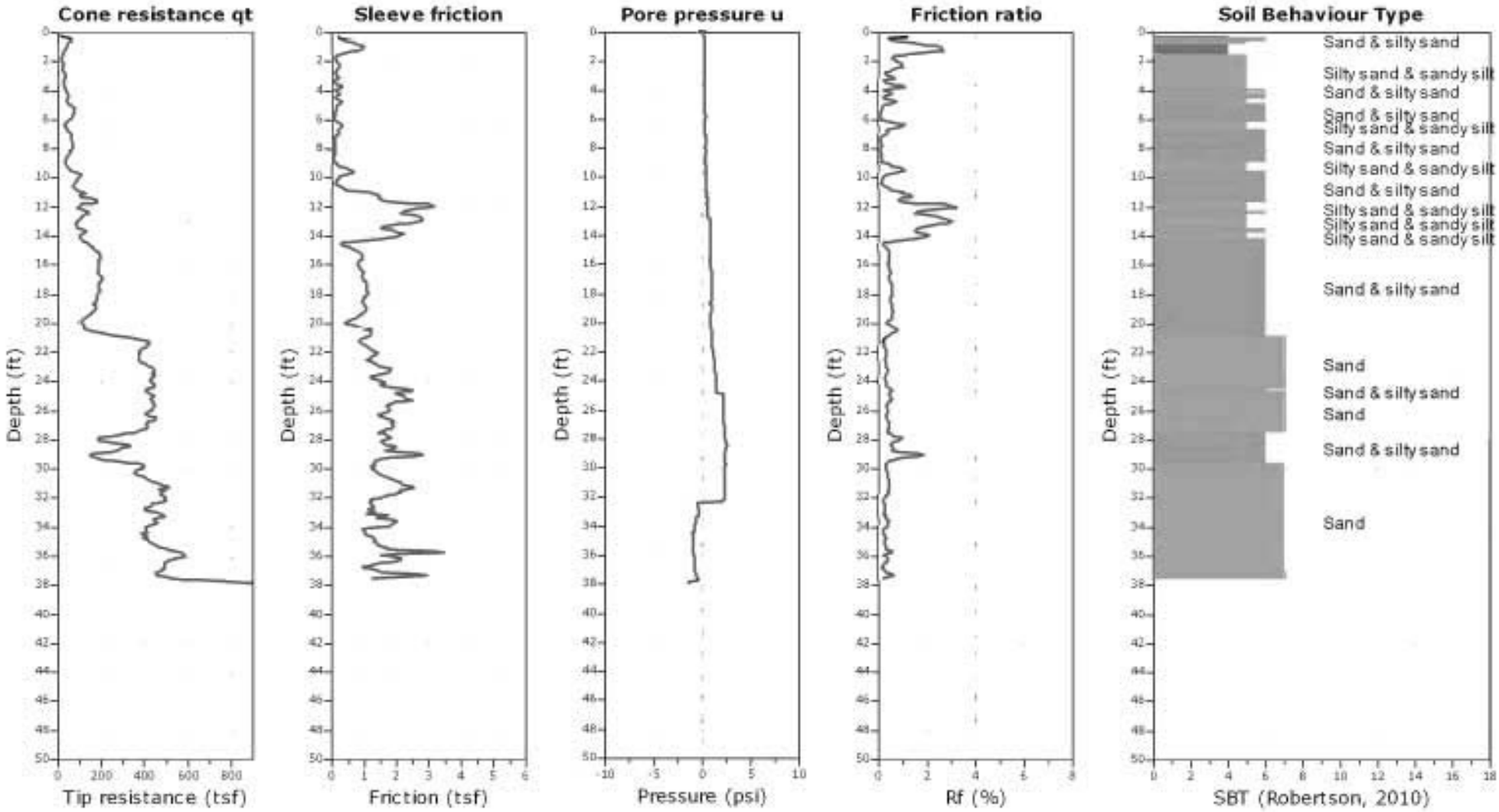
Leighton

Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-1

Project: Leighton & Associates/Integral/Crowther Avenue
Location: 110 & 132 E. Crowther Ave Placentia, CA

Total depth: 37.84 ft, Date: 3/8/2016
Cone Type: Vertek

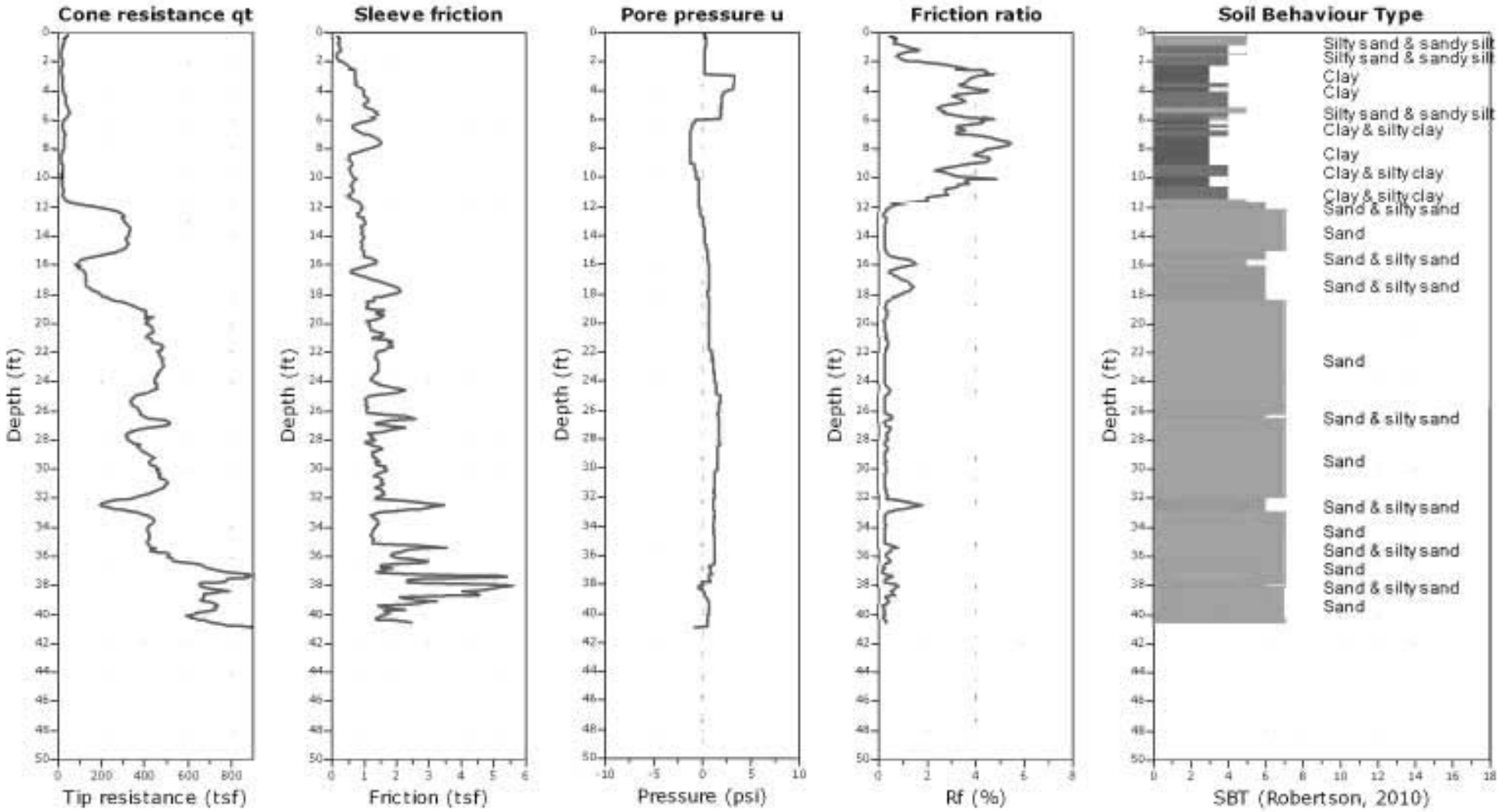


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-2

Project: Leighton & Associates/Integral/Crowther Avenue
Location: 110 & 132 E. Crowther Ave Placentia, CA

Total depth: 40.89 ft, Date: 3/8/2016
Cone Type: Vertek

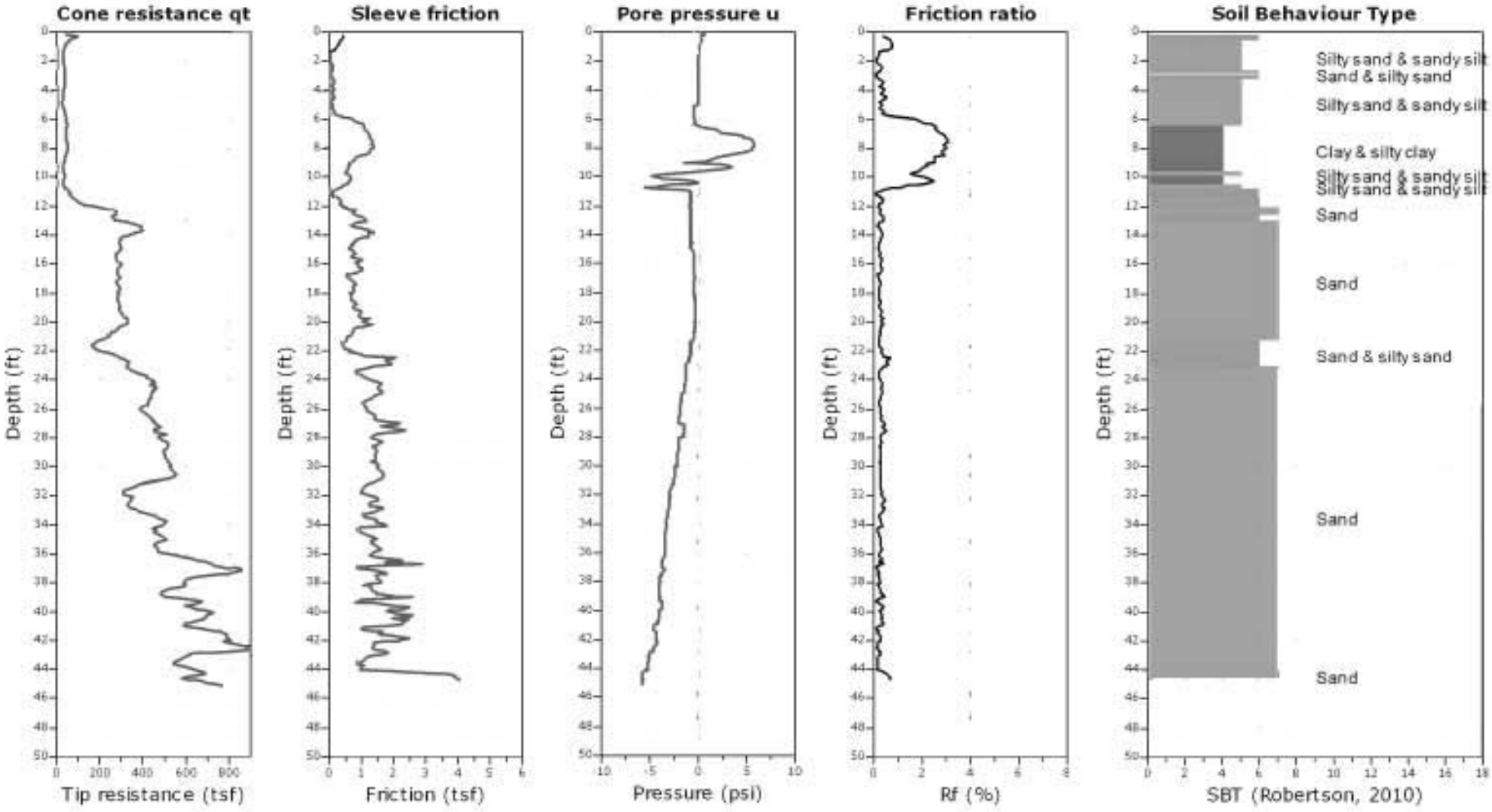


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-3

Project: Leighton & Associates/Integral/Crowther Avenue
Location: 110 & 132 E. Crowther Ave Placentia, CA

Total depth: 45.02 ft, Date: 3/8/2016
Cone Type: Vertek



C3

Percolation Testing Results

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

PROJECT MEMORANDUM

To:	Integral Partners Funding, LLC 888 San Clemente, Suite 100 Newport Beach, California 92660	**Date:** **Project No.**	February 7, 2017 11263.002
Attention:	Mr. Ed Galigher, Vice President Acquisitions and Entitlements		
From:	Joe A. Roe, CEG 2456, Principal Geologist		
Subject:	**Percolation Testing Results** **Proposed East Crowther Avenue Site** **Placentia, California**		
Reference:	*Leighton & Associates, Inc., 2016, Due Diligence Level Geotechnical Exploration Report Proposed Apartment Building 110 and 132 East Crowther Avenue, Placentia, California, dated March 11, 2016.*		

Leighton and Associates, Inc. (Leighton) has performed limited subsurface exploration and field percolation testing at the subject site in support of the planned WQMP improvements proposed in the northwestern region (Fire Access Road) and eastern region (Drive Access) at the project site. These improvements are understood to include subsurface detention systems, a filtration/biofiltration device with design invert at approximately 10 to 12 feet below ground surface. This project memorandum presents a summary of our field exploration, the results of our percolation testing and infiltration BMP design considerations.

Field Exploration

Our field exploration included drilling, logging and sampling of three (3) hollow-stem auger borings at locations to be evaluated for infiltration. The locations were selected by the civil engineer and were advanced as close to the planned locations as was possible considering the existing site improvements. The borings were each drilled to a depth of

approximately 41.5 feet below ground surface (bgs) for confirmation of subsurface stratigraphy. At each of the three boring locations, a separate test hole was drilled within approximately 5 feet of the boring for construction of a temporary percolation test well. The temporary percolation test wells (P-1, P-2, P-3) consisted of 2-inch-diameter, 0.020-inch slotted PVC pipe within the zone that was tested. The filter pack material surrounding the slotted section of pipe consisted of #3 Monterey Sand and extend from the bottom of the test well to approximately 1 foot above the screened interval. Percolation testing was then performed in general accordance with the *County of Orange Technical Guidance Document (TGD), Appendix VII Infiltration Rate Evaluation Protocol and Factor of Safety Recommendations*, revised date December 20, 2013. Upon completion of infiltration testing, the temporary wells were removed and the borings were backfilled with excess soil cuttings and patched to match pre-existing conditions.

Infiltration Rate

The percolation test performed at each test well was performed using the falling-head method which records the drop of water level inside the test well over the specified time interval, and is then repeated several times until consistent measurements are achieved. The measured infiltration rate for each percolation test was calculated by dividing the rate of discharge (i.e., volume of water discharged from the well during the test) by the infiltration surface area, or flow area. A porosity reduction factor was applied to account for the filter pack material installed in the annulus of each test well. The flow area was determined based on the average height of water within the test well during each time interval. Results of the field testing data and measured infiltration rate for each test well are attached to this memorandum.

Table 1 – Measured (Unfactored) Infiltration Rate

Boring-Percolation Test Well Designation and Location Onsite	Approximate Depth of Test Zone Below Ground Surface (feet)	Measured Infiltration Rate (inches per hour)
P-1, northwest corner Fire Access Road	10 to 15	3.71
P-2, northeastern portion of drive access	10 to 15	0.27
P-3, southeastern portion of drive access	15 to 20	0.72

Leighton

The percolation test performed at test well location P-1, yielded an infiltration rate of 3.71 inches per hour within the test zone of 10 to 15 feet bgs. The percolation tests performed at test well locations P-2 and P-3 yielded much lower infiltration rates of 0.27 inches per hour (test zone between 10 to 15 feet bgs) and 0.72 inches per hour (test zone between 15 to 20 feet bgs), respectively. Our exploration (Leighton, 2016) and current study indicate the site is generally capped by interbedded, thin to thick clay, silt and silty sand to a depth ranging from 10 to 12 feet below grade. Below these depths the site material is characterized as silty sand and sand with fine gravel to maximum depth explored. The more granular materials encountered within the test zone at test well P-1 and below 10 to 12 feet in P-2 and P-3 are generally more permeable and provide higher infiltration potential.

Infiltration BMP Design Considerations

The measured infiltration rates were the result of small-scale tests performed at specific locations. The actual infiltration rate over the area of the proposed infiltration device could vary significantly from the test location. Therefore, care must be used in the selection of infiltration rate for use in design and the potential for variances in soil conditions that could significantly affect field performance. The small-scale infiltration rates should be converted to a large-scale rate using a reduction factor. In addition, infiltration rates will degrade over time due to complete saturation of underlying soils, and fines build-up and plugging if pretreatment of the storm water is not performed. As such, in accordance with the TGD, a minimum factor of safety of 2 or more should be used to establish a more realistic infiltration rate for the service life of the system.

In general, a vast majority of geotechnical distress issues are related to improper drainage. Distress in the form of foundation movement could occur. Direct infiltration to the subsurface is not recommended adjacent to curb and gutter and public pavements as soil saturation could lead to a loss of soil support, settlement or collapse, and internal erosion (piping). Additionally, infiltration water can and will migrate along pipe backfill (typically sand or gravel bedding) affecting improvements far from the point of infiltration.

We understand that WQMP improvements are proposed in the central and southwestern portions of the project site; including a subsurface detention system, a proprietary filtration/biofiltration device, and an infiltration well with discharge zones from approximately 10 to 15 feet below the ground surface. The planned underground detention/infiltration devices and design saturation zone should be established at least 10 feet away from planned foundations. The design saturation zone may be assumed

as a 1:1 plane projected downward from the top of an infiltration device's discharge zone.

Prior to construction of any infiltration device intended for the site, the WQMP and foundation/grading plans should be reviewed by the geotechnical consultant to verify that our geotechnical recommendations have been appropriately incorporated into the plans and not compromised by the addition of an infiltration system to the site. The designer of any infiltration system should contact the geotechnical consultant for geotechnical input during the design process as they feel necessary. Proper compaction oversight during construction is required to ensure the bottoms of infiltration facilities are not overly compacted. Facilities that do not have proper compaction oversight should have more restrictive safety factors applied (double the factor of safety, but may be higher at the discretion of the design engineer).

Attachments: Field Percolation Test Results

Boring Percolation Test Data Sheet

Project Number:	11263.002		**Test Hole Number:**	P-1	
Project Name:	Integral Crowther		**Date Excavated:**	2/1/2017	
Earth Description:	Alluvium		**Date Tested:**	2/1/2017	
Liquid Description:	Tap water		**Depth of boring (ft):**	15	
Tested By:	SM		**Diameter of boring (in):**	8	
Time Interval Standard			**Diameter of casing (in):**	2	
Start Time for Pre-Soak:	2/1/2017	12:00am	**Length of slotted of casing (ft):**		5
Start Time for Standard:	2/1/2017	12:33pm	**Depth to Initial Water Depth (ft):**		10
Standard Time Interval			**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10		**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	12:33	10	10.00	60.0	37.2	0.27	4.02
	12:43		13.10	22.8			
2	12:45	10	10.00	60.0	35.0	0.29	3.69
	12:55		12.92	25.0			
3	12:57	10	10.00	60.0	35.6	0.28	3.78
	13:07		12.97	24.4			
4	13:08	10	10.00	60.0	34.8	0.29	3.66
	13:18		12.90	25.2			
5	13:19	10	10.00	60.0	34.2	0.29	3.57
	13:29		12.85	25.8			
6	13:31	10	10.00	60.0	34.9	0.29	3.68
	13:41		12.91	25.1			
7	13:42	10	10.00	60.0	34.0	0.29	3.54
	13:52		12.83	26.0			
8	13:55	10	10.00	60.0	33.7	0.30	3.50
	14:05		12.81	26.3			
9	14:07	10	10.00	60.0	35.2	0.28	3.71
	14:17		12.93	24.8			

Infiltration Rate (I) = Flow Volume/Flow Area/Δt

Infiltration Rate, I (Last Reading) = 3.71 in./hr.

Boring Percolation Test Data Sheet

Project Number:	11263.002		**Test Hole Number:**	P-2	
Project Name:	Integral Crowther		**Date Excavated:**	2/1/2017	
Earth Description:	Alluvium		**Date Tested:**	2/2/2017	
Liquid Description:	Tap water		**Depth of boring (ft):**	15	
Tested By:	JMP		**Diameter of boring (in):**	8	
Time Interval Standard			**Diameter of casing (in):**	2	
Start Time for Pre-Soak:	2/1/2017	9:30am	**Length of slotted of casing (ft):**		5
Start Time for Standard:	2/2/2017	9:26am	**Depth to Initial Water Depth (ft):**		10
Standard Time Interval			**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	30		**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	9:26	30	10.00	60.0	6.2	4.81	0.17
	9:56		10.52	53.8			
2	10:03	30	10.00	60.0	10.6	2.84	0.29
	10:33		10.88	49.4			
3	10:38	30	10.00	60.0	10.7	2.81	0.29
	11:08		10.89	49.3			
4	11:10	30	10.00	60.0	10.7	2.81	0.29
	11:40		10.89	49.3			
5	11:42	30	10.00	60.0	10.2	2.94	0.28
	12:12		10.85	49.8			
6	12:13	30	10.00	60.0	10.4	2.87	0.29
	12:43		10.87	49.6			
7	12:44	30	10.00	60.0	10.3	2.91	0.28
	13:14		10.86	49.7			
8	13:15	30	10.00	60.0	10.1	2.98	0.28
	13:45		10.84	49.9			
9	13:46	30	10.00	60.0	10.1	2.98	0.28
	14:16		10.84	49.9			
10	14:18	30	10.00	60.0	10.0	3.01	0.27
	14:48		10.83	50.0			
11	14:50	30	10.00	60.0	10.0	3.01	0.27
	15:20		10.83	50.0			

Infiltration Rate (I) = Flow Volume/Flow Area/Δt

Infiltration Rate, I (Last Reading) = **0.27** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	11263.002		**Test Hole Number:**	P-3	
Project Name:	Integral Crowther		**Date Excavated:**	2/1/2017	
Earth Description:	Alluvium		**Date Tested:**	2/2/2017	
Liquid Description:	Tap water		**Depth of boring (ft):**	20	
Tested By:	JMP		**Diameter of boring (in):**	8	
Time Interval Standard			**Diameter of casing (in):**	2	
Start Time for Pre-Soak:	2/1/2017	11:00am	**Length of slotted of casing (ft):**		5
Start Time for Standard:	2/2/2017	8:40am	**Depth to Initial Water Depth (ft):**		15
Standard Time Interval			**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	30		**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	8:40	30	15.00	60.0	23.3	1.29	0.72
	9:10		16.94	36.7			
2	9:12	30	15.00	60.0	23.2	1.30	0.72
	9:42		16.93	36.8			
3	9:43	30	15.00	60.0	23.0	1.30	0.71
	10:13		16.92	37.0			
4	10:15	30	15.00	60.0	23.2	1.30	0.72
	10:45		16.93	36.8			
5	10:47	30	15.00	60.0	23.2	1.30	0.72
	11:17		16.93	36.8			
6	11:18	30	15.00	60.0	22.7	1.32	0.70
	11:48		16.89	37.3			
7	11:50	30	15.00	60.0	22.4	1.34	0.69
	12:20		16.87	37.6			
8	12:21	30	15.00	60.0	23.0	1.30	0.71
	12:51		16.92	37.0			
9	12:53	30	15.00	60.0	23.2	1.30	0.72
	13:23		16.93	36.8			
10	13:24	30	15.00	60.0	23.2	1.30	0.72
	13:54		16.93	36.8			
11	13:56	30	15.00	60.0	23.2	1.30	0.72
	14:26		16.93	36.8			
12	14:27	30	15.00	60.0	23.2	1.30	0.72
	14:57		16.93	36.8			

Infiltration Rate (I) = Flow Volume/Flow Area/Δt

Infiltration Rate, I (Last Reading) = **0.72** **in./hr.**

Attachment D

Hazardous Materials Studies

D1

Soil Vapor Survey

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

March 24, 2016

Mr. Jon Buck
Advanced Environmental Concepts, Inc.
220 E. Truxtun Avenue
Bakersfield, CA 93305

Dear Mr. Buck:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for Advanced Environmental Concepts, Inc. on March 22-23, 2016. The study was performed at 110 & 132 E. Crowther Ave., Placentia, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

Gas Sampling Method

Gas sampling was performed by hydraulically pushing soil gas probes to a depth of 5.0-15.0 feet below ground surface (bgs). When necessary one-quarter inch Nylaflow tubing was installed at depth in a one-foot sand pack. Hydrated bentonite filled the hole from the top of the sand pack to the surface. An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Hewlett Packard model 5971 Mass Spectra Detector and Tekmar LSC 2000 Purge and Trap. An SGE capillary column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Hewlett Packard's 5971 MS and chromatographic data collection and handling system.

Quality Assurance

5-Point Calibration
The initial five point calibration consisted of 20, 50, 100, 200 and 500 ul injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the HP data system. If the r^2 factor generated from this line was not greater than 0.990, an additional five point calibration would have been performed. Method reporting limits were calculated to be 0.01-1.0 micrograms per Liter (ug/L) for the individual compounds.

A daily calibration check and end of run calibration check was performed using a pre-mixed standard supplied by Scotty Analyzed Gases. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter (ng/ul) and 0.25 ng/ul.

TABLE 1

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Isobutane

Sample Replicates
A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

Equipment Blanks
Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

Tracer Gas Leak Test
A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas. No Isobutane was found in any of the samples collected.

Purge Volume
The standard purge volume of three volumes was purged in accordance with the July 2015 DTSC/RWQCB Advisory for Active Soil Gas Investigations.

Shut-in Test
A shut-in test was conducted prior to purging or sampling each location to check for leaks in the above-ground sampling system. The system was evaluated to a minimum measured vacuum of 100 inches of water. The vacuum gauge was calibrated and sensitive enough to indicate a water pressure change of at least 0.5 inches.

Scope of Work

To achieve the objective of this investigation a total of 28 vapor samples were collected from 13 locations at the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

Subsurface Conditions

Subsurface soil conditions at this site were predominately silty-clay from ground surface to 15.0 feet bgs. These soil conditions offered sampling flows at 0-10" water vacuum.

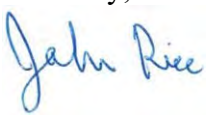
Results

During this vapor investigation seventeen samples contained levels of Tetrachloroethene (PCE). PCE levels ranged from 0.14 ug/L to 0.64 ug/L. Additionally, EE-1-15' contained 0.05 ug/L of Benzene. None of the other compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

Disclaimer

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions please contact me at (877) 764-5427.

Sincerely,



John Rice
Project Manager

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 110 & 132 E. Crowther Ave., Placentia, CA
Analyst: J. Rice **Collector:** J. Rice
Method: Modified EPA 8260B

Lab Name: Optimal Technology
Inst. ID: HP-5890 Series II
Detector: HP-5971 Mass Spectrometer

Date: 3/22/16

SAMPLE ID	BLANK-1	EE-6-5'	EE-6-15'	EE-4-5'	EE-4-15'	EE-5-5'	EE-5-15'	EE-2-5'
Sampling Depth (Ft.)	N/A	5.0	15.0	5.0	15.0	5.0	15.0	5.0
Purge Volume (ml)	N/A	1,500	3,150	1,500	3,150	1,500	3,150	1,500
Vacuum (in. of Water)	N/A	0	10	0	0	0	0	0
Injection Volume (ul)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Dilution Factor	1	1	1	1	1	1	1	1

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
Dichlorodifluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.02	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	ND	**0.40**	**0.55**	**0.21**	**0.64**	**0.52**	ND	**0.23**
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.00	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.03	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.40	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = Below Listed Reporting Limit

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 110 & 132 E. Crowther Ave., Placentia, CA
Lab Name: Optimal Technology
Date: 3/22/16
Analyst: J. Rice **Collector:** J. Rice
Inst. ID: HP-5890 Series II
Method: Modified EPA 8260B
Detector: HP-5971 Mass Spectrometer

SAMPLE ID	EE-2-15'	EE-3-5'	EE-3-15'	EE-7-5'	EE-7-15'	EE-8-5'	EE-8-15'	EE-1-5'
Sampling Depth (Ft.)	15.0	5.0	15.0	5.0	15.0	5.0	15.0	5.0
Purge Volume (ml)	3,150	1,500	3,150	1,500	3,150	1,500	3,150	180
Vacuum (in. of Water)	0	0	0	0	0	0	0	0
Injection Volume (ul)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Dilution Factor	1	1	1	1	1	1	1	1

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
Dichlorodifluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.02	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	**0.23**	**0.62**	**0.61**	**0.41**	**0.63**	**0.43**	**0.45**	ND
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.00	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.03	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.40	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = Below Listed Reporting Limit

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 110 & 132 E. Crowther Ave., Placentia, CA
Analyst: J. Rice **Collector:** J. Rice
Method: Modified EPA 8260B

Lab Name: Optimal Technology
Inst. ID: HP-5890 Series II
Detector: HP-5971 Mass Spectrometer

Date: 3/22/16

SAMPLE ID	EE-1-15'	EE--1-15' Dup						
Sampling Depth (Ft.)	15.0	15.0						
Purge Volume (ml)	330	330						
Vacuum (in. of Water)	0	0						
Injection Volume (ul)	50,000	50,000						
Dilution Factor	1	1						

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)					
Dichlorodifluoromethane	1.00	ND	ND					
Chloroethane	1.00	ND	ND					
Trichlorofluoromethane	1.00	ND	ND					
Freon 113	1.00	ND	ND					
Methylene Chloride	1.00	ND	ND					
1,1-Dichloroethane	1.00	ND	ND					
Chloroform	1.00	ND	ND					
1,1,1-Trichloroethane	1.00	ND	ND					
Carbon Tetrachloride	0.02	ND	ND					
1,2-Dichloroethane	0.04	ND	ND					
Trichloroethene (TCE)	0.10	ND	ND					
1,1,2-Trichloroethane	1.00	ND	ND					
Tetrachloroethene (PCE)	0.10	ND	ND					
1,1,1,2-Tetrachloroethane	1.00	ND	ND					
1,1,2,2-Tetrachloroethane	1.00	ND	ND					
Vinyl Chloride	0.01	ND	ND					
Acetone	1.00	ND	ND					
1,1-Dichloroethene	1.00	ND	ND					
trans-1,2-Dichloroethene	1.00	ND	ND					
2-Butanone (MEK)	1.00	ND	ND					
cis-1,2-Dichloroethene	1.00	ND	ND					
Cyclohexane	1.00	ND	ND					
Benzene	0.03	**0.05**	**0.06**					
4-Methyl-2-Pentanone	1.00	ND	ND					
Toluene	1.00	ND	ND					
Chlorobenzene	1.00	ND	ND					
Ethylbenzene	0.40	ND	ND					
m/p-Xylene	1.00	ND	ND					
o-Xylene	1.00	ND	ND					
Isobutane (Tracer Gas)	1.00	ND	ND					

Note: ND = Below Listed Reporting Limit

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 110 & 132 E. Crowther Ave., Placentia, CA
Analyst: J. Rice **Collector:** J. Rice
Method: Modified EPA 8260B

Lab Name: Optimal Technology
Inst. ID: HP-5890 Series II
Detector: HP-5971 Mass Spectrometer

Date: 3/23/16

SAMPLE ID	BLANK-2	BGC-1-5'	BGC-1-8'	BGC-2-5'	BGC-3-5'	BGC-3-12'	BGC-4-5'	BGC-4-11'
Sampling Depth (Ft.)	N/A	5.0	8.0	5.0	5.0	12.0	5.0	11.0
Purge Volume (ml)	N/A	1,500	3,150	1,500	1,500	3,150	1,500	3,150
Vacuum (in. of Water)	N/A	0	0	10	0	0	0	0
Injection Volume (ul)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Dilution Factor	1	1	1	1	1	1	1	1

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
Dichlorodifluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.02	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	ND	ND	ND	ND	**0.22**	ND	**0.14**	**0.23**
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.00	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.03	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.40	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = Below Listed Reporting Limit

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

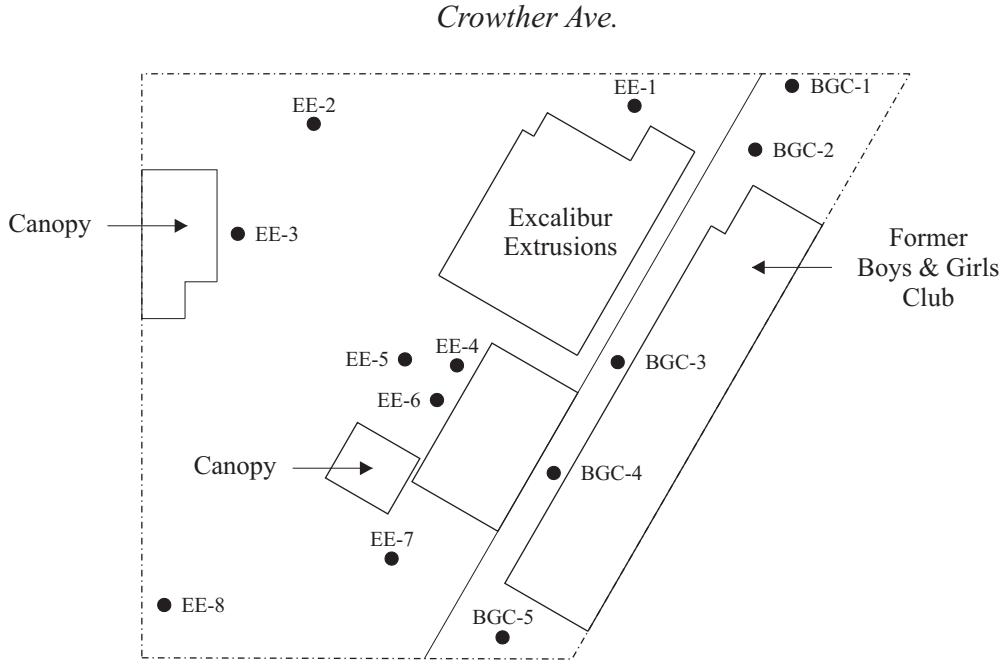
Site Name: 110 & 132 E. Crowther Ave., Placentia, CA
Lab Name: Optimal Technology
Date: 3/23/16
Analyst: J. Rice **Collector:** J. Rice
Inst. ID: HP-5890 Series II
Method: Modified EPA 8260B
Detector: HP-5971 Mass Spectrometer
Page: 5 of 5

SAMPLE ID	BGC-5-5'	BGC-5-10'	BGC-2-14'	BGC-2-14' Dup				
Sampling Depth (Ft.)	5.0	10.0	14.0	14.0				
Purge Volume (ml)	1,500	3,150	330	330				
Vacuum (in. of Water)	0	0	0	0				
Injection Volume (ul)	50,000	50,000	50,000	50,000				
Dilution Factor	1	1	1	1				

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)				
Dichlorodifluoromethane	1.00	ND	ND	ND	ND				
Chloroethane	1.00	ND	ND	ND	ND				
Trichlorofluoromethane	1.00	ND	ND	ND	ND				
Freon 113	1.00	ND	ND	ND	ND				
Methylene Chloride	1.00	ND	ND	ND	ND				
1,1-Dichloroethane	1.00	ND	ND	ND	ND				
Chloroform	1.00	ND	ND	ND	ND				
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND				
Carbon Tetrachloride	0.02	ND	ND	ND	ND				
1,2-Dichloroethane	0.04	ND	ND	ND	ND				
Trichloroethene (TCE)	0.10	ND	ND	ND	ND				
1,1,2-Trichloroethane	1.00	ND	ND	ND	ND				
Tetrachloroethene (PCE)	0.10	ND	**0.23**	ND	ND				
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND				
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND				
Vinyl Chloride	0.01	ND	ND	ND	ND				
Acetone	1.00	ND	ND	ND	ND				
1,1-Dichloroethene	1.00	ND	ND	ND	ND				
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND				
2-Butanone (MEK)	1.00	ND	ND	ND	ND				
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND				
Cyclohexane	1.00	ND	ND	ND	ND				
Benzene	0.03	ND	ND	ND	ND				
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND				
Toluene	1.00	ND	ND	ND	ND				
Chlorobenzene	1.00	ND	ND	ND	ND				
Ethylbenzene	0.40	ND	ND	ND	ND				
m/p-Xylene	1.00	ND	ND	ND	ND				
o-Xylene	1.00	ND	ND	ND	ND				
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND				

Note: ND = Below Listed Reporting Limit

1667 Cross Bridge Place, Thousand Oaks, CA 91362 • Toll Free (877) SOIL GAS (764-5427) • (818) 734-6230 • Fax (818) 734-6235



0 60 120

Approximate Scale

Legend

EE-1; BGC-1 - Soil Vapor Sample Number

● - Soil Vapor Sample Location

Optimal Technology
1667 Cross Bridge Place
Thousand Oaks, CA 91362
Toll-free (877) SOIL GAS
*Tel: (818) 734-6230 * Fax: (818) 734-6235*

DATE: March 22-23, 2016

APPROXIMATE SCALE: 1" = 120'

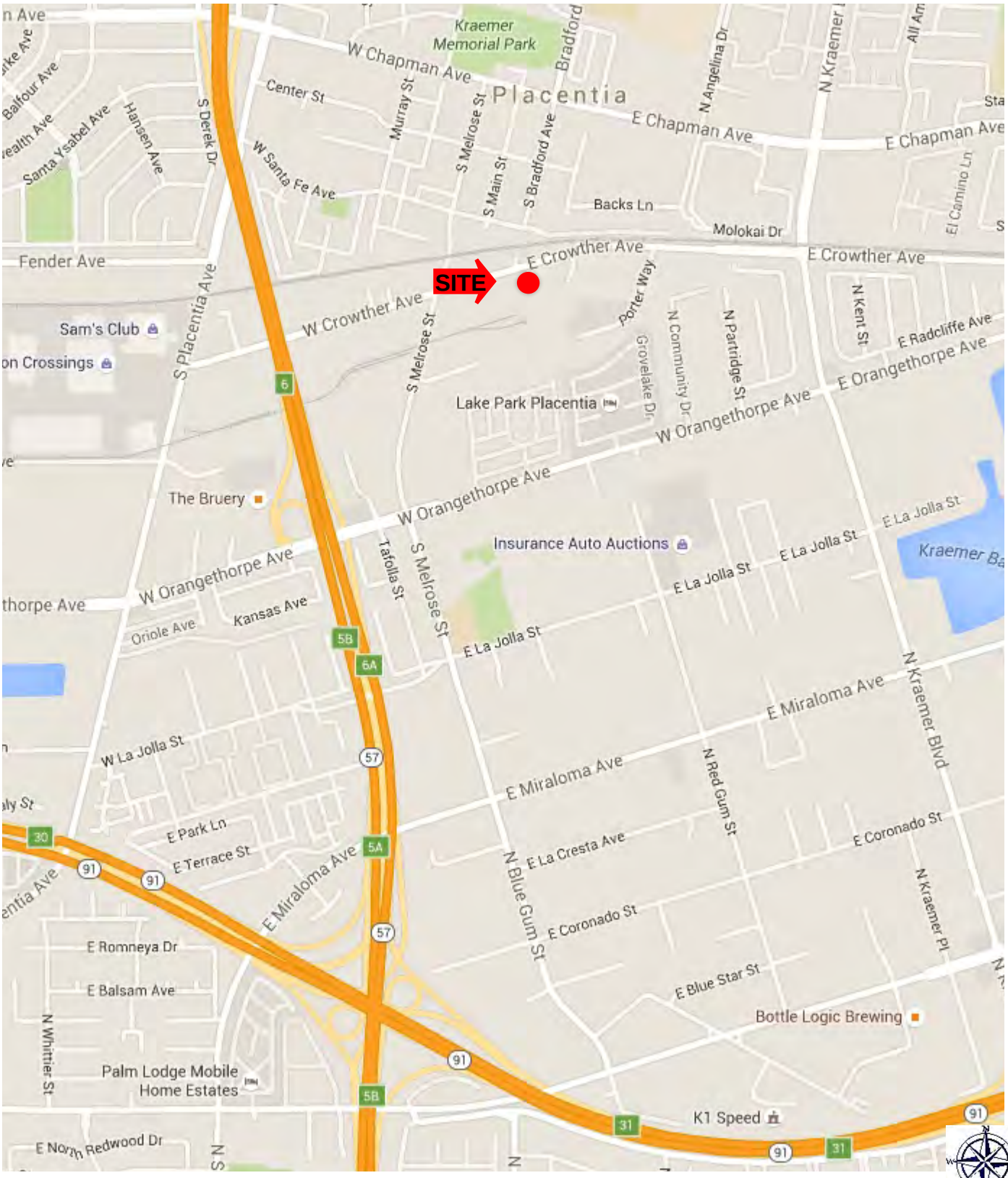
FIGURE 1

COMPANY: Advanced Environmenal Concepts, Inc.

TITLE: Soil Vapor Sampling Location Map
110 & 132 E. Crowther Ave., Placentia, CA

D2

Soil Vapor Testing Figures and Pictures



ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

Site Location Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

1

Soil Gas Sample Location

Scale: 1" = 61'

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(661) 395-1646

Soil Gas Locations

Excalibur Extrusions
110 East Crowther Avenue
County of Orange ● Placentia, California

FIGURE

2a

● Soil Gas Sample Location

Scale: 1" = 55'

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Soil Gas Locations

Former Boys & Girls Club
132 East Crowther Avenue
County of Orange ● Placentia, California

FIGURE

2b

Excalibur Extrusion
March 22, 2016

1. View of soil gas sample location EE-1. "Wells" were required due to elevated clay content. Wells installed at 5' and 15' bgs.

2. View of location EE-6 which is in area of former USTs that exhibited solvent detection. Flow was good, therefore, probe sampling occurred.

3. View of soil gas sample collection using glass barrel syringe.

4. View of soil gas location EE-7 near southwest corner of building.

5. View of location EE-8 in southwest corner of property.

Boys & Girls Club
March 23, 2016

1. View of soil gas location BGC-1 near driveway entrance off of E. Crowther.

2. View of soil gas location BGC-2.

3. Using roto-hammer to advance 15' probe at location BGC-5 at south portion of lot.

D3

Phase I Environmental Site Assessment

ADVANCED ENVIRONMENTAL CONCEPTS INC

Phase I Environmental Site Assessment

for

Excalibur Extrusions
110 East Crowther Avenue
County of Orange • Placentia, California

&

Former Boys & Girls Club of Placentia
132 East Crowther Avenue
County of Orange • Placentia, California

This report has been prepared for:

Mr. Erik Weeks
Integral Partners Funding, LLC

Prepared: February 2016

220 E. TRUXTUN AVENUE BAKERSFIELD, CA 93305 661/395-1646 FAX 661/395-1616

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EXECUTIVE SUMMARY

Advanced Environmental Concepts, Inc. (AEC) performed a Phase I Environmental Site Assessment (ESA) on two parcels totaling 2.95-acres having addresses of 110 and 132 East Crowther Avenue, Placentia, California on behalf of Mr. Erik Weeks of Integral Partners Funding, LLC (Integral). Also, this subject property is described by two Orange County Assessor's Parcel Numbers (APNs) of 339-091-08 (0.85-acres) and 339-091-09 (2.1-acres).

The larger of the two subject parcels is the western 2.1-acre property having an address of 110 E. Crowther Avenue and is currently occupied by Excalibur Extrusions; a plastic pipe, nipple, and coupling manufacturing facility. The owner of the subject business (Mr. Glenn Baldwin) stated that his company has been onsite since 1970 and that he purchased the site from a ceramics manufacturing company at that time. However, a review of the City Directory indicated that a ceramics company still occupied the site during 1972. In any event, following the ceramics company occupancy, the property has been used as a plastics manufacturing site for a minimum of 44 years. The property is improved with 17,892 square feet of building space in which it appears additions have been added over the years. The northeastern portion of the subject building is improved with asphalt-paved parking area that adjoins approximately 1,500 square feet of office space. The interior of the office space is improved with drop ceilings, linoleum flooring and HVAC system. The warehouse and manufacturing space are within approximate 14' to 18' high ceilings and sited on a slab-on-grade. The building is improved with loading bays along the west side and along the eastern exterior wall AEC observed a few air compressors and the cooling tower used to chill the water that cools the pipe following extrusion. AEC was informed by Mr. Baldwin that there used to be seven underground storage tanks (USTs) of varying capacities that formerly contained chemicals such as Methyl Ethyl Ketone (MEK) sited in the subsurface along the west side of the second loading dock. However, a review of the UST removal documents indicate there were nine USTs onsite having capacities of 5,000-gallons (5 tanks); 3,000-gallons (1 tank); 2,000-gallons (1 tank); and 1,000-gallons (2 tanks). Note that the tank capacities vary based on which document is reporting. The USTs were installed by the original property owner (ceramics manufacturing company) during the late 1960s and transferred to Excalibur during the property sale. The reports indicate gasoline was stored in the tanks, although this does not make complete sense in that the USTs were plumbed into the central manufacturing room and the product lines entered through a concrete wall. AEC was still able to observe the 2-inch diameter piping guides through the wall. The USTs were removed during 1992 under permit with the Orange County Health Care Agency (OCHCA) and soil samples collected beneath the east ends of Tank Nos. 2 and 3 indicated 400 ug/kg and 300 ug/kg of 1,1,1-Trichloroethane (TCA), respectively. Therefore, the OCHCA requested an additional investigation which consisted of drilling three soil borings to a maximum depth of 21' bgs. The analytical results indicated non-detectable TCA at 16' and 21' bgs, therefore, the OCHCA closed the site.

The western half of the subject site is basically an open yard used for storage of raw plastic pellets that are imported to the site to be melted and used in the manufacturing process, or storage for manufacturing "mistakes" that will either be re-used in the manufacturing process or disposed at an offsite recycling facility. AEC also observed a steel-constructed canopy in the northwest portion of the site that is used for covered storage of raw product and finished product.

The eastern portion of the subject property has an address of 132 E. Crowther Avenue and consists of an approximate 15,457 square foot building on an approximate 0.85-acre parcel. The elongated rectangular-shaped building borders the east boundary and there is an asphalt-paved parking lot within the northern portion adjoining E. Crowther Avenue. Also, there is a triangular-shaped open space area improved with grass and a cement slab-on-grade patio along the south end of the property. Currently, the masonry block and concrete tilt-up building is just a shell; the interior was gutted during the past year by the current owner (Mr. Brian Johnson) in preparation for re-development. The building has historically been occupied by the Boys & Girls Club of Placentia from at least 1972 to approximately 2013. During the Boys & Girls Club occupancy the interior was improved with offices, classrooms, bathrooms, an atrium, and indoor sporting facilities.

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The ESA process under ASTM Standard 1527 was created to identify *recognized environmental conditions* (RECs) which present a material risk of harm to public health or the environment and generally be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The ESA process additionally identifies *controlled recognized environmental conditions,* which are specified under ASTM Standard 1527 as a REC resulting from a past release that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances allowed to remain in place subject to institutional controls; and/or *historical recognized environmental conditions*, i.e. conditions which may have presented a material risk to public health and/or the environment but have now been mitigated to the satisfaction of a regulatory agency at the Subject Property. The descriptive term "recognized environmental condition" means the presence, or likely presence, of any hazardous substances or petroleum products in, at, or on a property due to any release to the environment; under conditions that indicate an existing release, a past release, or a material threat of a release to the environment. In addition, AEC will identify non-ASTM conditions ("housekeeping conditions") which are considered de minimis and generally do not present a material risk of harm to public health or the environment and would not be the subject of an enforcement action if brought to the attention of an appropriate governmental agency.

The results of this investigation have identified no *housekeeping conditions,* no *controlled recognized environmental conditions, no recognized environmental conditions,* no *historical offsite recognized environmental conditions,* and one *onsite historical recognized environmental condition.*

Historical Recognized Environmental Condition

- The Excalibur Extrusion facility had nine underground storage tanks (USTs) of varying capacities that were reported to have contained gasoline installed at the subject property along the west side of the manufacturing building outside a loading bay. The USTs were removed under Orange County Health Care Agency (OCHCA) permit during June 1992 and soil samples collected beneath USTs identified as Nos. 2 and 3 exhibited elevated concentrations of 1,1,1-TCA, a chlorinated solvent (400 ug/kg and 330 ug/kg, respectively at a depth of 14' bgs). The OCHCA required a subsurface investigation to evaluate the vertical migration of the TCA, therefore, three soil borings were drilled to 21' bgs and soil samples were collected at 16' bgs and 21' bgs. The confirmation samples collected at 16' and 21' bgs indicated non-detectable concentrations of TCA, therefore, closure was issued by the OCHCA in a letter dated November 13, 1992.

  Since the property is scheduled for conversion from industrial-use to residential-use AEC recommends conducting a multi-depth soil gas investigation focused in the area of the former nine USTs, and also conduct a site-wide soil gas investigation at both 110 and 132 E. Crowther Avenue. The multi-depth soil gas investigation will evaluate the subject property for future vapor intrusion concerns.

AEC has conducted this Phase I Environmental Site Assessment at 110 and 132 E. Crowther Avenue, Placentia, California (the Property) in conformance with the scope and limitations of ASTM Standard E1527-13. Any exceptions to, or deletions from this practice are described in Section 5.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Property. Therefore, based on the results of our investigation, AEC recommends conducting a soil gas survey to identify if a potential vapor intrusion concern exists for residential development.

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1.0 INTRODUCTION

Advanced Environmental Concepts, Inc. (AEC) was retained by Mr. Erik Weeks of Integral Partners Funding, LLC ("User"), to prepare a Phase I Environmental Site Assessment at 110 and 132 E. Crowther Avenue, Placentia, California (the "Property"). A location map for the Property is presented as Figure 1 in Appendix A. This assessment was performed in conformance with 40 CFR 312, Standards for Conducting All Appropriate Inquiries, and general conformance with ASTM E1527-13.

2.0 PURPOSE

The purpose of this assessment is to identify recognized environmental conditions located at the subject site or adjacent properties which could present material risk of harm to public health or to the environment. Recognized environmental conditions, as defined within ASTM Designation E1527-13, are the presence, or likely presence, of any hazardous substances or petroleum products in, at, or on a property due to any release to the environment; under conditions that indicate an existing release, a past release, or a material threat of a release to the environment.

This assessment is intended to constitute appropriate inquiry into the previous ownership and uses of the property, as required to support the assertion of the innocent landowner, contiguous property owner, and/or bona fide prospective purchaser defenses to liability (collectively the Landowner Liability Protections, or LLPs) under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA a.k.a. Superfund), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the Small Business Liability Relief and Brownfields Revitalization Act of 2002.

If known or suspected contamination is identified, Users seeking to maintain Landowner Liability Protections have responsibilities in addition to completing an AAI-compliant Phase I Environmental Site Assessment. These "continuing obligations" include taking "appropriate care" and "reasonable steps" with respect to known or suspected releases of hazardous substances during the tenure of property ownership. In addition to these requirements under Federal law there are also different requirements under state law with respect to liability protections. On request, Advanced Environmental Concepts, Inc. can provide support for clients with continuing obligations, as appropriate.

3.0 SCOPE OF SERVICES

To evaluate the potential presence of recognized environmental conditions, this preliminary investigation consisted of the following:

- Contacting appropriate regulatory agencies for hazardous materials information concerning the subject site and surrounding areas located within an approximate 1-mile radius of the site boundaries. Inquiries were made regarding documentation of: (a) toxic spills; (b) underground storage tanks; (c) the use, storage, generation, and/or disposal of hazardous materials; (d) the presence of disposal wells and/or leach fields, drain fields, and septic systems; and, (e) violations of applicable environmental control standards;

- Conducting interviews and researching historical site usage for information regarding past or present recognized environmental conditions;

- Reviewing selected database reports, maps, and aerial photographs for information pertaining to potential sources or visual indications of soil and groundwater contamination;

- Conducting an on-site inspection and off-site reconnaissance to identify visible evidence of the generation, use, storage, spills, or disposal of hazardous materials;

- Evaluating investigational findings and the preparation of a detailed report inclusive of findings and recommendations.

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4.0 SPECIAL TERMS AND CONDITIONS

The information included in this report is intended for use exclusively as a preliminary assessment of potential environmental and human health concerns at the project site. Data is generally obtained through telephone conversations, personal interviews, public records, public information, general maps and aerial photographs. These services have been rendered by Advanced Environmental Concepts, Inc. (AEC) in accordance with generally accepted practices by professional geologists and environmental specialists. Also, the report has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. Because of the limited nature of this investigation, the firm is precluded from providing a warranty, expressed or implied, regarding the presence of hazardous materials that could potentially adversely affect the subject site.

This report is provided with the understanding that it is the responsibility of the owner to convey the information and recommendations contained herein, to the appropriate regulatory agencies, as required. The services performed in the scope of this project are for the sole use of our client. Others who seek to rely on the findings contained within this report have a duty to determine the adequacy of the information presented herein, for their time, location, and intended use.

5.0 LIMITATIONS AND ASSUMPTIONS

This report presents the results of a Phase I Environmental Site Assessment conducted by **Advanced Environmental Concepts, Inc.** (**AEC**) for Mr. Erik Weeks of Integral Partners Funding, LLC (client), on the following property(s):

Excalibur Extrusions
110 E. Crowther Avenue
Approximate 2.1-acre Occupied Parcel
County of Orange • Placentia, California

Former Boys & Girls Club of Placentia
132 E. Crowther Avenue
Approximate 0.85-acre Vacant Parcel
County of Orange • Placentia, California

No other properties were included within the scope of this assessment except as required for the off-site reconnaissance and for the regulatory agency database and file review pertaining to potential sources of offsite recognized environmental concerns. Historical information regarding the subject parcels is limited to review of maps, public documents, interviews with people knowledgeable with the past and present uses of the property, and aerial photography review.

The investigation focused on releases and threatened releases of hazardous substances or petroleum products that could be considered a recognized environmental condition and/or a liability due to their possible presence in significant concentrations (e.g., above acceptable limits set by the Federal or state government) or due to the potential for contaminant migration through exposure pathways (e.g., groundwater). Materials that may contain substances which are not currently deemed hazardous by the federal or state of California EPA were not considered as part of this study.

Unless specifically included in our scope of services, formal surveys for asbestos-containing materials, lead-based paints, fire safety, vapor intrusion, indoor air quality, mold, and similar matters were not part of this assessment. The Property was not evaluated for compliance with land use, zoning, wetlands, or similar laws. This report is not intended to be an environmental compliance audit.

Hazardous substances naturally occurring in plants, soils, and rocks, (e.g., heavy metals, naturally occurring asbestos, or radon) are not typically considered in these investigations. Similarly, construction debris (e.g., discarded concrete, asphalt) is not considered to be of concern unless observation determined that hazardous substances are likely to be present in “actionable” concentrations.

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Unless otherwise noted, sampling and laboratory analyses of soil, water, air, building materials, or other media, were not performed as part of this investigation. Quantitative identification of hazardous substances can only be accomplished through sampling and appropriate laboratory analysis.

AEC assumes no responsibility for the accuracy of information obtained from, compiled by, or provided by third-party sources, such as regulatory agency listings. AEC assumes that information collected during this environmental site assessment is accurate and correct. Unless warranted, information collected has not been independently validated as part of this assessment.

The following information is the responsibility of the User (40 CFR 312.22) and is not included in this Phase I Assessment Report:

- The relationship of the "purchase price" to the "fair market value" of the Property. The purchaser of a Property is required to consider whether a difference between the purchase price and the fair market value of the Property is due to the presence of potential releases or identification of hazardous substances at the Property.

The following limitations/restrictions were placed on AEC:

- There were no limiting factors that impeded access to AEC for the entire subject property.

6.0 GENERAL SITE CHARACTERISTICS

6.1 Site Location and General Site Description

The subject property totals approximately 2.95-acres and is divided into two parcels described by Orange County Assessor's Parcel Numbers[1] (APNs) of 339-091-08 (0.85-acres) and 339-091-09 (2.1-acres). The larger westernmost parcel has a street address of 110 E. Crowther Avenue and the small easternmost parcel has a street address of 132 E. Crowther Avenue. The current registered owner(s) of the property are:

Glenn E. Baldwin and Kathryn E. Baldwin November 26, 1991 Living Trust
c/o Mr. Glenn Baldwin
110 E. Crowther Avenue
Placentia, CA 92870

Paper Canyon, LLC a Wyoming Close Limited Liability Company
c/o Mr. Brian Johnson
132 E. Crowther Avenue
Placentia, CA 92870

Also, the two parcels are identified as portions of Block "H" within the Kraemer Tract as shown by Map on File in Book 12, Pages 87 and 88 of Miscellaneous Maps, Records of Los Angeles County, California. Also, Parcel 2 as filed in Book 34, Page 26 in the Records of Orange County, California.

6.2 Current Use of the Property

The subject parcel having a street address of 110 E. Crowther Avenue is occupied by Excalibur Extrusions and manufactures plastic products consisting of pipe, nipples and couplings. The subject parcel having a street address of 132 E. Crowther Avenue is currently unoccupied.

6.3 Past Uses of the Property

The site was previously planted to citrus orchard and a farm compound was sited in the northwest corner of the property from prior to 1938 until the early 1960s. Both parcels were developed during the late 1960s with buildings following the removal of the citrus orchards and eucalyptus wind break. The property at 110 E. Crowther Avenue was reportedly a ceramics manufacturing facility from 1966 through 1970 and Excalibur Extrusions purchased the property for plastics manufacturing during that time. The property at 132 E. Crowther Avenue was improved with the elongated rectangular-shaped building during the late 1960s and operated as the Boys & Girls Club of Placentia until approximately 2013.

6.4 Current and Past Uses of Adjoining Properties

Historically, the surrounding properties were planted to citrus orchard from prior to 1938 into the early-1960s. During the mid to late 1960s the general area was converted from agricultural use to commercial, industrial and residential use.

Currently, the adjoining properties consist of the following:

North: The north boundary is E. Crowther Avenue, across this street is a temporary parking lot associated with the railroad. Across the railroad tracks is an apartment complex.

South: The south boundary consists of the loading dock and drive areas associated with a commercial facility identified as Arlon Graphics.

West: The adjoining western property is identified as Teetot & Company distribution facility.

East: The adjoining property to the east consists of parking lots and concrete tilt-up buildings associated with the Crowther Business Center.

7.0 SITE AND VICINITY CHARACTERISTICS

7.1 Physiographic Setting

The site is within the Downey Plain in an area known as San Juan Cajon De Santa Ana with an approximate elevation of 225-feet above mean sea level (msl). The East Coyote Hills are approximately 2-miles to the northwest with the Santa Ana River approximately 2.5-miles to the southeast. Beyond the Santa Ana River are the Peralta Hills, approximately 4-miles from the Site (USGS, 1964 and 1965).[2,3]

The subject property is approximately 4-miles east of the Norwalk fault zone and the Norwalk syncline. The Norwalk syncline extends along the south boundary of the Coyote Hills and plunges to the northwest in the direction of the city of Norwalk. The Coyote Hills are a result of uplift and folding associated with the Norwalk fault zone.

The two parcels are on the boundary of Quaternary alluvium and Pleistocene nonmarine sediments. The Pleistocene sediments are older alluvium and stream terrace deposits, most likely of the La Habra formation. The La Habra formation contains nonmarine conglomerates, conglomeritic sandstone and siltstone. Below the La Habra formation, a sequence comprised of the Coyote Hills, San Pedro, Fernando, Puente, El Modena Volcanics, Topanga, and undifferentiated Vaqueros and Sespe formations extend approximately 9,000 feet to basement. The basement is composed of granitic intrusive and metamorphic rocks.

The Site is within the Forebay section of the Lower Santa Ana River Basin. The Forebay designation refers to area of recharge for aquifers within the lower Santa Ana River Basin. Aquifers in the Lower Santa Ana River Basin have been divided into three categories: Upper, Middle, and Lower. The Upper aquifer system has been defined as all water bearing units above the Main aquifer, including the water-bearing strata of the Coyote Hills and San Pedro formations. The main aquifer includes the Semi-Perched, Talbert, and Bolsa aquifers. The Middle aquifer system is comprised of mostly the Main aquifer, including deeper unnamed aquifers that may be hydraulically connected. Finally, the Lower aquifer system has been identified as sandstones and conglomerates of the Fernando and Pico formations (DWR, 1967).

Subsurface investigations in the general area indicate that groundwater occurs beneath the site at depths ranging from 75 to 90-feet bgs and the flow direction is to the south-southwest with a shallow gradient.

8.0 SITE DESCRIPTION AND INSPECTION

An inspection of the Property and reconnaissance of the surrounding area was conducted on February 16, 2016 by Jonathan Buck, Registered Geologist, of AEC. The larger of the two subject parcels is the western 2.1-acre property having an address of 110 E. Crowther Avenue and is currently occupied by Excalibur Extrusions; a plastic pipe, nipple, and coupling manufacturing facility. The owner of the subject business (Mr. Glenn Baldwin) stated that his company has been onsite since 1970 and that he purchased the site from a ceramics manufacturing company at that time. However, a review of the City Directory indicated that a ceramics company still occupied the site during 1972. In any event, following the ceramics company occupancy, the property has been used as a plastics manufacturing site for a minimum of 44 years. The property is improved with 17,892 square feet of building space in which it appears additions have been added over the years. The northeastern portion of the subject building is improved with asphalt-paved parking area that adjoins approximately 1,500 square feet of office space. The interior of the office space is improved with drop ceilings, linoleum flooring and HVAC system. The warehouse and manufacturing space are within approximate 14’ to 18’ high ceilings and sited on a slab-on-grade. The building is improved with loading bays along the west side and along the eastern exterior wall AEC observed a few air compressors and the cooling tower used to chill the water that cools the pipe following extrusion. AEC was informed by Mr. Baldwin that there used to be seven underground storage tanks (USTs) of varying capacities that formerly contained chemicals such as Methyl Ethyl Ketone (MEK) sited in the subsurface along the west side of the second loading dock. However, a review of the UST removal documents indicate there were nine USTs onsite having capacities of 5,000-gallons (5 tanks); 3,000-gallons (1 tank); 2,000-gallons (1 tank); and 1,000-gallons (2 tanks). Note that the tank capacities vary based on which document is reporting. The USTs were installed by the original property owner (ceramics manufacturing company) during the late 1960s and transferred to Excalibur during the property sale. The reports indicate gasoline was stored in the tanks, although this does not make complete sense in that the USTs were plumbed into the central manufacturing room and the product lines entered through a concrete wall. AEC was still able to observe the 2-inch diameter piping guides through the wall. The USTs were removed during 1992 under permit with the Orange County Health Care Agency (OCHCA) and soil samples collected beneath the east ends of Tank Nos. 2 and 3 indicated 400 ug/kg and 300 ug/kg of 1,1,1-Trichloroethane (TCA), respectively. Therefore, the OCHCA requested an additional investigation which consisted of drilling three soil borings to a maximum depth of 21’ bgs. The analytical results indicated non-detectable TCA at 16’ and 21’ bgs, therefore, the OCHCA closed the site.

The western half of the subject site is basically an open yard used for storage of raw plastic pellets that are imported to the site to be melted and used in the manufacturing process, or storage for manufacturing “mistakes” that will either be re-used in the manufacturing process or disposed at an offsite recycling facility. AEC also observed a steel-constructed canopy in the northwest portion of the site that is used for covered storage of raw product and finished product.

The eastern portion of the subject property has an address of 132 E. Crowther Avenue and consists of an approximate 15,457 square foot building on an approximate 0.85-acre parcel. The elongated rectangular-shaped building borders the east boundary and there is an asphalt-paved parking lot within the northern portion adjoining E. Crowther Avenue. Also, there is a triangular-shaped open space area improved with grass and a cement slab-on-grade patio along the south end of the property. Currently, the masonry block and concrete tilt-up building is just a shell; the interior was gutted during the past year by the current owner (Mr. Brian Johnson) in preparation for re-development. The building has historically been occupied by the Boys & Girls Club of Placentia from at least 1972 to approximately 2013. During the Boys & Girls Club occupancy the interior was improved with offices, classrooms, bathrooms, an atrium, and indoor sporting facilities.

8.1 Hazardous Substances

No hazardous materials or hazardous wastes were observed on the vacant property at 132 E. Crowther Avenue. Hazardous substances stored onsite at 110 E. Crowther Avenue consists of propane, gear oil, propylene, butane, waste oil and Methyl Ethyl Ketone (MEK).

8.2 Natural Drainage

There are a series of subsurface drains at the subject sites which appear to drain from south to north, then into the stormwater management system along E. Crowther Avenue.

8.3 Disturbed Areas

Both parcels have been developed with buildings and asphalt-paved parking and drive areas.

8.4 Hydraulic Equipment

No in-ground hydraulic equipment was observed on the Property.

8.5 Electrical Equipment

Pole-mounted electrical transformers were observed along the border between 110 and 132 E. Crowther Avenue. These transformers did not appear to be leaking. Regional electric transformers are owned and operated by Southern California Edison (SCE).[4] According to information obtained from SCE, all transformers within the power distribution network suspected of containing PCBs in concentrations exceeding 50 parts per million were removed and replaced by 1990. Manufacture of PCB-containing electric power transformers was discontinued in 1984.

PCB sampling and laboratory analysis is beyond the scope of this site assessment.

8.6 Wastewater

There were no indications of wastewater disposal systems observed within the limits of the subject property.

8.6.1 Sewage Disposal Systems

The bathrooms are connected to active onsite sewer lines associated with the municipal utility.

8.6.2 Pools of Liquid

AEC did not identify any areas of standing surface water during this site assessment.

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8.6.3 Pits, Ponds, or Lagoons

AEC did not identify any pits, ponds, or lagoons during this site assessment.

8.6.4 Drains and Sumps

AEC identified stormwater collection drains in the parking and drive areas that are tied into the area-wide stormwater system. No sumps were identified onsite.

8.7 Solid Waste Disposal

There were no indications that solid waste is currently or historically being landfilled onsite. Onsite plastic waste at the Excalibur Extrusion facility is stored onsite in large cardboard boxes or other containers. The waste plastic is either re-used onsite in the manufacturing process or sent offsite for disposal.

8.8 Water Supply

The domestic water supply is currently provided by a public utility.

8.9 Storage Tanks

There are no fill tubes, vent pipes, dispenser islands, or other visual indication identifying the current presence of underground storage tanks (USTs) at this site. However, at the Excalibur Extrusion site there used to be nine USTs onsite having capacities of 5,000-gallons (5 tanks); 3,000-gallons (1 tank); 2,000-gallons (1 tank); and 1,000-gallons (2 tanks). Note that the tank capacities vary based on which document is reporting. The USTs were installed by the original property owner (ceramics manufacturing company) during the late 1960s and transferred to Excalibur during the property sale. The reports indicate gasoline was stored in the tanks, although this does not make complete sense in that the USTs were plumbed into the central manufacturing room and the product lines entered through a concrete wall. AEC was still able to observe the 2-inch diameter piping guides through the wall. The USTs were removed during 1992 under permit with the Orange County Health Care Agency (OCHCA) and soil samples collected beneath the east ends of Tank Nos. 2 and 3 indicated 400 ug/kg and 300 ug/kg of 1,1,1-Trichloroethane (TCA), respectively. Therefore, the OCHCA requested an additional investigation which consisted of drilling three soil borings to a maximum depth of 21' bgs. The analytical results indicated non-detectable TCA at 16' and 21' bgs, therefore, the OCHCA closed the site.

AEC did not observe any aboveground storage tanks (ASTs) at the subject property(s).

8.10 Designated Wetlands

Under the U. S. Army Corps of Engineers regulations, wetlands[5] are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs and similar areas such as sloughs, prairie potholes, wet meadows, river overflows, mud flats, and natural ponds. A review of the subject site by AEC has identified no potential areas that may be Designated Wetlands. If there are any potential "Wetlands" concern, AEC recommends contracting an environmental firm well versed in wetlands mitigation.

8.11 Asbestos-Containing Materials (ACMs)

Asbestos containing materials (ACMs) were commonly used in building products such as roofing shingles, composite siding, linoleum flooring, acoustic ceiling tiles, furnace and water heater exhaust piping and insulation, glues and mastics, stucco, joint compounds, and composite wallboard prior to 1980. ACMs can be divided into material considered friable (easily crumbled or reduced to powder) and non-friable. Friable ACMs are regulated as hazardous materials due to the elevated long-term risk of developing lung cancer upon respiratory exposure and must be properly removed prior to renovation or demolition of any structure containing these materials. Also, ACMs have been found in 'Transite' irrigation piping commonly used in many agricultural areas of California. The onsite structures at both addresses were constructed prior to 1980, therefore, the presence of asbestos is suspected. Also, on September 9, 1992 an asbestos survey was performed at 110 E. Crowther Avenue by ECOS, Inc. The sample results indicated asbestos-containing material in the grey roof mastic; off-white floor tiles and mastic in the hall; beige floor tile and mastic in front offices; green floor tile and mastic in fabrication room; and brown floor tile and mastic in fabrication room.

Asbestos sampling and laboratory analyses are beyond the scope of this site assessment conducted by AEC, however, prior to renovating and/or demolishing the onsite structures AEC recommends reviewing the prior report prepared by ECOS for 110 E. Crowther Avenue and also conducting an asbestos survey at 132 E. Crowther Avenue.

8.12 Radon

Radon[6] is a colorless, odorless, tasteless, naturally occurring radioactive gas formed by the decay of uranium in soil and bedrock. Because uranium and radon occur naturally in varying amounts within rocks and soils found throughout the United States, radon is present in all the air that we breathe. Long-term exposure to elevated concentrations of radon in confined areas has been associated with an increased risk of lung cancer. The present action levels require exposure to concentrations of at least four picocuries/liter (4 pCi/L) of radon over an extended period of time. The State of California Department of Health Services conducted radon surveys across portions of Orange County, during 1990. Orange County has been classified as Zone 3 which has a predicted average indoor radon screening level less than 2 pCi/L. Sampling in the area of the Subject Property (Zip Code 92870) indicated that 8 out of 60 tests exhibited concentrations higher than 4 pCi/L. The United States Environmental Protection Agency (EPA) and the Surgeon General presently recommend that all homes in the United States be individually tested for radon.

Radon sampling and laboratory analysis is beyond the scope of this assessment.

8.13 Lead

According to information published by the United States Department of Housing and Urban development (HUD),[7] approximately three out of every four pre-1978 buildings contain lead-based paint and/or lead plumbing components. Since the two onsite structures at each address were constructed prior to 1978, the presence of lead-based paint is suspected.

Lead sampling is not included within the scope of this site assessment, however, prior to conducting renovation and/or demolition of the subject buildings AEC recommends conducting a lead-based paint assessment.

8.14 Odors

Strong, pungent, or noxious odors were not identified at the subject property during this site assessment.

8.15 Heating and Cooling

HVAC units are currently located onsite at both structures.

8.16 Stains or Corrosion

AEC did not identify any stains or corrosion during this site assessment, with the exception of hydrocarbon staining of surface asphalt proximal to the two air compressors and also corrosion of metal near the cooling tower.

8.17 Stressed Vegetation

AEC did not observe any areas with stressed vegetation during this site assessment.

9.0 INTERVIEWS, DATA GAPS, AND PRIOR REPORTS

9.1 Interviews

9.1.1 Interview with Owner

AEC conducted a telephone interview on February 16, 2016 with Mr. Brian Johnson, owner of the subject parcel at 132 E. Crowther Avenue. He stated that he recently purchased the property and has gutted the interior of the existing building. He does not store any hazardous materials at the site. On February 16, 2016 AEC also conducted a site walk through the Excalibur Extrusion facility with the property owner (Mr. Glenn Baldwin). During the interview, questions were asked by AEC regarding past and present onsite activities that could potentially result in the environmental impairment of the subject site or adjoining properties. Mr. Baldwin was not aware of any hazardous material releases to the subject property with the exception of the contamination associated with the former operation of the USTs. Mr. Baldwin also provided AEC with a report to review regarding the removal and closure of the USTs.

9.1.2 Interview with User

Integral Partners Funding, LLC is considered the “User” for this assessment, and will not be aware of any environmental concerns unless notified of concerns in this report.

9.1.3 Interview with Local Government Official(s)

As part of the ESA for the subject property, Ms. Sandra Martin, Orange County Health Care Agency (OCHCA) was provided a written request from AEC regarding any environmental inspection records the County may have for the subject property. In addition, Ms. Martin was interviewed by AEC regarding any personal knowledge she may have regarding the subject site. Ms. Martin indicated that she has no personal knowledge of the property. Finally, AEC contacted the Orange County Fire Authority (OCFA) and the South Coast Air Quality Management District for records, however, did not conduct personal interviews. Details of the file reviews are discussed in Section 11.2.

9.2 Data Gaps

A data gap is generally defined as a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may include insufficient historical information, the inability to interview person(s) with direct site knowledge, or lack of access to all areas during the investigation.

Based on the availability of aerial photos and topographic maps for the subject site from years 1938 through 2015 in approximately 10-year intervals and interviews with personnel familiar with the property, there are no apparent data gaps related to the subject site.

9.3 Prior Reports

Prior reports/investigations performed at the subject property consist of the following:

Site Investigation at Excalibur Extrusions, Inc.; 110 East Crowther Ave, Placentia, CA; prepared by Louis R. Reimer, Registered Geologist, dated July 29, 1992.

Excalibur Extrusions – Boring OC-3; prepared by Jeff D. Findl, Registered Geologist, dated October 8, 1992.

Case Summary and Closure Rationale, Excalibur Extrusions; prepared by Steve Sharp of the OCHCA, dated November 9, 1992.

Limited Asbestos Survey, 110 E. Crowther Avenue, Placentia, CA; prepared by ECOS, Inc., dated September 21, 1992.

10.0 SITE HISTORY

10.1 Historical Use Information

10.1.1 Aerial Photograph and Topographic Map Review

Historical aerial photographs and topographic maps of the site were reviewed in order to determine past site use by an AEC representative who noted the following observations:

Flight Date: 1938 **Flyer: USGS** **Scale: 1"=630'**

Both parcels are planted to citrus and the property currently identified as 110 E. Crowther has been improved with a farm compound in the northwest corner. E. Crowther Avenue is visible along the north boundary of the two parcels and between E. Crowther Avenue and the northern railroad tracks are two very large structures that may be packing houses for the citrus. Residential property is visible north of the railroad tracks.

Flight Date: 1946 **Flyer: USGS** **Scale: 1"=630'**

The eastern subject parcel currently identified as 132 E. Crowther Avenue has been cleared of the citrus orchard and a few structures erected on the site. The western parcel remains planted to citrus and still improved with the structure(s) in the northwest portion. The structures between E. Crowther Avenue and the railroad tracks appear to be associated with citrus production.

Topographic Date: 1950 **Quad: Orange, et. al.** **Scale: 1"=2,000'**

The subject parcels are depicted as planted to citrus orchard and there are a few structures in the northwest portion of the western parcel. Also, there is a structure at the north end of the eastern parcel. The surrounding area is also primarily planted to citrus orchard.

Flight Date: 1952 **Flyer: USGS** **Scale: 1"=630'**

The eastern subject parcel currently identified as 132 E. Crowther Avenue is still improved with a few onsite structures. The western parcel continues to be planted to citrus and still improved with the structure(s) in the northwest portion. The structures between E. Crowther Avenue and the railroad tracks appear to be associated with citrus production. Citrus orchards continue to dominate the general area.

Flight Date: 1963 **Flyer: USGS** **Scale: 1"=630'**

The eastern subject parcel currently identified as 132 E. Crowther Avenue is still improved with a few onsite structures. The western parcel is no longer planted to citrus, however, still improved with the structure(s) in the northwest portion. The majority of the citrus trees have been cleared in the general area along E. Crowther Avenue, although the eucalyptus windbreaks remain onsite and on nearby property. The structures between E. Crowther Avenue and the railroad tracks still appear to be associated with citrus production. Citrus orchards are being cleared and no longer dominate the general area.

Topographic Date: 1964/65 **Quad: Orange et. al.** **Scale: 1"=2,000'**

The subject property is now depicted as cleared of the citrus orchard, however, surrounding property remains planted to citrus. The three structures remain depicted at the subject parcels along the south side of E. Crowther Avenue.

Flight Date: 1966 **Flyer: USGS** **Scale: 1"=630'**

The eastern subject parcel currently identified as 132 E. Crowther Avenue is still improved with a few onsite structures. The western parcel has now been improved with a large building in the central portion. The citrus trees have been cleared in the general area along E. Crowther Avenue, along with the onsite eucalyptus windbreak. The structures between E. Crowther Avenue and the railroad tracks are being re-developed into different uses. The citrus orchards are continuing to be removed.

Topographic Date: 1972 **Quad: Orange et. al.** **Scale: 1"=2,000'**

The two parcels are now depicted as developed with structures. The majority of the citrus orchards have been cleared and structural development is occurring. The 57 Freeway has been constructed offsite to the west.

Flight Date: 1972 **USGS** **Scale: 1"=605'**

The subject parcel at 110 E. Crowther Avenue has been improved with an add-on building to the south for the ceramic company. The parcel at 132 E. Crowther has now been improved with the elongated building that was constructed as the Boys & Girls Club of Placentia. The adjoining property to the west has been improved with a concrete tilt-up building and the majority of the general area is improved with commercial, industrial and residential development.

Flight Date: 1977 **USGS** **Scale: 1"=605'**

The two subject parcels continue to be developed with their respective structures. The surrounding property remains improved with commercial, industrial and residential property.

Topographic Date: 1981 **Quad: Orange et. al.** **Scale: 1"=2,000'**

The site remains developed with buildings and the surrounding area has been infilled with commercial, industrial and residential structures.

Flight Date: 1985 **Flyer: USGS** **Scale: 1"=605'**

The subject parcels continue to be improved with structures and nearby open ground has now been in-filled with commercial buildings.

Flight Date: 1989 **Flyer: USGS** **Scale: 1"=630'**

The subject parcels are still improved with their respective structures and the surrounding area has been developed with commercial, industrial and residential development.

Flight Date: 1995 **Flyer: USGS/DOQQ** **Scale: 1"=605'**

The subject and surrounding property appear very similar as it does currently.

Flight Date: 2003 **Flyer: Google** **Scale: 1'=151'**

The Excalibur Extrusion property is improved with the subject manufacturing, sales, and warehouse structures along with storage areas for raw and manufactured product. The elongated Boys & Girls Club building remains evident on the adjoining parcel to the east. The surrounding area is improved with concrete tilt-up structures.

Flight Date: 2009 **Flyer: Google** **Scale 1" = 151'**

There does not appear to be any significant changes to the subject or surrounding parcels.

Flight Date: 2015 **Flyer: Google** **Scale 1" = 151'**

The subject and surrounding parcels remain similar as today.

11.0 ENVIRONMENTAL DATABASE AND AGENCY FILE REVIEW

11.1 Review of Federal, State, Tribal, and Local Government Databases

AEC contracted Environmental Data Resources (EDR)[8] to perform database searches of readily available Federal, State, and Local database information systems for the purpose of identifying known recognized environmental conditions present on nearby properties which have the potential to adversely impact the site being assessed in this study.

A database search for sites listed on various federal, state, tribal, and local databases in the area around the Property was obtained. A description of each of the databases searched is included in the report, which is attached as Appendix B. Among the databases included in the EDR report are NPL (federal, tribal, and state-equivalent), proposed and delisted NPL, CORRACTS (RCRA facilities subject to corrective actions), hazardous waste sites identified for investigation or remediation (CERCLIS, State CERCLIS, VCP, Brownfields, Calsites, etc.), LUST, sites with engineering controls, former CERCLIS (NFRAP), RCRA and state hazardous waste generators, ERNS, SWLF, USTs, and Toxic Pits.

The review of the records satisfies all requirements as set forth in 40 CFR Section 312.26 (b) and (c) with regard to the review of federal, tribal, and state government records of databases of such government records and local government records and databases of such records pertaining to both the Subject Property and the nearby or adjoining properties. Further, the search distances for each particular database are as specified in 40 CFR 312.26.

Any known or suspected contaminated sites included on these lists within 0.25 miles of the Property are discussed in the following text. As a general rule, sites beyond 0.25 miles are not anticipated to impact a site significantly. Any sites beyond 0.25 miles with a high potential to impact the Property are also discussed. (Please note: the distances and directions listed in this report have been field verified and might not always match those in the EDR report.)

Sites such as TSD facilities, hazardous waste generators, HAZNET, FINDS, SQGs, LQGs, USTs, HIST UST, RCRA violations, and TRIS facilities with toxic chemical releases (generally in accordance with permitting requirements - into the air, water, or land as reported under SARA Title III) use or store hazardous materials and thus may pose a potential problem in the event of a spill or leak. However, unless these sites also appear in an agency list of contaminated sites, there is no evidence of any problems at this time. Therefore, sites on these lists will not be discussed unless on or in close proximity to the Property.

The subject property was identified as a site that has previously stored hazardous materials onsite and/or disposed hazardous materials offsite. In addition, the subject address at 110 E. Crowther Avenue formerly operated nine USTs that were removed during June 1992 and issued closure by the OCHCA during November 1992. Also, there were numerous properties either adjoining, or nearby that have had prior disposal of hazardous materials and/or releases of hazardous materials. The nearest identified releases were from the adjoining properties to the west (Microdot-Kayna) and south (Arlon Graphics).

Below is a list of the databases researched:

Databases Reviewed	Search Distance (SD)	Number of Sites Within SD
Federal National Priorities List (NPL) Site List	1-Mile	0
Federal Delisted NPL Site List	1-Mile	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	1/2-Mile	0
Federal CERCLIS No Further Remedial Action Planned (NFRAP) Sites	1/2-Mile	0
Federal RCRA CORRACTS List	1-Mile	0
Federal RCRA non-CORRACTs TSD List	1/2-Mile	1
Federal RCRA Generators List	1/4-Mile	10
Federal Institutional/Engineering Control Registries	1/2-Mile	0
Federal ERNS List	On-Site	0
California and Tribal Lists of NPL Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation	1-Mile	1
California and Tribal Lists of CERCLIS Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation	1-Mile	13
California and Tribal Landfills or Solid Waste Facilities List	1/2-Mile	0
California and Tribal Leaking Underground Storage Tank (LUST) Facility List	1/2-Mile	14
California and Tribal Registered Storage Tank Facility List	1/4-Mile	5
California and Tribal Voluntary Cleanup Sites	1/2-Mile	0
Local Brownfields Sites	1/2-Mile	0
Local Landfill/Solid Waste Disposal Sites	On-Site to 1/2-Mile	2

Databases Reviewed	Search Distance (SD)	Number of Sites Within SD
Local List of Hazardous Waste/Contaminated Sites	On-Site to 1-Mile	0
Local List of Registered Storage Tanks	1/4-Mile	6
Local Land Records	On-Site to 1/2-Mile	0
Records of Emergency Release Reports	On-Site	1
Other Ascertainable Records	On-Site to 1-Mile	13

11.2 Regulatory Agency Records

11.2.1 City of Placentia Building Division[9]

The City of Placentia Building Division maintains records of building permits issued for construction undertaken at properties located within the city limits. AEC submitted a request for a file review; however, a response was not received prior to completion of this report. If any permits are identified they will be forwarded as an addendum to this report.

11.2.2 Orange County Agricultural Commission[10]

The Orange County Agricultural Commission (OCAC) maintains records of Restricted Agricultural Chemicals permitted for use and/or storage at agricultural facilities located throughout Orange County. Inventory information regarding restricted herbicides, pesticides, rodenticide, etc., is listed on Restricted Materials permits issued annually and archived within the OCAC database. The site has not been in agricultural production during the prior 50 years, therefore, there are no records regarding agricultural chemical application or storage.

11.2.3 Orange County Health Care Agency[11]

The Orange County Health Care Agency (OCHCA) maintains records of underground storage tanks (USTs) and incidents of unauthorized releases of hazardous materials from underground storage tanks at the subject site and surrounding areas. OCHCA is currently processing AEC's request for records. It is the opinion of AEC that there are records regarding the removal of USTs at 110 E. Crowther. However, since the client has provided the applicable removal and sampling reports AEC is not concerned if the file review occurs after this report has been submitted.

The site at 110 E. Crowther Avenue has been assigned Facility ID #FA0044283. Also, the site disposes its hazardous waste(s) generated onsite under EPA ID No. CAL000249906. The site also lists its hazardous materials inventory to consist of Methyl Ethyl Ketone (MEK), gear oil, propane, propylene, and butane.

11.2.4 Orange County Fire Authority[12]

The Orange County Fire Authority (OCFA) maintains records of hazardous materials storage at facilities in Orange County. A request for a records review was submitted to the OCFA; however, AEC did not receive a response prior to the completion of this report. If any records are identified, they will be forwarded as an addendum.

11.2.5 South Coast Air Quality Management District[13]

The South Coast Air Quality Management District (SCAQMD) maintains records of Air Discharge permits for facilities located throughout the SCAQMD. A request for a records review was submitted to the SCAQMD and the files indicated that the Excalibur Extrusion facility is assigned an ID of 3026. The last inspection was conducted on March 1, 1982. There were no Notice of Violations and/or asbestos records issued to either address.

11.2.6 California Department of Conservation - Division of Oil & Gas[14]

According to Division of Oil, Gas, and Geothermal Resources (DOGGR) Map W1-5 and Map 108 there are no oil or gas wells on the subject site, however, the property is within the Administrative Boundary of an Oil Field identified as "Richfield". Exploratory oil wells have been drilled near the subject property; however, they never produced and were "plugged & abandoned" following drilling.

11.2.7 Santa Ana Regional Water Quality Control Board[15]

The Santa Ana Regional Water Quality Control Board (RWQCB) maintains a database of contaminated groundwater sites (GeoTracker). AEC has accessed GeoTracker to identify if the subject property, or adjoining and/or nearby properties have former or current soil and/or groundwater contamination from leaking underground storage tanks (USTs). The results of AEC's database review indicate that the subject property is listed in the database as having removed USTs. The only item that was available for review was the OCHCA Closure Letter; the reports associated with this Closure Letter have not been uploaded.

11.2.8 Office of the State Fire Marshal Pipeline Safety Division[16]

AEC located the Subject Property on the National Pipeline Mapping System and determined that there are no pipelines on or bordering the Subject Property. The nearest pipeline is a Southern California Gas transmission pipeline approximately 0.25-miles south and there is also an abandoned crude oil pipeline (CUSA Pipeline) approximately 1-mile north.

12.0 VAPOR ENCROACHMENT SCREENING

ASTM Standard E 2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions (VES) was used as guidance for conducting a VES for the Subject Property. The purpose of the screening is to determine whether a Vapor Encroachment Condition (VEC) exists from chemicals of concern (COC) that may migrate as vapors onto a property as a result of contaminated soil and groundwater on or near the Subject Property. The screening involves a two tiered approach to assessing VEC risk as described below.

12.1 VES Tier I

12.1.1 Search Distance Test/Chemicals of Concern Test

The search distance test involves a review of the regulatory database report and available historical records to make a determination if any *known or suspect potentially contaminated* properties exist within the Area of Concern (AOC). High risk sites are typically current and former gas stations, former and current dry cleaners, manufactured gas plants, and industrial sites (Brownfields). The AOC is defined as any up-gradient sites within the ASTM 1527 standard search distances and any cross or down-gradient sites within 1/3-mile for solvents and petroleum products.

If the contamination at the known or potentially contaminated site within the AOC consists of COCs, then a potential Vapor Encroachment Condition (pVEC) exists and Tier II is recommended. If no known or potentially contaminated sites with COCs exist within the AOC, no further inquiry is necessary.

12.2 VES Tier II

12.2.1 Plume Test

The Plume Test assesses whether or not a plume is close enough to the property to result in a VEC.

1. Critical Distance Determination – Determine distance from property to edge of plume in any direction (vertical, horizontal, lateral).

2. VEC exists if a plume of volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), or Volatile Inorganic compounds or free petroleum product accumulating above water table within 100-feet of the property or if a plume of dissolved volatile petroleum hydrocarbons within 30-feet of the property.

The Subject Property is considered an area of potential Vapor Encroachment based on the former nine USTs at the subject property that contained volatile compounds. In addition, 1,1,1-TCA was detected in two soil samples collected beneath the east ends of Tank Nos. 2 and 3 during the removal.

13.0 USER PROVIDED INFORMATION

Specific information provided by the User is discussed below.

13.1 Title Records

A chain-of-title report was provided to AEC for review.

13.2 Environmental Liens or Activity and Use Limitations

No information pertaining to environmental liens or activity/use limitations filed against the Property was provided by the User or identified by AEC during this assessment.

13.3 Specialized Knowledge

The User did not provide AEC with historical investigation reports pertaining to the Property and/or the area around the Property.

13.4 Valuation Reduction for Environmental Issues

No information pertaining to Property valuation was provided by the User.

• ENVIRONMENTAL CONCEPTS WITH DESIGN IN MIND •
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14.0 FINDINGS AND CONCLUSION

Advanced Environmental Concepts, Inc. (AEC) performed a Phase I Environmental Site Assessment (ESA) on two parcels totaling 2.95-acres having addresses of 110 and 132 East Crowther Avenue, Placentia, California on behalf of Mr. Erik Weeks of Integral Partners Funding, LLC (Integral). Also, this subject property is described by two Orange County Assessor's Parcel Numbers (APNs) of 339-091-08 (0.85-acres) and 339-091-09 (2.1-acres).

The larger of the two subject parcels is the western 2.1-acre property having an address of 110 E. Crowther Avenue and is currently occupied by Excalibur Extrusions; a plastic pipe, nipple, and coupling manufacturing facility. The owner of the subject business (Mr. Glenn Baldwin) stated that his company has been onsite since 1970 and that he purchased the site from a ceramics manufacturing company at that time. However, a review of the City Directory indicated that a ceramics company still occupied the site during 1972. In any event, following the ceramics company occupancy, the property has been used as a plastics manufacturing site for a minimum of 44 years. The property is improved with 17,892 square feet of building space in which it appears additions have been added over the years. The northeastern portion of the subject building is improved with asphalt-paved parking area that adjoins approximately 1,500 square feet of office space. The interior of the office space is improved with drop ceilings, linoleum flooring and HVAC system. The warehouse and manufacturing space are within approximate 14' to 18' high ceilings and sited on a slab-on-grade. The building is improved with loading bays along the west side and along the eastern exterior wall AEC observed a few air compressors and the cooling tower used to chill the water that cools the pipe following extrusion. AEC was informed by Mr. Baldwin that there used to be seven underground storage tanks (USTs) of varying capacities that formerly contained chemicals such as Methyl Ethyl Ketone (MEK) sited in the subsurface along the west side of the second loading dock. However, a review of the UST removal documents indicate there were nine USTs onsite having capacities of 5,000-gallons (5 tanks); 3,000-gallons (1 tank); 2,000-gallons (1 tank); and 1,000-gallons (2 tanks). Note that the tank capacities vary based on which document is reporting. The USTs were installed by the original property owner (ceramics manufacturing company) during the late 1960s and transferred to Excalibur during the property sale. The reports indicate gasoline was stored in the tanks, although this does not make complete sense in that the USTs were plumbed into the central manufacturing room and the product lines entered through a concrete wall. AEC was still able to observe the 2-inch diameter piping guides through the wall. The USTs were removed during 1992 under permit with the Orange County Health Care Agency (OCHCA) and soil samples collected beneath the east ends of Tank Nos. 2 and 3 indicated 400 ug/kg and 300 ug/kg of 1,1,1-Trichloroethane (TCA), respectively. Therefore, the OCHCA requested an additional investigation which consisted of drilling three soil borings to a maximum depth of 21' bgs. The analytical results indicated non-detectable TCA at 16' and 21' bgs, therefore, the OCHCA closed the site.

The western half of the subject site is basically an open yard used for storage of raw plastic pellets that are imported to the site to be melted and used in the manufacturing process, or storage for manufacturing "mistakes" that will either be re-used in the manufacturing process or disposed at an offsite recycling facility. AEC also observed a steel-constructed canopy in the northwest portion of the site that is used for covered storage of raw product and finished product.

The eastern portion of the subject property has an address of 132 E. Crowther Avenue and consists of an approximate 15,457 square foot building on an approximate 0.85-acre parcel. The elongated rectangular-shaped building borders the east boundary and there is an asphalt-paved parking lot within the northern portion adjoining E. Crowther Avenue. Also, there is a triangular-shaped open space area improved with grass and a cement slab-on-grade patio along the south end of the property. Currently, the masonry block and concrete tilt-up building is just a shell; the interior was gutted during the past year by the current owner (Mr. Brian Johnson) in preparation for re-development. The building has historically been occupied by the Boys & Girls Club of Placentia from at least 1972 to approximately 2013. During the Boys & Girls Club occupancy the interior was improved with offices, classrooms, bathrooms, an atrium, and indoor sporting facilities.

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The ESA process under ASTM Standard 1527 was created to identify *recognized environmental conditions* (RECs) which present a material risk of harm to public health or the environment and generally be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The ESA process additionally identifies *controlled recognized environmental conditions,* which are specified under ASTM Standard 1527 as a REC resulting from a past release that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances allowed to remain in place subject to institutional controls; and/or *historical recognized environmental conditions*, i.e. conditions which may have presented a material risk to public health and/or the environment but have now been mitigated to the satisfaction of a regulatory agency at the Subject Property. The descriptive term "recognized environmental condition" means the presence, or likely presence, of any hazardous substances or petroleum products in, at, or on a property due to any release to the environment; under conditions that indicate an existing release, a past release, or a material threat of a release to the environment. In addition, AEC will identify non-ASTM conditions ("housekeeping conditions") which are considered de minimis and generally do not present a material risk of harm to public health or the environment and would not be the subject of an enforcement action if brought to the attention of an appropriate governmental agency.

The results of this investigation have identified no *housekeeping conditions,* no *controlled recognized environmental conditions, no recognized environmental conditions,* no *historical offsite recognized environmental conditions,* and one *onsite historical recognized environmental condition.*

Historical Recognized Environmental Condition

- The Excalibur Extrusion facility had nine underground storage tanks (USTs) of varying capacities that were reported to have contained gasoline installed at the subject property along the west side of the manufacturing building outside a loading bay. The USTs were removed under Orange County Health Care Agency (OCHCA) permit during June 1992 and soil samples collected beneath USTs identified as Nos. 2 and 3 exhibited elevated concentrations of 1,1,1-TCA, a chlorinated solvent (400 ug/kg and 330 ug/kg, respectively at a depth of 14' bgs). The OCHCA required a subsurface investigation to evaluate the vertical migration of the TCA, therefore, three soil borings were drilled to 21' bgs and soil samples were collected at 16' bgs and 21' bgs. The confirmation samples collected at 16' and 21' bgs indicated non-detectable concentrations of TCA, therefore, closure was issued by the OCHCA in a letter dated November 13, 1992.

  Since the property is scheduled for conversion from industrial-use to residential-use AEC recommends conducting a multi-depth soil gas investigation focused in the area of the former nine USTs, and also conduct a site-wide soil gas investigation at both 110 and 132 E. Crowther Avenue. The multi-depth soil gas investigation will evaluate the subject property for future vapor intrusion concerns.

AEC has conducted this Phase I Environmental Site Assessment at 110 and 132 E. Crowther Avenue, Placentia, California (the Property) in conformance with the scope and limitations of ASTM Standard E1527-13. Any exceptions to, or deletions from this practice are described in Section 5.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Property. Therefore, based on the results of our investigation, AEC recommends conducting a soil gas survey to identify if a potential vapor intrusion concern exists for residential development.

15.0 REFERENCES

1) Orange County Assessor's Office; Civic Center Plaza, Building 11, 625 N. Ross Street, Room 142, Santa Ana, CA 92701; (714) 834-2727.

2) Geologic Map of California; State of California Resources Agency, Department of Conservation, Division of Mines and Geology.

3) United States Geological Survey - 7.5 and 15 Minute Series Topographic Quadrangle Map Publications (Orange, Yorba Linda, Anaheim, & La Habra Quadrangles, 7.5 and 15 Minute Series).

4) Southern California Edison; P. O. Box 410; Long Beach, California 90802; (310) 491-2391.

5) Wetlands Law Tests Government Plan; Gregor I. McGregor, Esq.; Environmental Protection Volume 3, Number 9 - November 1992; Stevens Publishing Corporation; 225 North New Road; Waco, Texas 76710; (817) 776-9000

6) California Statewide Radon Survey Screening Results; State of California Department of Health Services; 601 North 7th Street; Sacramento, California 95814; (916) 322-2040.

7) United States Department of Housing and Urban Development (HUD); 1615 West Olympic Boulevard; Los Angeles, California; (213)-251-7001.

8) Environmental Data Resources, Inc. (EDR); 6 Armstrong Road, Shelton, Connecticut 06484; (203) 783-0300.

9) City of Placentia Building Division (City Clerk's Office); 401 E. Chapman Avenue, Placentia, California 92870; (714) 993-8231.

10) Orange County Agricultural Commission; 1750 S. Douglass Road, Building D; Anaheim, California 92806-6050; (714) 447-7100.

11) Orange County Health Care Agency; 1241 E. Dyer Road, Suite 120; Santa Ana, California 92705; (714) 433-6000.

12) Orange County Fire Authority; 1 Fire Authority Road; Irvine, California; (714) 573-6000.

13) South Coast Air Quality Management District; 21865 Copley Drive, Diamond Bar, CA 91765 (909)396-2000.

14) State of California Department of Conservation - Division of Oil & Gas; 4800 Stockdale Highway; Bakersfield, California 93309; (661) 322-4031.

15) Santa Ana Regional Water Quality Control Board; 3737 Main Street, Suite 500; Riverside, California 92501-3348; (951) 782-3252

16) Office of the State Fire Marshal Pipeline Safety Division; P.O. Box 944246 Sacramento, California 94244-2460; (916) 445-8477

16.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Advanced Environmental Concepts, Inc. appreciates the opportunity to provide our professional assistance to Mr. Erik Weeks and Integral Funding Partners, LLC on this project. If you have any questions regarding this assessment or if AEC can be of further service, please call us at (661) 395-1646.

In addition, I declare to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 Code of Federal Regulations (CFR) 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

Sincerely,

Advanced Environmental Concepts, Inc.

This report has been prepared by:

Jonathan L. Buck
Principal Geologist

110 & 132 E.Crowther, Placentia

17.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

AEC staff is composed of two primary environmental professionals that perform Phase I Environmental Site Assessments on a routine basis. Qualifications profiles for these individuals are provided in the following section.

Jonathan L. Buck

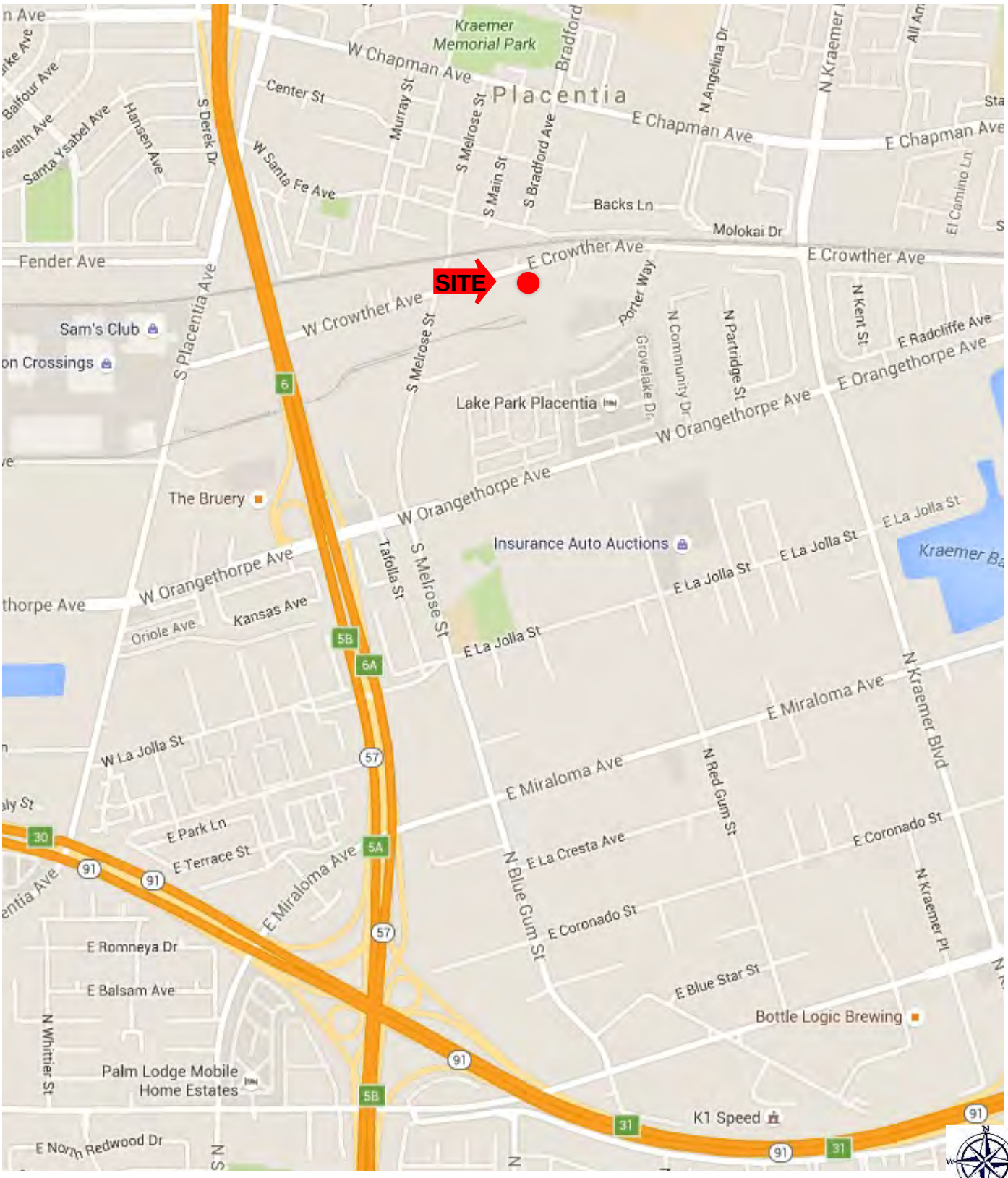
Mr. Buck received a Bachelor of Science degree in Geology from the University of California, Santa Barbara, in 1981 and was professionally engaged in the petroleum industry in various capacities through 1985. Mr. Buck joined the environmental industry in 1985 and formed **Advanced Environmental Concepts Inc.** in 1989. Since its inception, **AEC** has been a full service environmental consulting firm specializing in Phase I Site Assessments, UST programs, and soil and groundwater assessment and cleanup programs. Mr. Buck is a State of California Registered Geologist (#7468) and has performed numerous ESAs on diverse properties throughout California, Arizona, Oregon, and Washington.

• ENVIRONMENTAL CONCEPTS WITH DESIGN IN MIND •

220 E. TRUXTUN AVENUE BAKERSFIELD, CA 93305 661/395-1646 FAX 661/395-1616

Appendix A

FIGURES AND SITE PHOTOGRAPHS



ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

Site Location Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

1

ADVANCED ENVIRONMENTAL CONCEPTS INC

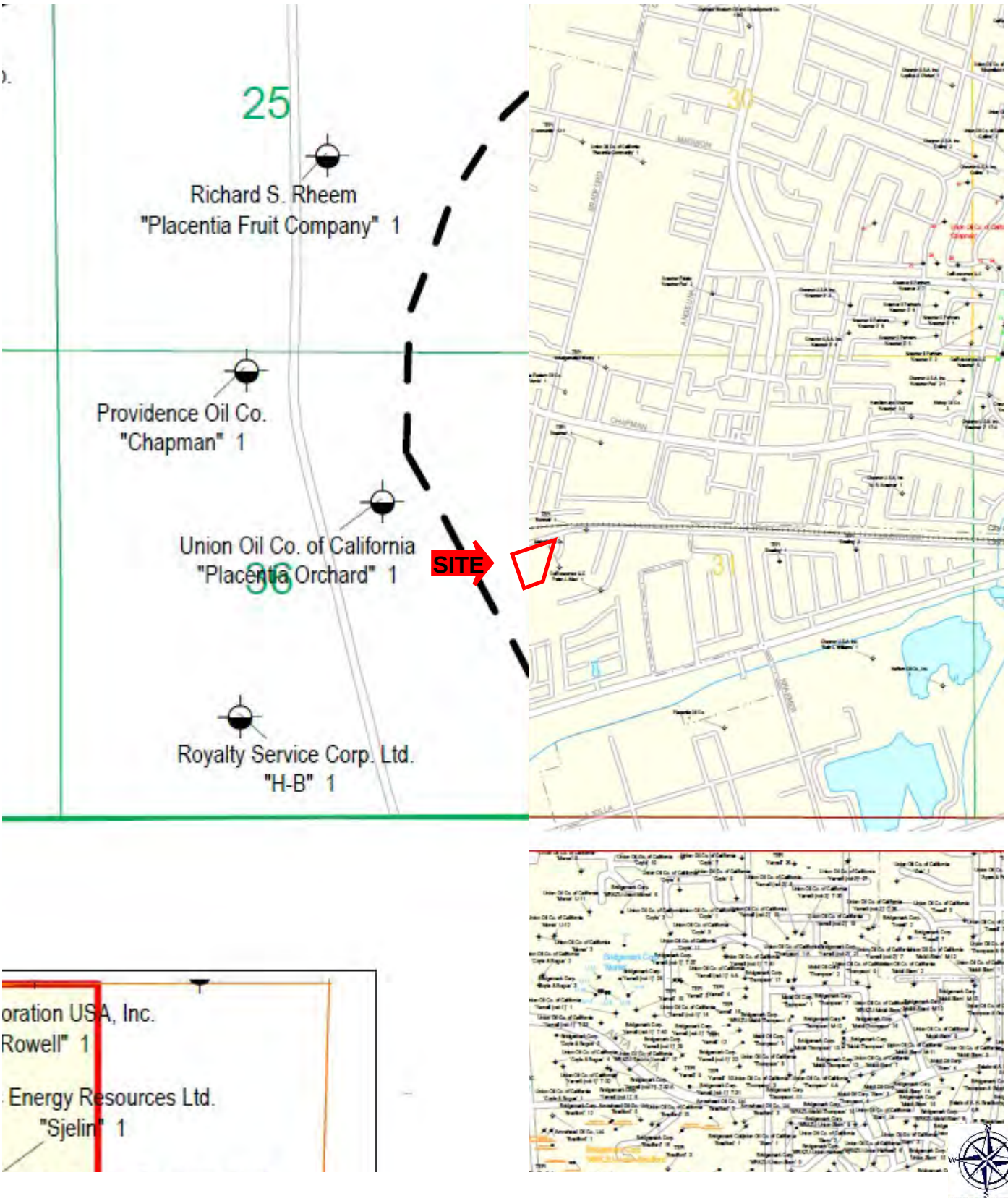
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

Assessor's Parcel Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

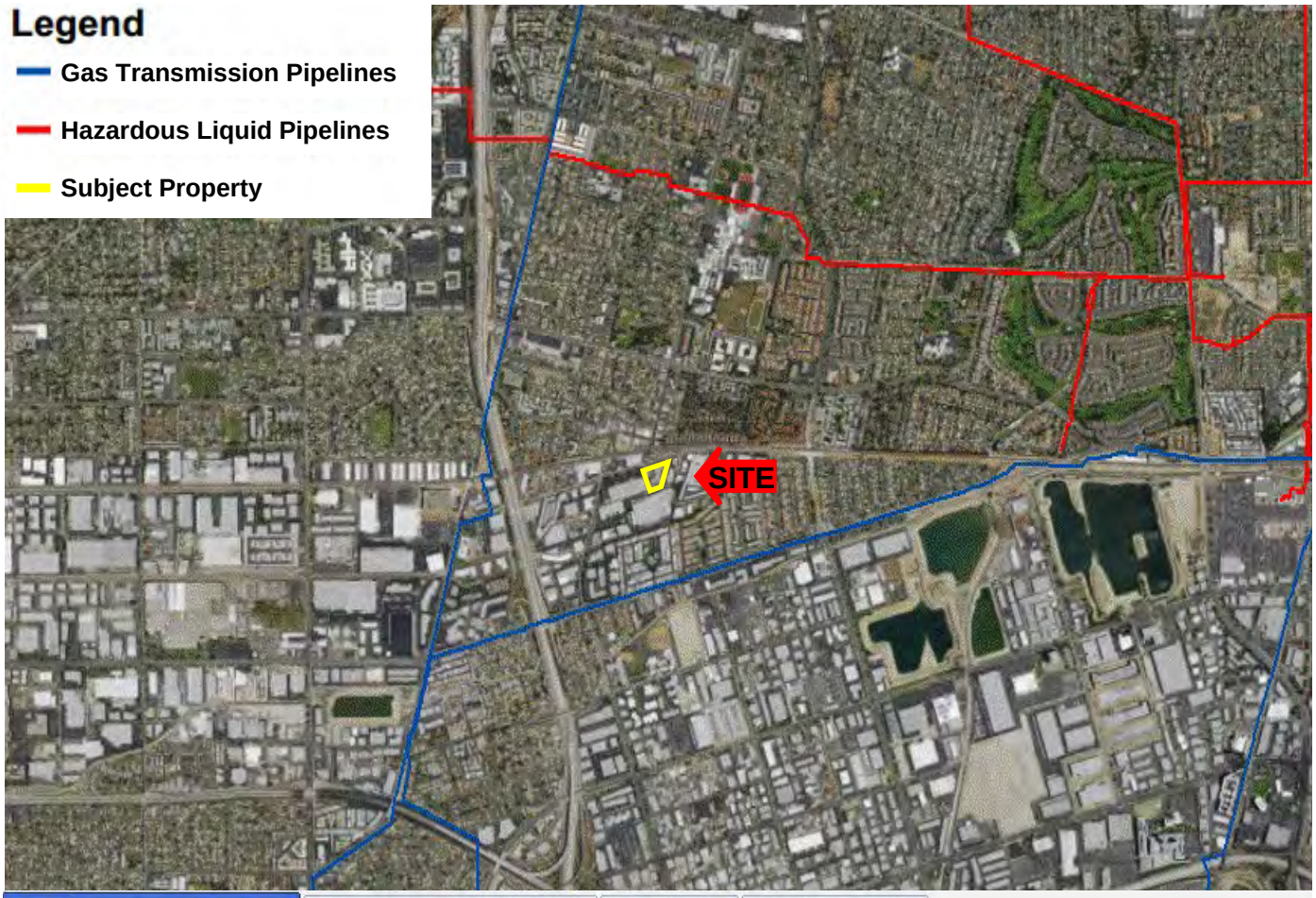
2



ADVANCED ENVIRONMENTAL CONCEPTS INC 220 East Truxtun Avenue Bakersfield, California 93305 (661) 395-1646	**Division of Oil & Gas Map No. W1-5 and 108** **2.95-acre Industrial Property** **110 and 132 East Crowther Avenue** **County of Kern ● Bakersfield, California**	**FIGURE** **3**

Legend

- Gas Transmission Pipelines
- Hazardous Liquid Pipelines
- Subject Property



Gas Transmission Pipelines | Hazardous Liquid Pipelines | LNG Plants | Breakout Tanks

Highly Populated Areas | Other Populated Areas

1 record(s) found

OPERATOR ID	OPERATOR NAME	SYSTEM NAME	COMMODITY CATEGORY	COMMODITY DESCRIPTION	INTERSTATE DESIGNATION	PIPELINE STATUS CODE	GENERAL PERSON TO CONTACT	GENERAL ENTITY TO CONTACT	GENERAL ADDRESS	GENERAL PHONE/FAX/EMAIL
18484	SOUTHERN CALIFORNIA GAS CO	TRANSMISSION	Natural Gas	NATURAL GAS	N	In Service	Kris Keas (Pipeline Integrity Manager)		555 West 5th Street,GT11A5, Los Angeles CA 90013	Phone: (213) 244-5036 Null Fax: Null Email: NPMS_Inquiries@semprautilities.com

Gas Transmission Pipelines | Hazardous Liquid Pipelines | LNG Plants | Breakout Tanks

Highly Populated Areas | Other Populated Areas

1 record(s) found

OPERATOR ID	OPERATOR NAME	SYSTEM NAME	COMMODITY CATEGORY	COMMODITY DESCRIPTION	INTERSTATE DESIGNATION	PIPELINE STATUS CODE	GENERAL PERSON TO CONTACT	GENERAL ENTITY TO CONTACT	GENERAL ADDRESS	GENERAL PHONE/FAX/EMAIL
99999	ABANDONED	CUSA PIPELINE-SO. CALIF. CRUDE	Empty Liquid		N	Abandoned	Null Null (Null)	NPMS STAFF	NA,NA, NA VA 0	Phone: (703) 317-6294 Null Fax: Null Email: npms@dot.gov

ADVANCED ENVIRONMENTAL CONCEPTS INC

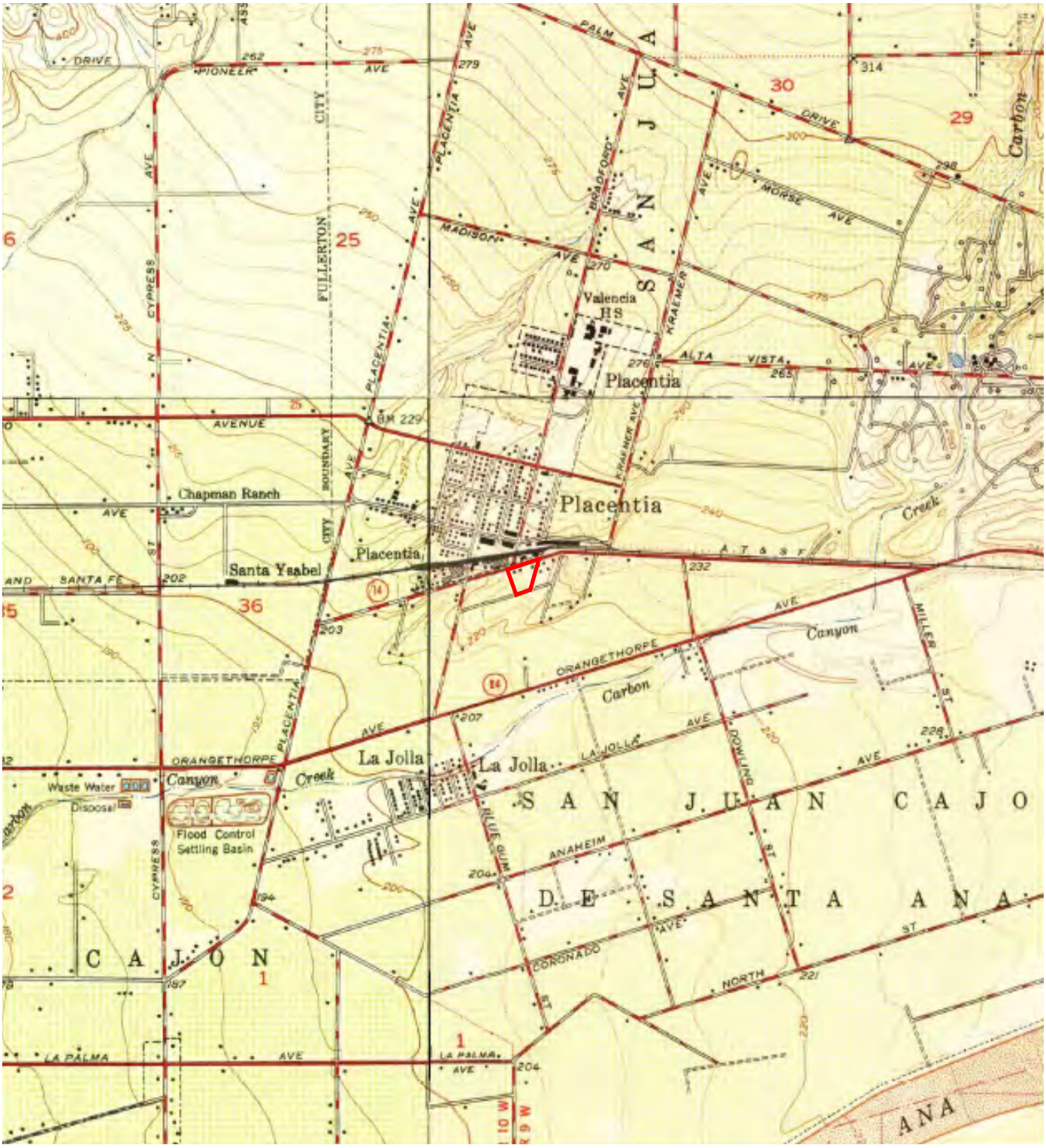
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

National Pipeline Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

4



Scale: 1" = 2,000' Quadrangle: Orange/Yorba Linda/Anaheim/La Habra

ADVANCED ENVIRONMENTAL CONCEPTS INC

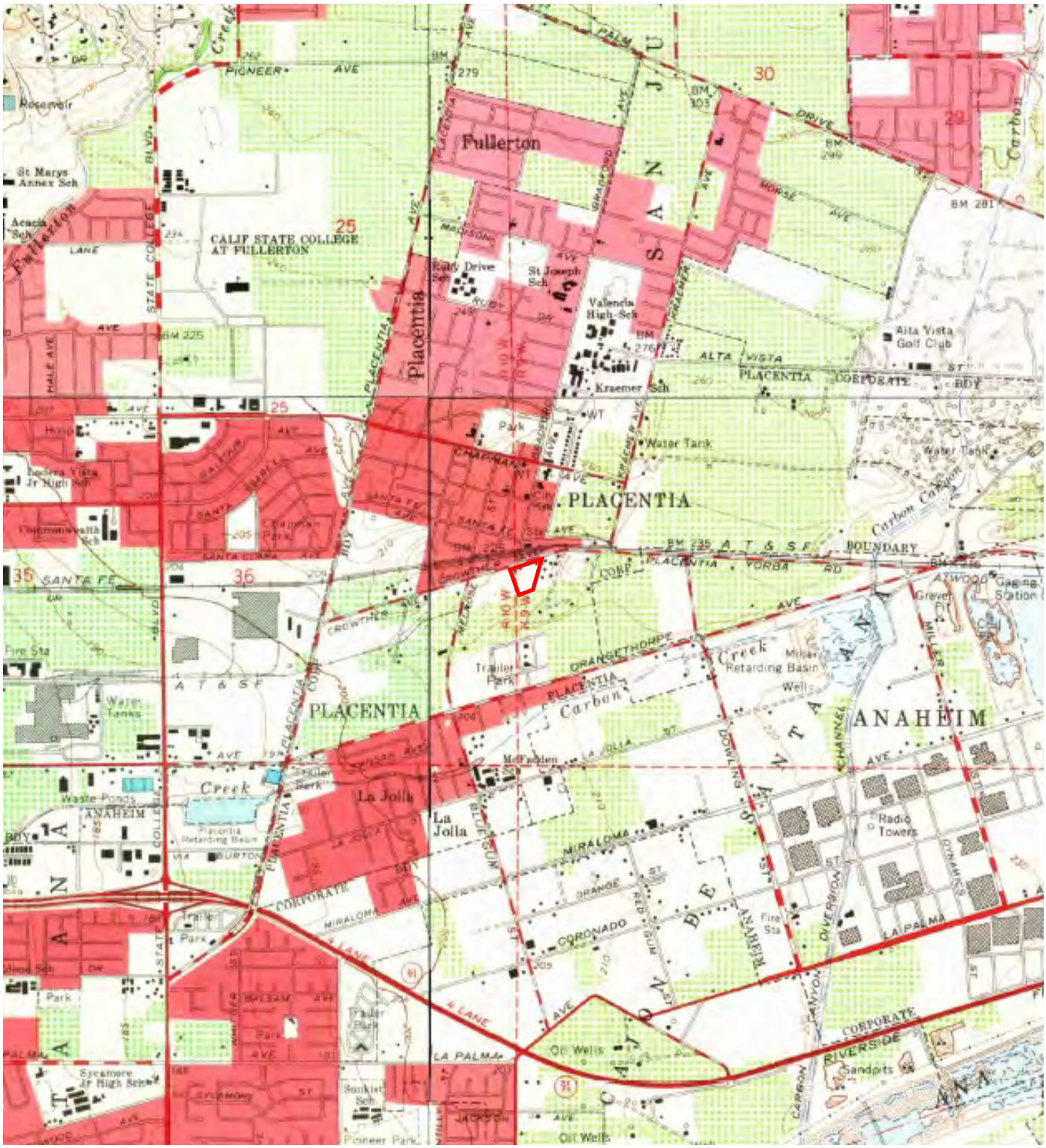
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1950 Topographic Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

5



Scale: 1" = 2,000' Quadrangle: Orange/Yorba Linda/Anaheim/La Habra

ADVANCED ENVIRONMENTAL CONCEPTS INC

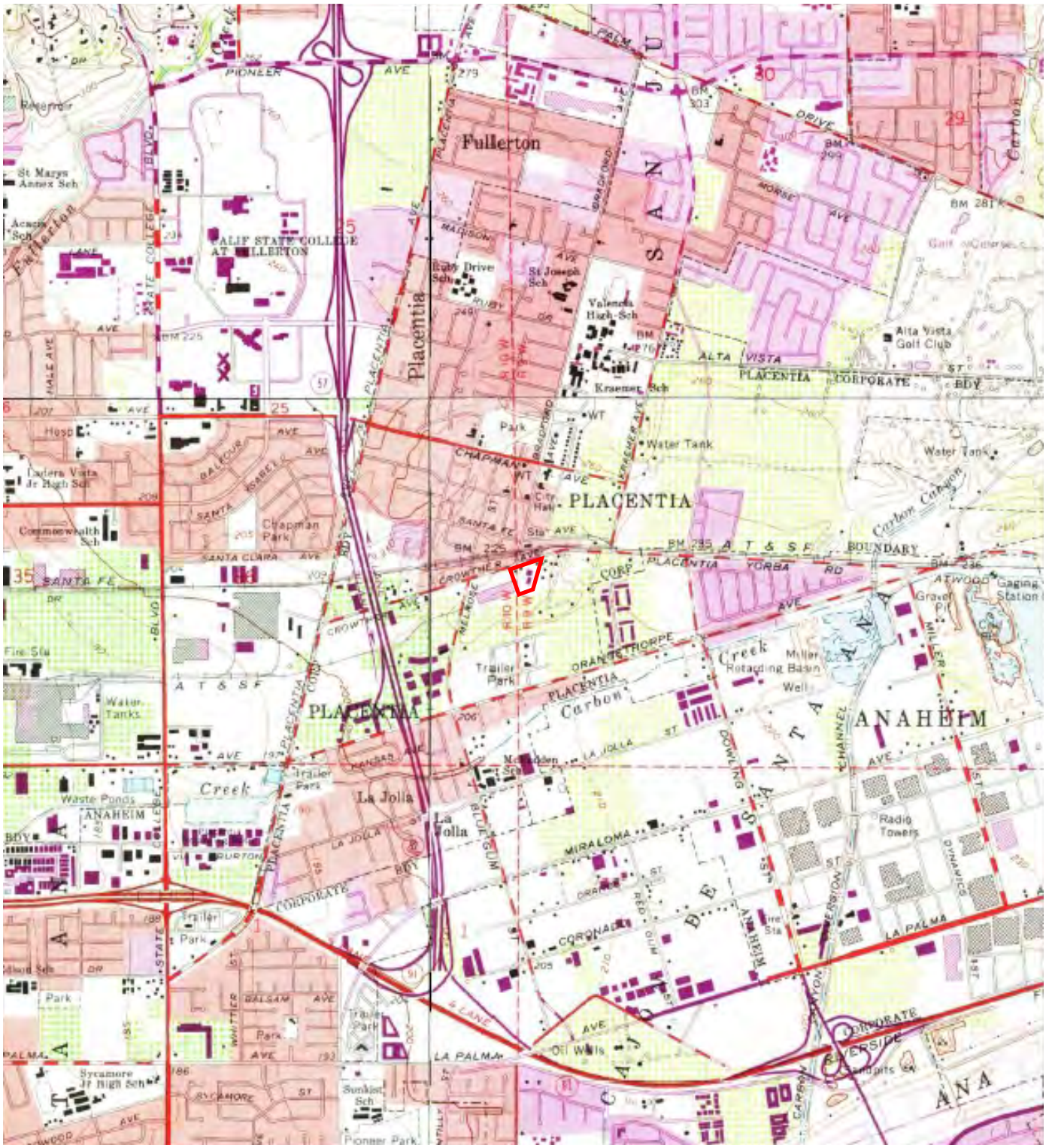
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1964/1965 Topographic Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

6



Scale: 1" = 2,000' Quadrangle: Orange/Yorba Linda/Anaheim/La Habra

ADVANCED ENVIRONMENTAL CONCEPTS INC

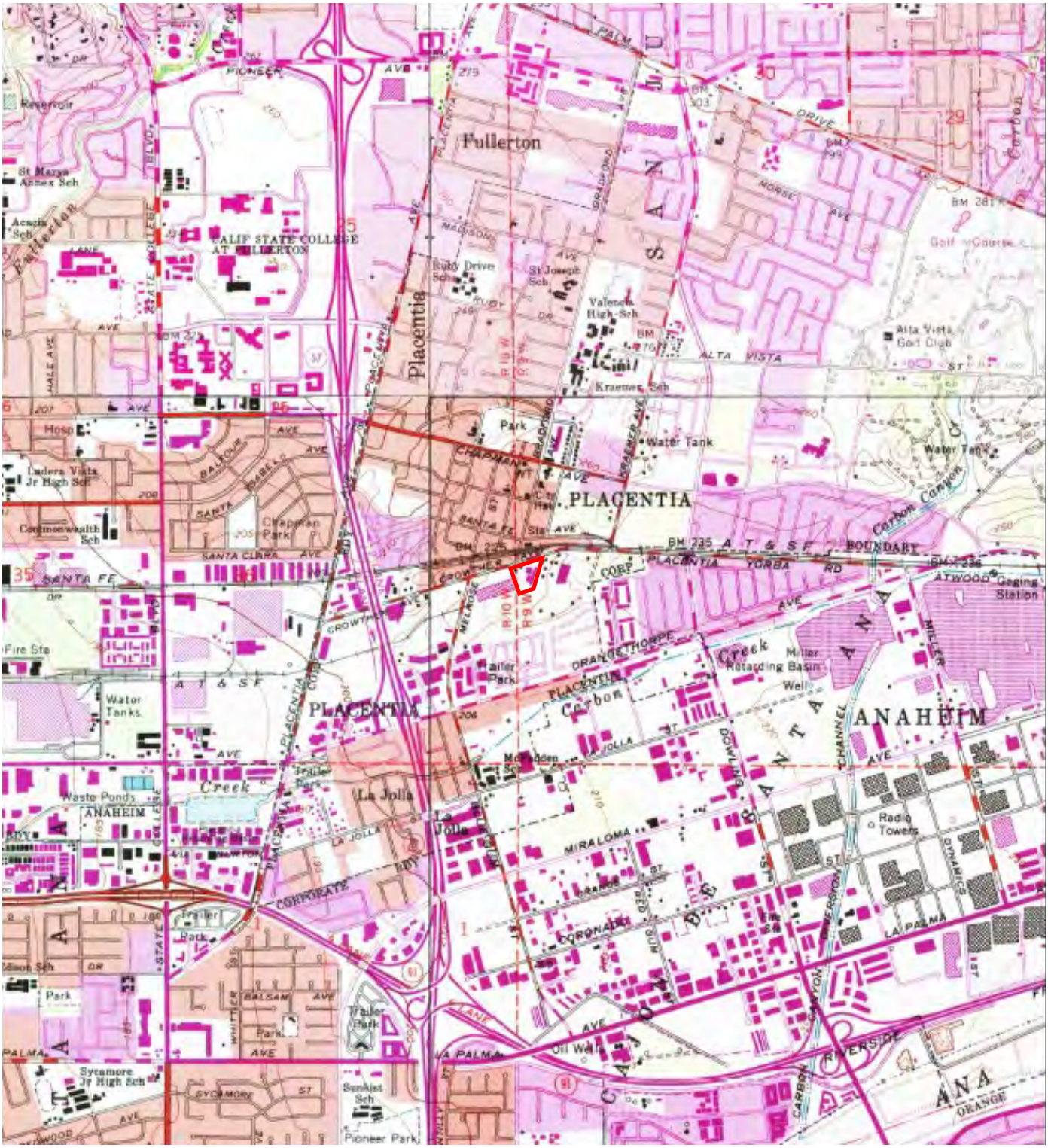
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1972 Topographic Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

7



Scale: 1” = 2,000’ Quadrangle: Orange/Yorba Linda/Anaheim/La Habra

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1981 Topographic Map

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

8

Scale: 1” = 630’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

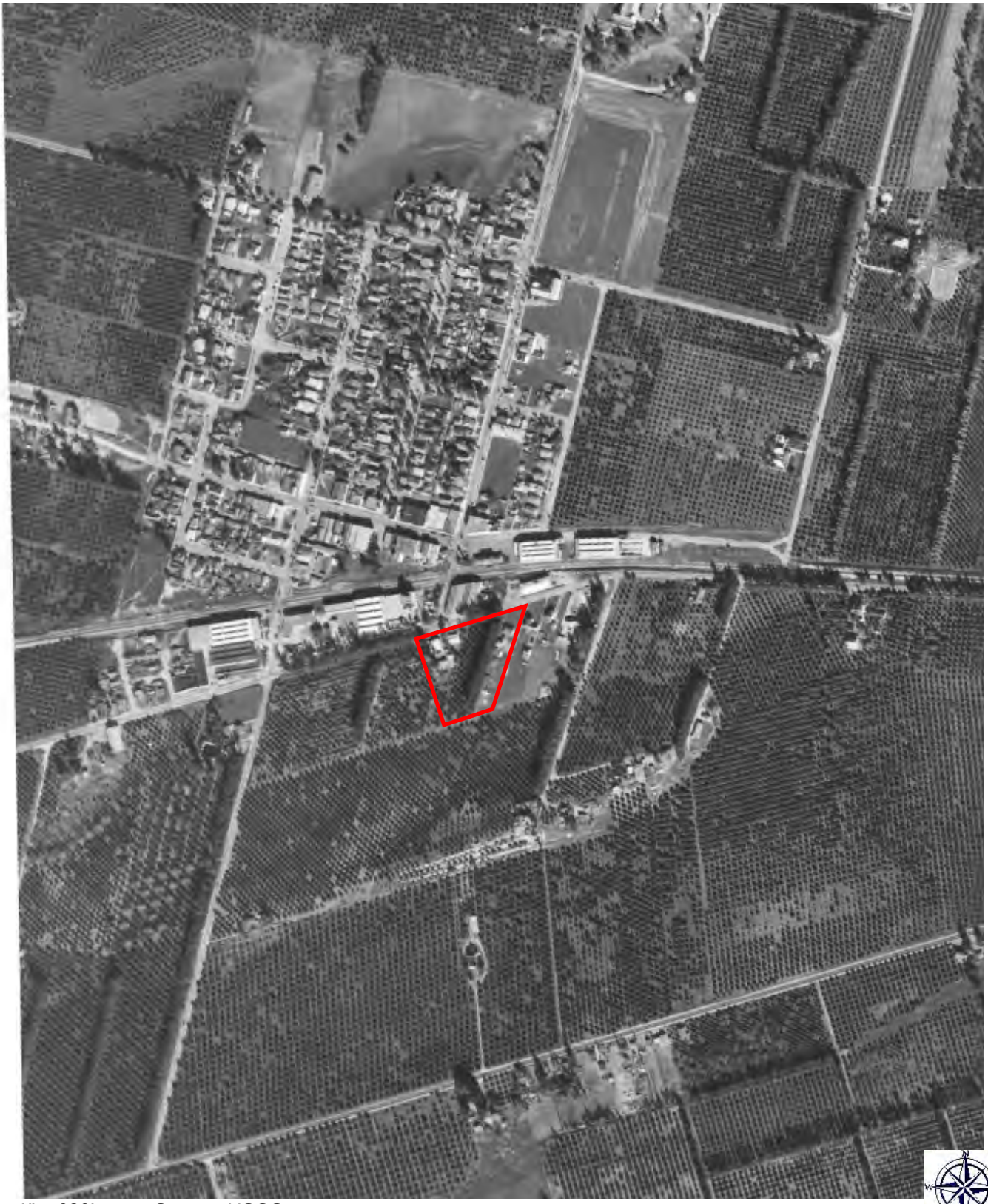
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1938 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

9



Scale: 1” = 630’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1946 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

10

Scale: 1” = 630’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1952 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

11

Scale: 1” = 630’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1963 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

12

Scale: 1” = 630’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

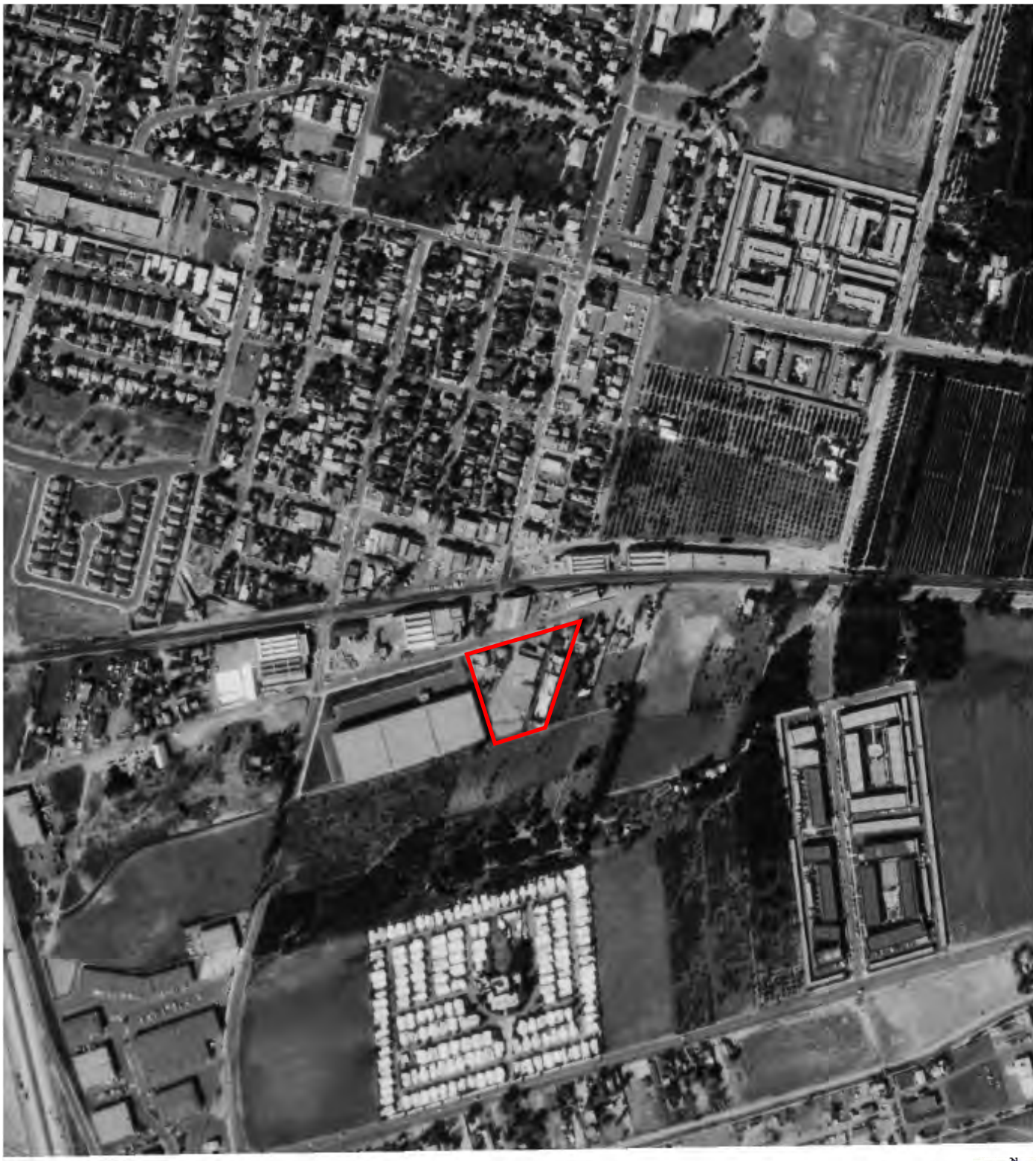
220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1966 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

13



Scale: 1” = 605’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1972 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

14

Scale: 1” = 605’ Source: EDR Proprietary Brewster Pacific

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1977 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

15

Scale: 1” = 605’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1985 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

16

Scale: 1” = 630’ Source: USGS

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1989 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

17

Scale: 1” = 605’ Source: USGS/DOQQ

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

1995 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

18

Scale: 1” = 151’ Source: Google

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

2003 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

19

Scale: 1” = 151’ Source: Google

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

2009 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

20

Scale: 1” = 151’ Source: Google

ADVANCED ENVIRONMENTAL CONCEPTS INC

220 East Truxtun Avenue
Bakersfield, California 93305
(661) 395-1646

2015 Aerial Photograph

2.95-acre Industrial Property
110 and 132 East Crowther Avenue
County of Kern ● Bakersfield, California

FIGURE

21

110 East Crowther Avenue
February 2016

1. View west along north boundary (East Crowther Avenue) from the northeast corner.

2. View south along east boundary from the northeast corner. Adjoining property is 132 East Crowther Avenue.

3. View north across East Crowther Avenue at offsite parking lot, railroad tracks, and apartment complex.

4. View north at northern portion of subject building.

5. Interior view of reception area with linoleum flooring and paneling.

6. View of southwest yard used for storage of raw and finished goods.

7. Typical view of raw project that was a manufactured waste used for another purpose. This product is heated, melts, then pushed through a dye to create a new product.

8. Typical view of canopied area storing newly manufactured product.

9. View of yellow PVC pipe manufactured onsite which is a sleeve for a gas line.

10. View of bulk storage area for raw material in southwest portion of site.

11. View of area that is unpaved along south boundary that is used for storage of “manufacturing mistakes”.

12. View of extrusion line at southeast portion of site.

13. The “saw dust” grindings are swept and sent to a landfill.

14. View of build raw product to be used in pipe manufacturing.

15. View of pipe manufacturing machine (extruder).

16. View of former UST emplacement area adjacent to west side of loading dock. There were 7 USTs.

17. Area where product lines from USTs entered in northern portion of manufacturing facility when operated by the ceramic firm.

18. View of chilling tower along east side of building.

19. View of air compressors along east side of building north of chilling tower.

20. View of northern extrusion room inside building.

21. View of finish product storage area at southwest portion of building.

22. View of shop bench and tools along north interior wall of finish product storage area.

132 East Crowther Avenue
February 2016

1. View west along north boundary (East Crowther Avenue) from the northeast corner of subject property.

2. View south along east boundary of subject property which is the parking lot for adjoining site at the Crowther Business Center with addresses of 500-530 East Crowther Avenue.

3. View of parking lot and commercial buildings at the Crowther Business Center.

4. View north across East Crowther Avenue at offsite parking lot, railroad tracks and apartment complex.

5. View north along west boundary of subject property from the northwest corner.

6. View south across northern portion of subject site which consists of an asphalt paved parking lot. Also, view of north side of subject building.

7. View of stormwater collection drain near gated entrance to parking lot.

8. View north at western exterior wall of subject building.

9. View of gas main and dumpster enclosures near southwest corner of subject building.

10. Interior view of central portion of subject building.

11. View of southern portion of subject site consisting of an open yard, cement apron, and south exterior wall of building. The building addition is masonry block wall with stucco exterior.

12. View south at adjoining property along south side of chain link fence.

13. View of two sets of three pole-mounted transformers along west property boundary.

14. View into northern open area inside subject building.

15. View of former bathrooms along east interior of building.

16. View of foyer with terrazzo floors along north side of building.

Appendix B

EDR ENVIRONMENTAL DATABASE SURVEY

110 and 132 East Crowther Avenue
110 and 132 East Crowther Avenue
Placentia, CA 92870

Inquiry Number: 4537608.2s
February 12, 2016

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	128
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-6
Physical Setting Source Map	A-12
Physical Setting Source Map Findings	A-14
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

110 AND 132 EAST CROWTHER AVENUE
PLACENTIA, CA 92870

COORDINATES

Latitude (North):	33.8675280 - 33° 52' 3.10''
Longitude (West):	117.8713480 - 117° 52' 16.85''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	419405.2
UTM Y (Meters):	3747615.5
Elevation:	234 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5641308 ORANGE, CA
Version Date:	2012
Northeast Map:	5640946 YORBA LINDA, CA
Version Date:	2012
Southwest Map:	5641294 ANAHEIM, CA
Version Date:	2012
Northwest Map:	5640256 LA HABRA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120505
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
110 AND 132 EAST CROWTHER AVENUE
PLACENTIA, CA 92870

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE	RGA LUST		TP
A2	EXCALIBUR	110 E CROWTHER	HAZNET		TP
A3	EXCALIBUR EXTRUSIONS	110 CROWTHER	LUST, Orange Co. Industrial Site, HIST CORTESE,...		TP
A4	EXCALIBUR EXTRUSIONS	110 E CROWTHER AVE	RGA LUST		TP
A5	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE,	RGA LUST		TP
A6	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE,	RGA LUST		TP
B7	JT VONIC	500 CAMERON	RCRA-SQG, FINDS, HAZNET	Higher	180, 0.034, NE
B8		530 CAMERON ST	EDR Hist Auto	Higher	181, 0.034, ENE
B9	DIESEL MOTOR CAR	530 CAMERON ST	RCRA-SQG, FINDS	Higher	181, 0.034, ENE
C10	MICRODOT DIV - KAYNA	190 W CROWTHER AV	SLIC, EMI, HWP	Lower	269, 0.051, WSW
C11	MICRODOT INSERTS, IN	190 WEST CROWTHER AV	SLIC	Lower	269, 0.051, WSW
C12	KAYNAR A MICRODOT CO	190 WEST CROUTHER	RCRA-TSDF, RCRA NonGen / NLR	Lower	269, 0.051, WSW
D13	KNOTTS BERRY FARM FO	200 BOYSENBERRY LN	UST, SWEEPS UST	Lower	278, 0.053, South
D14	ARLON GRAPHICS LLC	200 BOYSENBERRY LN	RCRA-LQG	Lower	278, 0.053, South
D15	KNOTT'S BERRY FARM F	200 BOYSENBERRY LN	HIST UST	Lower	278, 0.053, South
B16	SANTA FE COURTYARDS	220 SANTA FE AVE	LUST	Higher	304, 0.058, NE
B17		220 E SANTA FE AVE	EDR Hist Auto	Higher	365, 0.069, NE
18		101 E SANTA FE AVE	EDR Hist Auto	Higher	368, 0.070, North
B19		229 E SANTA FE AVE	EDR Hist Auto	Higher	397, 0.075, NE
E20	CAL-WAY PROPERTIES	588 PORTER WAY	HIST UST	Higher	443, 0.084, SE
E21	SUN EIGHT CO INC	588 PORTER WAY	RCRA-SQG, SWEEPS UST, FINDS	Higher	470, 0.089, SE
E22		582 PORTER WAY	EDR Hist Auto	Higher	519, 0.098, SE
F23		216 W SANTA FE AVE	EDR Hist Cleaner	Higher	584, 0.111, NW
F24	PLACENTIA SUPER SERV	230 SANTA FE AVE	LUST, HIST CORTESE	Higher	587, 0.111, NW
F25	PLACENTIA SUPER SERV	230 W SANTA FE AVE	UST	Lower	657, 0.124, NW
F26	PLACENTIA AUTO BODY	229 W SANTA FE AVE	RCRA-SQG, HAZNET	Higher	667, 0.126, NW
F27		229 W SANTA FE AVE	EDR Hist Auto	Higher	667, 0.126, NW
G28	CASTNER'S AUTO SERVI	214 S BRADFORD AVE	HIST UST	Higher	689, 0.130, North
G29	CASTNERS AUTO SERVIC	214 S BRADFORD AVE	RCRA-SQG, LUST, HAZNET, HIST CORTESE	Higher	689, 0.130, North
G30		214 S BRADFORD AVE	EDR Hist Auto	Higher	689, 0.130, North
H31	LAIRD TECHNOLOGIES	505 PORTER WAY	RCRA-LQG, FINDS	Higher	842, 0.159, ENE
H32	LAIRD TECHNOLOGIES I	505 PORTER WAY	RCRA-SQG, HAZNET	Higher	842, 0.159, ENE
33		505 S MELROSE ST	AST	Lower	846, 0.160, WSW
34	ENGINEERED FACILITIE	355 W CROWTHER AVE	RCRA-SQG, FINDS	Lower	928, 0.176, West
I35	ADVANCED AUTOMOTIVE	144 S BRADFORD AVE	UST	Higher	1104, 0.209, North
I36		144 S BRADFORD AVE	EDR Hist Auto	Higher	1104, 0.209, North
37	MISSION GARAGE	243 W CENTER ST	EDR Hist Auto	Higher	1106, 0.209, NNW
38	SUBURBAN PROPANE	535 S MELROSE ST	UST, SWEEPS UST	Lower	1143, 0.216, SW
I39	ADVANCED AUTOMOTIVE	144 BRADFORD AVE	LUST, HIST CORTESE	Higher	1154, 0.219, North

MAPPED SITES SUMMARY

Target Property Address:
110 AND 132 EAST CROWTHER AVENUE
PLACENTIA, CA 92870

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
I40	CURTIS SERVICE STATI	124 S BRADFORD AVE	EDR Hist Auto	Higher	1189, 0.225, North
J41	KIPE MOLDS INCORORAT	340 CROWTHER AVENUE	RCRA-SQG, FINDS, HAZNET	Lower	1239, 0.235, West
42	DE VAUX J J	328 W CENTER ST	EDR Hist Auto	Lower	1260, 0.239, NNW
J43	RENOVATE RECYCLING C	407 GOETZ PL	SWRCY	Lower	1262, 0.239, West
K44	S&M PERFORMANCE	101 SOUTH BRADFORD A	Notify 65	Higher	1412, 0.267, North
K45	BRITE ARMOR PLATING	1055 DRIEGA WAY, UNI	ENVIROSTOR	Higher	1465, 0.277, North
46	CHEVRON #9-5978	313 ORANGETHORPE	LUST, HIST CORTESE	Lower	1623, 0.307, SE
47	WESTFIELD DEVELOPERS	480 CROWTHER	LUST	Lower	1635, 0.310, WSW
K48	ECONO LUBE N TUNE	101 BRADFORD	LUST, HIST CORTESE	Higher	1671, 0.316, North
49	EXXON #7-3899	241 ORANGETHORPE AVE	LUST, HIST CORTESE	Lower	1906, 0.361, SSW
50	HI TECH SOLDER	700 MONROE WAY	ENVIROSTOR, FINDS	Lower	1944, 0.368, SW
51	RENOVATE RECYCLING C	516 W CHAPMAN AVE	SWRCY	Higher	2149, 0.407, NNW
52	KRAMER TRUST PROPERT	230 ANGELINA ST	LUST	Higher	2226, 0.422, NE
53	MONARCH POOLS INC	1461 RED GUM	LUST, HIST CORTESE	Lower	2286, 0.433, SSE
54	SEVAN S. YAKINIAN	351 N PLACENTIA AVE	LUST, HIST UST	Lower	2638, 0.500, West
55	SOUTHWESTERN MIDDLE	RED GUM STREET/LA JO	ENVIROSTOR, SCH	Lower	2779, 0.526, SSE
56	MDC CENTER(FORMER)	601-629 S. PLACENTIA	ENVIROSTOR	Lower	2981, 0.565, WSW
57	MELROSE ELEMENTARY S	MELROSE STREET/LA JO	ENVIROSTOR, SCH	Lower	3133, 0.593, SSW
58	ROBERT CARO PRECIOUS	3071 LA JOLLA #A	ENVIROSTOR	Lower	3387, 0.641, SE
59	VEECO ELECTRO FAB, I	2488 E. FENDER AVENU	ENVIROSTOR	Lower	3965, 0.751, West
60	CLASSIC PLATING, INC	2985 E. MIRALOMA AVE	RESPONSE, ENVIROSTOR, Cortese	Lower	4117, 0.780, SSE
61	ARTISTIC PLATING AND	2821 E MIRALOMA AVE	ENVIROSTOR, RCRA NonGen / NLR, EMI, WDS	Lower	4236, 0.802, South
62	ANAHEIM EXTRUSION CO	1330 N. KRAEMER BOUL	ENVIROSTOR	Lower	4285, 0.812, SE
63	BRIGHT ARMOR PLATING	2466-B EAST FENDER A	ENVIROSTOR	Lower	4813, 0.912, West
64	J K L MANUFACTURING	1211 N LAS BRIAS ST	RCRA-SQG, ENVIROSTOR, HIST UST, FINDS	Lower	4906, 0.929, SSE
65	IDEAL ANODIZING, INC	1250 N. BLUE GUM STR	ENVIROSTOR	Lower	4948, 0.937, South

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
EXCALIBUR EXTRUSIONS 110 CROWTHER AVE PLACENTIA, CA	RGA LUST	N/A
EXCALIBUR 110 E CROWTHER PLACENTIA, CA 92870	HAZNET GEPAID: CAL000249906	N/A
EXCALIBUR EXTRUSIONS 110 CROWTHER PLACENTIA, CA 92670	LUST Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0605901581 Global ID: T0605901581 Orange Co. Industrial Site Current Status: CLOSED 8/6/1992 Case ID: 92IC031 HIST CORTESE Reg Id: 083002142T NPDES Facility Status: Active	N/A
EXCALIBUR EXTRUSIONS 110 E CROWTHER AVE PLACENTIA, CA	RGA LUST	N/A
EXCALIBUR EXTRUSIONS 110 CROWTHER AVENUE, PLACENTIA, CA	RGA LUST	N/A
EXCALIBUR EXTRUSIONS 110 CROWTHER AVENUE, PLACENTIA, CA	RGA LUST	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP ---------- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing

INDIAN UST ---- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---- Waste Management Unit Database
HAULERS ---- Registered Waste Tire Haulers Listing
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
ODI ---- Open Dump Inventory
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- National Clandestine Laboratory Register
HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- Clandestine Drug Labs

Local Lists of Registered Storage Tanks

CA FID UST ---- Facility Inventory Database

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites

DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
FINDS	Facility Index System/Facility Registry System
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
KAYNAR A MICRODOT CO	***190 WEST CROUTHER***	***WSW 0 - 1/8 (0.051 mi.)***	***C12***	***23***

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/09/2015 has revealed that there are 2 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LAIRD TECHNOLOGIES	***505 PORTER WAY***	***ENE 1/8 - 1/4 (0.159 mi.)***	***H31***	***55***

Lower Elevation	Address	Direction / Distance	Map ID	Page
ARLON GRAPHICS LLC	200 BOYSENBERRY LN	S 0 - 1/8 (0.053 mi.)	D14	31

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/09/2015 has revealed that there are 8 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JT VONIC	*500 CAMERON*	*NE 0 - 1/8 (0.034 mi.)*	*B7*	*16*
DIESEL MOTOR CAR	*530 CAMERON ST*	*ENE 0 - 1/8 (0.034 mi.)*	*B9*	*19*
SUN EIGHT CO INC	*588 PORTER WAY*	*SE 0 - 1/8 (0.089 mi.)*	*E21*	*38*
PLACENTIA AUTO BODY	*229 W SANTA FE AVE*	*NW 1/8 - 1/4 (0.126 mi.)*	*F26*	*44*
CASTNERS AUTO SERVIC	*214 S BRADFORD AVE*	*N 1/8 - 1/4 (0.130 mi.)*	*G29*	*48*
LAIRD TECHNOLOGIES I	*505 PORTER WAY*	*ENE 1/8 - 1/4 (0.159 mi.)*	*H32*	*56*

Lower Elevation	Address	Direction / Distance	Map ID	Page
ENGINEERED FACILITIE	*355 W CROWTHER AVE*	*W 1/8 - 1/4 (0.176 mi.)*	*34*	*59*
KIPE MOLDS INCORORAT	*340 CROWTHER AVENUE*	*W 1/8 - 1/4 (0.235 mi.)*	*J41*	*65*

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 11/07/2015 has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CLASSIC PLATING, INC Status: Active Facility Id: 71003472	*2985 E. MIRALOMA AVE*	*SSE 1/2 - 1 (0.780 mi.)*	*60*	*109*

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 11/07/2015 has revealed that there are 13 ENVIROSTOR sites within approximately 1 mile of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BRITE ARMOR PLATING Facility Id: 71003635 Status: Inactive - Needs Evaluation	1055 DRIEGA WAY, UNI	N 1/4 - 1/2 (0.277 mi.)	K45	69

Lower Elevation	Address	Direction / Distance	Map ID	Page
HI TECH SOLDER Facility Id: 71003823 Status: Inactive - Needs Evaluation	***700 MONROE WAY***	***SW 1/4 - 1/2 (0.368 mi.)***	***50***	***82***
SOUTHWESTERN MIDDLE Facility Id: 30010015 Status: No Further Action	***RED GUM STREET/LA JO***	***SSE 1/2 - 1 (0.526 mi.)***	***55***	***96***
MDC CENTER(FORMER) Facility Id: 30000012 Status: Refer: 1248 Local Agency	601-629 S. PLACENTIA	WSW 1/2 - 1 (0.565 mi.)	56	99
MELROSE ELEMENTARY S Facility Id: 30820002 Status: Certified / Operation & Maintenance	***MELROSE STREET/LA JO***	***SSW 1/2 - 1 (0.593 mi.)***	***57***	***100***
ROBERT CARO PRECIOUS Facility Id: 71002699 Status: Inactive - Needs Evaluation	3071 LA JOLLA #A	SE 1/2 - 1 (0.641 mi.)	58	107
VEECO ELECTRO FAB, I Facility Id: 71003413 Status: Inactive - Needs Evaluation	2488 E. FENDER AVENU	W 1/2 - 1 (0.751 mi.)	59	108
CLASSIC PLATING, INC Facility Id: 71003472 Status: Active	***2985 E. MIRALOMA AVE***	***SSE 1/2 - 1 (0.780 mi.)***	***60***	***109***
ARTISTIC PLATING AND Facility Id: 71003103 Status: Inactive - Needs Evaluation	***2821 E MIRALOMA AVE***	***S 1/2 - 1 (0.802 mi.)***	***61***	***113***
ANAHEIM EXTRUSION CO Facility Id: 71002564 Status: Inactive - Needs Evaluation	1330 N. KRAEMER BOUL	SE 1/2 - 1 (0.812 mi.)	62	122
BRIGHT ARMOR PLATING Facility Id: 30340302 Status: Refer: 1248 Local Agency	2466-B EAST FENDER A	W 1/2 - 1 (0.912 mi.)	63	123
J K L MANUFACTURING Facility Id: 71002625 Status: Inactive - Needs Evaluation	***1211 N LAS BRIAS ST***	***SSE 1/2 - 1 (0.929 mi.)***	***64***	***124***
IDEAL ANODIZING, INC Facility Id: 71003304 Status: Refer: Local Agency	1250 N. BLUE GUM STR	S 1/2 - 1 (0.937 mi.)	65	126

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 12/14/2015 has revealed that there are 11 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SANTA FE COURTYARDS Status: Completed - Case Closed Facility Id: 05UT011 Global Id: T0605996863 Current Status: 9	220 SANTA FE AVE	NE 0 - 1/8 (0.058 mi.)	B16	34
PLACENTIA SUPER SERV Status: Completed - Case Closed Facility Id: 89UT006 Facility Status: Case Closed Global Id: T0605900884 Current Status: 9 Global ID: T0605900884	***230 SANTA FE AVE***	***NW 0 - 1/8 (0.111 mi.)***	***F24***	***41***
CASTNERS AUTO SERVIC Status: Completed - Case Closed Facility Id: 87UT073 Facility Status: Case Closed Global Id: T0605900067 Current Status: 9 Global ID: T0605900067	***214 S BRADFORD AVE***	***N 1/8 - 1/4 (0.130 mi.)***	***G29***	***48***
ADVANCED AUTOMOTIVE Status: Completed - Case Closed Facility Id: 88UT053 Facility Status: Case Closed Global Id: T0605900675 Current Status: 9 Global ID: T0605900675	***144 BRADFORD AVE***	***N 1/8 - 1/4 (0.219 mi.)***	***I39***	***62***
ECONO LUBE N TUNE Status: Completed - Case Closed Facility Id: 89UT029 Facility Status: Case Closed Global Id: T0605900891 Current Status: 9 Global ID: T0605900891	***101 BRADFORD***	***N 1/4 - 1/2 (0.316 mi.)***	***K48***	***74***
KRAMER TRUST PROPERT Status: Completed - Case Closed Facility Id: 88UT088 Facility Status: Case Closed Global Id: T0605900710 Current Status: 9 Global ID: T0605900710	230 ANGELINA ST	NE 1/4 - 1/2 (0.422 mi.)	52	84

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON #9-5978	***313 ORANGETHORPE***	***SE 1/4 - 1/2 (0.307 mi.)***	***46***	***70***

Status: Completed - Case Closed Facility Id: 94UT007 Facility Status: Case Closed Global Id: T0605901726 Current Status: 9 Global ID: T0605901726				
WESTFIELD DEVELOPERS Status: Completed - Case Closed Facility Id: 85UT013 Facility Status: Case Closed Global Id: T0605970681 Current Status: 9 Global ID: T0605970681	480 CROWTHER	WSW 1/4 - 1/2 (0.310 mi.)	47	72
EXXON #7-3899 Status: Completed - Case Closed Facility Id: 93UT051 Facility Id: 88UT143 Facility Status: Case Closed Global Id: T0605900801 Global Id: T0605946842 Current Status: 9 Global ID: T0605900801 Global ID: T0605946842	***241 ORANGETHORPE AVE***	***SSW 1/4 - 1/2 (0.361 mi.)***	***49***	***77***
MONARCH POOLS INC Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0605901114 Global ID: T0605901114	***1461 RED GUM***	***SSE 1/4 - 1/2 (0.433 mi.)***	***53***	***86***
SEVAN S. YAKINIAN Status: Completed - Case Closed Global Id: T0605901059	***351 N PLACENTIA AVE***	***W 1/4 - 1/2 (0.500 mi.)***	***54***	***88***

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 12/14/2015 has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MICRODOT DIV - KAYNA Facility Status: Closed	***190 W CROWTHER AV***	***WSW 0 - 1/8 (0.051 mi.)***	***C10***	***21***
MICRODOT INSERTS, IN Facility Status: Completed - Case Closed Global Id: SLT8R2424019	190 WEST CROWTHER AV	WSW 0 - 1/8 (0.051 mi.)	C11	23

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 12/14/2015 has revealed that there are 4 UST

sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANCED AUTOMOTIVE Facility Id: 9848	144 S BRADFORD AVE	N 1/8 - 1/4 (0.209 mi.)	I35	60

Lower Elevation	Address	Direction / Distance	Map ID	Page
KNOTTS BERRY FARM FO Facility Id: 1250	***200 BOYSENBERRY LN***	***S 0 - 1/8 (0.053 mi.)***	***D13***	***30***
PLACENTIA SUPER SERV Facility Id: 3226	230 W SANTA FE AVE	NW 0 - 1/8 (0.124 mi.)	F25	44
SUBURBAN PROPANE Facility Id: 9422	***535 S MELROSE ST***	***SW 1/8 - 1/4 (0.216 mi.)***	***38***	***62***

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 08/01/2009 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	505 S MELROSE ST	WSW 1/8 - 1/4 (0.160 mi.)	33	59

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/14/2015 has revealed that there are 2 SWRCY sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RENOVATE RECYCLING C Cert Id: RC147612.001	516 W CHAPMAN AVE	NNW 1/4 - 1/2 (0.407 mi.)	51	83

Lower Elevation	Address	Direction / Distance	Map ID	Page
RENOVATE RECYCLING C Cert Id: RC147630.001	407 GOETZ PL	W 1/8 - 1/4 (0.239 mi.)	J43	68

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no

longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 3 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SUN EIGHT CO INC	***588 PORTER WAY***	***SE 0 - 1/8 (0.089 mi.)***	***E21***	***38***
Status: A Tank Status: A Comp Number: 1375				

Lower Elevation	Address	Direction / Distance	Map ID	Page
KNOTTS BERRY FARM FO	***200 BOYSENBERRY LN***	***S 0 - 1/8 (0.053 mi.)***	***D13***	***30***
Status: A Tank Status: A Comp Number: 1250				
SUBURBAN PROPANE	***535 S MELROSE ST***	***SW 1/8 - 1/4 (0.216 mi.)***	***38***	***62***
Status: A Tank Status: A Comp Number: 9422				

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAL-WAY PROPERTIES Facility Id: 00000066275	588 PORTER WAY	SE 0 - 1/8 (0.084 mi.)	E20	38
CASTNER'S AUTO SERVI Facility Id: 00000054330	214 S BRADFORD AVE	N 1/8 - 1/4 (0.130 mi.)	G28	48

Lower Elevation	Address	Direction / Distance	Map ID	Page
KNOTT'S BERRY FARM F Facility Id: 00000058348	200 BOYSENBERRY LN	S 0 - 1/8 (0.053 mi.)	D15	34

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
KAYNAR A MICRODOT CO	*190 WEST CROUTHER*	*WSW 0 - 1/8 (0.051 mi.)*	*C12*	*23*

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 7 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PLACENTIA SUPER SERV Reg Id: 083001123T	*230 SANTA FE AVE*	*NW 0 - 1/8 (0.111 mi.)*	*F24*	*41*
CASTNERS AUTO SERVIC Reg Id: 083000087T	*214 S BRADFORD AVE*	*N 1/8 - 1/4 (0.130 mi.)*	*G29*	*48*
ADVANCED AUTOMOTIVE Reg Id: 083000854T	*144 BRADFORD AVE*	*N 1/8 - 1/4 (0.219 mi.)*	*I39*	*62*
ECONO LUBE N TUNE Reg Id: 083001131T	*101 BRADFORD*	*N 1/4 - 1/2 (0.316 mi.)*	*K48*	*74*

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON #9-5978 Reg Id: 083002414T	*313 ORANGETHORPE*	*SE 1/4 - 1/2 (0.307 mi.)*	*46*	*70*
EXXON #7-3899 Reg Id: 083001013T	*241 ORANGETHORPE AVE*	*SSW 1/4 - 1/2 (0.361 mi.)*	*49*	*77*
MONARCH POOLS INC Reg Id: 083001467T	*1461 RED GUM*	*SSE 1/4 - 1/2 (0.433 mi.)*	*53*	*86*

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 11/23/2015 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MICRODOT DIV - KAYNA EPA Id: CAT080011000 Cleanup Status: PROTECTIVE FILER	*190 W CROWTHER AV*	*WSW 0 - 1/8 (0.051 mi.)*	*C10*	*21*

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 08/04/2015 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
S&M PERFORMANCE	101 SOUTH BRADFORD A	N 1/4 - 1/2 (0.267 mi.)	K44	69

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 11 EDR Hist Auto sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	530 CAMERON ST	ENE 0 - 1/8 (0.034 mi.)	B8	19
Not reported	220 E SANTA FE AVE	NE 0 - 1/8 (0.069 mi.)	B17	37
Not reported	101 E SANTA FE AVE	N 0 - 1/8 (0.070 mi.)	18	37
Not reported	229 E SANTA FE AVE	NE 0 - 1/8 (0.075 mi.)	B19	38
Not reported	582 PORTER WAY	SE 0 - 1/8 (0.098 mi.)	E22	41
Not reported	229 W SANTA FE AVE	NW 1/8 - 1/4 (0.126 mi.)	F27	47
Not reported	214 S BRADFORD AVE	N 1/8 - 1/4 (0.130 mi.)	G30	54
Not reported	144 S BRADFORD AVE	N 1/8 - 1/4 (0.209 mi.)	I36	61
MISSION GARAGE	243 W CENTER ST	NNW 1/8 - 1/4 (0.209 mi.)	37	61
CURTIS SERVICE STATI	124 S BRADFORD AVE	N 1/8 - 1/4 (0.225 mi.)	I40	65

Lower Elevation	Address	Direction / Distance	Map ID	Page
DE VAUX J J	328 W CENTER ST	NNW 1/8 - 1/4 (0.239 mi.)	42	68

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

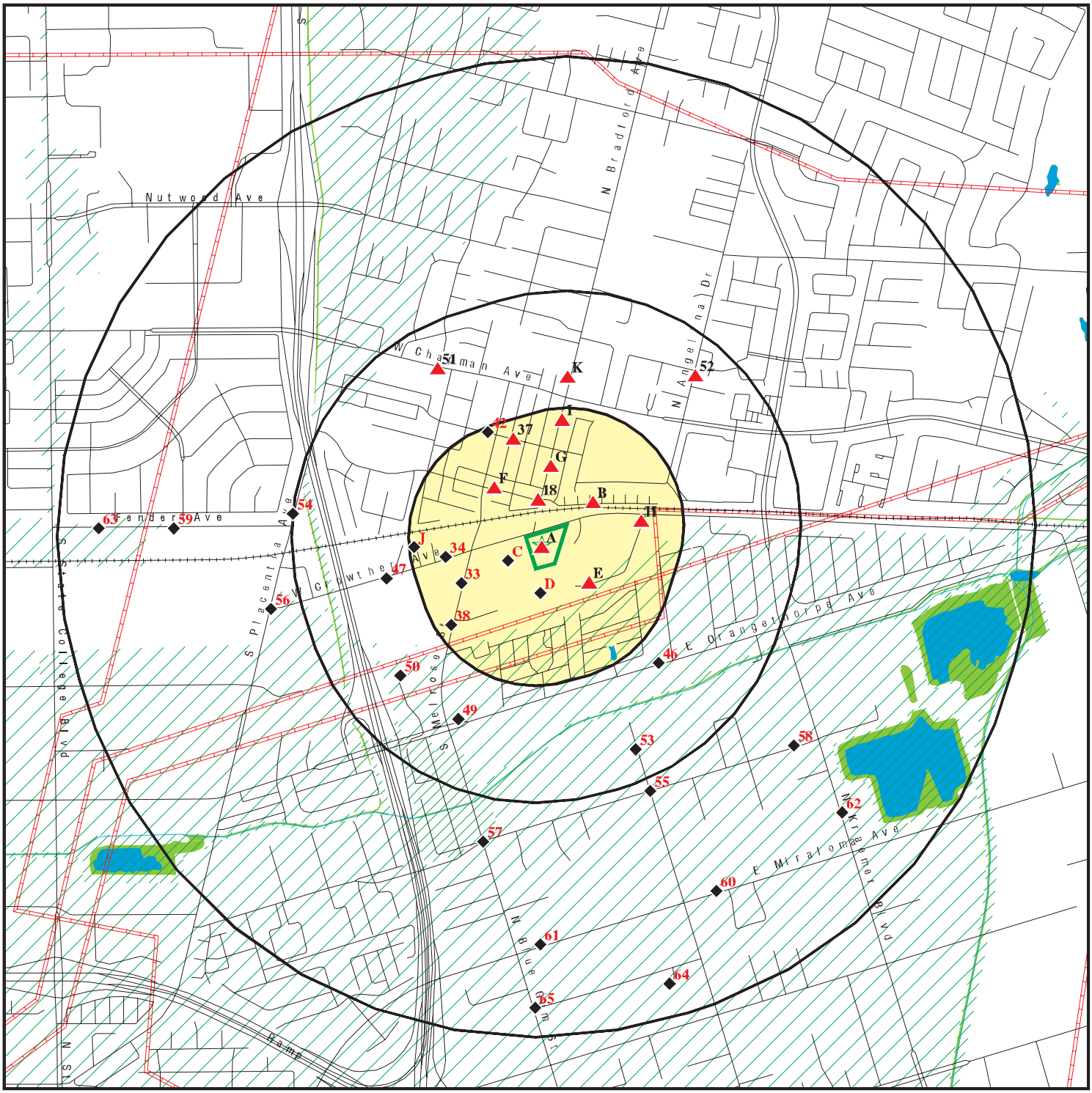
A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	216 W SANTA FE AVE	NW 0 - 1/8 (0.111 mi.)	F23	41

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4537608.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 110 and 132 East Crowther Avenue ADDRESS: 110 and 132 East Crowther Avenue Placentia CA 92870 LAT/LONG: 33.867528 / 117.871348	CLIENT: Advanced Env. Concepts CONTACT: Vanessa Radsick INQUIRY #: 4537608.2s DATE: February 12, 2016 4:28 pm

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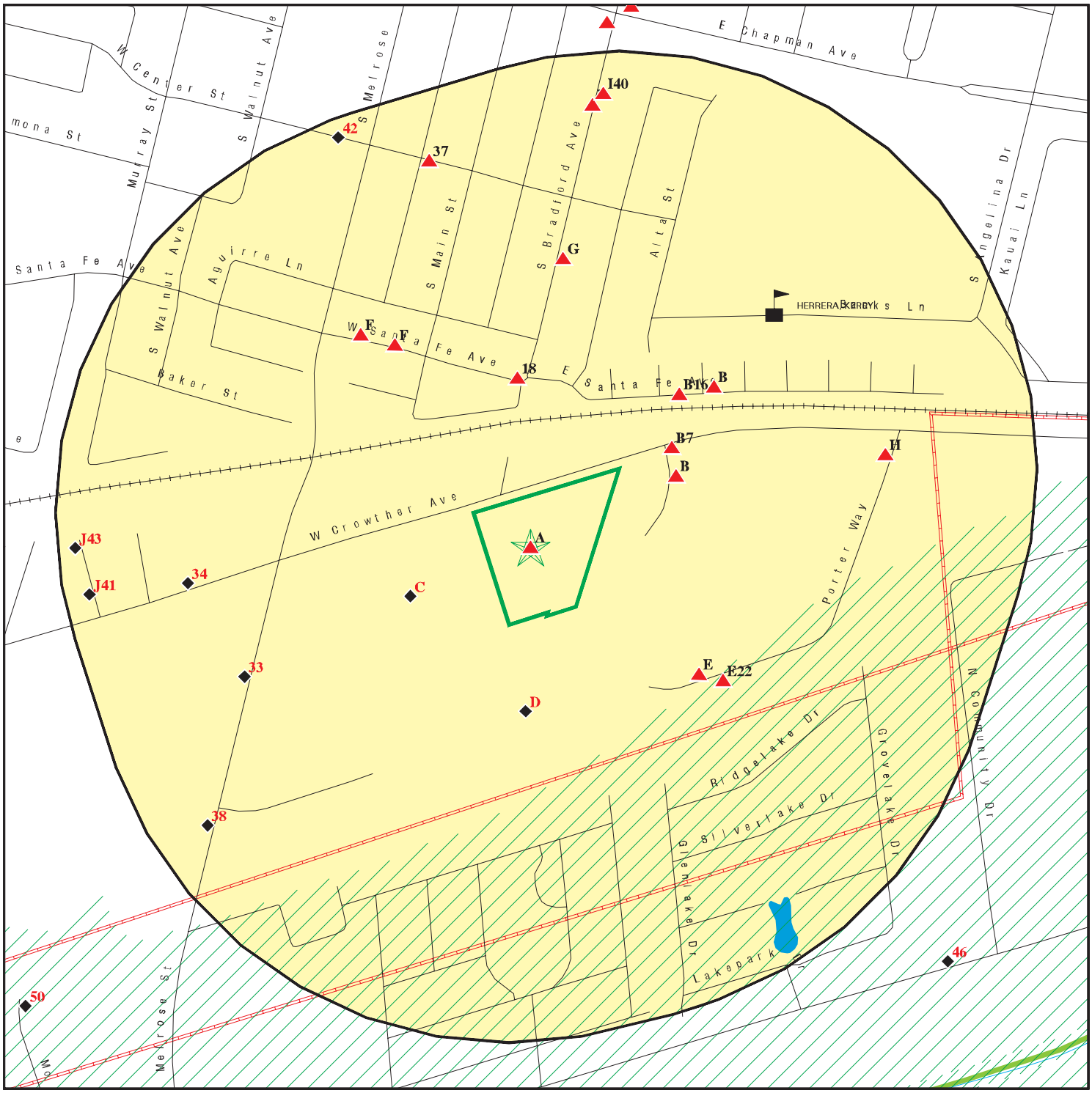
DETAIL MAP - 4537608.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	110 and 132 East Crowther Avenue	CLIENT:	Advanced Env. Concepts
ADDRESS:	110 and 132 East Crowther Avenue Placentia CA 92870	CONTACT:	Vanessa Radsick
LAT/LONG:	33.867528 / 117.871348	INQUIRY #:	4537608.2s
		DATE:	February 12, 2016 4:30 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
CERCLIS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERCLIS-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		1	0	0	NR	NR	1
Federal RCRA generators list								
RCRA-LQG	0.250		1	1	NR	NR	NR	2
RCRA-SQG	0.250		3	5	NR	NR	NR	8
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	1	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	2	11	NR	13
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500	1	2	2	7	NR	NR	12

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		2	0	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	2	NR	NR	NR	4
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	1	1	NR	NR	2
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		2	1	NR	NR	NR	3
HIST UST	0.250		2	1	NR	NR	NR	3
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
Orange Co. Industrial Site	0.001	1	0	NR	NR	NR	NR	1
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	1	0	NR	NR	NR	NR	1
HIST CORTESE	0.500	1	1	2	4	NR	NR	8
HWP	1.000		1	0	0	0	NR	1
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPDES	0.001	1	0	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	1	0	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.250		5	6	NR	NR	NR	11
EDR Hist Cleaner	0.250		1	0	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001	4	0	NR	NR	NR	NR	4
- Totals --		9	24	22	15	12	0	82

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **EXCALIBUR EXTRUSIONS** **RGA LUST** **S114615632**
Target Property **110 CROWTHER AVE** **N/A**
PLACENTIA, CA

Site 1 of 6 in cluster A

Actual: 234 ft.

RGA LUST:

2007	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE
2006	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE
2005	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE
2003	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE
2002	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE
2001	EXCALIBUR EXTRUSIONS	110 CROWTHER AVE

A2 **EXCALIBUR** **HAZNET** **S113118622**
Target Property **110 E CROWTHER** **N/A**
PLACENTIA, CA 92870

Site 2 of 6 in cluster A

Actual: 234 ft.

HAZNET:

envid:	S113118622
Year:	2013
GEPAID:	CAL000249906
Contact:	THOMAS INGSTROM/MAINT SUP.
Telephone:	7145288834
Mailing Name:	Not reported
Mailing Address:	110 e crowther
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Orange
TSD EPA ID:	CAD099452708
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.247
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

envid:	S113118622
Year:	2012
GEPAID:	CAL000249906
Contact:	THOMAS INGSTROM/MAINT SUP.
Telephone:	7145288834
Mailing Name:	Not reported
Mailing Address:	110 e crowther
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Orange
TSD EPA ID:	CAD099452708
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.646
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Orange

envid: S113118622

EXCALIBUR (Continued) **S113118622**

Year:	2011
GEPAID:	CAL000249906
Contact:	THOMAS INGSTROM/MAINT SUP.
Telephone:	7145288834
Mailing Name:	Not reported
Mailing Address:	110 e crowther
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.198
Cat Decode:	Unspecified solvent mixture
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	Orange

envid:	S113118622
Year:	2011
GEPAID:	CAL000249906
Contact:	THOMAS INGSTROM/MAINT SUP.
Telephone:	7145288834
Mailing Name:	Not reported
Mailing Address:	110 e crowther
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Not reported
TSD EPA ID:	CAD099452708
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.418
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Orange

envid:	S113118622
Year:	2009
GEPAID:	CAL000249906
Contact:	DINO DOMINGUEZ/MAINT SUPVR
Telephone:	7145288834
Mailing Name:	Not reported
Mailing Address:	110 e crowther
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Not reported
TSD EPA ID:	CAD981696420
TSD County:	Not reported
Waste Category:	Oil/water separation sludge
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.0425
Cat Decode:	Oil/water separation sludge
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Orange

EXCALIBUR (Continued) **S113118622**

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

A3 Target Property **EXCALIBUR EXTRUSIONS**
110 CROWTHER
PLACENTIA, CA 92670

LUST **S101126219**
Orange Co. Industrial Site **N/A**
HIST CORTESE
NPDES

Site 3 of 6 in cluster A

Actual: 234 ft.

LUST:

Region:	STATE
Global Id:	T0605901581
Latitude:	33.867441
Longitude:	-117.87133
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	11/13/1992
Lead Agency:	ORANGE COUNTY
Case Worker:	OC
Local Agency:	ORANGE COUNTY
RB Case Number:	083002142T
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Other Chlorinated Hydrocarbons
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901581
Contact Type:	Local Agency Caseworker
Contact Name:	ORANGE COUNTY
Organization Name:	ORANGE COUNTY
Address:	Not reported
City:	R9 UNKNOWN
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0605901581
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0605901581
Status:	Completed - Case Closed
Status Date:	11/13/1992

Global Id:	T0605901581
Status:	Open - Case Begin Date
Status Date:	06/09/1992

Global Id:	T0605901581

EXCALIBUR EXTRUSIONS (Continued) **S101126219**

Status: Open - Site Assessment
Status Date: 06/09/1992

Regulatory Activities:
Global Id: T0605901581
Action Type: Other
Date: 08/03/1992
Action: Leak Reported

Global Id: T0605901581
Action Type: Other
Date: 06/09/1992
Action: Leak Discovery

Global Id: T0605901581
Action Type: ENFORCEMENT
Date: 11/13/1992
Action: Closure/No Further Action Letter

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002142T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Trichloroethane
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605901581
How Stopped Date:	Not reported
Enter Date:	10/9/1992
Date Confirmation of Leak Began:	6/9/1992
Date Preliminary Assessment Began:	Not reported
Discover Date:	6/9/1992
Enforcement Date:	Not reported
Close Date:	11/13/1992
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	10/9/1992
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported

EXCALIBUR EXTRUSIONS (Continued) **S101126219**

Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8680109
Longitude:	-117.8712418
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	Not reported
Lead Agency:	Local Agency
Local Agency:	30000
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

Orange Co. Industrial Site:

Case ID:	92IC031
Region:	ORANGE
Record ID:	RO0000378
Current Status:	CLOSED 8/6/1992
Closure Type:	Transferred to OCUST Program
Released Chemical:	TRICHLOROETHANE

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002142T

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	403646
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 30I022659
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/02/2010
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Excalibur Extrusion Inc
Discharge Address:	110 E Crowther Ave
Discharge City:	Placentia
Discharge State:	California
Discharge Zip:	92870

EXCALIBUR EXTRUSIONS (Continued) **S101126219**

RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

EXCALIBUR EXTRUSIONS (Continued) **S101126219**

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	403646
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 30I022659
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	Not reported
PROCESSED DATE:	6/2/2010
STATUS CODE NAME:	Active
STATUS DATE:	6/2/2010
PLACE SIZE:	2.1
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Ryan Baldwin
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-528-8834
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	rbaldwin@excaliberextrusions.com
OPERATOR NAME:	Excalibur Extrusion Inc
OPERATOR ADDRESS:	110 E Crowther Ave
OPERATOR CITY:	Placentia
OPERATOR STATE:	California
OPERATOR ZIP:	92870
OPERATOR CONTACT NAME:	Ryan Baldwin
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-528-8834
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	rbaldwin@excaliberextrusions.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported

EXCALIBUR EXTRUSIONS (Continued) **S101126219**

CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Pacific
CERTIFIER NAME:	Ryan Baldwin
CERTIFIER TITLE:	Vice President
CERTIFICATION DATE:	16-JUL-15
PRIMARY SIC:	3089-Plastics Products, NEC
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

A4 **EXCALIBUR EXTRUSIONS** **RGA LUST** **S114615633**
Target Property **110 E CROWTHER AVE** **N/A**
PLACENTIA, CA

Site 4 of 6 in cluster A

Actual: 234 ft.

RGA LUST:

2012	EXCALIBUR EXTRUSIONS	110 E CROWTHER AVE
2011	EXCALIBUR EXTRUSIONS	110 E CROWTHER AVE
2010	EXCALIBUR EXTRUSIONS	110 E CROWTHER AVE
2009	EXCALIBUR EXTRUSIONS	110 E CROWTHER AVE
2008	EXCALIBUR EXTRUSIONS	110 E CROWTHER AVE

A5 **EXCALIBUR EXTRUSIONS** **RGA LUST** **S114615630**
Target Property **110 CROWTHER AVENUE, EAST** **N/A**
PLACENTIA, CA

Site 5 of 6 in cluster A

Actual: 234 ft.

RGA LUST:

1998	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE, EAST
1997	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE, EAST
1996	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE, EAST
1994	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE, EAST

A6 **EXCALIBUR EXTRUSIONS** **RGA LUST** **S114615629**
Target Property **110 CROWTHER AVENUE, EAS** **N/A**
PLACENTIA, CA

Site 6 of 6 in cluster A

Actual: 234 ft.

RGA LUST:

1995	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE, EAS
1993	EXCALIBUR EXTRUSIONS	110 CROWTHER AVENUE, EAS

B7 **JT VONIC** **RCRA-SQG** **1000594959**
NE **500 CAMERON** **FINDS** **CAD983588468**
< 1/8 **PLACENTIA, CA 92870** **HAZNET**
0.034 mi.
180 ft. **Site 1 of 6 in cluster B**

Relative:
Higher

Actual:
241 ft.

RCRA-SQG:

Date form received by agency:	07/09/1991
Facility name:	JT VONIC
Facility address:	500 CAMERON PLACENTIA, CA 92870
EPA ID:	CAD983588468
Contact:	WALKER MIKE
Contact address:	500 CAMERON PLACENTIA, CA 92670
Contact country:	US
Contact telephone:	(714) 528-3499
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	JEFF VONIC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

JT VONIC (Continued) **1000594959**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009548150

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid: 1000594959
Year: 2000
GEPAID: CAD983588468
Contact: NOT REQUIRED
Telephone: 4155551212
Mailing Name: Not reported
Mailing Address: 500 CAMERON ST
Mailing City,St,Zip: PLACENTIA, CA 928706425
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Recycler
Tons: 0.75
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Recycler
Facility County: Orange

envid: 1000594959
Year: 2000
GEPAID: CAD983588468
Contact: NOT REQUIRED
Telephone: 4155551212
Mailing Name: Not reported
Mailing Address: 500 CAMERON ST
Mailing City,St,Zip: PLACENTIA, CA 928706425
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: 0.2
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Recycler
Facility County: Orange

JT VONIC (Continued) **1000594959**

envid: 1000594959
Year: 1999
GEPAID: CAD983588468
Contact: JEFF VONIC
Telephone: 4155551212
Mailing Name: Not reported
Mailing Address: 500 CAMERON ST
Mailing City,St,Zip: PLACENTIA, CA 928706425
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Recycler
Tons: 1.9182
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Recycler
Facility County: Orange

envid: 1000594959
Year: 1998
GEPAID: CAD983588468
Contact: JEFF VONIC
Telephone: 4155551212
Mailing Name: Not reported
Mailing Address: 500 CAMERON ST
Mailing City,St,Zip: PLACENTIA, CA 928706425
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Recycler
Tons: 1.1884
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Recycler
Facility County: Orange

envid: 1000594959
Year: 1997
GEPAID: CAD983588468
Contact: JEFF VONIC
Telephone: 4155551212
Mailing Name: Not reported
Mailing Address: 500 CAMERON ST
Mailing City,St,Zip: PLACENTIA, CA 928706425
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Recycler
Tons: 1.0425
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Recycler
Facility County: Orange

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

B8 **EDR Hist Auto** **1015541827**
ENE **530 CAMERON ST** **N/A**
< 1/8 **PLACENTIA, CA 92870**
0.034 mi.
181 ft. **Site 2 of 6 in cluster B**

Relative:
Higher

Actual:
242 ft.

EDR Historical Auto Stations:

Name:	DIESEL MOTORCARS INC
Year:	2001
Address:	530 CAMERON ST
Name:	DMC AUTOMOTIVE MECHANICS TRNNG
Year:	2002
Address:	530 CAMERON ST
Name:	DMC AUTOMOTIVE TRAINING SCHOOL
Year:	2003
Address:	530 CAMERON ST
Name:	DIESEL MOTORCARS INC
Year:	2004
Address:	530 CAMERON ST
Name:	DIESEL MOTOR CARS
Year:	2005
Address:	530 CAMERON ST
Name:	DIESEL MOTOR CARS
Year:	2006
Address:	530 CAMERON ST
Name:	DIESEL MOTOR CARS INC
Year:	2007
Address:	530 CAMERON ST
Name:	DIESEL MOTOR CARS
Year:	2010
Address:	530 CAMERON ST

B9 **DIESEL MOTOR CAR** **RCRA-SQG** **1000379508**
ENE **530 CAMERON ST** **FINDS** **CAD982463531**
< 1/8 **PLACENTIA, CA 92870**
0.034 mi.
181 ft. **Site 3 of 6 in cluster B**

Relative:
Higher

Actual:
242 ft.

RCRA-SQG:

Date form received by agency:	01/24/1989
Facility name:	DIESEL MOTOR CAR
Facility address:	530 CAMERON ST PLACENTIA, CA 92870
EPA ID:	CAD982463531
Contact:	ENVIRONMENTAL MANAGER
Contact address:	530 CAMERON ST PLACENTIA, CA 92670
Contact country:	US
Contact telephone:	(714) 528-8220
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous

DIESEL MOTOR CAR (Continued) **1000379508**

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	DIESEL MOTOR CAR INC
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110006479006

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C10 **MICRODOT DIV - KAYNAR TECH INC** **SLIC S101854126**
WSW **190 W CROWTHER AV** **EMI N/A**
< 1/8 **PLACENTIA, CA 92670** **HWP**
0.051 mi.
269 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
230 ft.

SLIC REG 8:

Type:	Soil
Facility Status:	Closed
Staff:	MGC
Substance:	PCE,SOLVENTS
Lead Agency:	Regional Board
Location Code:	PL-1
Thomas Bros Code:	Not reported

EMI:

Year:	1987
County Code:	30
Air Basin:	SC
Facility ID:	17885
Air District Name:	SC
SIC Code:	3444
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	30
Air Basin:	SC
Facility ID:	62451
Air District Name:	SC
SIC Code:	3599
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	32
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	30
Air Basin:	SC
Facility ID:	62451
Air District Name:	SC
SIC Code:	3599
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

MICRODOT DIV - KAYNAR TECH INC (Continued) **S101854126**

Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	5
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
County Code:	30
Air Basin:	SC
Facility ID:	62451
Air District Name:	SC
SIC Code:	3599
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

HWP:

EPA Id:	CAT080011000
Cleanup Status:	PROTECTIVE FILER
Latitude:	33.86788
Longitude:	-117.8726
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Team:	Not reported
Supervisor:	Not reported
Site Code:	Not reported
Assembly District:	55
Senate District:	29
Public Information Officer:	Not reported

Activities:

EPA Id:	CAT080011000
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Protective Filer Status - PROTECTIVE FILER (RECEIVED)
Actual Date:	04/18/1988

EPA Id:	CAT080011000
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Protective Filer Status - PROTECTIVE FILER (APPROVED)
Actual Date:	11/14/1988

C11
WSW
< 1/8
0.051 mi.
269 ft.

MICRODOT INSERTS, INC.
190 WEST CROWTHER AVENUE
PLACENTIA, CA

Site 2 of 3 in cluster C

SLIC **S106487001**
N/A

Relative:
Lower

Actual:
230 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	09/25/1996
Global Id:	SLT8R2424019
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Lead Agency Case Number:	Not reported
Latitude:	33.868472
Longitude:	-117.868946
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	SLT8R242
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	1992-subsurface inv indicated PCE in one of several samples. Two vadose zone monitoring wellls were installed; sil vapor samples were collected; soil borings were drilled and samples taken. Based on sampling results, no further action was required. Site closure letter sent on 9/25/1996.

Click here to access the California GeoTracker records for this facility:

C12
WSW
< 1/8
0.051 mi.
269 ft.

KAYNAR A MICRODOT CO
190 WEST CROUTHER
PLACENTIA, CA 92870

Site 3 of 3 in cluster C

RCRA-TSDF **1000307385**
RCRA NonGen / NLR **CAT080011000**

Relative:
Lower

Actual:
230 ft.

RCRA-TSDF:

Date form received by agency:	10/12/2000
Facility name:	KAYNAR A MICRODOT CO
Site name:	FAIRCHILD FASTENERS - MICRODOT
Facility address:	190 WEST CROUTHER #C PLACENTIA, CA 92870
EPA ID:	CAT080011000
Mailing address:	3000 WEST LOMITA BLVD. TORRANCE, CA 90505
Contact:	ANTHONY K. MIREMADI
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(310) 784-6425
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

KAYNAR A MICRODOT CO (Continued) **1000307385**

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Historical Generators:
- Date form received by agency: 03/04/1999
- Site name: MICRODOT DIV. KAYNAR TECHNOLOGIES INC.
- Classification: Large Quantity Generator

- Date form received by agency: 10/14/1993
- Site name: KAYNAR A MICRODOT CO
- Classification: Not a generator, verified

- Date form received by agency: 08/18/1980
- Site name: KAYNAR A MICRODOT CO
- Classification: Large Quantity Generator

Corrective Action Summary:
- Event date: 01/01/1990
- Event: CA029ST

Facility Has Received Notices of Violations:
- Regulation violated: FR - 262.10-12.A
- Area of violation: Generators - General
- Date violation determined: 10/30/1992
- Date achieved compliance: 10/30/1997
- Violation lead agency: State
  - Enforcement action: Not reported
  - Enforcement action date: Not reported
  - Enf. disposition status: Not reported
  - Enf. disp. status date: Not reported
  - Enforcement lead agency: Not reported
  - Proposed penalty amount: Not reported
  - Final penalty amount: Not reported
  - Paid penalty amount: Not reported

- Regulation violated: FR - 268.7
- Area of violation: LDR - General
- Date violation determined: 02/25/1991
- Date achieved compliance: 08/23/1999
- Violation lead agency: EPA
  - Enforcement action: Not reported

KAYNAR A MICRODOT CO (Continued) **1000307385**

Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 06/23/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: 93000
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 03/23/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 93000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 03/23/1993

KAYNAR A MICRODOT CO (Continued) **1000307385**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 93000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 06/23/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: 93000
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 03/23/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 93000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 06/23/1994
Enf. disposition status: Not reported

KAYNAR A MICRODOT CO (Continued) **1000307385**

Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: 93000
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 03/23/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 93000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.20-23.B
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 08/23/1999
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 06/23/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: 93000
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 04/15/1988
Date achieved compliance: 09/01/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/24/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

KAYNAR A MICRODOT CO (Continued) **1000307385**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 04/13/1988
Date achieved compliance: 11/14/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/04/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/22/1986
Date achieved compliance: 11/14/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/22/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/26/1985
Date achieved compliance: 03/05/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/22/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 10/23/1985
Date achieved compliance: 04/15/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported

KAYNAR A MICRODOT CO (Continued) **1000307385**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/15/1984
Date achieved compliance: 04/15/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/30/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/30/1997
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/13/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 08/23/1999
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 02/13/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/23/1999
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 04/15/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 09/01/1988
Evaluation lead agency: State

Evaluation date: 04/15/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/13/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/14/1988
Evaluation lead agency: State

Evaluation date: 08/22/1986
Evaluation: FINANCIAL RECORD REVIEW

KAYNAR A MICRODOT CO (Continued) **1000307385**

Area of violation: Generators - General
Date achieved compliance: 11/14/1988
Evaluation lead agency: State

Evaluation date: 12/26/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 03/05/1987
Evaluation lead agency: State

Evaluation date: 10/23/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 04/15/1988
Evaluation lead agency: State

Evaluation date: 10/23/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/15/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/15/1988
Evaluation lead agency: State

D13 **KNOTTS BERRY FARM FOOD DIV** **UST** **U003948928**
South **200 BOYSENBERRY LN** **SWEEPS UST** **N/A**
< 1/8 **PLACENTIA, CA 92870**
0.053 mi.
278 ft. **Site 1 of 3 in cluster D**

Relative:
Lower

UST:
Facility ID: 1250
Permitting Agency: ORANGE COUNTY
Actual:
233 ft.
Latitude: 33.867441
Longitude: -117.870026

SWEEPS UST:
Status: Active
Comp Number: 1250
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-001250-000001
Tank Status: A
Capacity: 1026
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 1

D14 **ARLON GRAPHICS LLC** **RCRA-LQG** **1000685974**
South **200 BOYSENBERRY LN** **CAD983629403**
< 1/8 **PLACENTIA, CA 92870**
0.053 mi.
278 ft. **Site 2 of 3 in cluster D**

Relative:
Lower

Actual:
233 ft.

RCRA-LQG:

Date form received by agency:	11/18/2013
Facility name:	ARLON GRAPHICS LLC
Facility address:	200 BOYSENBERRY LN PLACENTIA, CA 92870
EPA ID:	CAD983629403
Mailing address:	2811 S HARBOR BLVD SANTA ANA, CA 92704
Contact:	ROBERT E NICHOLSON
Contact address:	2811 S HARBOR BLVD SANTA ANA, CA 92704
Contact country:	US
Contact telephone:	714-431-4221
Contact email:	RNICHOLSON@ARLON.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	ARLON GRAPHICS LLC
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	06/04/2013
Owner/Op end date:	Not reported
Owner/operator name:	IIT ORANGE COUNTY DC LP
Owner/operator address:	518 17TH ST STE 1700 DENVER, CO 80202
Owner/operator country:	US
Owner/operator telephone:	714-991-3410
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	12/16/2011
Owner/Op end date:	Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

ARLON GRAPHICS LLC (Continued) **1000685974**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 134
. Waste name: 134

. Waste code: 135
. Waste name: 135

. Waste code: 221
. Waste name: 221

. Waste code: 281
. Waste name: 281

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

ARLON GRAPHICS LLC (Continued) **1000685974**

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 02/24/2010
Site name: KNOTTS BERRY FARM
Classification: Large Quantity Generator

. Waste code: 121
. Waste name: 121

. Waste code: 122
. Waste name: 122

. Waste code: 131
. Waste name: 131

. Waste code: 135
. Waste name: 135

. Waste code: 181
. Waste name: 181

. Waste code: 261
. Waste name: 261

. Waste code: 352
. Waste name: 352

. Waste code: 791
. Waste name: 791

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D011
. Waste name: SILVER

Date form received by agency: 04/13/1992
Site name: KNOTTS BERRY FARM FOODS
Classification: Small Quantity Generator

Violation Status: No violations found

D15 **KNOTT'S BERRY FARM FOODS** **HIST UST** **U001577728**
South **200 BOYSENBERRY LN** **N/A**
< 1/8 **PLACENTIA, CA 92670**
0.053 mi.
278 ft. **Site 3 of 3 in cluster D**

Relative:
Lower

Actual:
233 ft.

HIST UST:

Region:	STATE
Facility ID:	00000058348
Facility Type:	Other
Other Type:	FOOD PRODUCTS
Contact Name:	EDWARD BELL
Telephone:	7145792400
Owner Name:	KNOTT'S BERRY FARM FOODS
Owner Address:	200 BOYSENBERRY LN.
Owner City,St,Zip:	PLACENTIA, CA 92670
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1984
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Sensor Instrument

B16 **SANTA FE COURTYARDS** **LUST** **S107473029**
NE **220 SANTA FE AVE** **N/A**
< 1/8 **PLACENTIA, CA 92870**
0.058 mi.
304 ft. **Site 4 of 6 in cluster B**

Relative:
Higher

Actual:
239 ft.

LUST:

Region:	STATE
Global Id:	T0605996863
Latitude:	33.868851
Longitude:	-117.869819
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/18/2006
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	05UT011
File Location:	Local Agency Warehouse
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605996863
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA

SANTA FE COURTYARDS (Continued) **S107473029**

Email: tescobedo@ochca.com
Phone Number: 7144336251

Global Id: T0605996863
Contact Type: Regional Board Caseworker
Contact Name: ROSE SCOTT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: rscott@waterboards.ca.gov
Phone Number: 9513206375

Status History:
Global Id: T0605996863
Status: Completed - Case Closed
Status Date: 07/18/2006

Global Id: T0605996863
Status: Open - Case Begin Date
Status Date: 07/08/2005

Global Id: T0605996863
Status: Open - Site Assessment
Status Date: 12/19/2005

Global Id: T0605996863
Status: Open - Site Assessment
Status Date: 03/24/2006

Global Id: T0605996863
Status: Open - Site Assessment
Status Date: 04/11/2006

Global Id: T0605996863
Status: Open - Site Assessment
Status Date: 06/07/2006

Regulatory Activities:
Global Id: T0605996863
Action Type: Other
Date: 07/20/2005
Action: Leak Reported

Global Id: T0605996863
Action Type: ENFORCEMENT
Date: 06/15/2006
Action: Staff Letter

Global Id: T0605996863
Action Type: ENFORCEMENT
Date: 12/21/2005
Action: * Corrective Action Orders

Global Id: T0605996863
Action Type: ENFORCEMENT
Date: 07/18/2006

SANTA FE COURTYARDS (Continued) **S107473029**

Action: Closure/No Further Action Letter

Global Id: T0605996863
Action Type: ENFORCEMENT
Date: 07/06/2006
Action: Staff Letter

Global Id: T0605996863
Action Type: ENFORCEMENT
Date: 04/06/2006
Action: Staff Letter

Global Id: T0605996863
Action Type: ENFORCEMENT
Date: 06/01/2006
Action: Staff Letter

Global Id: T0605996863
Action Type: REMEDIATION
Date: 08/11/2005
Action: Excavation

Global Id: T0605996863
Action Type: RESPONSE
Date: 03/30/2006
Action: Soil and Water Investigation Workplan

Global Id: T0605996863
Action Type: RESPONSE
Date: 07/31/2006
Action: Soil and Water Investigation Report

Global Id: T0605996863
Action Type: RESPONSE
Date: 07/07/2006
Action: Soil and Water Investigation Workplan

Global Id: T0605996863
Action Type: RESPONSE
Date: 07/17/2006
Action: Soil and Water Investigation Report

Global Id: T0605996863
Action Type: Other
Date: 07/08/2005
Action: Leak Discovery

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 05UT011
Current Status: Certification (Case Closed)
Released Substance: Miscellaneous motor vehicle fuel
Date Closed: 07/18/2006
Case Type: Undetermined
Record ID: RO0003371

B17
NE
< 1/8
0.069 mi.
365 ft.

220 E SANTA FE AVE
PLACENTIA, CA 92870

Site 5 of 6 in cluster B

EDR Hist Auto **1015332729**
N/A

Relative:
Higher

Actual:
238 ft.

EDR Historical Auto Stations:

Name:	AUTO CARE OF PLACENTIA
Year:	1999
Address:	220 E SANTA FE AVE
Name:	AUTOCARE PAINT DIV
Year:	2001
Address:	220 E SANTA FE AVE
Name:	AUTOCARE PAINT DIV
Year:	2002
Address:	220 E SANTA FE AVE

18
North
< 1/8
0.070 mi.
368 ft.

101 E SANTA FE AVE
PLACENTIA, CA 92870

EDR Hist Auto **1015125163**
N/A

Relative:
Higher

Actual:
237 ft.

EDR Historical Auto Stations:

Name:	PLACENTIA RADIATOR & AUTO REPAIR
Year:	1999
Address:	101 E SANTA FE AVE
Name:	PLACENTIA RADIATOR & AUTO RPR
Year:	2002
Address:	101 E SANTA FE AVE
Name:	PLACENTIA RADIATOR & AUTO RPR
Year:	2003
Address:	101 E SANTA FE AVE
Name:	PLACENTIA RADIATOR SERVICE & AUTOM
Year:	2009
Address:	101 E SANTA FE AVE
Name:	PLACENTIA RADIATOR & AUTO RPR
Year:	2010
Address:	101 E SANTA FE AVE
Name:	PEACENTIA RADIATOR & AUTO REPAIR
Year:	2011
Address:	101 E SANTA FE AVE
Name:	PLACENTIA RADIATOR & AUTO REPAIR
Year:	2012
Address:	101 E SANTA FE AVE

B19
NE
< 1/8
0.075 mi.
397 ft.

229 E SANTA FE AVE
PLACENTIA, CA 92870

Site 6 of 6 in cluster B

Relative: Higher

Actual: 238 ft.

EDR Hist Auto **1015342828**
N/A

EDR Historical Auto Stations:

Name:	PLACENTIA AUTO BODY
Year:	1999
Address:	229 E SANTA FE AVE

E20
SE
< 1/8
0.084 mi.
443 ft.

CAL-WAY PROPERTIES
588 PORTER WAY
588 PORTER WAY, CA 92670

Site 1 of 3 in cluster E

Relative: Higher

Actual: 246 ft.

HIST UST **U001577714**
N/A

HIST UST:

Region:	STATE
Facility ID:	00000066275
Facility Type:	Other
Other Type:	PRIVATE FACILITY
Contact Name:	LANCE CONWAY
Telephone:	7149935600
Owner Name:	CAL-WAY PROPERTIES
Owner Address:	4996 RIDGLEA AVE.
Owner City,St,Zip:	BUENA PARK, CA 90621
Total Tanks:	0002
Tank Num:	001
Container Num:	1
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	WASTE
Type of Fuel:	1
Container Construction Thickness:	X
Leak Detection:	Visual
Tank Num:	002
Container Num:	2
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Visual

E21
SE
< 1/8
0.089 mi.
470 ft.

SUN EIGHT CO INC
588 PORTER WAY
PLACENTIA, CA 92870

Site 2 of 3 in cluster E

Relative: Higher

Actual: 247 ft.

RCRA-SQG **1000111720**
SWEEPS UST **CAD982006488**
FINDS

RCRA-SQG:

Date form received by agency:	06/04/1987
Facility name:	SUN EIGHT CO INC
Facility address:	588 PORTER WAY
	PLACENTIA, CA 92870

SUN EIGHT CO INC (Continued) **1000111720**

EPA ID: CAD982006488
Contact: ENVIRONMENTAL MANAGER
Contact address: 588 PORTER WAY
PLACENTIA, CA 92670
Contact country: US
Contact telephone: (714) 993-5600
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CONWAY HE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

SWEEPS UST:
Status: Active

SUN EIGHT CO INC (Continued) **1000111720**

Comp Number: 1375
Number: 9
Board Of Equalization: 44-015779
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-001375-000001
Tank Status: A
Capacity: 900
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: 3

Status: Active
Comp Number: 1375
Number: 9
Board Of Equalization: 44-015779
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-001375-000002
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 1375
Number: 9
Board Of Equalization: 44-015779
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-001375-000003
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

FINDS:

Registry ID: 110006476205

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

SUN EIGHT CO INC (Continued) **1000111720**

events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E22 **EDR Hist Auto** **1015561086**
SE **582 PORTER WAY** **N/A**
< 1/8 **PLACENTIA, CA 92870**
0.098 mi.
519 ft. **Site 3 of 3 in cluster E**

Relative:
Higher

Actual:
247 ft.

EDR Historical Auto Stations:

Name:	SPIKE ENGINEERING
Year:	2007
Address:	582 PORTER WAY
Name:	SPIKE ENGINEERING
Year:	2008
Address:	582 PORTER WAY

F23 **EDR Hist Cleaner** **1015019111**
NW **216 W SANTA FE AVE** **N/A**
< 1/8 **PLACENTIA, CA 92870**
0.111 mi.
584 ft. **Site 1 of 5 in cluster F**

Relative:
Higher

Actual:
234 ft.

EDR Historical Cleaners:

Name:	SANTA FE LAUNDRYMAT
Year:	2002
Address:	216 W SANTA FE AVE

F24 **PLACENTIA SUPER SERVICE** **LUST** **S102435272**
NW **230 SANTA FE AVE** **HIST CORTESE** **N/A**
< 1/8 **PLACENTIA, CA 92670**
0.111 mi.
587 ft. **Site 2 of 5 in cluster F**

Relative:
Higher

Actual:
234 ft.

LUST:

Region:	STATE
Global Id:	T0605900884
Latitude:	33.869137
Longitude:	-117.873372
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/22/1991
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001123T
LOC Case Number:	89UT006
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

PLACENTIA SUPER SERVICE (Continued) **S102435272**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900884
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605900884
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA
Email:	tescobedo@ochca.com
Phone Number:	7144336251

Status History:

Global Id:	T0605900884
Status:	Completed - Case Closed
Status Date:	03/22/1991

Global Id:	T0605900884
Status:	Open - Case Begin Date
Status Date:	12/12/1988

Regulatory Activities:

Global Id:	T0605900884
Action Type:	Other
Date:	12/12/1988
Action:	Leak Reported

Global Id:	T0605900884
Action Type:	ENFORCEMENT
Date:	03/22/1991
Action:	Closure/No Further Action Letter

Global Id:	T0605900884
Action Type:	Other
Date:	12/12/1988
Action:	Leak Discovery

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	89UT006
Current Status:	Certification (Case Closed)
Released Substance:	Waste oil/Used oil
Date Closed:	03/22/1991
Case Type:	Soil Only
Record ID:	RO0002872

PLACENTIA SUPER SERVICE (Continued) **S102435272**

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001123T
Local Case Num:	89UT006
Case Type:	Soil only
Substance:	Waste Oil
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900884
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	12/12/1988
Enforcement Date:	Not reported
Close Date:	3/22/1991
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8691909
Longitude:	-117.8727709
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

PLACENTIA SUPER SERVICE (Continued) **S102435272**

HIST CORTESE:
Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083001123T

F25 **PLACENTIA SUPER SERVICE** **UST** **U003782359**
NW **230 W SANTA FE AVE** **N/A**
< 1/8 **PLACENTIA, CA 92870**
0.124 mi.
657 ft. **Site 3 of 5 in cluster F**

Relative:
Lower

Actual:
233 ft.

UST:
Facility ID: 3226
Permitting Agency: ORANGE COUNTY
Latitude: 33.8704909
Longitude: -117.872028

F26 **PLACENTIA AUTO BODY** **RCRA-SQG** **1000168878**
NW **229 W SANTA FE AVE** **HAZNET** **CAD981584089**
1/8-1/4 **PLACENTIA, CA 92870**
0.126 mi.
667 ft. **Site 4 of 5 in cluster F**

Relative:
Higher

Actual:
234 ft.

RCRA-SQG:
Date form received by agency: 01/15/1987
Facility name: PLACENTIA AUTO BODY
Facility address: 229 W SANTA FE AVE
PLACENTIA, CA 92870
EPA ID: CAD981584089
Contact: ENVIRONMENTAL MANAGER
Contact address: 229 W SANTA FE AVE
PLACENTIA, CA 92670
Contact country: US
Contact telephone: (714) 996-2351
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ALAN GIACONELLI
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

PLACENTIA AUTO BODY (Continued) **1000168878**

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

HAZNET:
envid: 1000168878
Year: 2010
GEPAID: CAD981584089
Contact: MIKE ROCHA
Telephone: 7149962351
Mailing Name: Not reported
Mailing Address: 229 W SANTA FE AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.198
Cat Decode: Unspecified solvent mixture
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Orange

envid: 1000168878
Year: 2008
GEPAID: CAD981584089
Contact: MIKE ROCHA
Telephone: 7149962351
Mailing Name: Not reported
Mailing Address: 229 W SANTA FE AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Not reported

PLACENTIA AUTO BODY (Continued) **1000168878**

TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Solvents Recovery
Tons: 0.198
Cat Decode: Unspecified solvent mixture
Method Decode: Solvents Recovery
Facility County: Orange

envid: 1000168878
Year: 2007
GEPAID: CAD981584089
Contact: MIKE ROCHA
Telephone: 7149962351
Mailing Name: Not reported
Mailing Address: 229 W SANTA FE AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Solvents Recovery
Tons: 0.19
Cat Decode: Unspecified solvent mixture
Method Decode: Solvents Recovery
Facility County: Orange

envid: 1000168878
Year: 2005
GEPAID: CAD981584089
Contact: MIKE ROCHA
Telephone: 7149962351
Mailing Name: Not reported
Mailing Address: 229 W SANTA FE AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: 0.22
Cat Decode: Unspecified solvent mixture
Method Decode: Recycler
Facility County: Orange

envid: 1000168878
Year: 2003
GEPAID: CAD981584089
Contact: MIKE ROCHA
Telephone: 7149962351
Mailing Name: Not reported
Mailing Address: 229 W SANTA FE AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture

PLACENTIA AUTO BODY (Continued) **1000168878**

Disposal Method: Recycler
Tons: 0.2
Cat Decode: Unspecified solvent mixture
Method Decode: Recycler
Facility County: Orange

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

F27 **EDR Hist Auto** **1015342903**
NW **229 W SANTA FE AVE** **N/A**
1/8-1/4 **PLACENTIA, CA 92870**
0.126 mi.
667 ft. **Site 5 of 5 in cluster F**

Relative:
Higher

Actual:
234 ft.

EDR Historical Auto Stations:

Name: PLACENTIA AUTO BODY
Year: 2001
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2002
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2003
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2005
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2006
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2007
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2008
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2009
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2010
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2011
Address: 229 W SANTA FE AVE

Name: PLACENTIA AUTO BODY
Year: 2012

(Continued) **1015342903**

Address: 229 W SANTA FE AVE

G28 **CASTNER'S AUTO SERVICE INC.** **HIST UST** **U001577715**
North **214 S BRADFORD AVE** **N/A**
1/8-1/4 **PLACENTIA, CA 92670**
0.130 mi.
689 ft. **Site 1 of 3 in cluster G**

Relative:
Higher

Actual:
244 ft.

HIST UST:

Region:	STATE
Facility ID:	00000054330
Facility Type:	Other
Other Type:	AUTO REPAIR
Contact Name:	LEE CASTNER
Telephone:	7145281311
Owner Name:	OASTNER'S AUTO SERVICE INC.
Owner Address:	214 SO. BRADFORD
Owner City,St,Zip:	PLACENTIA, CA 92670
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1980
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Visual

G29 **CASTNERS AUTO SERVICE INC** **RCRA-SQG** **1000415148**
North **214 S BRADFORD AVE** **LUST** **CAD981641574**
1/8-1/4 **PLACENTIA, CA 92870** **HAZNET**
0.130 mi. **HIST CORTESE**
689 ft. **Site 2 of 3 in cluster G**

Relative:
Higher

Actual:
244 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	CASTNERS AUTO SERVICE INC
Facility address:	214 S BRADFORD AVE PLACENTIA, CA 92870
EPA ID:	CAD981641574
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

CASTNERS AUTO SERVICE INC (Continued) **1000415148**

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: LELAND CASTNERS
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 07/05/1991
Site name: CASTNERS AUTO SERVICE INC
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 10/20/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

LUST:
Region: STATE
Global Id: T0605900067
Latitude: 33.8740057

CASTNERS AUTO SERVICE INC (Continued) **1000415148**

Longitude:	-117.8698555
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/22/1988
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083000087T
LOC Case Number:	87UT073
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900067
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605900067
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA
Email:	tescobedo@ochca.com
Phone Number:	7144336251

Status History:

Global Id:	T0605900067
Status:	Completed - Case Closed
Status Date:	06/22/1988

Global Id:	T0605900067
Status:	Open - Case Begin Date
Status Date:	12/14/1987

Regulatory Activities:

Global Id:	T0605900067
Action Type:	ENFORCEMENT
Date:	06/22/1988
Action:	Closure/No Further Action Letter

Global Id:	T0605900067
Action Type:	Other
Date:	12/14/1987
Action:	Leak Reported

Global Id:	T0605900067
Action Type:	Other

CASTNERS AUTO SERVICE INC (Continued) **1000415148**

Date: 12/14/1987
Action: Leak Discovery

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 87UT073
Current Status: Certification (Case Closed)
Released Substance: Waste oil/Used oil; Transmission fluid
Date Closed: Not reported
Case Type: Soil Only
Record ID: RO0002598

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083000087T
Local Case Num:	87UT073
Case Type:	Soil only
Substance:	12035,80
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900067
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	12/14/1987
Enforcement Date:	Not reported
Close Date:	6/22/1988
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8703659
Longitude:	-117.8708399
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0

CASTNERS AUTO SERVICE INC (Continued) **1000415148**

Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: PAH
Staff Initials: SK
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

HAZNET:
envid: 1000415148
Year: 2014
GEPAID: CAD981641574
Contact: RONALD L CASTNER VICE PRES
Telephone: 7145281311
Mailing Name: Not reported
Mailing Address: 214 S BRADFORD AVE
Mailing City,St,Zip: PLACENTIA, CA 928705615
Gen County: Orange
TSD EPA ID: CAT000613976
TSD County: Orange
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.8316
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

envid: 1000415148
Year: 2013
GEPAID: CAD981641574
Contact: LELAND CASTNER
Telephone: 7145281311
Mailing Name: Not reported
Mailing Address: 214 S BRADFORD AVE
Mailing City,St,Zip: PLACENTIA, CA 928705615
Gen County: Orange
TSD EPA ID: CAT000613893
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1806
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

envid: 1000415148
Year: 2013
GEPAID: CAD981641574

CASTNERS AUTO SERVICE INC (Continued) **1000415148**

Contact:	LELAND CASTNER
Telephone:	7145281311
Mailing Name:	Not reported
Mailing Address:	214 S BRADFORD AVE
Mailing City,St,Zip:	PLACENTIA, CA 928705615
Gen County:	Orange
TSD EPA ID:	CAT000613976
TSD County:	Orange
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.8988
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported

envid:	1000415148
Year:	2012
GEPAID:	CAD981641574
Contact:	LELAND CASTNER
Telephone:	7145281311
Mailing Name:	Not reported
Mailing Address:	214 S BRADFORD AVE
Mailing City,St,Zip:	PLACENTIA, CA 928705615
Gen County:	Orange
TSD EPA ID:	CAT000613976
TSD County:	Orange
Waste Category:	Not reported
Disposal Method:	Not reported
Tons:	0.1596
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Orange

envid:	1000415148
Year:	2012
GEPAID:	CAD981641574
Contact:	LELAND CASTNER
Telephone:	7145281311
Mailing Name:	Not reported
Mailing Address:	214 S BRADFORD AVE
Mailing City,St,Zip:	PLACENTIA, CA 928705615
Gen County:	Orange
TSD EPA ID:	CAT000613976
TSD County:	Orange
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.9072
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Orange

Click this hyperlink while viewing on your computer to access
55 additional CA_HAZNET: record(s) in the EDR Site Report.

CASTNERS AUTO SERVICE INC (Continued) **1000415148**

HIST CORTESE:
Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083000087T

G30 **EDR Hist Auto** **1015326208**
North **214 S BRADFORD AVE** **N/A**
1/8-1/4 **PLACENTIA, CA 92870**
0.130 mi.
689 ft. **Site 3 of 3 in cluster G**

Relative:
Higher

Actual:
244 ft.

EDR Historical Auto Stations:

Name: CASTNERS AUTO SERVICE
Year: 1999
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE
Year: 2001
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE
Year: 2002
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE
Year: 2003
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE
Year: 2004
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE
Year: 2005
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE INC
Year: 2009
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SVC
Year: 2010
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE INC
Year: 2011
Address: 214 S BRADFORD AVE

Name: CASTNERS AUTO SERVICE INC
Year: 2012
Address: 214 S BRADFORD AVE

H31 **LAIRD TECHNOLOGIES** **RCRA-LQG** **1007200269**
ENE **505 PORTER WAY** **FINDS** **CAL000107908**
1/8-1/4 **PLACENTIA, CA 92870**
0.159 mi.
842 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
236 ft.

RCRA-LQG:

Date form received by agency:	02/25/2002
Facility name:	LAIRD TECHNOLOGIES INC
Facility address:	505 PORTER WAY PLACENTIA, CA 92870
EPA ID:	CAL000107908
Contact:	HENRY BLAUVELT
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(714) 579-7100
Telephone ext.:	104
Contact email:	Not reported
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110008061809

Environmental Interest/Information System
US EPA TRIS (Toxics Release Inventory System) contains information

LAIRD TECHNOLOGIES (Continued) **1007200269**

from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

H32 **LAIRD TECHNOLOGIES INC** **RCRA-SQG** **1004677153**
ENE **505 PORTER WAY** **HAZNET** **CAR000093807**
1/8-1/4 **PLACENTIA, CA 92870**
0.159 mi.
842 ft. **Site 2 of 2 in cluster H**

Relative:
Higher

Actual:
236 ft.

RCRA-SQG:

Date form received by agency:	02/25/2002
Facility name:	LAIRD TECHNOLOGIES INC
Facility address:	505 PORTER WAY PLACENTIA, CA 92870
EPA ID:	CAR000093807
Contact:	HENRY BLAUVELT
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(714) 579-7100
Telephone ext.:	104
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	LAIRD INC
Owner/operator address:	P O BOX 650 DELAWARE WATER GAP, PA 18327
Owner/operator country:	Not reported
Owner/operator telephone:	(570) 424-8510
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No

LAIRD TECHNOLOGIES INC (Continued) **1004677153**

Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/25/2002
Site name: LAIRD TECHNOLOGIES INC
Classification: Large Quantity Generator

Date form received by agency: 03/22/2001
Site name: LAIRD TECHNOLOGIES INC
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

Violation Status: No violations found

HAZNET:
envid: 1004677153
Year: 2002
GEPAID: CAR000093807
Contact: HENRY BLAUVELT OPERATIONS MGR
Telephone: 7145797100
Mailing Name: Not reported
Mailing Address: PO BOX 650
Mailing City,St,Zip: DELAWARE WATER GAP, PA 183270000
Gen County: Not reported
TSD EPA ID: CAD044429835
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.68
Cat Decode: Waste oil and mixed oil
Method Decode: Recycler
Facility County: Orange

envid: 1004677153
Year: 2002
GEPAID: CAR000093807

LAIRD TECHNOLOGIES INC (Continued) **1004677153**

Contact:	HENRY BLAUVELT OPERATIONS MGR
Telephone:	7145797100
Mailing Name:	Not reported
Mailing Address:	PO BOX 650
Mailing City,St,Zip:	DELAWARE WATER GAP, PA 183270000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Tons:	0.2
Cat Decode:	Other organic solids
Method Decode:	Disposal, Land Fill
Facility County:	Orange

envid:	1004677153
Year:	2002
GEPAID:	CAR000093807
Contact:	HENRY BLAUVELT OPERATIONS MGR
Telephone:	7145797100
Mailing Name:	Not reported
Mailing Address:	PO BOX 650
Mailing City,St,Zip:	DELAWARE WATER GAP, PA 183270000
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus inorganics
Disposal Method:	Disposal, Other
Tons:	0.02
Cat Decode:	Off-specification, aged or surplus inorganics
Method Decode:	Disposal, Other
Facility County:	Orange

envid:	1004677153
Year:	2002
GEPAID:	CAR000093807
Contact:	HENRY BLAUVELT OPERATIONS MGR
Telephone:	7145797100
Mailing Name:	Not reported
Mailing Address:	PO BOX 650
Mailing City,St,Zip:	DELAWARE WATER GAP, PA 183270000
Gen County:	Not reported
TSD EPA ID:	CAD008488025
TSD County:	Not reported
Waste Category:	Aqueous solution with metals (< restricted levels and (Alkaline solution (pH >= 12.5) with metals))
Disposal Method:	Treatment, Tank
Tons:	14.07
Cat Decode:	Aqueous solution with metals (< restricted levels and (Alkaline solution (pH >= 12.5) with metals))
Method Decode:	Treatment, Tank
Facility County:	Orange

envid:	1004677153
Year:	2002
GEPAID:	CAR000093807
Contact:	HENRY BLAUVELT OPERATIONS MGR
Telephone:	7145797100

LAIRD TECHNOLOGIES INC (Continued) **1004677153**

Mailing Name: Not reported
Mailing Address: PO BOX 650
Mailing City,St,Zip: DELAWARE WATER GAP, PA 183270000
Gen County: Not reported
TSD EPA ID: CAD008488025
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Recycler
Tons: 0.1
Cat Decode: Unspecified aqueous solution
Method Decode: Recycler
Facility County: Orange

Click this hyperlink while viewing on your computer to access
17 additional CA_HAZNET: record(s) in the EDR Site Report.

33
WSW
1/8-1/4
0.160 mi.
846 ft.

505 S MELROSE ST **AST** **A100340718**
PLACENTIA, CA 92870 **N/A**

Relative:
Lower

Actual:
223 ft.

AST:
Certified Unified Program Agencies: Orange
Owner: COAST CHEMICAL INC
Total Gallons: 34,500

34
West
1/8-1/4
0.176 mi.
928 ft.

ENGINEERED FACILITIES **RCRA-SQG** **1000596566**
355 W CROWTHER AVE **FINDS** **CAD983605403**
PLACENTIA, CA 92870

Relative:
Lower

Actual:
220 ft.

RCRA-SQG:
Date form received by agency: 09/09/1991
Facility name: ENGINEERED FACILITIES
Facility address: 355 W CROWTHER AVE
PLACENTIA, CA 92870
EPA ID: CAD983605403
Contact: RONALD POTTS
Contact address: 355 W CROWTHER
PLACENTIA, CA 92670
Contact country: US
Contact telephone: (714) 524-2111
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ENGINEERED FACILITIES
Owner/operator address: 355 W CROWTHER

ENGINEERED FACILITIES (Continued) **1000596566**

PLACENTIA, CA 92670
Owner/operator country: Not reported
Owner/operator telephone: (714) 524-2111
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110006482298

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

I35 **ADVANCED AUTOMOTIVE** **UST** **U003785482**
North **144 S BRADFORD AVE** **N/A**
1/8-1/4 **PLACENTIA, CA 92870**
0.209 mi.
1104 ft. **Site 1 of 4 in cluster I**

Relative:
Higher

Actual:
265 ft.

UST:
Facility ID: 9848
Permitting Agency: ORANGE COUNTY
Latitude: 33.8723972
Longitude: -117.869155

I36
North
1/8-1/4
0.209 mi.
1104 ft.

144 S BRADFORD AVE
PLACENTIA, CA 92870

Site 2 of 4 in cluster I

EDR Hist Auto **1015228625**
N/A

Relative:
Higher

Actual:
265 ft.

EDR Historical Auto Stations:

Name:	ADVANCED AUTOMOTIVE SPECIALISTS
Year:	1999
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTOMOTIVE SPCLST
Year:	2001
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTO & DIESEL
Year:	2002
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTOMOTIVE SPCLST
Year:	2003
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTO & DIESEL
Year:	2004
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTOMOTIVE SPECIALISTS
Year:	2005
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTOMOTIVE SPECIALIST
Year:	2008
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTOMOTIVE SPECIALISTS
Year:	2011
Address:	144 S BRADFORD AVE
Name:	ADVANCED AUTOMOTIVE SPECIALISTS
Year:	2012
Address:	144 S BRADFORD AVE

37
NNW
1/8-1/4
0.209 mi.
1106 ft.

MISSION GARAGE
243 W CENTER ST
NORTH ORANGE COUNTY, CA

EDR Hist Auto **1009093545**
N/A

Relative:
Higher

Actual:
234 ft.

EDR Historical Auto Stations:

Name:	MISSION GARAGE
Year:	1922
Type:	AUTOMOBILE REPAIRS

38
SW
1/8-1/4
0.216 mi.
1143 ft.

SUBURBAN PROPANE
535 S MELROSE ST
PLACENTIA, CA 92870

UST
SWEEPS UST

U003785364
N/A

Relative:
Lower

Actual:
221 ft.

UST:

Facility ID:	9422
Permitting Agency:	ORANGE COUNTY
Latitude:	33.8665811
Longitude:	-117.8736569

SWEEPS UST:

Status:	Active
Comp Number:	9422
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-009422-000002
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

I39
North
1/8-1/4
0.219 mi.
1154 ft.

Site 3 of 4 in cluster I

ADVANCED AUTOMOTIVE
144 BRADFORD AVE
PLACENTIA, CA 92670

LUST
HIST CORTESE

S102423705
N/A

Relative:
Higher

Actual:
266 ft.

LUST:

Region:	STATE
Global Id:	T0605900675
Latitude:	33.8733786
Longitude:	-117.8700612
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/06/1989
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083000854T
LOC Case Number:	88UT053
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900675
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO

ADVANCED AUTOMOTIVE (Continued) **S102423705**

Organization Name: ORANGE COUNTY LOP
Address: 1241 EAST DYER ROAD SUITE 120
City: SANTA ANA
Email: tescobedo@ochca.com
Phone Number: 7144336251

Status History:
Global Id: T0605900675
Status: Completed - Case Closed
Status Date: 01/06/1989

Global Id: T0605900675
Status: Open - Case Begin Date
Status Date: 02/26/1988

Regulatory Activities:
Global Id: T0605900675
Action Type: ENFORCEMENT
Date: 01/09/1987
Action: Closure/No Further Action Letter

Global Id: T0605900675
Action Type: Other
Date: 02/26/1988
Action: Leak Reported

Global Id: T0605900675
Action Type: Other
Date: 02/26/1988
Action: Leak Discovery

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 88UT053
Current Status: Certification (Case Closed)
Released Substance: Waste oil/Used oil
Date Closed: 01/06/1989
Case Type: Soil Only
Record ID: RO0002125

LUST REG 8:
Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083000854T
Local Case Num: 88UT053
Case Type: Soil only
Substance: Waste Oil
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported

ADVANCED AUTOMOTIVE (Continued) **S102423705**

How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900675
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	2/26/1988
Enforcement Date:	Not reported
Close Date:	1/6/1989
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8715329
Longitude:	-117.8705249
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083000854T

I40
North
1/8-1/4
0.225 mi.
1189 ft.

CURTIS SERVICE STATION — **EDR Hist Auto** — **1009095257**
124 S BRADFORD AVE — **N/A**
PLACENTIA, CA

Site 4 of 4 in cluster I

Relative:
Higher

Actual:
270 ft.

EDR Historical Auto Stations:

Name:	CURTIS SERVICE STATION
Year:	1936
Type:	AUTO SERVICE STATIONS

J41
West
1/8-1/4
0.235 mi.
1239 ft.

KIPE MOLDS INCORORATED — **RCRA-SQG** — **1000886327**
340 CROWTHER AVENUE — **FINDS** — **CA0000138230**
PLACENTIA, CA 92870 — **HAZNET**

Site 1 of 2 in cluster J

Relative:
Lower

Actual:
222 ft.

RCRA-SQG:

Date form received by agency:	03/03/1994
Facility name:	KIPE MOLDS INC
Facility address:	340 CROWTHER AVE PLACENTIA, CA 92870
EPA ID:	CA0000138230
Contact:	DOUG DAVIDSON
Contact address:	340 CROWTHER AVE PLACENTIA, CA 92670
Contact country:	US
Contact telephone:	(714) 572-9576
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	GEORGE B KIPE JR
Owner/operator address:	340 CROWTHER AVE PLACENTIA, CA 92670
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 572-9576
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

KIPE MOLDS INCORORATED (Continued) **1000886327**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110006465761

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid: 1000886327
Year: 2014
GEPAID: CA0000138230
Contact: LARRY CARPENTER
Telephone: 7145729576
Mailing Name: Not reported
Mailing Address: 340 CROWTHER AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Orange
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Unspecified oil-containing waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.3336
Cat Decode: Unspecified oil-containing waste
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Orange

envid: 1000886327
Year: 2014
GEPAID: CA0000138230
Contact: LARRY CARPENTER
Telephone: 7145729576
Mailing Name: Not reported
Mailing Address: 340 CROWTHER AVE
Mailing City,St,Zip: PLACENTIA, CA 928700000
Gen County: Orange
TSD EPA ID: CAD982444481
TSD County: San Bernardino

KIPE MOLDS INCORORATED (Continued) **1000886327**

Waste Category:	Unspecified oil-containing waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.417
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Orange

envid:	1000886327
Year:	2014
GEPAID:	CA0000138230
Contact:	LARRY CARPENTER
Telephone:	7145729576
Mailing Name:	Not reported
Mailing Address:	340 CROWTHER AVE
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Orange
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	0.60465
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Orange

envid:	1000886327
Year:	2013
GEPAID:	CA0000138230
Contact:	BECKY KIPE/ACCTG
Telephone:	7145729576
Mailing Name:	Not reported
Mailing Address:	340 CROWTHER AVE
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Orange
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3753
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported

envid:	1000886327
Year:	2012
GEPAID:	CA0000138230
Contact:	BECKY KIPE/ACCTG
Telephone:	7145729576
Mailing Name:	Not reported
Mailing Address:	340 CROWTHER AVE
Mailing City,St,Zip:	PLACENTIA, CA 928700000
Gen County:	Orange
TSD EPA ID:	CAD981696420
TSD County:	Los Angeles

KIPE MOLDS INCORORATED (Continued) **1000886327**

Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.5421
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Orange

Click this hyperlink while viewing on your computer to access
16 additional CA_HAZNET: record(s) in the EDR Site Report.

42
NNW
1/8-1/4
0.239 mi.
1260 ft.

DE VAUX J J **EDR Hist Auto** **1009093541**
328 W CENTER ST **N/A**
NORTH ORANGE COUNTY, CA

Relative:
Lower

Actual:
229 ft.

EDR Historical Auto Stations:
Name: DE VAUX J J
Year: 1922
Type: AUTOMOBILE REPAIRS

J43
West
1/8-1/4
0.239 mi.
1262 ft.

RENOVATE RECYCLING CENTER INC **SWRCY** **S108937633**
407 GOETZ PL **N/A**
PLACENTIA, CA 92870

Site 2 of 2 in cluster J

Relative:
Lower

Actual:
222 ft.

SWRCY:
Reg Id: 147630
Cert Id: RC147630.001
Mailing Address: 929 S Figueroa St
Mailing City: Santa Ana
Mailing State: CA
Mailing Zip Code: 92704
Website: Not reported
Email: garcia-edwin@hotmail.com
Phone Number: (714) 453-7028
Grand Father: N
Rural: N
Operation Begin Date: 11/01/2011
Aluminium: Y
Glass: Y
Plastic: Y
Bimetal: Y
Agency: N/A
Monday Hours Of Operation: 9:00 am - 5:00 pm
Tuesday Hours Of Operation: 9:00 am - 5:00 pm
Wednesday Hours Of Operation: 9:00 am - 5:00 pm
Thursday Hours Of Operation: 9:00 am - 5:00 pm
Friday Hours Of Operation: 9:00 am - 5:00 pm
Saturday Hours Of Operation: 9:00 am - 2:00 pm
Sunday Hours Of Operation: CLOSED
Organization ID: 143582
Organization Name: Renovate Recycling Center Inc

K44 **S&M PERFORMANCE** **Notify 65** **S100178904**
North **101 SOUTH BRADFORD AVENUE** **N/A**
1/4-1/2 **PLACENTIA, CA 90302**
0.267 mi.
1412 ft. **Site 1 of 3 in cluster K**

Relative:
Higher

Actual:
273 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

K45 **BRITE ARMOR PLATING** **ENVIROSTOR** **S110493688**
North **1055 DRIEGA WAY, UNIT C** **N/A**
1/4-1/2 **PLACENTIA, CA 92820**
0.277 mi.
1465 ft. **Site 2 of 3 in cluster K**

Relative:
Higher

Actual:
272 ft.

ENVIROSTOR:

Facility ID:	71003635
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	55
Senate:	29
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.87223
Longitude:	-117.8703
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAL000216744
Alias Type:	EPA Identification Number
Alias Name:	71003635
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

BRITE ARMOR PLATING (Continued) **S110493688**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

46
SE
1/4-1/2
0.307 mi.
1623 ft.

CHEVRON #9-5978 **LUST S104550110**
313 ORANGETHORPE **HIST CORTESE N/A**
PLACENTIA, CA 92670

Relative:
Lower

Actual:
215 ft.

LUST:

Region:	STATE
Global Id:	T0605901726
Latitude:	33.8635854
Longitude:	-117.8683988
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/13/1995
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083002414T
LOC Case Number:	94UT007
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901726
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0605901726
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA
Email:	tescobedo@ochca.com
Phone Number:	7144336251

Status History:

Global Id:	T0605901726
Status:	Completed - Case Closed

CHEVRON #9-5978 (Continued) **S104550110**

Status Date: 10/13/1995

Global Id: T0605901726
Status: Open - Case Begin Date
Status Date: 01/12/1994

Regulatory Activities:
Global Id: T0605901726
Action Type: Other
Date: 01/12/1994
Action: Leak Reported

Global Id: T0605901726
Action Type: Other
Date: 01/12/1994
Action: Leak Discovery

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 94UT007
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 10/13/1995
Case Type: Soil Only
Record ID: RO0001688

LUST REG 8:
Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083002414T
Local Case Num: 94UT007
Case Type: Soil only
Substance: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global ID: T0605901726
How Stopped Date: 9/9/9999
Enter Date: Not reported
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 1/12/1994
Enforcement Date: Not reported
Close Date: 10/13/1995
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported

CHEVRON #9-5978 (Continued) **S104550110**

Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.862038
Longitude:	-117.8751778
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	RS
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002414T

47
WSW
1/4-1/2
0.310 mi.
1635 ft.

WESTFIELD DEVELOPERS **LUST** **S102955663**
480 CROWTHER **N/A**
PLACENTIA, CA 92670

Relative:
Lower

Actual:
214 ft.

LUST:

Region:	STATE
Global Id:	T0605970681
Latitude:	33.866013
Longitude:	-117.877225
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	05/14/1985
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	85UT013
File Location:	Local Agency
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline

WESTFIELD DEVELOPERS (Continued) **S102955663**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605970681
Contact Type:	Regional Board Caseworker
Contact Name:	NONE
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	Not reported
City:	RIVERSIDE
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0605970681
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA
Email:	tescobedo@ochca.com
Phone Number:	7144336251

Status History:

Global Id:	T0605970681
Status:	Completed - Case Closed
Status Date:	05/14/1985

Global Id:	T0605970681
Status:	Open - Case Begin Date
Status Date:	05/14/1985

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	85UT013
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	05/14/1985
Case Type:	Undetermined
Record ID:	RO0001036

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	85UT013
Case Type:	Undefined
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported

WESTFIELD DEVELOPERS (Continued) **S102955663**

How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605970681
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/1/1965
Enforcement Date:	Not reported
Close Date:	5/14/1985
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	Not reported
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

K48 **ECONO LUBE N TUNE** **LUST S103249110**
North **101 BRADFORD** **HIST CORTESE N/A**
1/4-1/2 **PLACENTIA, CA 92670**
0.316 mi.
1671 ft. **Site 3 of 3 in cluster K**

Relative:
Higher

Actual:
277 ft.

LUST:

Region:	STATE
Global Id:	T0605900891
Latitude:	33.8722969
Longitude:	-117.8705969
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/08/1989

ECONO LUBE N TUNE (Continued) **S103249110**

Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001131T
LOC Case Number:	89UT029
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900891
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605900891
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA
Email:	tescobedo@ochca.com
Phone Number:	7144336251

Status History:

Global Id:	T0605900891
Status:	Completed - Case Closed
Status Date:	02/08/1989

Global Id:	T0605900891
Status:	Open - Case Begin Date
Status Date:	09/07/1988

Regulatory Activities:

Global Id:	T0605900891
Action Type:	ENFORCEMENT
Date:	02/08/1989
Action:	Closure/No Further Action Letter

Global Id:	T0605900891
Action Type:	Other
Date:	09/07/1988
Action:	Leak Reported

Global Id:	T0605900891
Action Type:	Other
Date:	09/07/1988
Action:	Leak Discovery

ECONO LUBE N TUNE (Continued) **S103249110**

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	89UT029
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	02/08/1989
Case Type:	Soil Only
Record ID:	RO0001516

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001131T
Local Case Num:	89UT029
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900891
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	9/7/1988
Enforcement Date:	Not reported
Close Date:	2/8/1989
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8722969
Longitude:	-117.8705969
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*

ECONO LUBE N TUNE (Continued) **S103249110**

Staff:	PAH
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083001131T

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49 **EXXON #7-3899** **LUST S102852527**
SSW **241 ORANGETHORPE AVE** **HIST CORTESE N/A**
1/4-1/2 **PLACENTIA, CA 92670**
0.361 mi.
1906 ft.

Relative:
Lower

Actual:
208 ft.

LUST:

Region:	STATE
Global Id:	T0605900801
Latitude:	33.862192
Longitude:	-117.8744458
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/13/1994
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001013T
LOC Case Number:	93UT051
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900801
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	cbernhardt@waterboards.ca.gov
Phone Number:	9517824495

Global Id:	T0605900801
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120

EXXON #7-3899 (Continued) **S102852527**

City: SANTA ANA
Email: tescobedo@ochca.com
Phone Number: 7144336251

Status History:
Global Id: T0605900801
Status: Completed - Case Closed
Status Date: 07/13/1994

Global Id: T0605900801
Status: Open - Case Begin Date
Status Date: 06/15/1993

Regulatory Activities:
Global Id: T0605900801
Action Type: Other
Date: 06/15/1993
Action: Leak Reported

Global Id: T0605900801
Action Type: REMEDIATION
Date: 03/02/1993
Action: Excavation

Global Id: T0605900801
Action Type: Other
Date: 06/15/1993
Action: Leak Discovery

Region: STATE
Global Id: T0605946842
Latitude: 33.863102
Longitude: -117.870193
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/27/1990
Lead Agency: ORANGE COUNTY LOP
Case Worker: TE
Local Agency: ORANGE COUNTY LOP
RB Case Number: Not reported
LOC Case Number: 88UT143
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0605946842
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov

EXXON #7-3899 (Continued) **S102852527**

Phone Number: 9517824495

Global Id: T0605946842
Contact Type: Local Agency Caseworker
Contact Name: TAMARA ESCOBEDO
Organization Name: ORANGE COUNTY LOP
Address: 1241 EAST DYER ROAD SUITE 120
City: SANTA ANA
Email: tescobedo@ochca.com
Phone Number: 7144336251

Status History:
Global Id: T0605946842
Status: Completed - Case Closed
Status Date: 08/27/1990

Global Id: T0605946842
Status: Open - Case Begin Date
Status Date: 08/05/1988

Regulatory Activities:
Global Id: T0605946842
Action Type: Other
Date: 08/05/1988
Action: Leak Reported

Global Id: T0605946842
Action Type: REMEDIATION
Date: 08/05/1988
Action: Excavation

Global Id: T0605946842
Action Type: Other
Date: 08/05/1988
Action: Leak Discovery

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 93UT051
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 07/13/1994
Case Type: Soil Only
Record ID: RO0002210

Region: ORANGE
Facility Id: 88UT143
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 08/27/1990
Case Type: Soil Only
Record ID: RO0002328

LUST REG 8:

EXXON #7-3899 (Continued) **S102852527**

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001013T
Local Case Num:	93UT051
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900801
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	6/15/1993
Enforcement Date:	Not reported
Close Date:	7/13/1994
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.862192
Longitude:	-117.8744458
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

EXXON #7-3899 (Continued) **S102852527**

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	88UT143
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605946842
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	8/5/1988
Enforcement Date:	Not reported
Close Date:	8/27/1990
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

EXXON #7-3899 (Continued) **S102852527**

HIST CORTESE:
Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083001013T

50
SW
1/4-1/2
0.368 mi.
1944 ft.

Relative:
Lower

Actual:
207 ft.

HI TECH SOLDER **ENVIROSTOR** **1008388697**
700 MONROE WAY **FINDS** **N/A**
PLACENTIA, CA 92870

ENVIROSTOR:
Facility ID: 71003823
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 55
Senate: 29
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.86352
Longitude: -117.8766
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAR000163709
Alias Type: EPA Identification Number
Alias Name: 110022527728
Alias Type: EPA (FRS #)
Alias Name: 71003823
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported

HI TECH SOLDER (Continued) **1008388697**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

FINDS:

Registry ID: 110022527728

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

51
NNW
1/4-1/2
0.407 mi.
2149 ft.

RENOVATE RECYCLING CENTER INC **SWRCY** **S108240328**
516 W CHAPMAN AVE **N/A**
PLACENTIA, CA 92870

Relative:
Higher

Actual:
234 ft.

SWRCY:

Reg Id:	147612
Cert Id:	RC147612.001
Mailing Address:	929 S Figueroa St
Mailing City:	Santa Ana
Mailing State:	CA
Mailing Zip Code:	92704
Website:	Not reported
Email:	garcia-edwin@hotmail.com
Phone Number:	(714) 453-7028
Grand Father:	N
Rural:	N
Operation Begin Date:	11/01/2011
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Agency:	N/A
Monday Hours Of Operation:	9:00 am - 5:00 pm
Tuesday Hours Of Operation:	9:00 am - 5:00 pm
Wednesday Hours Of Operation:	9:00 am - 5:00 pm
Thursday Hours Of Operation:	9:00 am - 5:00 pm
Friday Hours Of Operation:	9:00 am - 5:00 pm
Saturday Hours Of Operation:	9:00 am - 2:00 pm
Sunday Hours Of Operation:	CLOSED
Organization ID:	143582
Organization Name:	Renovate Recycling Center Inc

52
NE
1/4-1/2
0.422 mi.
2226 ft.

KRAMER TRUST PROPERTY
230 ANGELINA ST
PLACENTIA, CA 92670

LUST **S102432301**
N/A

Relative:
Higher

Actual:
279 ft.

LUST:

Region:	STATE
Global Id:	T0605900710
Latitude:	33.8800138
Longitude:	-117.8574846
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/15/1994
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	TE
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083000896T
LOC Case Number:	88UT088
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900710
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605900710
Contact Type:	Local Agency Caseworker
Contact Name:	TAMARA ESCOBEDO
Organization Name:	ORANGE COUNTY LOP
Address:	1241 EAST DYER ROAD SUITE 120
City:	SANTA ANA
Email:	tescobedo@ochca.com
Phone Number:	7144336251

Status History:

Global Id:	T0605900710
Status:	Completed - Case Closed
Status Date:	09/15/1994

Global Id:	T0605900710
Status:	Open - Case Begin Date
Status Date:	04/13/1988

Regulatory Activities:

Global Id:	T0605900710
Action Type:	ENFORCEMENT
Date:	09/15/1988
Action:	Closure/No Further Action Letter

KRAMER TRUST PROPERTY (Continued) **S102432301**

Global Id: T0605900710
Action Type: Other
Date: 04/13/1988
Action: Leak Reported

Global Id: T0605900710
Action Type: Other
Date: 04/13/1988
Action: Leak Discovery

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 88UT088
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 09/15/1994
Case Type: Soil Only
Record ID: RO0002925

LUST REG 8:
Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083000896T
Local Case Num: 88UT088
Case Type: Soil only
Substance: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global ID: T0605900710
How Stopped Date: 9/9/9999
Enter Date: Not reported
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 4/13/1988
Enforcement Date: Not reported
Close Date: 9/15/1994
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: Not reported
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported

KRAMER TRUST PROPERTY (Continued) **S102432301**

Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8800138
Longitude:	-117.8574846
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	PAH
Staff Initials:	SK
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

---

53 **MONARCH POOLS INC** **LUST** **S102433927**
SSE **1461 RED GUM** **HIST CORTESE** **N/A**
1/4-1/2 **ANAHEIM, CA 92806**
0.433 mi.
2286 ft.

Relative:
Lower

Actual:
214 ft.

LUST:

Region:	STATE
Global Id:	T0605901114
Latitude:	33.862134
Longitude:	-117.868725
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/30/1990
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	AM
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001467T
LOC Case Number:	90UT069
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901114
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

MONARCH POOLS INC (Continued) **S102433927**

Global Id:	T0605901114
Contact Type:	Local Agency Caseworker
Contact Name:	ANTHONY MARTINEZ
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD SUITE 120
City:	SANTA ANA
Email:	amartinez@ochca.com
Phone Number:	7144336011

Status History:

Global Id:	T0605901114
Status:	Completed - Case Closed
Status Date:	04/30/1990

Global Id:	T0605901114
Status:	Open - Case Begin Date
Status Date:	03/16/1990

Regulatory Activities:

Global Id:	T0605901114
Action Type:	Other
Date:	03/16/1990
Action:	Leak Reported

Global Id:	T0605901114
Action Type:	Other
Date:	03/16/1990
Action:	Leak Discovery

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001467T
Local Case Num:	90UT069
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605901114
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	3/16/1990
Enforcement Date:	Not reported
Close Date:	4/30/1990

MONARCH POOLS INC (Continued) **S102433927**

Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8615751
Longitude:	-117.8679246
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	PAH
Staff Initials:	WJ
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083001467T

54
West
1/4-1/2
0.500 mi.
2638 ft.

SEVAN S. YAKINIAN **LUST U001577076**
351 N PLACENTIA AVE **HIST UST N/A**
FULLERTON, CA 92634

Relative:
Lower

Actual:
212 ft.

LUST:

Region:	STATE
Global Id:	T0605901059
Latitude:	33.8727518
Longitude:	-117.8794912
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/28/2013
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Worker:	CAB
Local Agency:	FULLERTON, CITY OF
RB Case Number:	083001404T
LOC Case Number:	Not reported

SEVAN S. YAKINIAN (Continued) **U001577076**

File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0605901059
Contact Type: Local Agency Caseworker
Contact Name: STEPHEN LONG
Organization Name: FULLERTON, CITY OF
Address: 312 E. COMMONWEALTH AVE.
City: FULLERTON
Email: stevel@fullertonfire.org
Phone Number: 7147383160

Global Id: T0605901059
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:
Global Id: T0605901059
Status: Completed - Case Closed
Status Date: 06/12/1995

Global Id: T0605901059
Status: Completed - Case Closed
Status Date: 10/28/2013

Global Id: T0605901059
Status: Open - Case Begin Date
Status Date: 01/04/1990

Global Id: T0605901059
Status: Open - Eligible for Closure
Status Date: 03/27/2013

Global Id: T0605901059
Status: Open - Reopen Case
Status Date: 01/25/2001

Global Id: T0605901059
Status: Open - Site Assessment
Status Date: 02/06/1990

Global Id: T0605901059
Status: Open - Site Assessment
Status Date: 04/16/2001

Global Id: T0605901059
Status: Open - Site Assessment

SEVAN S. YAKINIAN (Continued) **U001577076**

Status Date: 03/17/2003

Global Id: T0605901059
Status: Open - Site Assessment
Status Date: 04/18/2005

Global Id: T0605901059
Status: Open - Verification Monitoring
Status Date: 09/21/2004

Regulatory Activities:
Global Id: T0605901059
Action Type: RESPONSE
Date: 07/09/2008
Action: Soil and Water Investigation Workplan

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 01/23/2008
Action: Verbal Enforcement

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 07/29/2009
Action: Staff Letter

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 02/25/2013
Action: Clean Up Fund - Letter to RP

Global Id: T0605901059
Action Type: RESPONSE
Date: 02/20/2009
Action: Soil and Water Investigation Report

Global Id: T0605901059
Action Type: RESPONSE
Date: 07/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605901059

SEVAN S. YAKINIAN (Continued) **U001577076**

Action Type: RESPONSE
Date: 07/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 02/25/2013
Action: Clean Up Fund - Case Closure Review Summary Report (RSR)

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 07/25/2008
Action: Staff Letter

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0605901059
Action Type: RESPONSE
Date: 01/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 01/10/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0605901059
Action Type: Other
Date: 02/05/1990
Action: Leak Reported

Global Id: T0605901059
Action Type: RESPONSE
Date: 03/17/2003
Action: Soil and Water Investigation Workplan

Global Id: T0605901059
Action Type: RESPONSE
Date: 11/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 02/28/2005

SEVAN S. YAKINIAN (Continued) **U001577076**

Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 07/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 05/03/2013
Action: State Water Board Closure Order

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 10/28/2013
Action: State Water Board Closure Order

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 02/05/1990
Action: * No Action

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 09/08/2003
Action: Staff Letter

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/24/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/22/2012
Action: Request for Closure

Global Id: T0605901059
Action Type: RESPONSE
Date: 08/07/2003
Action: Other Report / Document

Global Id: T0605901059
Action Type: RESPONSE
Date: 08/12/2005
Action: Soil and Water Investigation Report

SEVAN S. YAKINIAN (Continued) **U001577076**

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 07/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 01/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: Other
Date: 01/04/1990
Action: Leak Discovery

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 07/10/2008
Action: Verbal Enforcement

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 05/12/2005
Action: Staff Letter

Global Id: T0605901059
Action Type: ENFORCEMENT
Date: 07/03/2003
Action: Staff Letter

Global Id: T0605901059
Action Type: RESPONSE
Date: 07/31/2008
Action: Other Workplan

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/29/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0605901059
Action Type: RESPONSE
Date: 10/30/2008
Action: Tank Removal Report / UST Sampling Report

Global Id: T0605901059
Action Type: RESPONSE

SEVAN S. YAKINIAN (Continued) **U001577076**

Date: 10/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 07/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 05/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 04/18/2005
Action: Soil and Water Investigation Workplan

Global Id: T0605901059
Action Type: RESPONSE
Date: 11/07/2004
Action: Soil and Water Investigation Report

Global Id: T0605901059
Action Type: RESPONSE
Date: 08/05/2009
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0605901059
Action Type: RESPONSE
Date: 01/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 08/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: RESPONSE
Date: 01/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605901059
Action Type: REMEDIATION
Date: 09/01/1993
Action: Soil Vapor Extraction (SVE)

HIST UST:
Region: STATE
Facility ID: 00000009952
Facility Type: Gas Station
Other Type: Not reported
Contact Name: SAME
Telephone: 7149961221
Owner Name: SHELL OIL COMPANY

SEVAN S. YAKINIAN (Continued) **U001577076**

Owner Address:	P.O. BOX 4848
Owner City,St,Zip:	ANAHEIM, CA 92803
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	1971
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	001
Container Num:	1
Year Installed:	1971
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1971
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	12
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	2
Year Installed:	1971
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1971
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1971
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10

SEVAN S. YAKINIAN (Continued) **U001577076**

Tank Num:	004
Container Num:	4
Year Installed:	1971
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	12
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1971
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10

---

55 **SOUTHWESTERN MIDDLE SCHOOL** **ENVIROSTOR** **S105628695**
SSE **RED GUM STREET/LA JOLLA STREET** **SCH** **N/A**
1/2-1 **PLACENTIA, CA 92870**
0.526 mi.
2779 ft.

Relative:
Lower

Actual:
214 ft.

ENVIROSTOR:

Facility ID:	30010015
Status:	No Further Action
Status Date:	02/14/2002
Site Code:	404315
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	10.5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	55
Senate:	29
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.87038
Longitude:	-117.8380
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic Benzene DDE DDT Toxaphene Acetone Carbon disulfide Chloroform Dieldrin Methyl ethyl ketone (2-Butanone Toluene
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL, SV, SURFW
Alias Name:	PLACENTIA-YORBA LINDA UNIFIED SCH. DIST.
Alias Type:	Alternate Name
Alias Name:	PLCENTIA-YRBA LNDA USD- PRPSD S.WSTR MID
Alias Type:	Alternate Name
Alias Name:	SOUTHWESTERN MIDDLE SCHOOL
Alias Type:	Alternate Name

SOUTHWESTERN MIDDLE SCHOOL (Continued) **S105628695**

Alias Name: 404315
Alias Type: Project Code (Site Code)
Alias Name: 30010015
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/05/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/14/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/12/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 03/06/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 30010015
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10.5
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404315
Assembly: 55
Senate: 29

SOUTHWESTERN MIDDLE SCHOOL (Continued) **S105628695**

Special Program Status:	Not reported
Status:	No Further Action
Status Date:	02/14/2002
Restricted Use:	NO
Funding:	School District
Latitude:	33.87038
Longitude:	-117.8380
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, Benzene, DDE, DDT, Toxaphene, Acetone, Carbon disulfide, Chloroform, Dieldrin, Methyl ethyl ketone (2-Butanone, Toluene
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL, SV, SURFW
Alias Name:	PLACENTIA-YORBA LINDA UNIFIED SCH. DIST.
Alias Type:	Alternate Name
Alias Name:	PLCENTIA-YRBA LNDA USD- PRPSD S.WSTR MID
Alias Type:	Alternate Name
Alias Name:	SOUTHWESTERN MIDDLE SCHOOL
Alias Type:	Alternate Name
Alias Name:	404315
Alias Type:	Project Code (Site Code)
Alias Name:	30010015
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/05/2004
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/14/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	07/12/2004
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	03/06/2003
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

56
WSW
1/2-1
0.565 mi.
2981 ft.

MDC CENTER(FORMER)
601-629 S. PLACENTIA AVENUE
FULLERTON, CA 92831

ENVIROSTOR **S106893786**
N/A

Relative:
Lower

Actual:
205 ft.

ENVIROSTOR:

Facility ID:	30000012
Status:	Refer: 1248 Local Agency
Status Date:	01/26/2000
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	ORANGE COUNTY
Lead Agency:	ORANGE COUNTY
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	65
Senate:	29
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	33.87578
Longitude:	-117.8790
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	30000012
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	SB 1248 Notification
Completed Date:	01/21/2000
Comments:	DTSC is not involved with this project.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

57 SSW 1/2-1 0.593 mi. 3133 ft.

MELROSE ELEMENTARY SCHOOL
MELROSE STREET/LA JOLLA STREET
PLACENTIA, CA 92870

ENVIROSTOR SCH

S107736715
N/A

Relative: Lower

Actual: 204 ft.

ENVIROSTOR:

Facility ID:	30820002
Status:	Certified / Operation & Maintenance
Status Date:	06/07/2010
Site Code:	404212
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	7.19
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	55
Senate:	29
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.86020
Longitude:	-117.8730
APN:	NONE SPECIFIED
Past Use:	UNKNOWN
Potential COC:	Arsenic
Confirmed COC:	Arsenic
Potential Description:	SOIL
Alias Name:	MCFADDEN ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	PLACENTIA-YORBA LINDA UNIFIED SCH. DIST.
Alias Type:	Alternate Name
Alias Name:	PLACENTIA-YORBA LINDA USD-MCFADDEN PK EL
Alias Type:	Alternate Name
Alias Name:	110033610297
Alias Type:	EPA (FRS #)
Alias Name:	404212
Alias Type:	Project Code (Site Code)
Alias Name:	30820002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Area1- Melrose Elementary School Ballfields
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	03/23/2010
Comments:	DTSC certifies that all removal action activities have been completed. Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/05/2001
Comments:	Not reported

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/17/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 01/22/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 07/13/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/20/2002
Comments: DTSC approved the final PEA Report with a " No Further Action" determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 07/13/2005
Comments: Approved the Final Removal Action Workplan for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/21/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 07/29/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 09/26/2001
Comments: Not reported

Completed Area Name: Area1- Melrose Elementary School Ballfields
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/30/2007
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Completed Document Type: Removal Action Workplan
Completed Date: 12/17/2007
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/06/2007
Comments: Accepted both Spanish and English Public Notice for publication.

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 12/07/2009
Comments: Operation and Maintenance Plan was submitted as an appendix to Ammended Removal action Workplan.

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/13/2009
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 12/28/2009
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/28/2011
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/23/2012
Comments: DTSC reviewed the O&M report and had no comments

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/17/2013
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/24/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/27/2002

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 09/29/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/27/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 11/18/2004
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 12/17/2007
Comments: DTSC prepared Notice of Exemption pursuant to California Environmental Quality Act requirements..

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Area 2 Emergency Asphalt Drive Way
Schedule Sub Area Name: Not reported
Schedule Document Type: 5 Year Review Reports
Schedule Due Date: 05/14/2016
Schedule Revised Date: 05/21/2017
Schedule Area Name: Area 2 Emergency Asphalt Drive Way
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 06/29/2016
Schedule Revised Date: Not reported

SCH:

Facility ID: 30820002
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 7.19
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404212

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Assembly:	55
Senate:	29
Special Program Status:	Not reported
Status:	Certified / Operation & Maintenance
Status Date:	06/07/2010
Restricted Use:	NO
Funding:	School District
Latitude:	33.86020
Longitude:	-117.8730
APN:	NONE SPECIFIED
Past Use:	UNKNOWN
Potential COC:	Arsenic
Confirmed COC:	Arsenic
Potential Description:	SOIL
Alias Name:	MCFADDEN ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	PLACENTIA-YORBA LINDA UNIFIED SCH. DIST.
Alias Type:	Alternate Name
Alias Name:	PLACENTIA-YORBA LINDA USD-MCFADDEN PK EL
Alias Type:	Alternate Name
Alias Name:	110033610297
Alias Type:	EPA (FRS #)
Alias Name:	404212
Alias Type:	Project Code (Site Code)
Alias Name:	30820002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Area1- Melrose Elementary School Ballfields
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	03/23/2010
Comments:	DTSC certifies that all removal action activities have been completed. Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/05/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	09/17/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Public Participation
Completed Date:	01/22/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	07/13/2005
Comments:	Not reported

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/20/2002
Comments: DTSC approved the final PEA Report with a " No Further Action" determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 07/13/2005
Comments: Approved the Final Removal Action Workplan for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/21/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 07/29/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 09/26/2001
Comments: Not reported

Completed Area Name: Area1- Melrose Elementary School Ballfields
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/30/2007
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/17/2007
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/06/2007
Comments: Accepted both Spanish and English Public Notice for publication.

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 12/07/2009
Comments: Operation and Maintenance Plan was submitted as an appendix to Ammended Removal action Workplan.

Completed Area Name: Area 2 Emergency Asphalt Drive Way

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/13/2009
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 12/28/2009
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/28/2011
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/23/2012
Comments: DTSC reviewed the O&M report and had no comments

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/17/2013
Comments: Not reported

Completed Area Name: Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/24/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/27/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 09/29/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/27/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 11/18/2004

MELROSE ELEMENTARY SCHOOL (Continued) **S107736715**

Comments:	Not reported
Completed Area Name:	Area 2 Emergency Asphalt Drive Way
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	12/17/2007
Comments:	DTSC prepared Notice of Exemption pursuant to California Environmental Quality Act requirements..
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Area 2 Emergency Asphalt Drive Way
Schedule Sub Area Name:	Not reported
Schedule Document Type:	5 Year Review Reports
Schedule Due Date:	05/14/2016
Schedule Revised Date:	05/21/2017
Schedule Area Name:	Area 2 Emergency Asphalt Drive Way
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	06/29/2016
Schedule Revised Date:	Not reported

58
SE
1/2-1
0.641 mi.
3387 ft.

ROBERT CARO PRECIOUS METALS SERVICE **ENVIROSTOR** **S110494246**
3071 LA JOLLA #A **N/A**
ANAHEIM, CA 92806

Relative:
Lower

Actual:
219 ft.

ENVIROSTOR:

Facility ID:	71002699
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	Not reported
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	0
Longitude:	0
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD980882732

ROBERT CARO PRECIOUS METALS SERVICE (Continued) **S110494246**

Alias Type: EPA Identification Number
Alias Name: 71002699
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

59
West
1/2-1
0.751 mi.
3965 ft.

Relative:
Lower

Actual:
206 ft.

VEECO ELECTRO FAB, INC. - FULLERTON **ENVIROSTOR** **S110494444**
2488 E. FENDER AVENUE #F **N/A**
FULLERTON, CA 92631

ENVIROSTOR:
Facility ID: 71003413
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: Not reported
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 0
Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAL922265516
Alias Type: EPA Identification Number
Alias Name: 71003413
Alias Type: Envirostor ID Number

VEECO ELECTRO FAB, INC. - FULLERTON (Continued) **S110494444**

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

60
SSE
1/2-1
0.780 mi.
4117 ft.

CLASSIC PLATING, INC.
2985 E. MIRALOMA AVENUE #U
ANAHEIM, CA 92806

RESPONSE **S110493739**
ENVIROSTOR **N/A**
Cortese

Relative:
Lower

Actual:
215 ft.

RESPONSE:

Facility ID:	71003472
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	1.75
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Poonam Acharya
Supervisor:	Emad Yemut
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401657
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	68
Senate:	37
Special Program Status:	Not reported
Status:	Active
Status Date:	10/02/2014
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	33.85780
Longitude:	-117.8654
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC :	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAR000031740
Alias Type:	EPA Identification Number
Alias Name:	401657
Alias Type:	Project Code (Site Code)
Alias Name:	71003472
Alias Type:	Envirostor ID Number

CLASSIC PLATING, INC. (Continued) **S110493739**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Agreement
Completed Date:	01/24/2014
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	01/12/2015
Comments:	The comments on the additional sampling were discussed in the field meeting on January 12,2015. DTSC Geologist proposed sampling locations on the site to further characterize the site and the exterior.DTSC asked for soil vapor sampling at at least 2 interior locations in order to eliminate vapor intrusion potential. DTSC requested to submit a PEA Workplan that incorporates the comments discussed during field meeting.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Work Plan
Completed Date:	06/08/2015
Comments:	PEA workplan was approved.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	07/02/2015
Comments:	Fieldwork for PEA investigation was implemented.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	08/04/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1 Non-Submittal
Completed Date:	12/22/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	04/28/1999
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Order
Completed Date:	09/25/2014
Comments:	Remedial Action Order was issued.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

CLASSIC PLATING, INC. (Continued) **S110493739**

Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/13/2015
Comments: Annual Oversight Estimate sent to RPs.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2016
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Assessment Report
Schedule Due Date: 06/27/2016
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Land Use Restriction
Schedule Due Date: 06/15/2016
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 71003472
Status: Active
Status Date: 10/02/2014
Site Code: 401657
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 1.75
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Poonam Acharya
Supervisor: Emad Yemut
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 68
Senate: 37
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 33.85780
Longitude: -117.8654
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAR000031740
Alias Type: EPA Identification Number
Alias Name: 401657
Alias Type: Project Code (Site Code)
Alias Name: 71003472
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement

CLASSIC PLATING, INC. (Continued) **S110493739**

Completed Date: 01/24/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/12/2015
Comments: The comments on the additional sampling were discussed in the field meeting on January 12,2015. DTSC Geologist proposed sampling locations on the site to further characterize the site and the exterior.DTSC asked for soil vapor sampling at at least 2 interior locations in order to eliminate vapor intrusion potential. DTSC requested to submit a PEA Workplan that incorporates the comments discussed during field meeting.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Work Plan
Completed Date: 06/08/2015
Comments: PEA workplan was approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/02/2015
Comments: Fieldwork for PEA investigation was implemented.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/04/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Non-Submittal
Completed Date: 12/22/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/28/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 09/25/2014
Comments: Remedial Action Order was issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/13/2015
Comments: Annual Oversight Estimate sent to RPs.

CLASSIC PLATING, INC. (Continued) **S110493739**

Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2016
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Preliminary Assessment Report
Schedule Due Date:	06/27/2016
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Land Use Restriction
Schedule Due Date:	06/15/2016
Schedule Revised Date:	Not reported

CORTESE:

Region:	CORTESE
Envirostor Id:	71003472
Site/Facility Type:	STATE RESPONSE
Cleanup Status:	ACTIVE
Status Date:	10/02/2014
Site Code:	401657
Latitude:	33.857809
Longitude:	-117.86547
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

61
South
1/2-1
0.802 mi.
4236 ft.

ARTISTIC PLATING AND METAL FINISHING INC
2821 E MIRALOMA AVE
ANAHEIM, CA 92806

ENVIROSTOR **1000276577**
RCRA NonGen / NLR **CAD982509523**
EMI
WDS

Relative:
Lower

Actual:
208 ft.

ENVIROSTOR:

Facility ID:	71003103
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	68

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Senate: 37
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.85549
Longitude: -117.8712
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982509523
Alias Type: EPA Identification Number
Alias Name: 110000481032
Alias Type: EPA (FRS #)
Alias Name: 71003103
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

RCRA NonGen / NLR:
Date form received by agency: 11/10/2008
Facility name: ARTISTIC PLATING AND METAL FINISHING INC
Facility address: 2821 E MIRALOMA AVE
ANAHEIM, CA 92806
EPA ID: CAD982509523
Mailing address: 2801 E MIRALOMA AVE
ANAHEIM, CA 92806 1804
Contact: RUBEN D ANGEL
Contact address: 2801 E MIRALOMA AVE
ANAHEIM, CA 92806 1804
Contact country: US
Contact telephone: 818-640-1686
Contact email: RARARA26@CA.RR.COM
EPA Region: 09
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ARTISTIC PLATING AND METAL FINISHING INC

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/29/1993
Owner/Op end date: Not reported

Owner/operator name: ARTISTIC PLATING & METAL FINISHING, INC
Owner/operator address: 2801 EAST MIRALOMA AVE
ANAHEIM, CA 92806
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/29/1993
Owner/Op end date: Not reported

Owner/operator name: ARTISTIC PLATING AND METAL FINISHING INC
Owner/operator address: 2801 E MIRALOMA AVE
ANAHEIM, CA 92806
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/29/1993
Owner/Op end date: Not reported

Owner/operator name: ARTISTIC PLATING & METAL FINISHING, INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/29/1993
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Historical Generators:
Date form received by agency: 02/28/2006
Site name: ARTISTIC PLATING & METAL FINISHING, INC
Classification: Small Quantity Generator

Date form received by agency: 02/28/2006
Site name: ARTISTIC PLATING & METAL FINISHING, INC
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Date form received by agency: 02/27/2002
Site name: ARTISTIC PLATING & METAL FINISHING INC
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Site name: ARTISTIC PLATING & METAL FINISHING, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: ARTISTIC PLATING & METAL FINISHING, INC.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: ARTISTIC PLATING AND METAL FINISHING INC
Classification: Small Quantity Generator

Date form received by agency: 02/29/1996
Site name: ARTISTIC PLATING & METAL FINISHING
Classification: Large Quantity Generator

Date form received by agency: 07/14/1993
Site name: ARTISTIC PLATING AND METAL FINISHING INC
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/16/2004
Date achieved compliance: 04/16/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/16/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 07/05/2005
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 04/16/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/16/2004
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/28/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Evaluation lead agency: State Contractor/Grantee

EMI:

Year:	1997
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	30
Air Basin:	SC
Facility ID:	99249

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.501185
Reactive Organic Gases Tons/Yr:	0.44
Carbon Monoxide Emissions Tons/Yr:	0.34315
NOX - Oxides of Nitrogen Tons/Yr:	2.6009
SOX - Oxides of Sulphur Tons/Yr:	0.0065989
Particulate Matter Tons/Yr:	0.062366
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.08

Year:	2005
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.437115
Reactive Organic Gases Tons/Yr:	.395883713
Carbon Monoxide Emissions Tons/Yr:	.29872
NOX - Oxides of Nitrogen Tons/Yr:	2.00435
SOX - Oxides of Sulphur Tons/Yr:	.004355
Particulate Matter Tons/Yr:	1.10401
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.255455

Year:	2006
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3264492172054292548
Reactive Organic Gases Tons/Yr:	.263
Carbon Monoxide Emissions Tons/Yr:	.24
NOX - Oxides of Nitrogen Tons/Yr:	2.081
SOX - Oxides of Sulphur Tons/Yr:	.001
Particulate Matter Tons/Yr:	3.392
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.70384

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

Year:	2007
County Code:	30
Air Basin:	SC
Facility ID:	99249
Air District Name:	SC
SIC Code:	3471
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3264492172054292548
Reactive Organic Gases Tons/Yr:	.263
Carbon Monoxide Emissions Tons/Yr:	.24
NOX - Oxides of Nitrogen Tons/Yr:	2.081
SOX - Oxides of Sulphur Tons/Yr:	.001
Particulate Matter Tons/Yr:	3.392
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.70384

WDS:

Facility ID:	Santa Ana River 30I011301
Facility Type:	Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	ARTISTIC PLATING METAL FIN INC
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Not reported
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or

ARTISTIC PLATING AND METAL FINISHING INC (Continued) **1000276577**

dischargers having waste storage systems with land disposal such as dairy waste ponds.

62
SE
1/2-1
0.812 mi.
4285 ft.

ANAHEIM EXTRUSION CO., INC. **ENVIROSTOR** **S111842243**
1330 N. KRAEMER BOULEVARD **N/A**
ANAHEIM, CA 92806

Relative:
Lower

Actual:
220 ft.

ENVIROSTOR:

Facility ID:	71002564
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	68
Senate:	37
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.85932
Longitude:	-117.8596
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD073589509
Alias Type:	EPA Identification Number
Alias Name:	71002564
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	*Correspondence - Received
Completed Date:	03/05/2012
Comments:	Letter received and sent to file.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

63
West
1/2-1
0.912 mi.
4813 ft.

BRIGHT ARMOR PLATING SHOP (FORMER)
2466-B EAST FENDER AVENUE
FULLERTON, CA 92831

ENVIROSTOR | **S106893798** | **N/A**

Relative:
Lower

Actual:
206 ft.

ENVIROSTOR:

Facility ID:	30340302
Status:	Refer: 1248 Local Agency
Status Date:	07/12/2000
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	ORANGE COUNTY
Lead Agency:	ORANGE COUNTY
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	65
Senate:	29
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	33.86766
Longitude:	-117.8859
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	30340302
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	SB 1248 Notification
Completed Date:	07/11/2000
Comments:	DTSC is not involved with this project.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

64
SSE
1/2-1
0.929 mi.
4906 ft.

J K L MANUFACTURING INC
1211 N LAS BRIAS ST
ANAHEIM, CA 92806

RCRA-SQG
ENVIROSTOR
HIST UST
FINDS

1000123472
CAD091927863

Relative:
Lower

Actual:
212 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	J K L MANUFACTURING INC
Facility address:	1211 N LAS BRIAS ST ANAHEIM, CA 92806
EPA ID:	CAD091927863
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	LEONARD JAMES K
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Municipal
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

J K L MANUFACTURING INC (Continued) **1000123472**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/18/1990
Site name: J K L MANUFACTURING INC
Classification: Large Quantity Generator

Violation Status: No violations found

ENVIROSTOR:
Facility ID: 71002625
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 68
Senate: 37
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.85402
Longitude: -117.8667
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD091927863
Alias Type: EPA Identification Number
Alias Name: 110002663378
Alias Type: EPA (FRS #)
Alias Name: 71002625
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

J K L MANUFACTURING INC (Continued) **1000123472**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HIST UST:
Region: STATE
Facility ID: 00000064758
Facility Type: Other
Other Type: PLATING
Contact Name: JAMES LEONARD
Telephone: 7146329940
Owner Name: JAMES K. LEONARD
Owner Address: 1230 VALDARAISO DR. NO.
Owner City,St,Zip: PLACENTIA, CA 92670
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: 1984
Tank Capacity: 00001500
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 4
Leak Detection: Visual

FINDS:

Registry ID: 110002663378

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

65
South
1/2-1
0.937 mi.
4948 ft.

IDEAL ANODIZING, INC. **ENVIROSTOR** **S103626744**
1250 N. BLUE GUM STREET **N/A**
ANAHEIM, CA 92806

Relative:
Lower

Actual:
207 ft.

ENVIROSTOR:
Facility ID: 71003304
Status: Refer: Local Agency
Status Date: 06/04/2015
Site Code: Not reported
Site Type: Tiered Permit

IDEAL ANODIZING, INC. (Continued) **S103626744**

Site Type Detailed:	Tiered Permit
Acres:	1
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Robert M. Senga
Division Branch:	Cleanup Cypress
Assembly:	68
Senate:	37
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.85384
Longitude:	-117.8711
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAL000106388
Alias Type:	EPA Identification Number
Alias Name:	71003304
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1 Non-Submittal
Completed Date:	02/15/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/06/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/13/2015
Date Data Arrived at EDR: 08/03/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/29/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 76

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/29/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 76

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/28/2015
Date Data Arrived at EDR: 08/14/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 60

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/13/2015
Date Data Arrived at EDR: 08/03/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/04/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/21/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/21/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 11/25/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 16

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/17/2015
Date Data Arrived at EDR: 12/22/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/08/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/25/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 20

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/10/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 95
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2015
Date Data Arrived at EDR: 09/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 125

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/03/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2015
Date Data Arrived at EDR: 12/29/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 23

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/10/2015
Date Data Arrived at EDR: 08/27/2015
Date Made Active in Reports: 10/01/2015
Number of Days to Update: 35

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/05/2016
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 09/25/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 41

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/10/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/08/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/08/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/14/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 29

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 08/04/2015
Date Data Arrived at EDR: 08/25/2015
Date Made Active in Reports: 10/05/2015
Number of Days to Update: 41

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/23/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 28

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 10/13/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 10/13/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 37

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 10/22/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 24

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2015
Date Data Arrived at EDR: 09/22/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 22

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 24

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/03/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/15/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/04/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/12/2015
Next Scheduled EDR Contact: 12/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 34

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 06/18/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/19/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 08/11/2015
Date Data Arrived at EDR: 08/14/2015
Date Made Active in Reports: 09/03/2015
Number of Days to Update: 20

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/20/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 30

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/20/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/10/2015
Number of Days to Update: 14

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/12/2016
Date Data Arrived at EDR: 01/15/2016
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 24

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 09/15/2015
Date Data Arrived at EDR: 09/17/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 27

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/05/2015
Date Data Arrived at EDR: 10/08/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 7

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 34

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 51

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/01/2015
Date Data Arrived at EDR: 10/06/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 66

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 24
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 65
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 08/10/2015
Date Made Active in Reports: 09/11/2015
Number of Days to Update: 32
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/11/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 36
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/11/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 41
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 10/06/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 41
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 10/06/2015
Date Made Active in Reports: 11/06/2015
Number of Days to Update: 31
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 52

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/18/2015
Date Data Arrived at EDR: 12/22/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 48
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/14/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/17/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/10/2015
Next Scheduled EDR Contact: 12/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 09/28/2015
Date Data Arrived at EDR: 09/30/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 36

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2016
Date Data Arrived at EDR: 01/07/2016
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 32

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 9

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/29/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 08/17/2015
Date Made Active in Reports: 09/03/2015
Number of Days to Update: 17

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/28/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 23

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/13/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 24

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/16/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/08/2015
Date Made Active in Reports: 12/09/2015
Number of Days to Update: 31

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/09/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

110 AND 132 EAST CROWTHER AVENUE
110 AND 132 EAST CROWTHER AVENUE
PLACENTIA, CA 92870

TARGET PROPERTY COORDINATES

Latitude (North):	33.867528 - 33° 52' 3.10''
Longitude (West):	117.871348 - 117° 52' 16.85''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	419405.2
UTM Y (Meters):	3747615.5
Elevation:	234 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5641308 ORANGE, CA
Version Date:	2012
Northeast Map:	5640946 YORBA LINDA, CA
Version Date:	2012
Southwest Map:	5641294 ANAHEIM, CA
Version Date:	2012
Northwest Map:	5640256 LA HABRA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

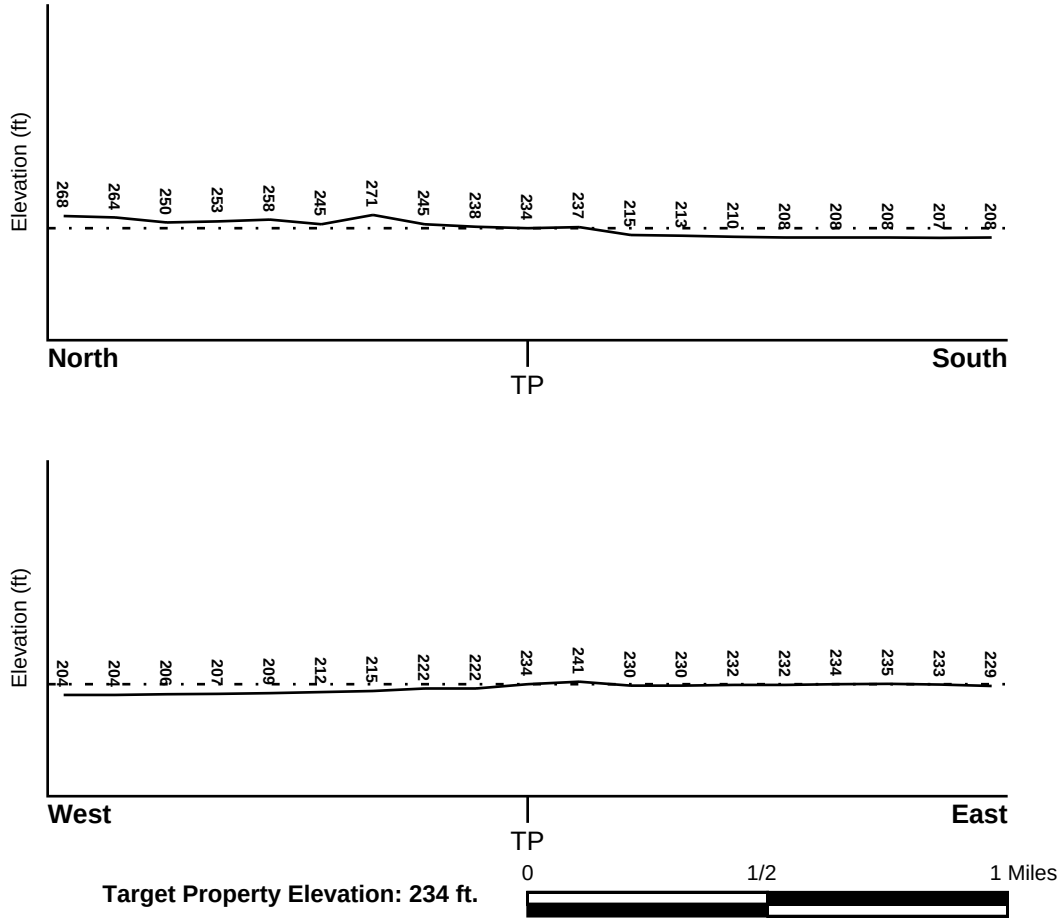
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
ORANGE, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06059C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
ORANGE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1 - 2 Miles East
Site Name:	Precision Anodizing And Plating
Site EPA ID Number:	CAD067629873
Groundwater Flow Direction:	SW TOWARD THE PACIFIC OCEAN ON A REGIONAL BASIS. THE FLOW IS DIFFICULT TO DETERMINE IN THE VICINITY OF THE SITE BECAUSE OF THE PRESENCE OF TWO RECHARGE BASINS, THE MILLER RETARDING BASIN AND ANAHEIM LAKE.
Measured Depth to Water:	15 feet.
Hydraulic Connection:	Separation of the surficial aquifer (semi-perched water zone) and underlying Talbert water bearing zone is indistinct in the vicinity of the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
B5	1/4 - 1/2 Mile SSW	SW
B6	1/4 - 1/2 Mile SSW	Not Reported
B7	1/4 - 1/2 Mile SSW	Not Reported
8	1/2 - 1 Mile NW	S
9	1/2 - 1 Mile ESE	Not Reported
10	1/2 - 1 Mile NW	W
11	1/2 - 1 Mile SSE	Not Reported
13	1/2 - 1 Mile NNW	S
16	1/2 - 1 Mile NNW	W

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

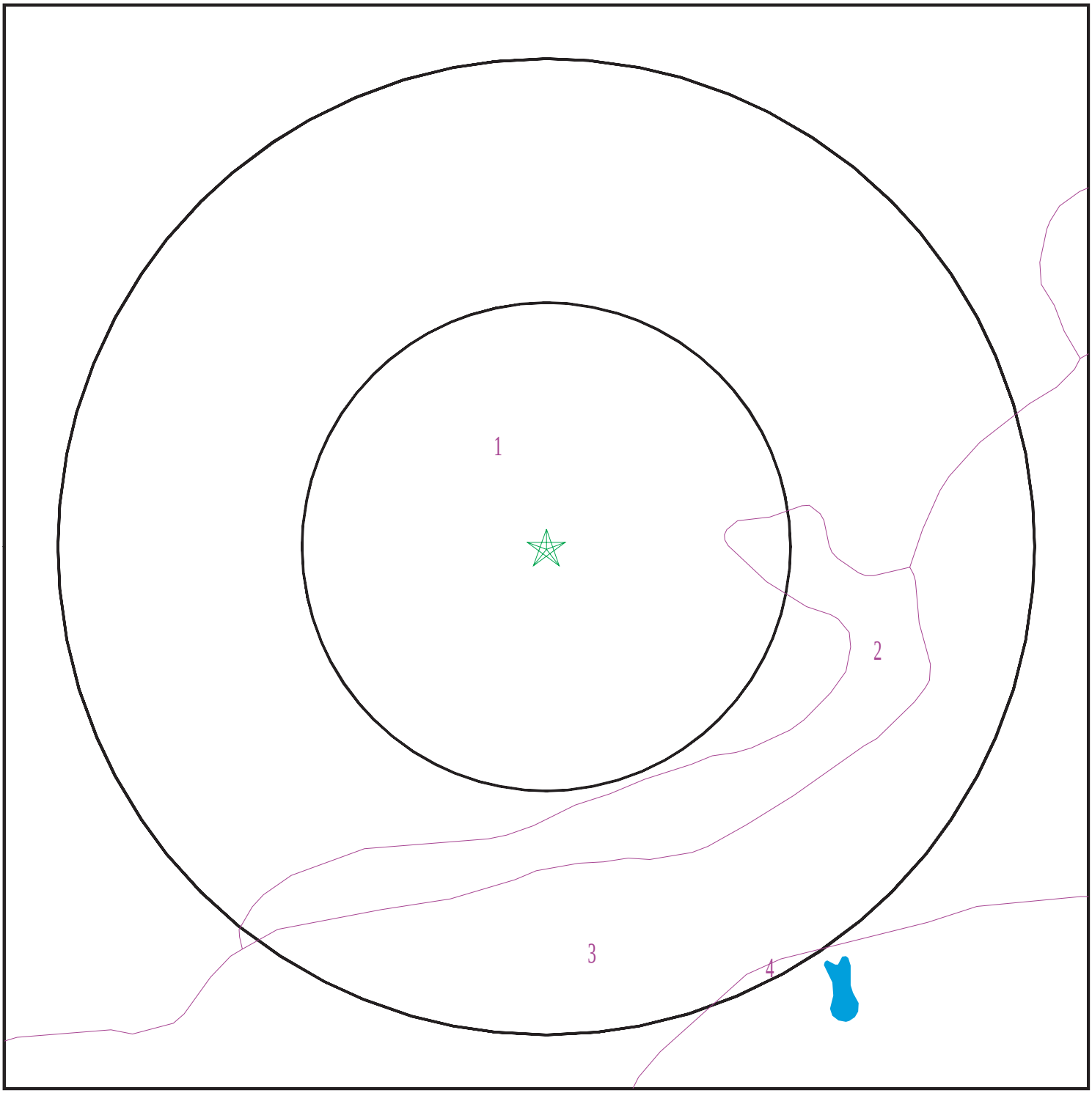
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4537608.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	110 and 132 East Crowther Avenue	CLIENT:	Advanced Env. Concepts
ADDRESS:	110 and 132 East Crowther Avenue Placentia CA 92870	CONTACT:	Vanessa Radsick
LAT/LONG:	33.867528 / 117.871348	INQUIRY #:	4537608.2s
		DATE:	February 12, 2016 4:32 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: MYFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 6 Min: 5.1
2	11 inches	18 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6
3	18 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	27 inches	70 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	70 inches	79 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1

Soil Map ID: 2

Soil Component Name: MYFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 6 Min: 5.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	11 inches	18 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6
3	18 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 5.6
4	27 inches	70 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	70 inches	79 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1

Soil Map ID: 3

Soil Component Name: MOCHO

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	31 inches	loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9
2	31 inches	61 inches	loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: METZ

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
2	16 inches	62 inches	stratified sand to fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000138676	0 - 1/8 Mile NNW
C17	USGS40000138655	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	3843	1/8 - 1/4 Mile ESE
A3	3844	1/8 - 1/4 Mile ESE
A4	5094	1/8 - 1/4 Mile ESE
12	CADW60000000619	1/2 - 1 Mile North
14	3791	1/2 - 1 Mile NE
C15	CADW60000018514	1/2 - 1 Mile ESE
18	CADW60000018075	1/2 - 1 Mile SSE
19	CADW60000001472	1/2 - 1 Mile NE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

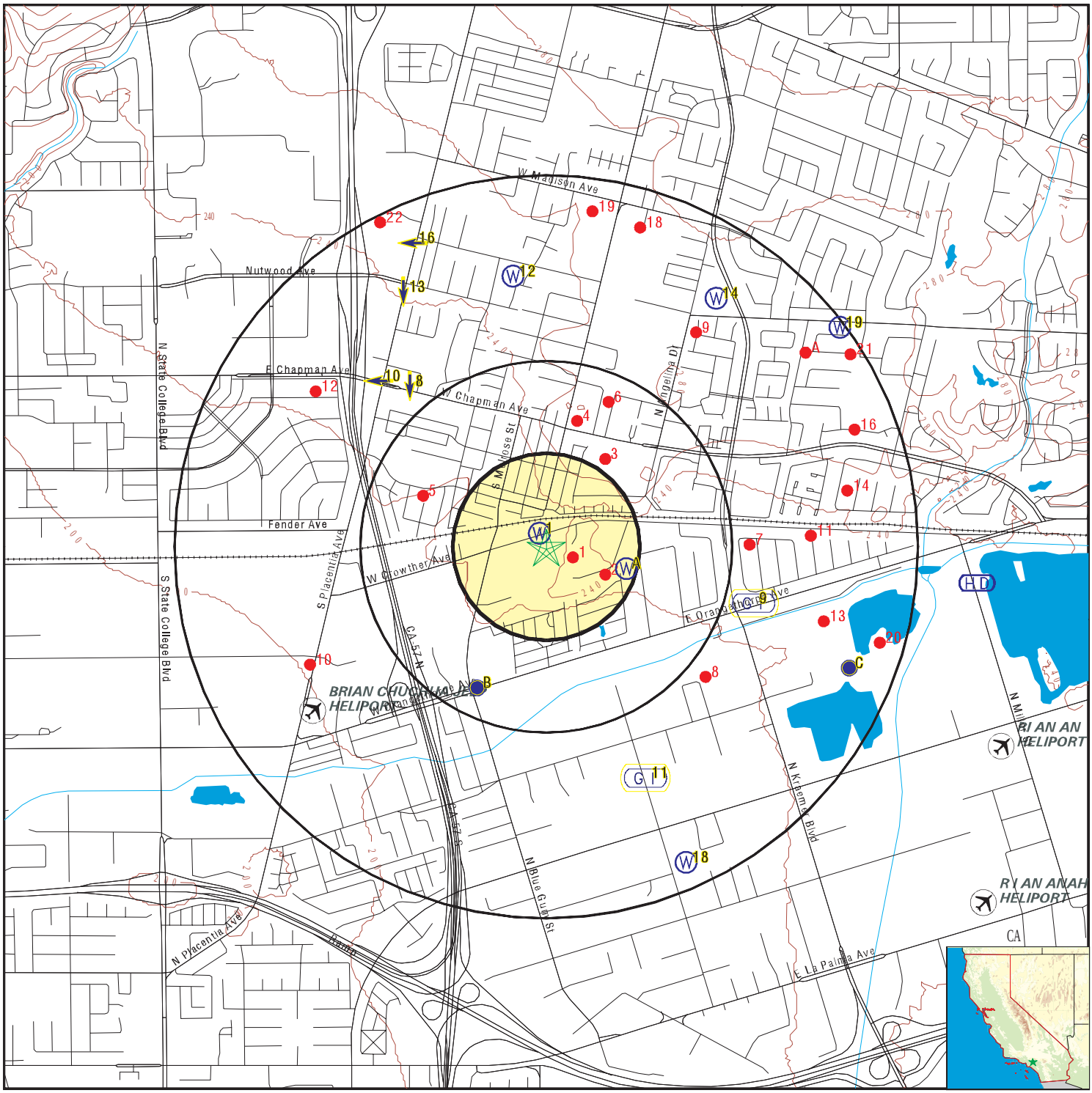
MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000221337	0 - 1/8 Mile ESE
2	CAOG11000221385	1/8 - 1/4 Mile ESE
3	CAOG11000221157	1/4 - 1/2 Mile NE
4	CAOG11000221025	1/4 - 1/2 Mile NNE
5	CAOG11000218047	1/4 - 1/2 Mile WNW
6	CAOG11000221407	1/4 - 1/2 Mile NNE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
7	CAOG11000221153	1/2 - 1 Mile East
8	CAOG11000221376	1/2 - 1 Mile SE
9	CAOG11000217424	1/2 - 1 Mile NE
10	CAOG11000217901	1/2 - 1 Mile WSW
11	CAOG11000221154	1/2 - 1 Mile East
12	CAOG11000217894	1/2 - 1 Mile NW
13	CAOG11000217428	1/2 - 1 Mile ESE
14	CAOG11000221121	1/2 - 1 Mile East
A15	CAOG11000221128	1/2 - 1 Mile NE
16	CAOG11000221052	1/2 - 1 Mile ENE
A17	CAOG11000221126	1/2 - 1 Mile NE
18	CAOG11000221277	1/2 - 1 Mile NNE
19	CAOG11000221410	1/2 - 1 Mile North
20	CAOG11000221316	1/2 - 1 Mile ESE
21	CAOG11000217742	1/2 - 1 Mile ENE
22	CAOG11000217898	1/2 - 1 Mile NNW

PHYSICAL SETTING SOURCE MAP - 4537608.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	110 and 132 East Crowther Avenue	CLIENT:	Advanced Env. Concepts
ADDRESS:	110 and 132 East Crowther Avenue Placentia CA 92870	CONTACT:	Vanessa Radsick
LAT/LONG:	33.867528 / 117.871348	INQUIRY #:	4537608.2s
		DATE:	February 12, 2016 4:31 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNW
0 - 1/8 Mile
Lower

FED USGS **USGS40000138676**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335205117521801		
Monloc name:	003S010W36H002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8680556
Longitude:	-117.8716667	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	230
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A2
ESE
1/8 - 1/4 Mile
Lower

CA WELLS **3843**

Water System Information:

Prime Station Code:	03S/10W-36H01 S	User ID:	TEE
FRDS Number:	3010035001	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	335200.0 1175200.0	Precision:	Undefined
Source Name:	BRADFORD 03		
System Number:	3010035		
System Name:	Southern Calif WC - Placentia		
Organization That Operates System:			
	1920 W. CORPORATE WAY		
	ANAHEIM, CA 92801		
Pop Served:	28900	Connections:	8769
Area Served:	PLACENTIA CITY		
Sample Collected:	29-JUL-14	Findings:	. 865. US
Chemical:	SPECIFIC CONDUCTANCE		

Sample Collected:	29-JUL-14	Findings:	. 7.9
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUL-14	Findings:	. 176. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUL-14	Findings:	. 214. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUL-14	Findings:	. 0.38 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	29-JUL-14	Findings:	. 334. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	29-JUL-14	Findings:	. 104. MG/L
Chemical:	CALCIUM		
Sample Collected:	29-JUL-14	Findings:	. 18.1 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	29-JUL-14	Findings:	. 59.8 MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUL-14	Findings:	. 4.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	29-JUL-14	Findings:	. 88.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUL-14	Findings:	. 0.41 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUL-14	Findings:	. 170. UG/L
Chemical:	BORON		
Sample Collected:	29-JUL-14	Findings:	. 3.8 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUL-14	Findings:	. 550. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUL-14	Findings:	. 9.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUL-14	Findings:	. 0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JUL-14	Findings:	. 0.16 MG/L
Chemical:	BROMIDE		
Sample Collected:	29-JUL-14	Findings:	. 2150. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	13-AUG-14	Findings:	. 4.74 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	13-AUG-14	Findings:	. 1.82 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	13-AUG-14	Findings:	. 0.529 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	13-AUG-14	Findings:	. 6.58 PCI/L
Chemical:	URANIUM (PCI/L)		

Sample Collected:	13-AUG-14	Findings:	. 1.64 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	13-AUG-14	Findings:	. 1.11 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	13-AUG-14	Findings:	. 0.3 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	13-AUG-14	Findings:	. 0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	13-AUG-14	Findings:	. 9.8e-002 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	13-AUG-14	Findings:	. 0.363 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	05-JAN-15	Findings:	. 280. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-JAN-15	Findings:	. 87. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-JAN-15	Findings:	. 15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-JAN-15	Findings:	. 550. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	20-JAN-15	Findings:	. 9.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-JAN-15	Findings:	. 0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	20-JAN-15	Findings:	. 2200. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	15-JUN-15	Findings:	. 8.9 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-JUN-15	Findings:	. 2020. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	24-JAN-11	Findings:	370. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	24-JAN-11	Findings:	110. MG/L
Chemical:	CALCIUM		
Sample Collected:	24-JAN-11	Findings:	20. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	24-JAN-11	Findings:	610. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	18-JUL-11	Findings:	973. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	18-JUL-11	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUL-11	Findings:	190. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		

Sample Collected:	18-JUL-11	Findings:	231. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	18-JUL-11	Findings:	0.4 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	18-JUL-11	Findings:	382. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	18-JUL-11	Findings:	117. MG/L
Chemical:	CALCIUM		
Sample Collected:	18-JUL-11	Findings:	21.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	18-JUL-11	Findings:	55.6 MG/L
Chemical:	SODIUM		
Sample Collected:	18-JUL-11	Findings:	3.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	18-JUL-11	Findings:	94.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	18-JUL-11	Findings:	0.43 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	18-JUL-11	Findings:	3.3 UG/L
Chemical:	VANADIUM		
Sample Collected:	18-JUL-11	Findings:	600. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	18-JUL-11	Findings:	13.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUL-11	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	18-JUL-11	Findings:	0.2 MG/L
Chemical:	BROMIDE		
Sample Collected:	18-JUL-11	Findings:	3010. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	10-OCT-11	Findings:	10.7 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	10-OCT-11	Findings:	1.96 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	10-OCT-11	Findings:	9.84 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	10-OCT-11	Findings:	1.1 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	24-JAN-12	Findings:	280. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	24-JAN-12	Findings:	86. MG/L
Chemical:	CALCIUM		
Sample Collected:	24-JAN-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	24-JAN-12	Findings:	530. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	02-JUL-12	Findings:	2.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUL-12	Findings:	875. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12-JUL-12	Findings:	8.1
Chemical:	PH, LABORATORY		
Sample Collected:	12-JUL-12	Findings:	172. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	12-JUL-12	Findings:	209. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12-JUL-12	Findings:	0.32 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	12-JUL-12	Findings:	317. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	12-JUL-12	Findings:	98.5 MG/L
Chemical:	CALCIUM		
Sample Collected:	12-JUL-12	Findings:	17.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12-JUL-12	Findings:	51.7 MG/L
Chemical:	SODIUM		
Sample Collected:	12-JUL-12	Findings:	4.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12-JUL-12	Findings:	85.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12-JUL-12	Findings:	0.42 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12-JUL-12	Findings:	140. UG/L
Chemical:	BORON		
Sample Collected:	12-JUL-12	Findings:	3.9 UG/L
Chemical:	VANADIUM		
Sample Collected:	12-JUL-12	Findings:	516. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12-JUL-12	Findings:	11.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUL-12	Findings:	0.32 MG/L
Chemical:	BROMIDE		
Sample Collected:	12-JUL-12	Findings:	2510. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	12-JUL-12	Findings:	7.3 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	12-JUL-12	Findings:	1.53 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		

Sample Collected:	12-JUL-12	Findings:	6.91 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	12-JUL-12	Findings:	0.91 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	06-AUG-12	Findings:	2.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-12	Findings:	2.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10-OCT-12	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	05-NOV-12	Findings:	2.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	14-JAN-13	Findings:	7.68
Chemical:	PH, LABORATORY		
Sample Collected:	14-JAN-13	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	14-JAN-13	Findings:	92. MG/L
Chemical:	CALCIUM		
Sample Collected:	14-JAN-13	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	14-JAN-13	Findings:	480. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	14-JAN-13	Findings:	2.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-FEB-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	24-JUN-13	Findings:	0.6 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	29-JUL-13	Findings:	901. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	29-JUL-13	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUL-13	Findings:	167. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUL-13	Findings:	167. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUL-13	Findings:	0.46 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	29-JUL-13	Findings:	314. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	29-JUL-13	Findings:	97.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	29-JUL-13	Findings:	16.9 MG/L
Chemical:	MAGNESIUM		

Sample Collected:	29-JUL-13	Findings:	53.7 MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUL-13	Findings:	3.7 MG/L
Chemical:	POTASSIUM		
Sample Collected:	29-JUL-13	Findings:	87.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUL-13	Findings:	0.42 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUL-13	Findings:	170. UG/L
Chemical:	BORON		
Sample Collected:	29-JUL-13	Findings:	3.4 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUL-13	Findings:	554. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUL-13	Findings:	9.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUL-13	Findings:	0.6 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	29-JUL-13	Findings:	0.16 MG/L
Chemical:	BROMIDE		
Sample Collected:	29-JUL-13	Findings:	2100. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	30-JUL-13	Findings:	0.5 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	30-JUL-13	Findings:	0.5 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	05-AUG-13	Findings:	2.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-SEP-13	Findings:	2.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-OCT-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	27-NOV-13	Findings:	6. PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	27-NOV-13	Findings:	2.05 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	27-NOV-13	Findings:	4.93 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	27-NOV-13	Findings:	1.26 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	27-NOV-13	Findings:	1.56 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	27-NOV-13	Findings:	0.3 PCI/L
Chemical:	URANIUM MDA95		

Sample Collected:	23-JAN-14	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	23-JAN-14	Findings:	. 0.493 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	23-JAN-14	Findings:	. 0.253 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	23-JAN-14	Findings:	. 0.138 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	23-JAN-14	Findings:	. 0.322 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	03-MAR-14	Findings:	7.63
Chemical:	PH, LABORATORY		
Sample Collected:	03-MAR-14	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	03-MAR-14	Findings:	88. MG/L
Chemical:	CALCIUM		
Sample Collected:	03-MAR-14	Findings:	17. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03-MAR-14	Findings:	600. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	16-APR-14	Findings:	. 0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		

A3
ESE **CA WELLS** **3844**
1/8 - 1/4 Mile
Lower

Water System Information:

Prime Station Code:	03S/10W-36H02 S	User ID:	TEE
FRDS Number:	3010035002	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	335200.0 1175200.0	Precision:	Undefined
Source Name:	BRADFORD 04		
System Number:	3010035		
System Name:	Southern Calif WC - Placentia		
Organization That Operates System:			
	1920 W. CORPORATE WAY		
	ANAHEIM, CA 92801		
Pop Served:	28900	Connections:	8769
Area Served:	PLACENTIA CITY		
Sample Collected:	25-MAR-15	Findings:	. 10.09 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	25-MAR-15	Findings:	. 0.7 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	25-MAR-15	Findings:	. 2280. UG/L
Chemical:	NITRATE + NITRITE (AS N)		

Sample Collected:	20-APR-15	Findings:	. 0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	24-JAN-11	Findings:	250. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	24-JAN-11	Findings:	77. MG/L
Chemical:	CALCIUM		
Sample Collected:	24-JAN-11	Findings:	14. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	24-JAN-11	Findings:	490. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	13-APR-11	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	18-JUL-11	Findings:	4. UNITS
Chemical:	COLOR		
Sample Collected:	18-JUL-11	Findings:	769. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	18-JUL-11	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUL-11	Findings:	148. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	18-JUL-11	Findings:	148. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	18-JUL-11	Findings:	0.38 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	18-JUL-11	Findings:	253. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	18-JUL-11	Findings:	77.4 MG/L
Chemical:	CALCIUM		
Sample Collected:	18-JUL-11	Findings:	14.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	18-JUL-11	Findings:	54.7 MG/L
Chemical:	SODIUM		
Sample Collected:	18-JUL-11	Findings:	3.3 MG/L
Chemical:	POTASSIUM		
Sample Collected:	18-JUL-11	Findings:	73.7 MG/L
Chemical:	CHLORIDE		
Sample Collected:	18-JUL-11	Findings:	0.49 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	18-JUL-11	Findings:	170. UG/L
Chemical:	BORON		
Sample Collected:	18-JUL-11	Findings:	3.5 UG/L
Chemical:	VANADIUM		
Sample Collected:	18-JUL-11	Findings:	504. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

Sample Collected:	18-JUL-11	Findings:	12.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUL-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	18-JUL-11	Findings:	0.13 MG/L
Chemical:	BROMIDE		
Sample Collected:	18-JUL-11	Findings:	2730. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	18-JUL-11	Findings:	7.63 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	18-JUL-11	Findings:	1.68 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	18-JUL-11	Findings:	6.21 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	18-JUL-11	Findings:	0.87 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	09-JAN-12	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	16-APR-12	Findings:	0.6 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	04-JUN-12	Findings:	0.6 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	04-JUN-12	Findings:	0.6 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	02-JUL-12	Findings:	2.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUL-12	Findings:	863. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12-JUL-12	Findings:	7.9
Chemical:	PH, LABORATORY		
Sample Collected:	12-JUL-12	Findings:	157. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	12-JUL-12	Findings:	191. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12-JUL-12	Findings:	0.43 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	12-JUL-12	Findings:	293. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	12-JUL-12	Findings:	88.3 MG/L
Chemical:	CALCIUM		
Sample Collected:	12-JUL-12	Findings:	17.5 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12-JUL-12	Findings:	60.1 MG/L
Chemical:	SODIUM		

Sample Collected:	12-JUL-12	Findings:	4.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12-JUL-12	Findings:	86.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12-JUL-12	Findings:	0.46 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12-JUL-12	Findings:	190. UG/L
Chemical:	BORON		
Sample Collected:	12-JUL-12	Findings:	3.2 UG/L
Chemical:	VANADIUM		
Sample Collected:	12-JUL-12	Findings:	534. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12-JUL-12	Findings:	11.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUL-12	Findings:	0.7 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	12-JUL-12	Findings:	0.17 MG/L
Chemical:	BROMIDE		
Sample Collected:	12-JUL-12	Findings:	2530. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	06-AUG-12	Findings:	2.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-12	Findings:	2.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10-OCT-12	Findings:	0.5 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	05-NOV-12	Findings:	2.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-DEC-12	Findings:	2.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-13	Findings:	3.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-13	Findings:	7.95
Chemical:	PH, LABORATORY		
Sample Collected:	07-JAN-13	Findings:	350. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	07-JAN-13	Findings:	110. MG/L
Chemical:	CALCIUM		
Sample Collected:	07-JAN-13	Findings:	19. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	07-JAN-13	Findings:	530. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-FEB-13	Findings:	2.7 MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	05-FEB-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	05-MAR-13	Findings:	2.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-13	Findings:	2.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-APR-13	Findings:	864. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	18-APR-13	Findings:	3.9 UG/L
Chemical:	VANADIUM		
Sample Collected:	18-APR-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	06-MAY-13	Findings:	2.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUN-13	Findings:	2.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-13	Findings:	2.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUL-13	Findings:	807. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	29-JUL-13	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUL-13	Findings:	153. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUL-13	Findings:	186. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUL-13	Findings:	0.49 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	29-JUL-13	Findings:	262. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	29-JUL-13	Findings:	79.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	29-JUL-13	Findings:	15.1 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	29-JUL-13	Findings:	54.8 MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUL-13	Findings:	3.6 MG/L
Chemical:	POTASSIUM		
Sample Collected:	29-JUL-13	Findings:	77. MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUL-13	Findings:	0.44 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUL-13	Findings:	180. UG/L
Chemical:	BORON		

Sample Collected:	29-JUL-13	Findings:	3.4 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUL-13	Findings:	492. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUL-13	Findings:	11.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUL-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	29-JUL-13	Findings:	0.13 MG/L
Chemical:	BROMIDE		
Sample Collected:	29-JUL-13	Findings:	2580. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	05-AUG-13	Findings:	2.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-SEP-13	Findings:	2.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-OCT-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	23-JAN-14	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	25-MAR-14	Findings:	. 7.66
Chemical:	PH, LABORATORY		
Sample Collected:	25-MAR-14	Findings:	. 260. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	25-MAR-14	Findings:	. 78. MG/L
Chemical:	CALCIUM		
Sample Collected:	25-MAR-14	Findings:	. 15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	25-MAR-14	Findings:	. 470. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	16-APR-14	Findings:	. 0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	29-JUL-14	Findings:	. 740. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	29-JUL-14	Findings:	. 7.9
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUL-14	Findings:	. 143. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUL-14	Findings:	. 175. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUL-14	Findings:	. 0.33 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	29-JUL-14	Findings:	. 246. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		

Sample Collected:	29-JUL-14	Findings:	. 74.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	29-JUL-14	Findings:	. 14.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	29-JUL-14	Findings:	. 56.4 MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUL-14	Findings:	. 3.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	29-JUL-14	Findings:	. 76.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUL-14	Findings:	. 0.44 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUL-14	Findings:	. 190. UG/L
Chemical:	BORON		
Sample Collected:	29-JUL-14	Findings:	. 4.2 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUL-14	Findings:	. 446. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUL-14	Findings:	. 10.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUL-14	Findings:	. 0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JUL-14	Findings:	. 0.15 MG/L
Chemical:	BROMIDE		
Sample Collected:	29-JUL-14	Findings:	. 2350. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	29-JUL-14	Findings:	. 7.72 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	29-JUL-14	Findings:	. 2.11 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	29-JUL-14	Findings:	. 0.588 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	29-JUL-14	Findings:	. 1.66 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	29-JUL-14	Findings:	. 0.835 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	29-JUL-14	Findings:	. 1.11 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	29-JUL-14	Findings:	. 0.343 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	29-JUL-14	Findings:	. 0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	29-JUL-14	Findings:	. 5.8e-002 PCI/L
Chemical:	RA-226 FOR CWS OR TOTAL RA FOR NTNC BY 903.0		

Sample Collected:	29-JUL-14	Findings:	. 0.196 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	29-JUL-14	Findings:	. 0.47 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	17-MAR-15	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	17-MAR-15	Findings:	. 310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	17-MAR-15	Findings:	. 94. MG/L
Chemical:	CALCIUM		
Sample Collected:	17-MAR-15	Findings:	. 18. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	17-MAR-15	Findings:	. 570. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	18-MAR-15	Findings:	. 7.72
Chemical:	PH, LABORATORY		
Sample Collected:	18-MAR-15	Findings:	. 300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	18-MAR-15	Findings:	. 92. MG/L
Chemical:	CALCIUM		
Sample Collected:	18-MAR-15	Findings:	. 18. MG/L
Chemical:	MAGNESIUM		

A4
ESE **CA WELLS** **5094**
1/8 - 1/4 Mile
Lower

Water System Information:

Prime Station Code:	04S/10W-01B01 S	User ID:	TEE
FRDS Number:	3010035003	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	335200.0 1175200.0	Precision:	Undefined
Source Name:	LA JOLLA 02		
System Number:	3010035		
System Name:	Southern Calif WC - Placentia		
Organization That Operates System:			
	1920 W. CORPORATE WAY		
	ANAHEIM, CA 92801		
Pop Served:	28900	Connections:	8769
Area Served:	PLACENTIA CITY		
Sample Collected:	04-JUN-12	Findings:	274. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	04-JUN-12	Findings:	5.75 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-JUN-12	Findings:	1.2 UG/L
Chemical:	TOTAL TRIHALOMETHANES		

Sample Collected:	04-JUN-12	Findings:	1300. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	04-JUN-12	Findings:	0.73 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	1.42 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	212. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	0.34 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	0.11 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	0.37 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	0.28 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	10-SEP-12	Findings:	0.36 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	0.52 PCI/L
Chemical:	STRONTIUM-90 COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	396. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	10-SEP-12	Findings:	8.1
Chemical:	PH, LABORATORY		
Sample Collected:	10-SEP-12	Findings:	72.6 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	10-SEP-12	Findings:	88.5 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	10-SEP-12	Findings:	75.5 MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	10-SEP-12	Findings:	19.8 MG/L
Chemical:	CALCIUM		
Sample Collected:	10-SEP-12	Findings:	6.3 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	10-SEP-12	Findings:	35.9 MG/L
Chemical:	SODIUM		
Sample Collected:	10-SEP-12	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	10-SEP-12	Findings:	25.1 MG/L
Chemical:	CHLORIDE		
Sample Collected:	10-SEP-12	Findings:	0.66 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	10-SEP-12	Findings:	230. UG/L
Chemical:	BORON		

Sample Collected:	10-SEP-12	Findings:	3.6 UG/L
Chemical:	VANADIUM		
Sample Collected:	03-JAN-11	Findings:	0.5 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	24-JAN-11	Findings:	120. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	24-JAN-11	Findings:	31. MG/L
Chemical:	CALCIUM		
Sample Collected:	24-JAN-11	Findings:	9.7 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	24-JAN-11	Findings:	300. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07-FEB-11	Findings:	0.17 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	0.42 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	- 0.38 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	07-FEB-11	Findings:	0.59 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	0.3 PCI/L
Chemical:	STRONTIUM-90 COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	508. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	07-FEB-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	07-FEB-11	Findings:	80.4 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	07-FEB-11	Findings:	80.4 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	07-FEB-11	Findings:	0.39 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	07-FEB-11	Findings:	129. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	07-FEB-11	Findings:	33.3 MG/L
Chemical:	CALCIUM		
Sample Collected:	07-FEB-11	Findings:	11.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	07-FEB-11	Findings:	53.6 MG/L
Chemical:	SODIUM		
Sample Collected:	07-FEB-11	Findings:	3.5 MG/L
Chemical:	POTASSIUM		
Sample Collected:	07-FEB-11	Findings:	47. MG/L
Chemical:	CHLORIDE		

Sample Collected:	07-FEB-11	Findings:	0.6 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	07-FEB-11	Findings:	230. UG/L
Chemical:	BORON		
Sample Collected:	07-FEB-11	Findings:	304. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07-FEB-11	Findings:	5.9 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10-SEP-12	Findings:	220. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	10-SEP-12	Findings:	7.36 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10-SEP-12	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10-SEP-12	Findings:	0.8 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	10-SEP-12	Findings:	1670. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	10-SEP-12	Findings:	0.62 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	1.38 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	367. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	10-SEP-12	Findings:	0.28 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	7.5e-002 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	0.22 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	0.519 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	19-NOV-12	Findings:	0.232 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	290. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	19-NOV-12	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	19-NOV-12	Findings:	65.2 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	19-NOV-12	Findings:	79.4 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	19-NOV-12	Findings:	62.4 MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		

Sample Collected:	19-NOV-12	Findings:	16.5 MG/L
Chemical:	CALCIUM		
Sample Collected:	19-NOV-12	Findings:	5.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	19-NOV-12	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	19-NOV-12	Findings:	2.6 MG/L
Chemical:	POTASSIUM		
Sample Collected:	19-NOV-12	Findings:	21.5 MG/L
Chemical:	CHLORIDE		
Sample Collected:	19-NOV-12	Findings:	0.77 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	07-FEB-11	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07-FEB-11	Findings:	0.7 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	07-FEB-11	Findings:	1330. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	07-FEB-11	Findings:	0.89 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	1.69 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	209. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	07-FEB-11	Findings:	1.2 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	07-FEB-11	Findings:	0.38 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	240. UG/L
Chemical:	BORON		
Sample Collected:	19-NOV-12	Findings:	3.8 UG/L
Chemical:	VANADIUM		
Sample Collected:	19-NOV-12	Findings:	182. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	19-NOV-12	Findings:	0.66 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	1.34 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	214. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	19-NOV-12	Findings:	0.25 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	07-JAN-13	Findings:	8.01
Chemical:	PH, LABORATORY		

Sample Collected:	07-JAN-13	Findings:	54. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	07-JAN-13	Findings:	14. MG/L
Chemical:	CALCIUM		
Sample Collected:	07-JAN-13	Findings:	4.4 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	07-JAN-13	Findings:	130. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03-JUN-13	Findings:	. 0.11 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	. 0.2 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	. 0.405 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	03-JUN-13	Findings:	. 0.228 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	. 0.61 PCI/L
Chemical:	STRONTIUM-90 COUNTING ERROR		
Sample Collected:	15-MAR-11	Findings:	1. UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	11-APR-11	Findings:	1.1 UG/L
Chemical:	CHLOROFORM (THM)		
Sample Collected:	11-APR-11	Findings:	1.1 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	14-JUN-11	Findings:	8.8e-002 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	14-JUN-11	Findings:	0.29 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	14-JUN-11	Findings:	0.549 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	03-JUN-13	Findings:	8.09 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	14-JUN-11	Findings:	0.303 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	14-JUN-11	Findings:	584. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	14-JUN-11	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	14-JUN-11	Findings:	90.7 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	14-JUN-11	Findings:	90.7 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	14-JUN-11	Findings:	0.39 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		

Sample Collected:	14-JUN-11	Findings:	173. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	14-JUN-11	Findings:	46. MG/L
Chemical:	CALCIUM		
Sample Collected:	14-JUN-11	Findings:	14.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	14-JUN-11	Findings:	59.4 MG/L
Chemical:	SODIUM		
Sample Collected:	14-JUN-11	Findings:	4.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	14-JUN-11	Findings:	75.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	14-JUN-11	Findings:	0.38 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	14-JUN-11	Findings:	200. UG/L
Chemical:	BORON		
Sample Collected:	03-JUN-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	03-JUN-13	Findings:	1830. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	03-JUN-13	Findings:	0.42 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	1.37 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	219. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	0.2 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	03-JUN-13	Findings:	1.44 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	03-JUN-13	Findings:	0.26 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	03-JUN-13	Findings:	1.76 PCI/L
Chemical:	GROSS BETA MDA95		
Sample Collected:	03-JUN-13	Findings:	358. PCI/L
Chemical:	TRITIUM MDA95		
Sample Collected:	14-JUN-11	Findings:	348. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	14-JUN-11	Findings:	6. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	14-JUN-11	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	14-JUN-11	Findings:	1. UG/L
Chemical:	TOTAL TRIHALOMETHANES		

Sample Collected:	03-DEC-13	Findings:	0.25 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	03-MAR-14	Findings:	7.76
Chemical:	PH, LABORATORY		
Sample Collected:	03-MAR-14	Findings:	55. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	03-MAR-14	Findings:	14. MG/L
Chemical:	CALCIUM		
Sample Collected:	03-MAR-14	Findings:	4.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03-MAR-14	Findings:	180. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	10-MAR-14	Findings:	. 9.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10-MAR-14	Findings:	. 0.6 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	10-MAR-14	Findings:	. 2050. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	14-JUN-11	Findings:	0.14 MG/L
Chemical:	BROMIDE		
Sample Collected:	14-JUN-11	Findings:	1360. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	14-JUN-11	Findings:	0.79 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	14-JUN-11	Findings:	198. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	14-JUN-11	Findings:	0.37 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	07-SEP-11	Findings:	487. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	07-SEP-11	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	07-SEP-11	Findings:	88.1 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	07-SEP-11	Findings:	88.1 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	07-SEP-11	Findings:	0.34 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	07-SEP-11	Findings:	117. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	07-SEP-11	Findings:	30.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	07-SEP-11	Findings:	9.9 MG/L
Chemical:	MAGNESIUM		

Sample Collected:	07-SEP-11	Findings:	49.3 MG/L
Chemical:	SODIUM		
Sample Collected:	07-SEP-11	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	07-SEP-11	Findings:	42.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	07-SEP-11	Findings:	0.58 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	07-SEP-11	Findings:	180. UG/L
Chemical:	BORON		
Sample Collected:	30-JUL-14	Findings:	. 0.657 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	30-JUL-14	Findings:	. 0.39 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	30-JUL-14	Findings:	. 1.05 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	30-JUL-14	Findings:	. 0.759 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	30-JUL-14	Findings:	. 1.11 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	30-JUL-14	Findings:	. 0.3 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	30-JUL-14	Findings:	. 0.253 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	30-JUL-14	Findings:	. 0.143 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	30-JUL-14	Findings:	. 0.418 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	04-AUG-14	Findings:	. 0.33 MG/L
Chemical:	AMMONIA (NH3-N)		
Sample Collected:	02-SEP-14	Findings:	. 0.26 MG/L
Chemical:	AMMONIA (NH3-N)		
Sample Collected:	05-JAN-15	Findings:	. 200. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-JAN-15	Findings:	. 54. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-JAN-15	Findings:	. 16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-JAN-15	Findings:	. 410. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03-FEB-15	Findings:	. 0.32 MG/L
Chemical:	AMMONIA (NH3-N)		
Sample Collected:	20-APR-15	Findings:	. 1.8 UG/L
Chemical:	CHLOROFORM (THM)		

Sample Collected:	07-SEP-11	Findings:	304. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07-SEP-11	Findings:	7.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-APR-15	Findings:	. 1.8 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	18-MAY-15	Findings:	. 4.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-MAY-15	Findings:	. 1090. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	07-SEP-11	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07-SEP-11	Findings:	0.7 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	07-SEP-11	Findings:	1700. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	07-SEP-11	Findings:	0.93 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07-SEP-11	Findings:	200. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	07-SEP-11	Findings:	0.34 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	6.5e-002 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	0.33 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	0.197 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	12-DEC-11	Findings:	0.336 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	0.47 PCI/L
Chemical:	STRONTIUM-90 COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	452. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12-DEC-11	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	12-DEC-11	Findings:	82.5 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	12-DEC-11	Findings:	82.5 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12-DEC-11	Findings:	0.31 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	12-DEC-11	Findings:	107. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		

Sample Collected:	12-DEC-11	Findings:	27.5 MG/L
Chemical:	CALCIUM		
Sample Collected:	12-DEC-11	Findings:	9.4 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12-DEC-11	Findings:	46.8 MG/L
Chemical:	SODIUM		
Sample Collected:	12-DEC-11	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	12-DEC-11	Findings:	42.6 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12-DEC-11	Findings:	0.55 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12-DEC-11	Findings:	180. UG/L
Chemical:	BORON		
Sample Collected:	12-DEC-11	Findings:	274. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12-DEC-11	Findings:	6.77 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-DEC-11	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12-DEC-11	Findings:	0.8 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	12-DEC-11	Findings:	1530. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	12-DEC-11	Findings:	0.83 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	2.06 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	208. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	12-DEC-11	Findings:	1.19 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	12-DEC-11	Findings:	0.4 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	9.1e-002 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	0.26 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	0.284 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	30-JAN-12	Findings:	0.275 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	0.45 PCI/L
Chemical:	STRONTIUM-90 COUNTING ERROR		

Sample Collected:	30-JAN-12	Findings:	460. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	30-JAN-12	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	30-JAN-12	Findings:	79.8 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	30-JAN-12	Findings:	79.8 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	30-JAN-12	Findings:	0.31 MG/L
Chemical:	TOTAL ORGANIC CARBON (TOC)		
Sample Collected:	30-JAN-12	Findings:	119. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	30-JAN-12	Findings:	31.5 MG/L
Chemical:	CALCIUM		
Sample Collected:	30-JAN-12	Findings:	9.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	30-JAN-12	Findings:	49.9 MG/L
Chemical:	SODIUM		
Sample Collected:	30-JAN-12	Findings:	3.5 MG/L
Chemical:	POTASSIUM		
Sample Collected:	30-JAN-12	Findings:	42.5 MG/L
Chemical:	CHLORIDE		
Sample Collected:	30-JAN-12	Findings:	0.54 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	30-JAN-12	Findings:	190. UG/L
Chemical:	BORON		
Sample Collected:	30-JAN-12	Findings:	1.1 UG/L
Chemical:	CHLOROFORM (THM)		
Sample Collected:	30-JAN-12	Findings:	284. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	30-JAN-12	Findings:	6.15 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	30-JAN-12	Findings:	1.1 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	30-JAN-12	Findings:	1390. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	30-JAN-12	Findings:	0.69 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	1.63 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	211. PCI/L
Chemical:	TRITIUM COUNTING ERROR		
Sample Collected:	30-JAN-12	Findings:	0.31 PCI/L
Chemical:	URANIUM COUNTING ERROR		

Sample Collected:	04-JUN-12	Findings:	9.e-002 PCI/L
Chemical:	RADIUM 226 COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	0.33 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	0.425 PCI/L
Chemical:	COMBINED RA 226 + RA 228		
Sample Collected:	04-JUN-12	Findings:	0.342 PCI/L
Chemical:	COMBINED RA 226 + RA 228 COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	0.47 PCI/L
Chemical:	STRONTIUM-90 COUNTING ERROR		
Sample Collected:	04-JUN-12	Findings:	456. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	04-JUN-12	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-JUN-12	Findings:	79.4 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	04-JUN-12	Findings:	79.4 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	04-JUN-12	Findings:	117. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	04-JUN-12	Findings:	31.3 MG/L
Chemical:	CALCIUM		
Sample Collected:	04-JUN-12	Findings:	9.5 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	04-JUN-12	Findings:	45.8 MG/L
Chemical:	SODIUM		
Sample Collected:	04-JUN-12	Findings:	3.5 MG/L
Chemical:	POTASSIUM		
Sample Collected:	04-JUN-12	Findings:	37.6 MG/L
Chemical:	CHLORIDE		
Sample Collected:	04-JUN-12	Findings:	0.57 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	04-JUN-12	Findings:	230. UG/L
Chemical:	BORON		
Sample Collected:	04-JUN-12	Findings:	3.6 UG/L
Chemical:	VANADIUM		
Sample Collected:	04-JUN-12	Findings:	1.2 UG/L
Chemical:	CHLOROFORM (THM)		

B5
SSW
1/4 - 1/2 Mile
Lower

Site ID:	083001013T
Groundwater Flow:	SW
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	50
Date:	05/27/1994

AQUIFLOW **38983**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
B6 **SSW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083002414T Not Reported Not Reported Not Reported 50 04/15/1994	**AQUIFLOW**	**37885**
B7 **SSW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083002414T Not Reported Not Reported Not Reported 50 04/15/1994	**AQUIFLOW**	**37886**
8 **NW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083002244T S 70.83 86.71 Not Reported 12/31/1996	**AQUIFLOW**	**67236**
9 **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083000964T Not Reported 65 102 Not Reported 09/30/1996	**AQUIFLOW**	**65045**
10 **NW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083001404T W 71 150 Not Reported 09/30/1994	**AQUIFLOW**	**65372**
11 **SSE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083002636T Not Reported Not Reported Not Reported 85 08/28/1997	**AQUIFLOW**	**38640**
12 **North** **1/2 - 1 Mile** **Higher**			**CA WELLS**	**CADW60000000619**

Objectid:	619
Latitude:	33.8781
Longitude:	-117.8729
Site code:	338781N1178729W001
State well numbe:	03S10W25R001S
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	30
County name:	Orange
Basin code:	'8-1'
Basin desc:	Coastal Plain Of Orange County
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000000619

13
NNW
1/2 - 1 Mile
Higher

AQUIFLOW **54999**

Site ID:	083000226T
Groundwater Flow:	S
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	120
Date:	01/16/1997

14
NE
1/2 - 1 Mile
Higher

CA WELLS **3791**

Water System Information:

Prime Station Code:	03S/09W-30P01 S	User ID:	TEE
FRDS Number:	3000744001	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	335238.0 1175145.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01 CHAPMAN WELL - DESTROYED		
System Number:	3000744		
System Name:	ALTA VISTA COUNTRY CLUB		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

C15
ESE
1/2 - 1 Mile
Lower

CA WELLS **CADW60000018514**

Objectid:	18514
Latitude:	33.8628
Longitude:	-117.8576
Site code:	338628N1178576W001
State well numbe:	03S09W31J002S
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	30
County name:	Orange

Basin code: '8-1'
Basin desc: Coastal Plain Of Orange County
Dwr region id: 80238
Dwr region: Southern Region Office
Site id: CADW60000018514

16
NNW
1/2 - 1 Mile
Higher

Site ID:	083002045T
Groundwater Flow:	W
Shallow Water Depth:	83.78
Deep Water Depth:	86.38
Average Water Depth:	Not Reported
Date:	09/28/1998

AQUIFLOW **38871**

C17
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000138655**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335146117512101		
Monloc name:	003S009W31J002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070106	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8627929
Longitude:	-117.8567246	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	223.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	350
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 70

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1986-09-04	117.33		1986-05-05	105.88	
1986-02-11	93.82		1985-11-04	86.34	
1985-08-22	111.00		1985-05-07	98.31	
1985-04-15	93.9		1985-02-13	93.38	
1984-11-02	91.60		1984-10-09	93.10	
1984-09-06	100.10		1984-08-07	105.8	
1984-07-03	119.75		1984-06-04	92.80	
1984-05-07	86.60		1984-04-02	91.60	
1984-03-07	81.00		1984-02-17	79.39	
1983-11-03	113.48		1983-10-13	108.2	
1983-09-01	102.9		1983-08-02	99.2	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1983-07-05	95.4		1983-06-09	92.6	
1983-05-12	90.37		1983-05-10	91.96	
1983-04-19	88.83		1983-02-09	90.76	
1982-11-03	101.45		1982-08-03	102.87	
1982-04-28	91.67		1982-01-25	89.36	
1981-11-03	103.79		1981-07-30	96.41	
1981-05-05	72.80		1981-02-04	82.93	
1980-10-29	104.82		1980-08-25	90.30	
1980-06-12	79.18		1980-02-06	86.81	
1979-11-14	108.45		1979-08-01	99.26	
1979-04-30	90.70		1979-02-02	96.73	
1978-11-07	102.38		1978-08-29	91.70	
1977-11-04	156.30		1977-03-14	121.40	
1976-10-27	154.10		1976-04-27	119.50	
1976-03-10	115.80		1975-12-30	129.80	
1975-10-28	132.00		1975-08-28	128.20	
1975-06-23	120.90		1975-04-28	111.00	
1975-03-05	118.10		1975-01-06	107.10	
1974-10-24	113.80		1974-08-28	116.90	
1974-06-27	120.70		1974-04-29	134.80	
1974-03-13	133.70		1973-08-29	142.00	
1973-06-29	115.00		1973-05-08	118.10	
1973-02-23	124.20		1972-12-27	166.10	
1972-10-31	168.90		1972-10-24	166.90	

18
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADW60000018075**

Objectid:	18075
Latitude:	33.8552
Longitude:	-117.8648
Site code:	338552N1178648W001
State well numbe:	04S09W06F001S
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	30
County name:	Orange
Basin code:	’8-1’
Basin desc:	Coastal Plain Of Orange County
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000018075

19
NE
1/2 - 1 Mile
Higher

CA WELLS **CADW60000001472**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Objectid:	1472
Latitude:	33.8761
Longitude:	-117.8576
Site code:	338761N1178576W001
State well numbe:	03S09W30R001S
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	30
County name:	Orange
Basin code:	'8-1'
Basin desc:	Coastal Plain Of Orange County
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000001472

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
ESE **OIL_GAS** **CAOG11000221337**
0 - 1/8 Mile

District nun:	1	Api number:	05906539
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	A
Operator name:	Majestic Oil Co.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000221337		

2
ESE **OIL_GAS** **CAOG11000221385**
1/8 - 1/4 Mile

District nun:	1	Api number:	05906597
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Shell Western Exploration & Production Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Peter J. Allec	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000221385		

3
NE **OIL_GAS** **CAOG11000221157**
1/4 - 1/2 Mile

District nun:	1	Api number:	05906277
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Kraemer	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000221157		

4
NNE **OIL_GAS** **CAOG11000221025**
1/4 - 1/2 Mile

District nun:	1	Api number:	05906040
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	A
Operator name:	California-Eastern Oil Co.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Verde	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000221025		

5
WNW **OIL_GAS** **CAOG11000218047**
1/4 - 1/2 Mile

District nun:	1	Api number:	05901271
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Union Oil Company of California		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	36
Township:	03S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Placentia Orchard	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000218047		

6
NNE **OIL_GAS** **CAOG11000221407**
1/4 - 1/2 Mile

District nun:	1	Api number:	05906634
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Amalgamated Wents	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221407		

7
East **OIL_GAS** **CAOG11000221153**
1/2 - 1 Mile

District nun:	1	Api number:	05906271
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Dowling	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221153		

Map ID
Direction
Distance

Database EDR ID Number

8
SE **OIL_GAS** **CAOG11000221376**
1/2 - 1 Mile

District nun:	1	Api number:	05906588
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	A
Operator name:	Placentia Oil Co.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000221376		

9
NE **OIL_GAS** **CAOG11000217424**
1/2 - 1 Mile

District nun:	1	Api number:	05900406
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Kraemer Estate		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	30
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Kraemer Fee 3	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000217424		

10
WSW **OIL_GAS** **CAOG11000217901**
1/2 - 1 Mile

District nun:	1	Api number:	05901118
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Royalty Service Corp., Ltd.		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	36
Township:	03S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	H-B	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217901		

11
East **OIL_GAS** **CAOG11000221154**
1/2 - 1 Mile

District nun:	1	Api number:	05906272
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Dowling	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221154		

12
NW **OIL_GAS** **CAOG11000217894**
1/2 - 1 Mile

District nun:	1	Api number:	05901111
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Providence Oil Co.		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	36
Township:	03S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Chapman	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217894		

13
ESE **OIL_GAS** **CAOG11000217428**
1/2 - 1 Mile

District nun:	1	Api number:	05900410
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Ruth L. Williams	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217428		

14
East **OIL_GAS** **CAOG11000221121**
1/2 - 1 Mile

District nun:	1	Api number:	05906201
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	A. R. Kraemer	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000221121		

Map ID
Direction
Distance

Database EDR ID Number

A15
NE
1/2 - 1 Mile

OIL_GAS **CAOG11000221128**

District nun:	1	Api number:	05906208
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	30
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Kraemer 3	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221128		

16
ENE
1/2 - 1 Mile

OIL_GAS **CAOG11000221052**

District nun:	1	Api number:	05906086
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Hamilton and Sherman		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Kraemer	Wellnumber:	3-2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000221052		

A17
NE
1/2 - 1 Mile

OIL_GAS **CAOG11000221126**

District nun:	1	Api number:	05906206
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	30
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Kraemer 3	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221126		

18
NNE **OIL_GAS** **CAOG11000221277**
1/2 - 1 Mile

District nun:	1	Api number:	05906455
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Union Oil Company of California		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	30
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Placentia Community	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000221277		

19
North **OIL_GAS** **CAOG11000221410**
1/2 - 1 Mile

District nun:	1	Api number:	05906640
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	30
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Community	Wellnumber:	12-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221410		

20
ESE **OIL_GAS** **CAOG11000221316**
1/2 - 1 Mile

District nun:	1	Api number:	05906511
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Heffern Oil Co., Inc.		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	31
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000221316		

21
ENE **OIL_GAS** **CAOG11000217742**
1/2 - 1 Mile

District nun:	1	Api number:	05900938
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Kraemer II Partners		
County name:	Orange	Fieldname:	Richfield
Area name:	Any Area	Section:	30
Township:	03S	Range:	09W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Kraemer 3	Wellnumber:	8
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PWF
Site id:	CAOG11000217742		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

22
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000217898**

District nun:	1	Api number:	05901115
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Richard S. Rheem		
County name:	Orange	Fieldname:	Any Field
Area name:	Any Area	Section:	25
Township:	03S	Range:	10W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Placentia Fruit Company	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000217898		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92870	63	9

Federal EPA Radon Zone for ORANGE County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for ORANGE COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.763 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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110 and 132 East Crowther Avenue
110 and 132 East Crowther Avenue
Placentia, CA 92870

Inquiry Number: 4537608.5
February 16, 2016

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☑	☐	Cole Information Services
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1975	☑	☐	Haines Criss-Cross Directory
1972	☑	☐	Haines Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

110 and 132 East Crowther Avenue
Placentia, CA 92870

Year	*CD Image*	*Source*
E CROWTHER AVE		
2013	pg A1	Cole Information Services
2008	pg A2	Cole Information Services
2003	pg A3	Cole Information Services
1999	pg A4	Cole Information Services
1995	pg A5	Cole Information Services
1992	pg A6	Cole Information Services
1985	pg A7	Haines Criss-Cross Directory
1980	pg A8	Haines Criss-Cross Directory
1975	pg A9	Haines Criss-Cross Directory
1972	pg A10	Haines Criss-Cross Directory
1972	pg A11	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

E CROWTHER AVE 2013

110	EXCALIBUR EXTRUSION INC
132	BOYS CLUB OF PLACENTIA
190	ADVANCE INSTALLATION SERVICES
	EVGA
	TEETOT & COMPANY INC
	TORREZ TRUCKING
210	EXPRESS PACKAGING
320	LINDBY CUSTOM
340	KIPE MOLDS INC
350	SPACEWALL SOCAL SLOTWALL MFG
360	FARRISILK INC
370	TECHNICAL ARTS INC
380	EDM XPRESS INC

Target Street	Cross Street	Source
✓	-	Cole Information Services

E CROWTHER AVE 2008

110	EXCALIBUR EXTRUSION INC
132	BOYS & GIRLS CLUB OF PLACENTIA
190	ALS DISTRIBUTION
	TEETOT & CO INC
	TORREZ TRUCKING INC
	WALTEK WEST INC
210	HARBOR TRUCK BODIES INC
320	LINDBY CUSTOM
340	KIPE MOLDS INC
350	SPACEWALL
	SPACEWALL WEST
360	DIAGNOSTICS & DESIGNS INC
	FARRISILK INC
380	EDM XPRESS INC

Target Street	Cross Street	Source
✓	-	Cole Information Services

E CROWTHER AVE 2003

110	EXCALIBUR EXTRUSION INC
	OCCUPANT UNKNOWN
132	BOYS & GIRLS CLUB OF PLACENTIA
190	DAVID BERNAL
	NELSON POWER TECHNOLOGIES
	PATRICIA BEALS
	TEETOT CO
	TORREZ TRUCKING INC
210	OCCUPANT UNKNOWN
	ROLL A LONG VANS INC
320	JACK BROWN
	NORTH WEST MARKETING CO
340	KIPE MOLDS INC
	OCCUPANT UNKNOWN
350	SPACEWALL WEST SLOTWALL MFG
360	INSTITUTE OF TRICHOLOGY
	OCCUPANT UNKNOWN
	SOLAR CONTRACT CARPET
370	SOUTHERN CLFRN TCHNCL ARTS INC
	TECHNICAL ARTS INC
380	HEC CONSULTING
	HERBERT CONWAY
	INTEGRTED ARSPC STRCTURES CORP
	OC FINANCIAL SERVICES
	SUN EIGHT CO

Target Street	Cross Street	Source
✓	-	Cole Information Services

E CROWTHER AVE 1999

110	EXCALIBUR EXTRUSION INCORPORATED
125	INNOVATOR SWEEPERS
132	BOYS CLUB OF PLACENTIA
210	ROLL A LONG VANS INCORPORATED
320	NORTH WEST MARKETING COMPANY INCORPORATED
340	KIPE MOLDS INCORPORATED
	SILICONE SAMPLING & SERVICES INCORPORATED
350	SPACEWALL SO CAL SLOTWALL MANUFACTURING
360	INSTITUTE OF TRICHOLOGY
	SOLAR CONTRACT CARPET
370	TECHNICAL ARTS INCORPORATED

Target Street	Cross Street	Source
✓	-	Cole Information Services

E CROWTHER AVE 1995

110	EXCALIBUR EXTRUSION INC
132	BOYS CLUB OF PLACENTIA
207	HARDAS, BHUSHAN
210	ROLL A LONG VANS INC
350	SPACEWALL INC
360	LESEBERG, LOUIS
370	IDEAL SPA COVERS

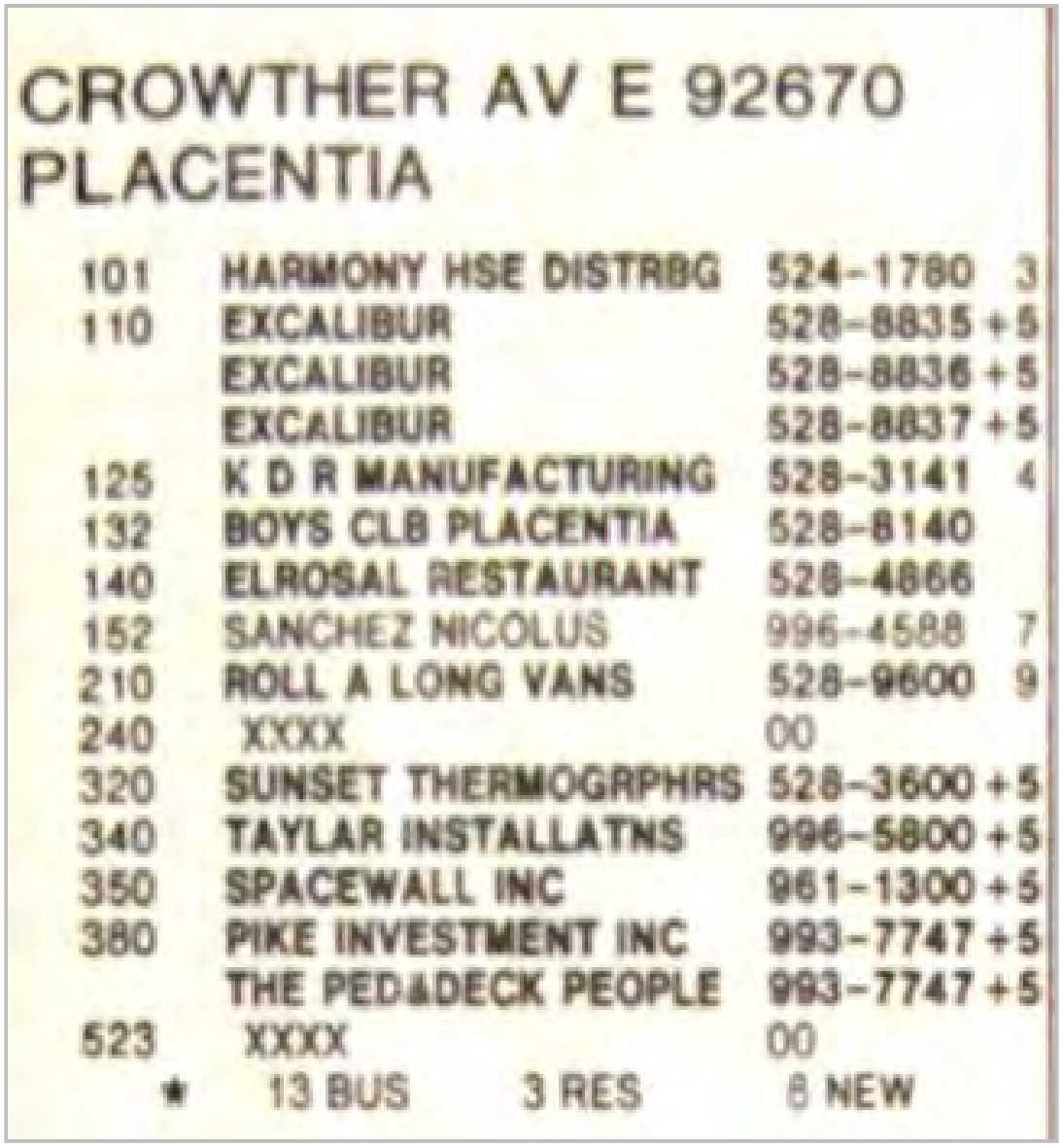
Target Street	Cross Street	Source
✓	-	Cole Information Services

E CROWTHER AVE 1992

101	JACOBS WELL FOOD
110	EXCALIBUR
125	K D R MANUFACTURING
132	BOYS CLB PLACENTIA
210	ROLL A LONG VANS
320	SUNSET THRMGRPHRS
350	SPACEWALL INC
370	AUSTIN WARNER&ASSOC
380	A S A P PACK&SHIP

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

E CROWTHER AVE 1985



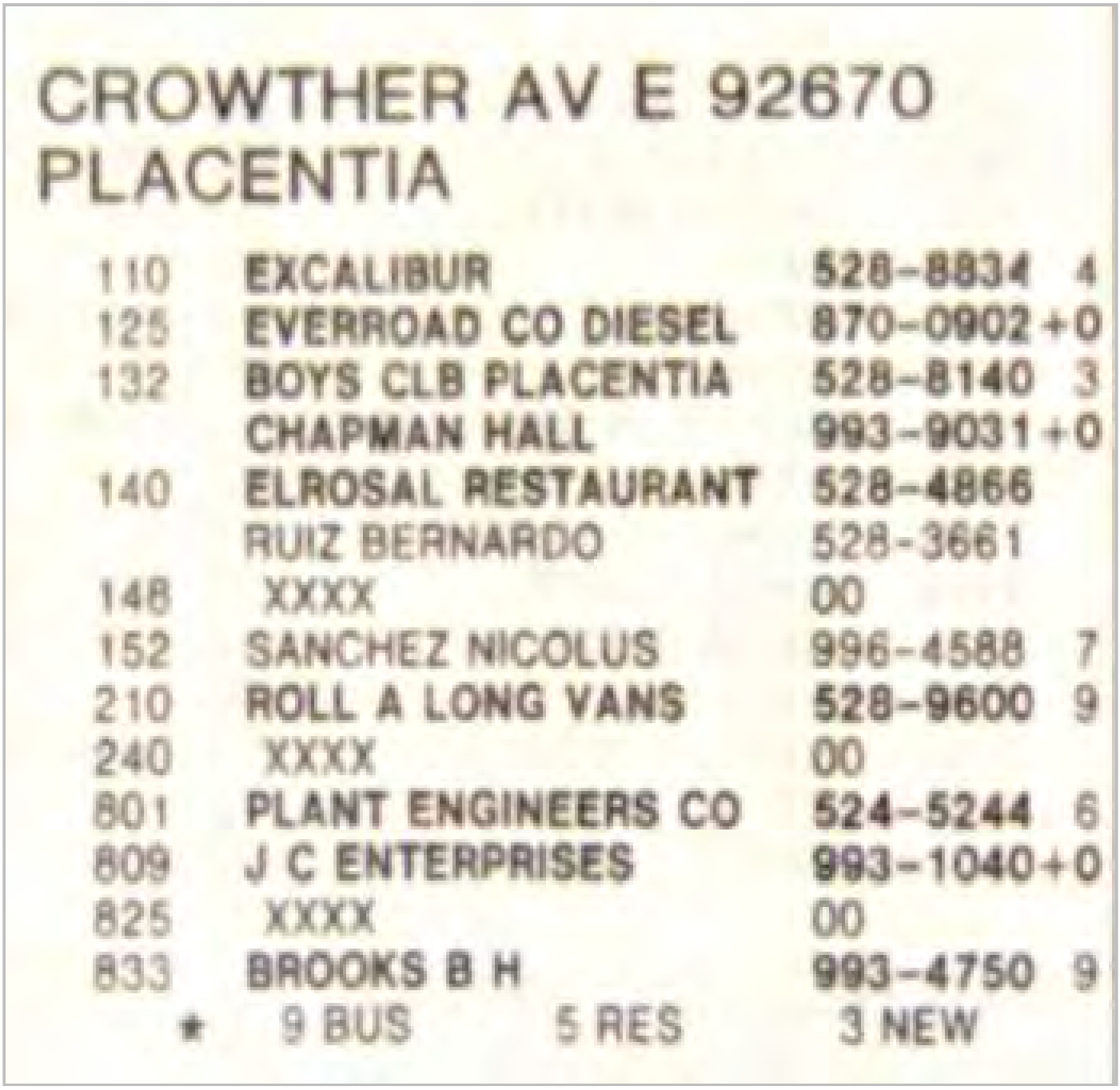
CROWTHER AV E 92670
PLACENTIA

101	HARMONY HSE DISTRBG	524-1780	3
110	EXCALIBUR	528-8835	+5
	EXCALIBUR	528-8836	+5
	EXCALIBUR	528-8837	+5
125	K D R MANUFACTURING	528-3141	4
132	BOYS CLB PLACENTIA	528-8140	
140	ELROSAL RESTAURANT	528-4866	
152	SANCHEZ NICOLUS	996-4588	7
210	ROLL A LONG VANS	528-9600	9
240	XXXX	00	
320	SUNSET THERMOGRPHRS	528-3600	+5
340	TAYLAR INSTALLATNS	996-5800	+5
350	SPACEWALL INC	961-1300	+5
380	PIKE INVESTMENT INC	993-7747	+5
	THE PED&DECK PEOPLE	993-7747	+5
523	XXXX	00	

* 13 BUS 3 RES 8 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

E CROWTHER AVE 1980



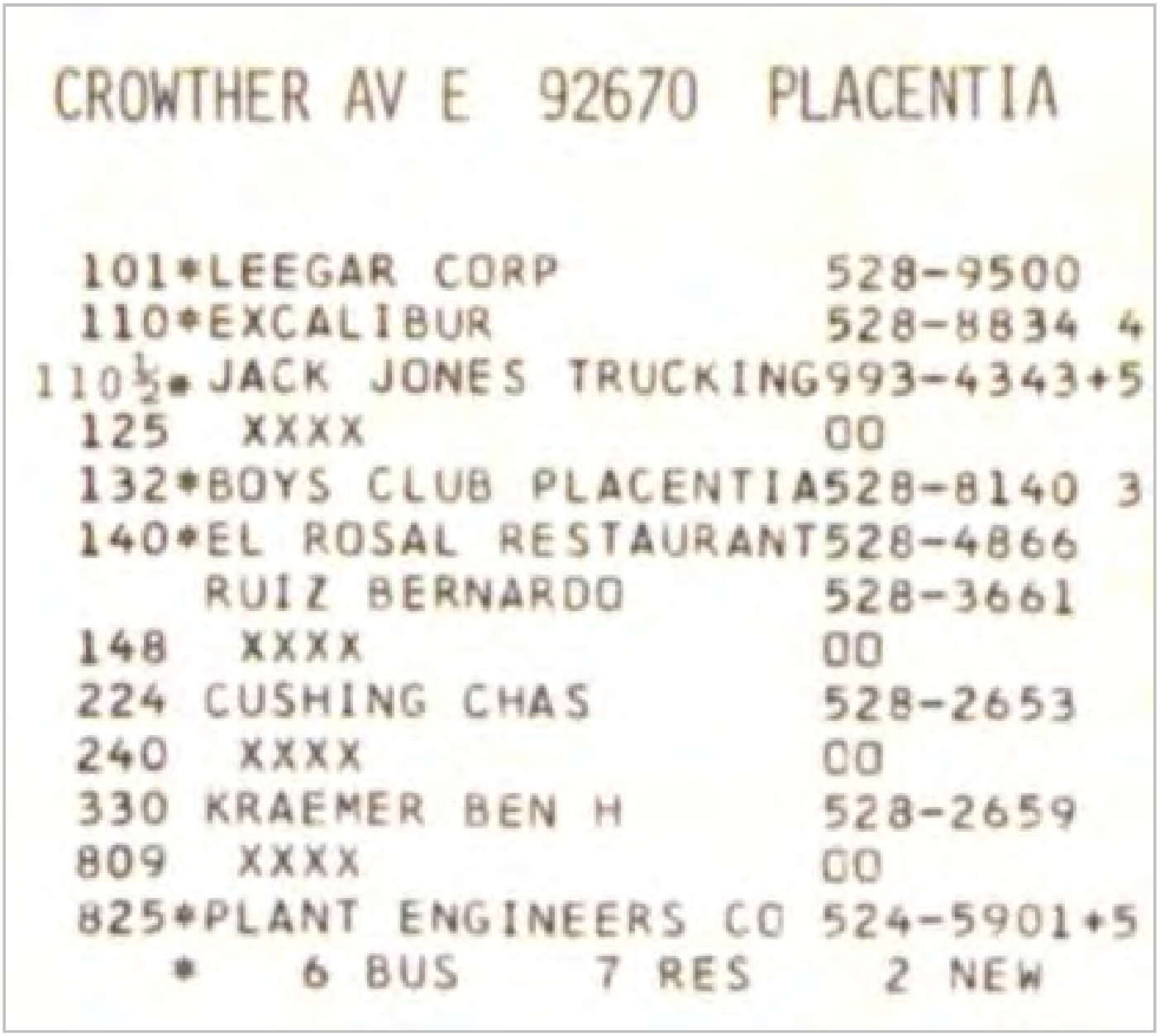
CROWTHER AV E 92670
PLACENTIA

110	EXCALIBUR	528-8834	4
125	EVERROAD CO DIESEL	870-0902	+0
132	BOYS CLB PLACENTIA	528-8140	3
	CHAPMAN HALL	993-9031	+0
140	ELROSAL RESTAURANT	528-4866	
	RUIZ BERNARDO	528-3661	
148	XXXX	00	
152	SANCHEZ NICOLUS	996-4588	7
210	ROLL A LONG VANS	528-9600	9
240	XXXX	00	
801	PLANT ENGINEERS CO	524-5244	6
809	J C ENTERPRISES	993-1040	+0
825	XXXX	00	
833	BROOKS B H	993-4750	9

* 9 BUS 5 RES 3 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

E CROWTHER AVE 1975



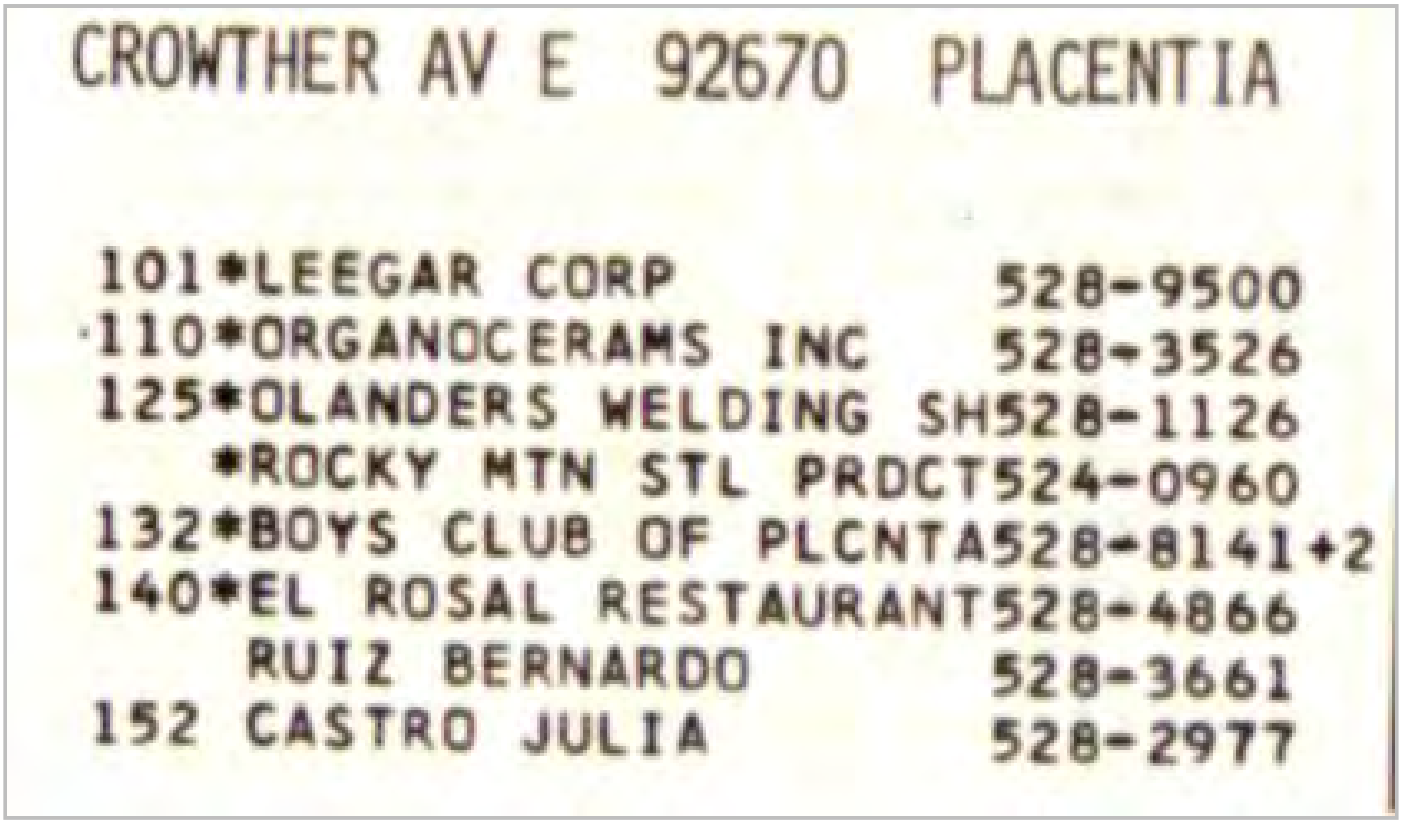
CROWTHER AV E 92670 PLACENTIA

101	*	LEEGAR CORP	528-9500
110	*	EXCALIBUR	528-8834 4
110½	*	JACK JONES TRUCKING	993-4343 +5
125		XXXX	OO
132	*	BOYS CLUB PLACENTIA	528-8140 3
140	*	EL ROSAL RESTAURANT	528-4866
		RUIZ BERNARDO	528-3661
148		XXXX	OO
224		CUSHING CHAS	528-2653
240		XXXX	OO
330		KRAEMER BEN H	528-2659
809		XXXX	OO
825	*	PLANT ENGINEERS CO	524-5901 +5

* 6 BUS 7 RES 2 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

E CROWTHER AVE 1972

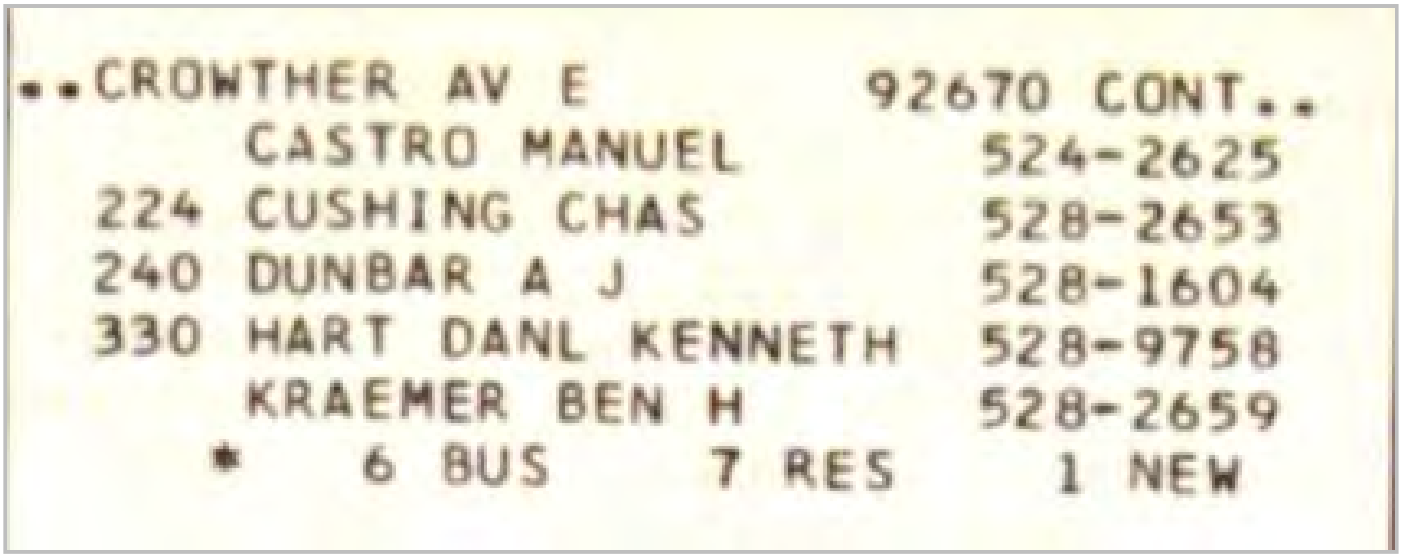


CROWTHER AV E 92670 PLACENTIA

101 *LEEGAR CORP 528-9500
110 *ORGANOCERAMS INC 528-3526
125 *OLANDERS WELDING SH 528-1126
*ROCKY MTN STL PRDCT 524-0960
132 *BOYS CLUB OF PLCNTA 528-8141+2
140 *EL ROSAL RESTAURANT 528-4866
RUIZ BERNARDO 528-3661
152 CASTRO JULIA 528-2977

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

E CROWTHER AVE 1972



..CROWTHER AV E 92670 CONT..

	CASTRO MANUEL	524-2625
224	CUSHING CHAS	528-2653
240	DUNBAR A J	528-1604
330	HART DANL KENNETH	528-9758
	KRAEMER BEN H	528-2659

* 6 BUS 7 RES 1 NEW

110 and 132 East Crowther Avenue
110 and 132 East Crowther Avenue
Placentia, CA 92870

Inquiry Number: 4537608.3
February 12, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

2/12/16

Site Name:
110 and 132 East Crowther
110 and 132 East Crowther
Placentia, CA 92870

Client Name:
Advanced Env. Concepts
220 E. Truxtun Avenue
Bakersfield, CA 93305

EDR Inquiry # 4537608.3

Contact: Vanessa Radsick

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Advanced Env. Concepts were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: 110 and 132 East Crowther Avenue
Address: 110 and 132 East Crowther Avenue
City, State, Zip: Placentia, CA 92870
Cross Street:
P.O. # NA
Project: NA
Certification # CABE-4D53-84EB

Maps Provided:

1933
1922
1917

Sanborn® Library search results
Certification # CABE-4D53-84EB

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Sanborn Sheet Thumbnails

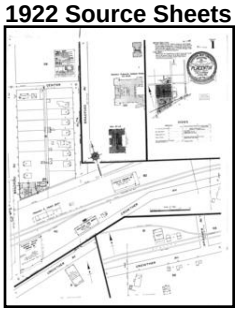
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1933 Source Sheets

Volume 1, Sheet Keymap/Sheet1

Volume 1, Sheet 3

1922 Source Sheets



Volume 1, Sheet Keymap/Sheet1

Volume 1, Sheet 3

1917 Source Sheets

Volume 1, Sheet 1

1933 Certified Sanborn Map

MAIN
AV.
PASSENGER & FREIGHT DEPOT
BRADFORD BROS. ORANGE PACKING HO.
PLACENTIA CO-OP ORANGE ASSN. ORANGE PACKING HO.
FORTUNA PACKING CO. ORANGE PACKING HO.
BRADFORD
CROWTHER
PLACENTIA ORANGE GROWERS ASSN. PACKING HOUSE
Old Style
New Style
Packing House & Office
Packing House
Office
Shed
Scale
Engine
Boiler
Tank
Dwelling
Store
Barn
Garage
Auto Repairing
Hotels
Rooms
Stores
Offices
Dwellings
Saloon
Restaurant
Bakery
Meat Market
Grocery
Drug Store
Post Office
Fire Station
Fire Alarm
Telephone
Electric Light
Gas Tank
Water Tank
Windmill
Pump
Well
Cistern
Sprinkler
Hydrant
Valve
Steam Pipe
Gas Pipe
Water Pipe
Sewer
Manhole
Catch Basin
Flush Tank
Ash Pit
Coal
Wood
Oil
Gasoline
Kerosene
Naphtha
Benzine
Benzol
Alcohol
Turpentine
Paint
Varnish
Lacquer
Shellac
Dynamite
Gunpowder
Matches
Explosives
Fireworks
Ammunition
Celluloid
Acetylene
Calcium Carbide
Carbide
Chemicals
Drugs
Dyes
Fertilizer
Glue
Soap
Tallow
Grease
Oil
Paint
Varnish
Lacquer
Shellac
Turpentine
Benzine
Benzol
Alcohol
Gasoline
Kerosene
Naphtha

1922 Certified Sanborn Map

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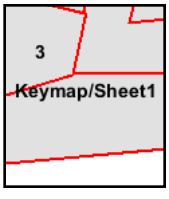
Certification # CABE-4D53-84EB

Site Name: 110 and 132 East Crowther Avenue
Address: 110 and 132 East Crowther Avenue
City, ST, ZIP: Placentia CA 92870
Client: Advanced Env. Concepts
EDR Inquiry: 4537608.3
Order Date: 2/12/2016 3:29:01 PM
Certification # CABE-4D53-84EB
Copyright: 1922

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

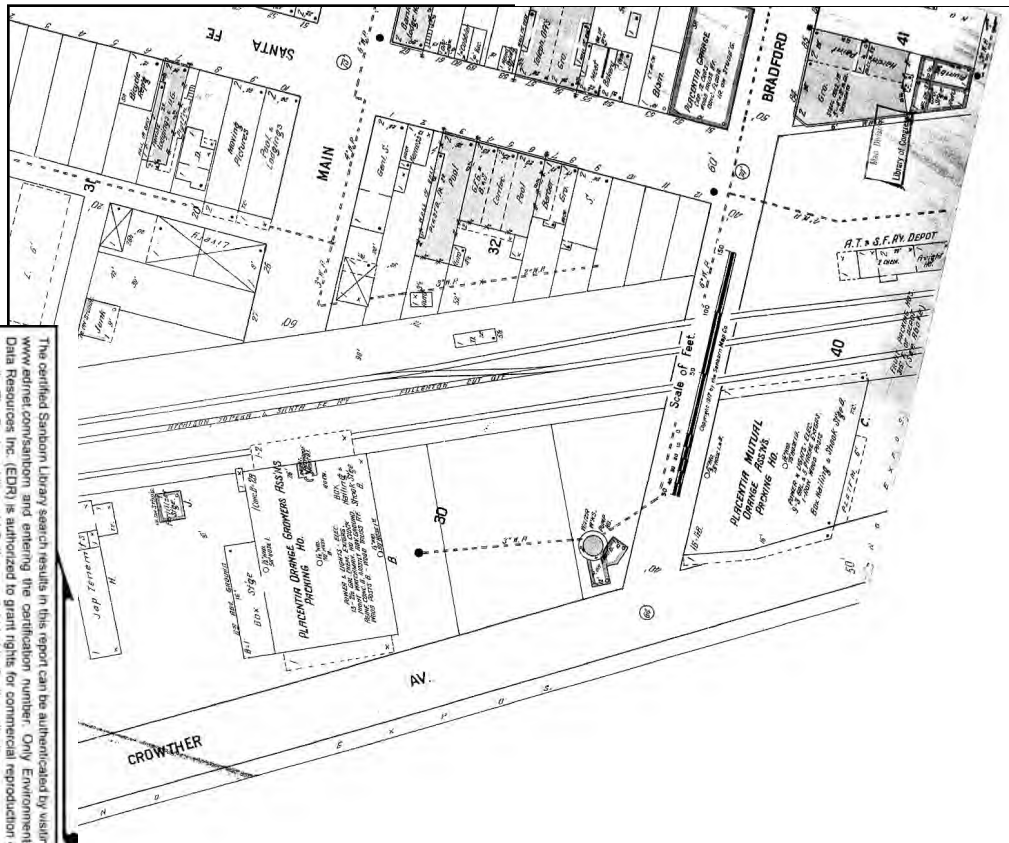
0 Feet 165 330 660



Volume 1, Sheet Keymap/Sheet1
Volume 1, Sheet 3

N

1917 Certified Sanborn Map



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Certification # CABE-4D53-84EB

Site Name: 110 and 132 East Crowther Avenue
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Client: Advanced Env. Concepts
EDR Inquiry: 4537608.3
Order Date: 2/12/2016 3:29:01 PM
Certification # CABE-4D53-84EB
Copyright: 1917

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

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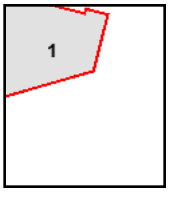


Volume 1, Sheet 1

N

Appendix C

TANK CLOSURE REPORTS, OCHCA CLOSURE SUMMARY AND CLOSURE LETTER

APPROVED

ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS MANAGEMENT SECTION

J. Lew | 5-29-92 | 92-125
Plan Reviewed By | Date | Plan #

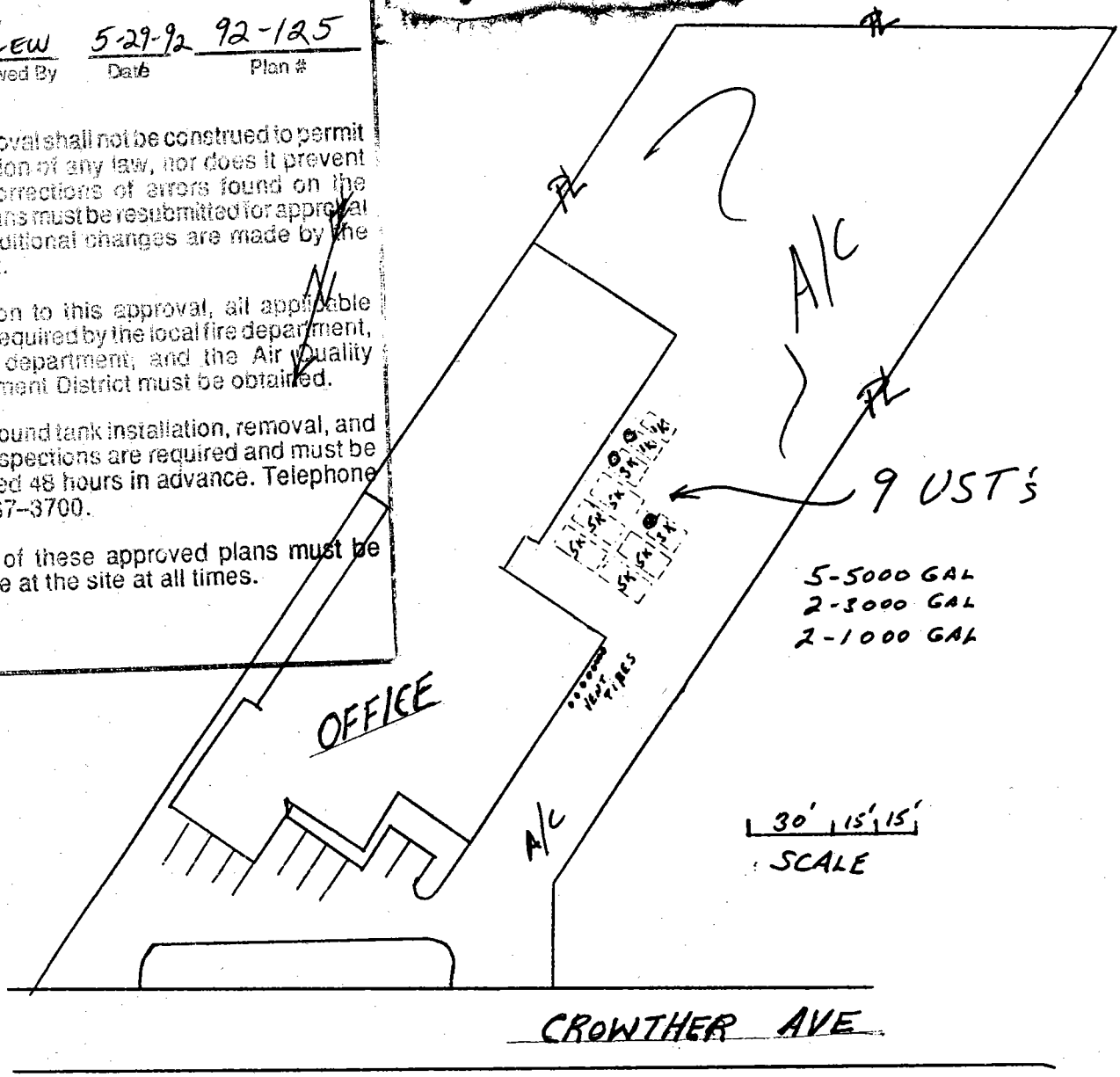
This approval shall not be construed to permit the violation of any law, nor does it prevent further corrections of errors found on the plans. Plans must be resubmitted for approval if any additional changes are made by the applicant.

In addition to this approval, all applicable permits required by the local fire department, building department, and the Air Quality Management District must be obtained.

Underground tank installation, removal, and repair inspections are required and must be scheduled 48 hours in advance. Telephone (714) 667-3700.

A copy of these approved plans must be available at the site at all times.

ENV. HEALTH → See Attachment!



RECEIVED
MAY 28 1992
HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH

VECTOR THREE ENVIRONMENTAL, INC.

VIII #9651 5/28/92

EXCALIBUR EXTRUSIONS, INC.
110 East Crowther Avenue
Placentia, CA. 92670
Glenn Baldwin
714/528-8834

Environmental Health Division
Hazardous Materials Management Section
Mailing Address: P. O Box 355, Santa Ana, CA 92702
Office: 2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

UNDERGROUND STORAGE TANK PLAN CHECK ATTACHMENT

I. Underground Storage Tank Installations and Modifications.

1. Before being installed, an air pressure test of the tank is required in the presence of an inspector. The primary and secondary containment of the tank(s) must hold 3 to 5 psi for 30 minutes. All new primary piping and secondary containment systems must be tested for tightness. At a minimum the primary piping shall be tested with air pressure at 110% of the maximum operating pressure or tested hydrostatically at 150% of the maximum operating pressure of the system. The pressure shall be maintained for a minimum of 30 minutes and all joints shall be soap tested. If the design pressure is less than 40 psi, then 40 psi shall be the test pressure. Exempted vent lines and fill risers do not need to be tested.
2. A State approved tank integrity test is required prior to operation of the underground storage tank(s).
3. Final inspection prior to backfill and of the continuous leak detector system for the underground tanks at the facility is required prior to tank operation and the issuance of a Permit to Operate. The contractor will be required to remove the sensor probes and test them (i.e., dip them into liquid), open the monitoring control box, etc., to demonstrate the proper operation of the system.

II. Underground Storage Tank Removals and Modifications (i.e., Pipeline repairs).

1. Prior to removal of the underground storage tank(s), all liquids and sludges must be removed from the tank(s) and properly disposed. A copy of the Manifest for hazardous waste hauling and disposal must be provided to this office. If the material is not a waste or if it is non-hazardous, then a copy of the Bill of Lading must be provided to this office.
2. All piping associated with the underground storage tank(s) must be removed and properly disposed. Soil and, if present, groundwater samples are required for all removals or repairs to the system. Appropriate sampling equipment and sample containers (i.e., brass sleeves, glass jars, or equivalent) must be provided by the owner/contractor along with an ice chest and ice. Samples must be taken to a State approved laboratory the same day as collected.
3. If additional tanks or pipes are discovered after tank removal begins, then an additional per-tank removal fee will be charged.

III. Completion of Underground Storage Tank Removals and Modifications.

Removals and modifications are not complete until this office receives the following materials.

1. **ORIGINAL Chain of Custody Form.** This is the white (top) page of the four-page form that is given by the inspector to the sample collector. A photocopy will **not** be accepted.
2. **Laboratory Results.** A copy of the results sent directly from the laboratory is preferable, but a photocopy is acceptable.
3. **Manifest or Bill of Lading** (see Part II, Number 1, above). A photocopy is acceptable.
4. **Certificate of Tank Destruction.** A photocopy is acceptable.

IV. Important Note.

This office requires at least 48 hours notice prior to inspection. Because of the large volume of tank activity that takes place in Orange County, inspectors may have a prior commitment on the day you have planned for the inspection. To alleviate potential conflicts, it is advised that you call one or two weeks ahead to set up an inspection date.

COUNTY OF ORANGE FIRE DEPT.

PERMIT APPLICATION

INSPECTION # _____
FMZ # _____
CO. BATT. 2 Fire Prev SHIFT DAYS
INSPECTOR'S ID # _____

PAGE 1 OF 1

DATE June 9, 1992

DBA EXCALIBUR PHONE 714-528-8834

ADDRESS 110 EAST CROWTHER AVENUE

BLDG/SUITE _____ CITY PLACENTIA ZIP 92670

OWNER/AGENT GLENN BALDWIN TITLE OWNER

APPLICABLE PERMIT(S) SEPARATE FORM REQUIRED FOR EACH BUILDING/BUSINESS LOCATION

79115				

COMPLETE THIS SECTION IF OCCUPANCY/SITE HAS HAZARDOUS MATERIALS

HAZARD CATEGORY (LIST ALL CHEMICAL/MATERIALS BY MAJOR HAZARD CATEGORY SEE PERMIT SOP OR DOT EMERGENCY RESPONSE GUIDE BOOK)	FIRE DEPT. ID #	MAXIMUM ALLOWED ON SITE	FORM DESC.	HOW STORED	STORAGE LOCATION PRIORITY #1	#2	#3

HAZ-MATS FOUND ON SITE? ☐ NO ☐ YES **HMDO PACKET RECEIVED BY:** _____

CONDITIONS/LIMITATIONS OF PERMIT:

The Following Tanks are Being Removed To
MORECO, 912 McDonough, Wilmington, California
5 - 5,000 Gallon Tanks
1 - 3,000 Gallon Tank } All Tanks Contained
2 - 1,000 Gallon Tanks } Gasoline at one time
1 - 2,000 Gallon Tank } L.E.L. Readings - 0

STATEMENT: I hereby acknowledge that I have read this application; that the information given is correct; and that I am the owner, or the duly authorized agent of the owner. This application does not constitute a permit until it has been approved by the Fire Marshal. All permits or certificates issued shall be presumed to contain the provision that the applicant, his agents and employees shall carry out the proposed activity in compliance with all laws and regulations applicable thereto, whether specified or not, and in complete accordance with approved plans and specifications. Any permit or certificate which purports to sanction a violation of any applicable law or regulation shall be void and any approval of plans and specifications in the issuance of such permit shall likewise be void.

AN INSPECTION WAS CONDUCTED AND THIS OCCUPANCY HAS BEEN FOUND TO BE IN COMPLIANCE WITH PROVISIONS OF THE UNIFORM FIRE CODE AND OTHER RELATED CODE AND ORDINANCES.

INSPECTION INCLUDED A REVIEW AND APPROVAL OF ALL RECEPTACLES, VEHICLES, BUILDINGS, DEVICES, PREMISES, STORAGE SPACES AND AREAS TO BE USED.

Signature (owner or agent)	Date Signed	Inspected by	Date Cleared
Glenn Baldwin	6-5-92	Anthony Smith	6/9/92

THIS IS NOT A PERMIT. THIS APPLICATION GRANTS ONLY TEMPORARY PERMISSION (NOT TO EXCEED 90 DAYS FROM DATE OF APPLICATION) TO CONDUCT THE ACTIVITIES LISTED ABOVE, PENDING PAYMENT OF ALL FEES IMPOSED AND THE RECEIPT OF A VALID UNIFORM FIRE CODE PERMIT FROM THE ORANGE COUNTY FIRE DEPARTMENT.

APPLICANT COPY

F1211-308

State of California—Health and Welfare Agency

Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAC000806888	580611		

GENERATOR

3. Generator's Name and Mailing Address
EXCALIBUR
111 E CROWTHER AVE PLACENTIA CALIF 92670

A. State Manifest Document Number: 91658061

4. Generator's Phone (714) 5288834

B. State Generator's ID:

5. Transporter 1 Company Name: CITCO PUMPING

6. US EPA ID Number: CAD981434913

C. State Transporter's ID: 23067

D. Transporter's Phone: 714-625-2866

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Industrial Service Oil Co. Inc.
1900 South Soto Street
Los Angeles, Calif. 90023

10. US EPA ID Number: CAD009945278

G. State Facility's ID:

H. Facility's Phone: 213-262-9747

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Hazardous Waste liquid, N.O.S. (Tank Rinse Water) ORM-E, NA9189	001	TT	01673	G	State 222 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
99% Water
1% Sludge

K. Handling Codes for Wastes Listed Above
a. R-01 b.
c. d.

15. Special Handling Instructions and Additional Information
Wear Protective Clothing - 24 hr Emergency 714-623-2866

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
GLENN BALDWIN	Glenn Baldwin (Electronic Sig)	06	09	92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Robert A Peeples	Robert A Peeples	06	09	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

DHS 8022A (12/90)
EPA 8700—22

Blue: GENERATOR SENDS THIS COPY TO DHS WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

MORECO

FAX
(213) 983-1715

919 MARSHBOURN AVENUE
WILMINGTON CALIFORNIA 90744

(213) 518-472
(213) 436-668

CERTIFICATE OF DEMOLITION

This certifies that the materials listed below have been destroyed and disposed of. Steel and metal materials have been cut into the proper classification and sold as scrap. Non-Metal materials have been destroyed and shipped to the appropriate landfill.

DESCRIPTION

Underground Storage Tanks

Steel UST	Fiberglass UST
4-5,000 gal.	
2-4,000 gal.	

Miscellaneous (no USTs)

6-9-92
DATE

Glynda M. Blakley
AUTHORIZED SIGNATURE

Received From LLC & Crowther for Placentia

Customer Name O & E Environmental

Customer P.O. /Job #

FIRE DEPARTMENT

PERMIT

BUSINESS NAME: EXCALIBUR INC
BUSINESS ADDRESS: 110 E CROWTHER AV
PLACENTIA, CA 92670

INSPECTION NO: 6877

AMOUNT PAID: 0.00

PERMIT EXPIRES: 06/09/93

PERMIT ISSUED TO:
(OWNER / AGENT)

THIS PERMIT IS ISSUED BY THE ORANGE COUNTY FIRE DEPARMENT AND IS ACCEPTED ON CONDITION THAT THE APPLICANT, HIS AGENTS AND EMPLOYEES CARRY OUT THE PROPOSED ACTIVITY IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS, REGULATIONS OR CONDITIONS/LIMITATIONS LISTED ON THE PERMIT APPLICATION. ANY VIOLATION OF THESE PROVISIONS MAY BE GROUNDS FOR REVOCATION OF THIS PERMIT.

PERMIT GRANTED FOR: 79115 FLAMMABLE AND COMBUSTIBLE LIQUID TANKS

To install, alter, remove, abandon, place temporarily out of service or otherwise dispose of any flammable or combustable liquid tank. With CONDITIONS\LIMITATIONS as described on "PERMIT APPLICATION"

THIS PERMIT SHALL AT ALL TIMES BE POSTED IN THE PREMISES DESCRIBED ABOVE

THIS PERMIT DOES NOT TAKE THE PLACE OF ANY LICENSE REQUIRED BY LAW AND IS NOT TRANSFERABLE. ANY CHANGE IN THE USE OR OCCUPANCY OF PREMISES SHALL REQUIRE A NEW PERMIT. THIS SUPERSEDES ALL OTHER PERMITS ISSUED BY THE ORANGE COUNTY FIRE DEPARTMENT.

DIRECTOR OF FIRE SERVICES

FIRE MARSHAL

AMERICAN FUEL TANK METAL RECYCLING, INC.

2202 South Milliken Avenue
Ontario, CA 91761
(714) 988-8000

No. 38686

TANK DISPOSAL FORM

Date: 6-9 ,1992
Job #
P. O. #

CONTRACTOR: A A J ENVIRONMENTAL

ADDRESS:

JOB SITE: EX Calibur

ADDRESS: 110 E. CROWTHER PLACENTIA CA

DESTINATION: A.M.R. 2202 S. Milliken Ave., Ontario, CA 91761

DATE	TIME	PROJECTED TANKS	ORDERED BY:	LIC. NO.

SPECIAL INSTRUCTIONS:

TIME IN:
TIME OUT:

200 FT. of Assoc. Piping.

TANKS RECEIVED

QTY	GALLONS	TYPE F*	TYPE S*	NET TONS	TOTAL
	280	☐	☐	.14	
	500	☐	☐	.21	
	550	☐	☐	.24	
2	1000 - 12 ft.	☐	☐	.44	.44
	1000 - 6 ft.	☐	☐	.61	
1	1500	☐	☐	.87	.44
	2000	☐	☐	.97	.97
	2500	☐	☐	1.14	
	3000	☐	☐	1.32	
	4000	☐	☐	1.64	
	5000	☐	☐	2.42	
	6000	☐	☐	2.84	
	7500	☐	☐	3.26	
	8000	☐	☐	3.44	
	9000	☐	☐	3.82	
	10000	☐	☐	4.33	
	12000	☐	☐	4.93	

All fees incurred are per load unless specified. Terms are net 30 days from date of invoice. Contractor's signature represents acceptance of terms for payment, and confirms that tank removal complies with State laws.

CONTRACTOR'S SIGNATURE

NO. OF TANKS: 3 TOTAL NET TONS: 1.85

*F — FIBERGLASS *S — STEEL 105

CERTIFICATE OF TANK DISPOSAL / DESTRUCTION

THIS IS TO CERTIFY THE RECEIPT AND ACCEPTANCE OF THE TANK(S) AS SPECIFIED ABOVE. ALL MATERIALS SPECIFIED HAVE BEEN COMPLETELY DESTROYED FOR SCRAP PURPOSES ONLY.

AUTHORIZED REP.

6-9-92
DATE

GENERATOR COPY

FMA attached!

Orange County Health Care Agency

Environmental Health Division, Hazardous Materials Management Section
Mailing Address: P.O. Box 355, Santa Ana, CA 92702
Office: 2009 E. Edinger, Santa Ana, CA 92705
Telephone: (714) 667-3700

HAZARDOUS WASTE & UNDERGROUND STORAGE TANK INSPECTION REPORT

FILE NO: _____ ACCOUNT NO: _____ EPA #: _____
UST PERMIT NO: _____
PERMIT: _____
FACILITY: Excalibur Extrusions Inc.
STREET: 110 E. Crowther Ave. MAP COORDINATES: _____
CITY: [17] Placentia, CA. ZIP: 92670 DISTRICT: 101
NEAREST CROSS STREET: Kraemer TSD FACILITY? NO
NEW DBA? ___ NEW BUSINESS? ___ NEW ADDRESS? ___ NEW OWNER? ___ PUBLIC AGENCY? NO
NEW INFO: _____

HW INSPECTION TYPE: _____ NO OF UST ON SITE: 9→0 UST INSPECTION TYPE: 7
NUMBER OF EMPLOYEES: _____ # TANKS TO BILL : 0 UST COMPLIANCE CODE: 2
LAST DATE HW INSPECTED: _____ LAST DATE UST INSPECTED: N/A
HW EXEMPT CODE: _____ UST EXEMPT CODE: 0
HW STATUS CODE: _____ UST STATUS CODE: 5
BUSINESS OWNER: Glenn Baldwin PHONE: (714) 528-8824
TANK OPERATOR: _____ PHONE: (___) _____
CONTACT: Glenn Baldwin PHONE: (714) 528-8824

HW BILLING (NAME & MAILING ADDRESS):

_____
_____
_____
_____
PHONE: (___) _____

UST BILLING (NAME & MAILING ADDRESS):

_____
N/A
_____
_____
PHONE: (___) _____

PROPERTY OWNER (NAME & MAILING ADDRESS):

Excalibur Extrusions Inc / Glenn Baldwin
110 E. Crowther Ave.
Placentia, CA 92670
PHONE: (714) 528-8824

TANK OWNER (NAME & MAILING ADDRESS):

Excalibur Extrusions Inc.
110 E. Crowther Ave
Placentia, CA 92670
PHONE: (714) 528-8824

EMERGENCY CONTACTS

DAY: Glenn Baldwin PHONE: (714) 528-8824
NIGHT: Glenn Baldwin PHONE: (714) 579-0450

ACTIVE ICR: NO
INSPECTOR #: 44 NAME: Jason Lew DATE: 6/09/9_

Orange County Health Care Agency
UNDERGROUND STORAGE TANK INSPECTION REPORT

DBA: Excalibur Extrusions Inc.

ADDRESS: 110 E. Crowther Ave.

: Placentia, CA 92670

FILE NO: _____ ACCOUNT NO: _____ EPA #: _____

VIOLATION DESCRIPTIONS

FACILITY

___ 105 OPERATING UNDERGROUND STORAGE TANKS (UST) WITHOUT A PERMIT
___ 115 FAILURE TO REPORT THE CHANGE IN OWNERSHIP WITHIN 30 DAYS
___ 135 FAILURE TO ENTER INTO A WRITTEN CONTRACT BETWEEN OWNERS AND OPERATORS
___ 140 METERS NOT INSPECTED BY THE COUNTY DEPARTMENT OF WEIGHTS AND MEASURES OR A DEVICE REPAIRMAN
___ 145 FAILURE TO MONITOR THE TANKS USING THE METHOD SPECIFIED ON THE PERMIT
___ 150 FAILURE TO MAINTAIN WRITTEN RECORDS OF ALL MONITORING, EQUIPMENT CALIBRATION, AND MAINTENANCE ON SITE
___ 170 FAILURE TO CORRECT PREVIOUS VIOLATIONS WITHIN 30 DAYS
___ 190 FAILURE TO SUBMIT INVENTORY RECONCILIATION QUARTERLY/ANNUAL REPORT
___ 196 FAILURE TO SUBMIT A "PERMIT TO OPERATE" APPLICATION FOR THE USTS AT THE SITE
___ 197 FAILURE TO IMPLEMENT/SELECT/DEVELOP AN APPROVED MONITORING SYSTEM/PLAN
___ 198 FAILURE TO OBTAIN/SHOW EVIDENCE OF FINANCIAL RESPONSIBILITY
___ 291 FAILURE TO SUBMIT A DIAGRAM SHOWING THE LOCATION OF UST

TANK

___ 120 FAILURE TO REPORT THE CHANGES IN THE USAGE OF UST WITHIN 30 DAYS
___ 125 FAILURE TO REPORT AN UNAUTHORIZED RELEASE
___ 130 FAILURE TO DEVELOP A RESPONSE PLAN TO REMOVE THE UNAUTHORIZED RELEASE FROM THE SECONDARY CONTAINER
___ 155 FAILURE TO MONITOR VISUALLY AT REQUIRED FREQUENCY
___ 165 CONTINUOUS MONITORING DEVICES/EQUIPMENT/TANK LEVEL MONITORS/LINE LEAK DETECTORS INOPERABLE
___ 180 FAILURE TO ANNUALLY TEST AND/OR SUBMIT PROOF OF INSTALLATION OF PIPELINE LEAK DETECTORS
___ 185 FAILURE TO SUBMIT TANK INTEGRITY TEST RESULTS WITHIN 30 DAYS OF TEST COMPLETION
___ 195 FAILURE TO FOLLOW PROCEDURES WHEN INVENTORY RECONCILIATION/TANK GAUGING EXCEEDS ALLOWABLE VARIATIONS
___ 270 FAILURE TO REPORT CHANGES IN MONITORING ALTERNATIVE PROCEDURES WITHIN 30 DAYS
___ 275 FAILURE TO PROPERLY CLOSE USTS
___ 280 FAILURE TO PROPERLY REPAIR USTS
___ 286 FAILURE TO PERFORM TIGHTNESS/INTEGRITY TEST ON TANKS/PIPELINES
___ 287 PRESSURIZED LINE LEAK DETECTORS ARE NOT DESIGNED TO RESIST UNAUTHORIZED TAMPERING
___ 288 UNDERGROUND TANK(S) NOT SECURED TO PREVENT UNAUTHORIZED INPUTS OR WITHDRAWLS
___ 290 OTHER

9 USTs removed this date as per Approved plan check # 92-125.
22 soil samples taken for analysis today.

I DECLARE THAT I HAVE EXAMINED AND RECEIVED A COPY OF THIS ___ PAGE INSPECTION REPORT.

PRINT NAME & TITLE: Glenn Baldwin Owner

SIGNATURE: Glenn Baldwin DATE: 6/09/92

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

June 12, 1992

Mr. Don Hollenbeck
Vector Three Environmental Inc.
11605 Eastend Ave.
Chino, CA 91710

Dear Mr. Hollenbeck:

Enclosed please find the analytical report for the 22 soil samples received on 6-9-92. The samples were received in an iced cooler and analyzed as indicated on the chain of custody, which is attached. In the report, the analytical results are summarized in total of 17 pages.

Chemical & Environmental Laboratories, Inc. is a CADHS certified Laboratory (certificate number: 1597). Unless otherwise noted, all the quality assurance criteria required by our QA/QC program were achieved during the analysis.

If you have any questions concerning these results and our service, please call me.

Sincerely,

Larry Zhang

Larry Zhang, Ph.D.
Laboratory Director

14096 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 213 921-8123, Fax: 213 921-7974

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Total Petroleum Hydrocarbons as Gasoline in Soil
--- EPA Method M8015 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-11-92

Sample Identification		Date	Date	Date	Concentration
C&E ID	Sample ID	Sampled	Extracted	Analyzed	(mg/kg)
920609A-1	TW-1	6-9-92	6-11-92	6-11-92	ND
920609A-2	TE-1	6-9-92	6-11-92	6-11-92	ND
920609A-3	TW-2	6-9-92	6-11-92	6-11-92	ND
920609A-4	TE-2	6-9-92	6-11-92	6-11-92	ND
920609A-5	TW-3	6-9-92	6-11-92	6-11-92	ND
920609A-6	TE-3	6-9-92	6-11-92	6-11-92	ND
920609A-7	TW-4	6-9-92	6-11-92	6-11-92	ND
920609A-8	TE-4	6-9-92	6-11-92	6-11-92	ND
920609A-9	TW-5	6-9-92	6-11-92	6-11-92	ND
920609A-10	TE-5	6-9-92	6-11-92	6-11-92	ND
920609A-11	TW-6	6-9-92	6-11-92	6-11-92	ND
920609A-12	TE-6	6-9-92	6-11-92	6-11-92	ND
920609A-13	TW-7	6-9-92	6-11-92	6-11-92	ND
920609A-14	TE-7	6-9-92	6-11-92	6-11-92	ND
920609A-15	TW-8	6-9-92	6-11-92	6-11-92	ND
920609A-16	TE-8	6-9-92	6-11-92	6-11-92	ND
920609A-17	TW-9	6-9-92	6-11-92	6-11-92	ND
920609A-18	TE-9	6-9-92	6-11-92	6-11-92	ND

* Method Detection Limit is 0.5 mg/kg.

14096 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 213 921-8123, Fax: 213 921-7974

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Total Petroleum Hydrocarbons as Gasoline in Soil
--- EPA Method M8015 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-11-92

Sample Identification		Date	Date	Date	Concentration
C&E ID	Sample ID	Sampled	Extracted	Analyzed	(mg/kg)
920609A-19	SP-1	6-9-92	6-11-92	6-11-92	ND
920609A-20	SP-2	6-9-92	6-11-92	6-11-92	ND
920609A-21	SP-3	6-9-92	6-11-92	6-11-92	ND
920609A-22	SP-4	6-9-92	6-11-92	6-11-92	ND

* Method Detection Limit is 0.5 mg/kg.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-1	920609A-2	920609A-3	920609A-4	920609A-5
Client Sample ID		TW-1	TE-1	TW-2	TE-2	TW-3
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Chloromethane	50	ND	ND	ND	ND	ND
Vinyl Chloride	50	ND	ND	ND	ND	ND
Bromomethane	50	ND	ND	ND	ND	ND
Chloroethane	50	ND	ND	ND	ND	ND
Dichlorodifluoromethane	50	ND	ND	ND	ND	ND
Trichlorofluoromethane	50	ND	ND	ND	ND	ND
Iodomethane	50	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND
Carbon Disulfide	50	ND	ND	ND	ND	ND
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Acrylonitrile	50	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	ND	ND
Acrolein	50	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-1	920609A-2	920609A-3	920609A-4	920609A-5
Client Sample ID		TW-1	TE-1	TW-2	TE-2	TW-3
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
2-Butanone	10	ND	ND	ND	ND	ND
Chloroform	10	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10	ND	ND	ND	400	ND
Carbon Tetrachloride	10	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND
1,2-Dichloroethane	10	ND	ND	ND	ND	ND
Trichloroethene	10	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	ND	ND	ND	ND	ND
Bromodichloromethane	10	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	50	ND	ND	ND	ND	ND
Toluene	10	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Tetrachloroethene	10	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-1	920609A-2	920609A-3	920609A-4	920609A-5
Client Sample ID		TW-1	TE-1	TW-2	TE-2	TW-3
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Dibromochloromethane	10	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	ND	ND
Ethylbenzene	10	ND	ND	ND	ND	ND
Xylenes	10	ND	ND	ND	ND	ND
Styrene	10	ND	ND	ND	ND	ND
Bromoform	10	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10	ND	ND	ND	ND	ND
t-1,4-Dichloro-2-Butene	10	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	10	ND	ND	ND	ND	ND

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-6	920609A-7	920609A-8	920609A-9	920609A-10
Client Sample ID		TE-3	TW-4	TE-4	TW-5	TE-5
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Chloromethane	50	ND	ND	ND	ND	ND
Vinyl Chloride	50	ND	ND	ND	ND	ND
Bromomethane	50	ND	ND	ND	ND	ND
Chloroethane	50	ND	ND	ND	ND	ND
Dichlorodifluoromethane	50	ND	ND	ND	ND	ND
Trichlorofluoromethane	50	ND	ND	ND	ND	ND
Iodomethane	50	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND
Carbon Disulfide	50	ND	ND	ND	ND	ND
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Acrylonitrile	50	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	ND	ND
Acrolein	50	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-6	920609A-7	920609A-8	920609A-9	920609A-10
Client Sample ID		TE-3	TW-4	TE-4	TW-5	TE-5
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
2-Butanone	10	ND	ND	ND	ND	ND
Chloroform	10	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10	330	ND	ND	ND	ND
Carbon Tetrachloride	10	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND
1,2-Dichloroethane	10	ND	ND	ND	ND	ND
Trichloroethene	10	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	ND	ND	ND	ND	ND
Bromodichloromethane	10	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	50	ND	ND	ND	ND	ND
Toluene	10	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Tetrachloroethene	10	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-6	920609A-7	920609A-8	920609A-9	920609A-10
Client Sample ID		TE-3	TW-4	TE-4	TW-5	TE-5
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Dibromochloromethane	10	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	ND	ND
Ethylbenzene	10	ND	ND	ND	ND	ND
Xylenes	10	ND	ND	ND	ND	ND
Styrene	10	ND	ND	ND	ND	ND
Bromoform	10	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10	ND	ND	ND	ND	ND
t-1,4-Dichloro-2-Butene	10	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	10	ND	ND	ND	ND	ND

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-11	920609A-12	920609A-13	920609A-14	920609A-15
Client Sample ID		TW-6	TE-6	TW-7	TE-7	TW-8
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Chloromethane	50	ND	ND	ND	ND	ND
Vinyl Chloride	50	ND	ND	ND	ND	ND
Bromomethane	50	ND	ND	ND	ND	ND
Chloroethane	50	ND	ND	ND	ND	ND
Dichlorodifluoromethane	50	ND	ND	ND	ND	ND
Trichlorofluoromethane	50	ND	ND	ND	ND	ND
Iodomethane	50	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND
Carbon Disulfide	50	ND	ND	ND	ND	ND
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Acrylonitrile	50	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	ND	ND
Acrolein	50	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-11	920609A-12	920609A-13	920609A-14	920609A-15
Client Sample ID		TW-6	TE-6	TW-7	TE-7	TW-8
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
2-Butanone	10	ND	ND	ND	ND	ND
Chloroform	10	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10	ND	ND	ND	160	ND
Carbon Tetrachloride	10	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND
1,2-Dichloroethane	10	ND	ND	ND	ND	ND
Trichloroethene	10	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	ND	ND	ND	ND	ND
Bromodichloromethane	10	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	50	ND	ND	ND	ND	ND
Toluene	10	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Tetrachloroethene	10	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-11	920609A-12	920609A-13	920609A-14	920609A-15
Client Sample ID		TW-6	TE-6	TW-7	TE-7	TW-8
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Dibromochloromethane	10	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	ND	ND
Ethylbenzene	10	ND	ND	ND	ND	ND
Xylenes	10	ND	ND	ND	ND	ND
Styrene	10	ND	ND	ND	ND	ND
Bromoform	10	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10	ND	ND	ND	ND	ND
t-1,4-Dichloro-2-Butene	10	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	10	ND	ND	ND	ND	ND

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-16	920609A-17	920609A-18	920609A-19	920609A-20
Client Sample ID		TE-8	TW-9	TE-9	SP-1	SP-2
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Chloromethane	50	ND	ND	ND	ND	ND
Vinyl Chloride	50	ND	ND	ND	ND	ND
Bromomethane	50	ND	ND	ND	ND	ND
Chloroethane	50	ND	ND	ND	ND	ND
Dichlorodifluoromethane	50	ND	ND	ND	ND	ND
Trichlorofluoromethane	50	ND	ND	ND	ND	ND
Iodomethane	50	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND
Carbon Disulfide	50	ND	ND	ND	ND	ND
1,1-Dichloroethene	10	ND	ND	ND	ND	ND
Methylene Chloride	50	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	ND
Acrylonitrile	50	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND
1,1-Dichloroethane	10	ND	ND	ND	ND	ND
Acrolein	50	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-16	920609A-17	920609A-18	920609A-19	920609A-20
Client Sample ID		TE-8	TW-9	TE-9	SP-1	SP-2
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
2-Butanone	10	ND	ND	ND	ND	ND
Chloroform	10	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10	ND	ND	ND	ND	76
Carbon Tetrachloride	10	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND
1,2-Dichloroethane	10	ND	ND	ND	ND	ND
Trichloroethene	10	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	ND	ND	ND	ND	ND
Bromodichloromethane	10	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	50	ND	ND	ND	ND	ND
Toluene	10	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	10	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND	ND
Tetrachloroethene	10	ND	ND	ND	ND	ND

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-16	920609A-17	920609A-18	920609A-19	920609A-20
Client Sample ID		TE-8	TW-9	TE-9	SP-1	SP-2
Date Sampled		6-9-92	6-9-92	6-9-92	6-9-92	6-9-92
Date Analyzed		6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92	6/10-11/92
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Dibromochloromethane	10	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	ND	ND
Ethylbenzene	10	ND	ND	ND	ND	ND
Xylenes	10	ND	ND	ND	ND	ND
Styrene	10	ND	ND	ND	ND	ND
Bromoform	10	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10	ND	ND	ND	ND	ND
t-1,4-Dichloro-2-Butene	10	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	10	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	10	ND	ND	ND	ND	ND

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-21	920609A-22			
Client Sample ID		SP-3	SP-4			
Date Sampled		6-9-92	6-9-92			
Date Analyzed		6/10-11/92	6/10-11/92			
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Chloromethane	50	ND	ND			
Vinyl Chloride	50	ND	ND			
Bromomethane	50	ND	ND			
Chloroethane	50	ND	ND			
Dichlorodifluoromethane	50	ND	ND			
Trichlorofluoromethane	50	ND	ND			
Iodomethane	50	ND	ND			
Acetone	50	ND	ND			
Carbon Disulfide	50	ND	ND			
1,1-Dichloroethene	10	ND	ND			
Methylene Chloride	50	ND	ND			
trans-1,2-Dichloroethene	10	ND	ND			
Acrylonitrile	50	ND	ND			
Vinyl Acetate	50	ND	ND			
1,1-Dichloroethane	10	ND	ND			
Acrolein	50	ND	ND			

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-21	920609A-22			
Client Sample ID		SP-3	SP-4			
Date Sampled		6-9-92	6-9-92			
Date Analyzed		6/10-11/92	6/10-11/92			
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
2-Butanone	10	ND	ND			
Chloroform	10	ND	ND			
1,1,1-Trichloroethane	10	ND	ND			
Carbon Tetrachloride	10	ND	ND			
Benzene	10	ND	ND			
1,2-Dichloroethane	10	ND	ND			
Trichloroethene	10	ND	ND			
1,2-Dichloropropane	10	ND	ND			
Bromodichloromethane	10	ND	ND			
cis-1,3-Dichloropropene	10	ND	ND			
trans-1,3-Dichloropropene	10	ND	ND			
4-Methyl-2-Pentanone	50	ND	ND			
Toluene	10	ND	ND			
2-Chloroethylvinyl Ether	10	ND	ND			
1,1,2-Trichloroethane	10	ND	ND			
Tetrachloroethene	10	ND	ND			

(Continued on the next page)

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL RESULT REPORT

Volatile Organics in Soil
---EPA Method 8240 ---

Client Name: Vector Three Environmental, Inc.
Project Manager: Don Hollenbeck
Project Number: Excalibyr Extrysions Inc.
Report Issue Date: 6-12-92

C&E Sample ID		920609A-21	920609A-22			
Client Sample ID		SP-3	SP-4			
Date Sampled		6-9-92	6-9-92			
Date Analyzed		6/10-11/92	6/10-11/92			
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Dibromochloromethane	10	ND	ND			
Chlorobenzene	10	ND	ND			
Ethylbenzene	10	ND	ND			
Xylenes	10	ND	ND			
Styrene	10	ND	ND			
Bromoform	10	ND	ND			
1,1,2,2-Tetrachloroethane	10	ND	ND			
t-1,4-Dichloro-2-Butene	10	ND	ND			
1,3-Dichlorobenzene	10	ND	ND			
1,4-Dichlorobenzene	10	ND	ND			
1,2-Dichlorobenzene	10	ND	ND			

ND = Not detected at the indicated detection limit.

CHAIN OF CUSTODY

Orange County Health Care Agency
Environmental Health Division
Mailing Address: P.O. Box 355, Santa Ana, CA 92702
Office: 2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.

2. PLEASE WRITE LEGIBLY.

3. ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.

4. TO BE COMPLETED BY LABORATORY ANALYST

LAB NO.: 920609
DATE RECEIVED: 6-9-92
SAMPLE(S) CONDITION (PLEASE CHECK):
CHILLED: ✓ COUNTY SEAL(S) INTACT: ✓
CONTAINER IN GOOD CONDITION: Yes
DATE ANALYSIS COMPLETED: 6-12-92
ANALYST: Ophelia Lew

5. TO BE COMPLETED BY SAMPLE COLLECTOR

SITE NAME/ADDRESS: EXCALIBUR EXTRUSIONS INC.
110 E. CROWTHER AVE. PLACENTIA, CA.
DATE OF COLLECTION: 6-09-92
SAMPLE COLLECTOR/COMPANY: DON HOLLENBECK of VECTOR THREE ENVIRONMENTAL
TELEPHONE NO.: (714) 627-0627
HCA REPRESENTATIVE: J. LEW

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
TW-1	DHS APPROVED METHOD FOR TPH FOR GAS & 8240	SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 1	1:30 PM
TE-1	↓	SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 1	1:35 PM
TW-2		SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 2	1:40 PM
TE-2		SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 2	1:45 PM
TW-3		SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 3	1:50 PM
TE-3		SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 3	1:55 PM
TW-4		SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 4	2:00 PM

7. CHAIN OF CUSTODY

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	John Lew	O.C.H.C.A.	6-09-92 . 6-09-92 4:00 PM
2.	Donald Hollenbeck	Vector Three Enviro-Lab	6-9-92 . 6-9-92 4:00 PM
3.	Larry Zhang	C & E Lab	6-9-92 . 4:20 pm
4.			.
5.			.
6.			.

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY
PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

CHAIN OF CUSTODY

Orange County Health Care Agency
Environmental Health Division
Mailing Address: P.O. Box 355, Santa Ana, CA 92702
Office: 2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

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2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

LAB NO.: 920609
DATE RECEIVED: 6-9-92
SAMPLE(S) CONDITION (PLEASE CHECK):
CHILLED: ✓ COUNTY SEAL(S) INTACT: ✓
CONTAINER IN GOOD CONDITION: Yes
DATE ANALYSIS COMPLETED: 6-12-92
ANALYST: [signature]

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

SITE NAME/ADDRESS: EXCALIBUR EXPLOSIONS INC.
110 E. CROWTHER AVE. PLACENTIA, CA.
DATE OF COLLECTION: 6-09-92
SAMPLE COLLECTOR/COMPANY: DON HOLLENBECK of VECTOR THREE ENVIRONMENTAL
TELEPHONE NO.: (714) 627-0627
HCA REPRESENTATIVE: J. LEW

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
TE-4	DHS APPROVED METHOD FOR TPH FOR GAS & 8240	SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 4	2:05 PM
TW-5		SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 5	2:10 PM
TE-5		SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 5	2:15 PM
TW-6		SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 6	2:20 PM
TE-6		SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 6	2:25 PM
TW-7		SOIL SAMPLE TAKEN 14' BELOW GRADE WEST END OF TANK 7	2:30 PM
TE-7	↓	SOIL SAMPLE TAKEN 14' BELOW GRADE EAST END OF TANK 7	2:35 PM

7. **CHAIN OF CUSTODY**

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	Jason Lew	O.C. H.C.A.	6-09-92 . 6-09-92 4:30 PM
2.			-
2	Ronald Hollenbeck	Vector Three Enviro Inc	6-9-92 . 6-9-92 4:PM
3	Larry Zhy	C & E Lab	6-9-92 . 4:20 PM
5.			-
6.			-

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PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

CHAIN OF CUSTODY

Orange County Health Care Agency
Environmental Health Division
Mailing Address: P.O. Box 355, Santa Ana, CA 92702
Office: 2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

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2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

LAB NO.: 920609
DATE RECEIVED: 6-9-92
SAMPLE(S) CONDITION (PLEASE CHECK):
CHILLED: ✓ COUNTY SEAL(S) INTACT: ✓
CONTAINER IN GOOD CONDITION: Yes
DATE ANALYSIS COMPLETED: 6-12-92
ANALYST: Ighen Lew

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

SITE NAME/ADDRESS: Excalibur Extrusions Inc.
110 E. Crowther Ave. Placentia, CA.
DATE OF COLLECTION: 6-09-92
SAMPLE COLLECTOR/COMPANY: Don Hollenbeck of Vector Three Environmental
TELEPHONE NO.: (714) 627-0627
HCA REPRESENTATIVE: J. Lew

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
TW-8	DHS Approved Method for TPH for GAS & 8240	Soil Sample taken 14' below grade West End of Tank 8	2:45 PM
TE-8		Soil Sample taken 14' below grade East End of Tank 8	2:55 PM
TW-9		Soil Sample taken 14' below grade West End of Tank 9	3:05 PM
TE-9		Soil Sample taken 14' below grade East End of Tank 9	3:15 PM
SP-1		Spoils pile middle East side	3:25 PM
SP-2		Spoils pile North East side	3:30 PM
SP-3		Spoils pile South West side	3:40 PM
SP-4		Spoils pile North West side	3:50 PM

7. **CHAIN OF CUSTODY**

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	Jason Lew	O.C.H.C.A.	6-09-92 . 6-09-92 4:00 PM
2.	Donald Hollenbeck	Vector Three Enviro.	6-9-92. 4:00 PM
3.	Larry Zhang	C & E Lab	6-9-92 - 4:20 pm
4.			-
5.			-
6.			-

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PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

COUNTY OF ORANGE

TOM URAM
DIRECTOR

L. REX EHLING, M.D.
HEALTH OFFICER

ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, R. S. MPH
DEPUTY DIRECTOR

HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
2009 E. EDINGER AVENUE
SANTA ANA, CALIFORNIA 92705
(714) 667-3700

July 3, 1992

Glenn Baldwin
Excalibur Extrusions
110 East Crowther Avenue
Placentia, CA 92687

Subject: Contamination Located At Excalibur Extrusions, 110 East Crowther Avenue, Placentia, CA 92678

Dear Mr. Baldwin:

Based on inspections and field tests conducted on June 9, 1992 it has been determined that 1,1,1-trichloroethane contaminated soil is present at the subject location.

This Agency, which is authorized to enforce the State Hazardous Waste Laws and Regulations, (Chapter 6.5 of the California Health and Safety Code and Title 22 of the California Code of Regulations), directs Excalibur Extrusions to implement an investigation to assess the extent and significance of contamination at the site specified in the subject above. The objective of this site investigation is to provide sufficient site specific information to evaluate: 1) the threat presented to groundwater resources, 2) the risk of exposure to human receptors, and 3) the suitability of remedial actions and/or alternative mitigation strategies.

A site assessment plan must be submitted to this office for approval prior to the implementation of site assessment activity. This plan must be submitted within 30 days of receipt of this letter. The plan must provide the proposed methods to obtain the following information.

1. An identification of the lateral and vertical extent of soil contamination and the concentration of contaminants.

2. The depth to groundwater.

3. A description of soil profile.

Vector Three Environmental Inc.

Environmental Engineering

Lic. #558239

COPY

JULY 6, 1992

COUNTY OF ORANGE HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH/HAZARDOUS MATERIALS SECTION
2009 East Edinger
Santa Ana, California 92702

ATTENTION: MR. JIM STROZIER

SUBJECT: Work Plan to further assess contamination at:

EXCALIBUR EXTRUSIONS, INC. - PLAN #92-125
110 East Crowther Avenue
Placentia, CA.

Dear Mr. Strozier,

Thank you for your speedy response in examining this project and determining O.C.H.C.A.'s requirements for final closure on this project.

Vector Three Environmental, Inc. has been retained by the property owner, Mr. Glenn Baldwin, to submit this Work Plan to further assess the contamination found under two (2) of the under ground storage tanks that were removed from this property on June 9, 1992.

VIII will, upon your approval, bore two (2) boring's in the same area where samples #TE-2 and TE-3 were taken. These two samples showed contamination of 1,1,1-Trichloroethane at levels of 400 and 330 ppm. The locations of the boring's are shown on the attached plot plan. The samples will be taken at depths of 16 feet and 21 feet by advancing a modified California split spoon sampler equipped with brass liners into the undisturbed soil beyond the tip of the auger. The soil samples will be collected in the brass liners, sealed with Teflon tape and plastic end caps, placed on ice and a proper chain of custody will be prepared. The samples will be transported to a California certified laboratory and analyzed for EPA method 8240.

Upon receipt of the results, the original laboratory report and chain of custody, these items will be forwarded to your office along with a report.

During the boring's all tailing's will be field-screened for volatile organic vapors using a flame ionization detector (F.I.D.). If any level of vapors are detected at the 21 feet depth, VIII will continue boring and taking samples at five feet intervals.

If you have any questions or comments on this work plan. please call me at (714) 627-0627.

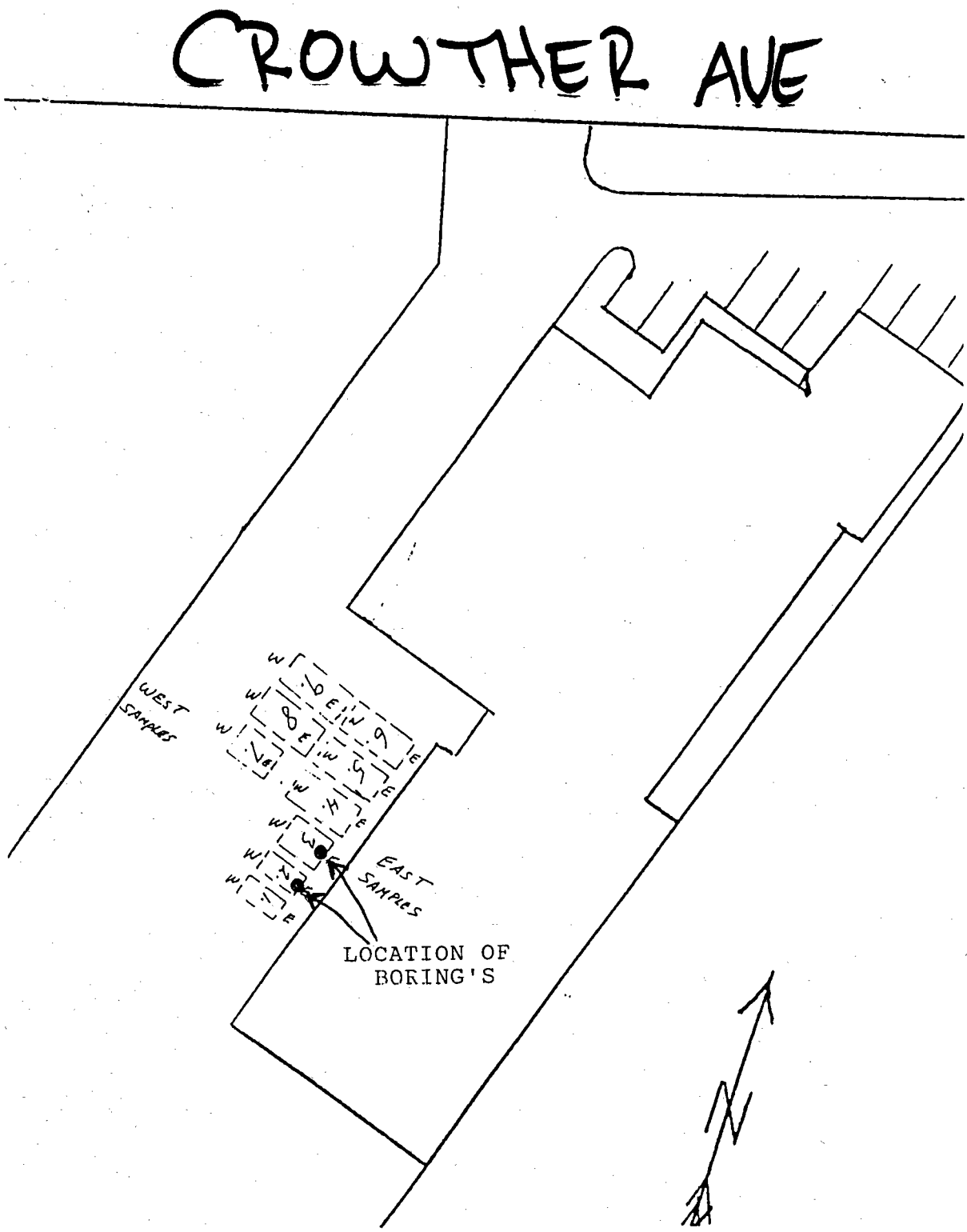
Yours Truly,

Donald T Hollenbeck

Donald Hollenbeck
President

DLH:smb

11605 So. East End Avenue,Chino, California 91710 714/627-0627 Fax 714/627-4464
P.O. Box 867, Chino,California 91708-0867



VECTOR THREE ENVIRONMENTAL, INC.

VIII # 9651 07/06/92
OCHCA PLAN #92-125

EXCALIBUR EXTRUSION, INC.
110 East Crowther Avenue
Placentia, CA.

11605 SO. EAST END AVENUE, CHINO, CA. 91710 714/627-0627 FAX 714/627-4464

COUNTY OF ORANGE

TOM URAM
DIRECTOR

L. REX EHLING, M.D.
HEALTH OFFICER

ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, R. S. MPH
DEPUTY DIRECTOR

HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
2009 E. EDINGER AVENUE
SANTA ANA, CALIFORNIA 92705
(714) 667-3700

July 29, 1992

Glenn Baldwin
Excalibur Extrusions
110 E. Crowther Avenue
Placentia, CA 92670

Subject: Site Assessment Workplan

RE: Excalibur Extrusions, Inc.
110 East Crowther Avenue
Placentia, CA 92670
O.C.H.C.A. Case # 92UT87

Dear Mr. Baldwin:

Please be advised that this office has reviewed the above referenced workplan. We have found the workplan to be adequate to further assess 1,1,1, trichloroethane contamination at the subject site, provided the following considerations are addressed:

1. The soil samples may be analyzed by EPA Method 8010 - Chlorinated Volatile Organics rather than EPA Method 8240 - Volatile Organics.

2. This Agency must be notified at least 48 hours prior to initiation of work, and an O.C.H.C.A. representative must be on-site to witness and direct sampling.

If you have any questions, please contact me at (714) 667-3721.

Very truly yours,

Steven R. Sharp
Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

SRS:lll

cc: Don Hollenbeck, Vector Three Environmental Inc.

LOUIS R. REIMER

Registered Geologist
California - No. 4336

P. O. Box 1057, Yorba Linda, CA 92686
(714) 779-6743

SITE INVESTIGATION
AT
EXCALIBUR EXTRUSIONS, INC

110 EAST CROWTHER AVE.
PLACENTIA, CA.

REPORT DATE: JULY 29, 1992

Our Identification: ABU1A

BACKGROUND

Nine underground storage tanks were removed from this site on June 9, 1992. Samples from under tanks two and three showed 1,1,1-Trichloroethane contamination at 400 and 300 ppb., respectively. Orange County Health Care Agency (OCHCA) requested sampling from deeper depths under these tanks. A work plan committing to obtaining samples at the east end of the two tanks, at depths of 16 and 21 feet below grade, was submitted to OCHCA by Don Hollenbeck of Vector III Environmental, Inc. (See Attachment 1). The work plan was approved with modification by OCHCA. This report documents the work done under the plan and provides an interpretation of the results.

WORK PERFORMED

Boring locations were selected by Don Hollenbeck and marked on the ground in the locations shown on the enclosed map. Work on site commenced about 9:30 A.M. on July 27, 1992 in the presence of OCHCA representative, Steve Sharp. It was first attempted to hand bore the required borings; however, native soil beneath the original pit floor (depth of about 14' below grade*) proved to be gravelly sand and was not only difficult to auger through, but would not stay in the auger bucket for removal from the hole. Mr. Sharp expressed concern that further hand augering and dropping the soil in the boring would only result in the aeration of the sample and loss of the volatiles that were of interest. At 10:20 A.M. it was decided to bring in a drill rig and use it to take the samples.

Mr. Sharp left the site about 11:00 A.M. after learning that the rig was on its way and was assured that the samples would be taken with a Modified California Split Spoon Sampler. Use of this sampling equipment results in minimal loss of volatiles.

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* Note: All references to depths in this report are to depths below finished asphalted grade in the parking lot surrounding the former tank pit. The surface of the former tank excavation was not at finished grade and was about 1 foot below the asphalt surface.

Great Sierra Drilling Company arrived on site at 12:15 P.M. and drilled two holes to a depth of 21 feet below grade, using a Mobile Rig B-53 drilling rig with 6.5 inch outside diameter hollow stem augers. Samples of cuttings from the upper part of the boring were taken and described in lieu of taking core samples. Undisturbed samples were taken at 16 and 21 feet below grade with a California Modified Sampler that held three, 6 inch long by 2 inch diameter brass tubes. These tubes were stacked end to end within the sampler making an 18 inch long tube for the soil to enter. The sampler was driven into the soil at the sample point by a 140 lb. hammer. Sampling and drilling equipment were clean before undergoing use. Sampling equipment was washed in an Alconox-water solution, rinsed in tap water and given a final distilled water rinse each time before being used. Drilling equipment came on site decontaminated and only clean augers were used in each hole. When the samples were retrieved, one sample was placed in a "zip-loc" bag for later headspace analysis by a Gastech Intrinsically Safe Oxy/Surveyor Model 1314 PID calibrated to hexane, and another sample was used for soil description. In boring OC-1 the bottom sample tube was selected for laboratory analysis, while in boring OC-2 the middle sample tube was selected for laboratory analysis since each bottom sample tube in boring OC-2 had some soil loss providing unwanted "head space" in the sample. Samples for analysis were sealed by covering the exposed end with teflon sheets, then covering with plastic end caps, and sealing the plastic end caps to the tube with duct tape. The sample that was to be analyzed was labeled and placed in an ice chest kept at 4 degrees Celsius and sent under chain of custody to a State of California Certified Laboratory for analysis. The samples were analyzed for 1,1,1,-Trichloroethane by EPA Method 8010.

RESULTS

Geology

The borings penetrated through fill material in the former tank excavation to a depth of approximately 14 feet below grade. The fill material consisted of moist, brown to tan, silty sand, with some clay and minor gravel. (See boring logs in Attachment 2). The underlying native soil, to the total depth drilled, was a very dense, dry, tan to light brown, poorly graded, coarse sand with about 10% 1 inch gravel. Coarse sediment of this type is typical of alluvial fan deposits. Mapping published by the California Department of Mines and Geology (DMG) shows that the outcrops in this area of Placentia are unnamed Pleistocene alluvial sediments.

Groundwater

Information received from the Orange County Water District (OCWD), for the two wells immediately across East Crowther Ave. from this site, (Bradford no: 3 and Bradford no: 4) show that the static water level in these wells measured in April of 1992 to be between 120 and 142 feet below ground surface. Additional information from OCWD for the La Jolla well no: 2, between 500 and 1000 feet south of the site, showed a static water level of 159 feet in April of 1992. Finally, personal communication with Dennis Merklin at the Santa Ana Regional Water Quality Control Board, on July 29, 1992, revealed that a well currently being drilled at the intersection of Kramer and La Jolla, about 3/4 mile to the southeast of the site had not yet intersected groundwater, although it had been drilled to a depth of over 120 feet.

The available evidence points to a groundwater level of 120 feet or greater below grade.

Contamination

No visual or olfactory evidence of contamination was seen in the field, nor were there any readings on the Gastech Meter that would indicate contamination was present. The samples sent to the laboratory for analysis showed non-detect readings for all EPA Method 8010 parameters, including 1,1,1-Trichloroethane. The detection limit for the 1,1,1-Trichloroethane was 10 ug/kg. The lab report of the chemical analyses is attached as Attachment 3.

CONCLUSIONS

The results of the drilling program show that there is little likelihood of the contamination detected during the tank removal to extend to, or beyond, the depths tested in the vicinity of former tanks 2 & 3. With the relatively deep groundwater in this area, the chances of groundwater being impacted is negligible.

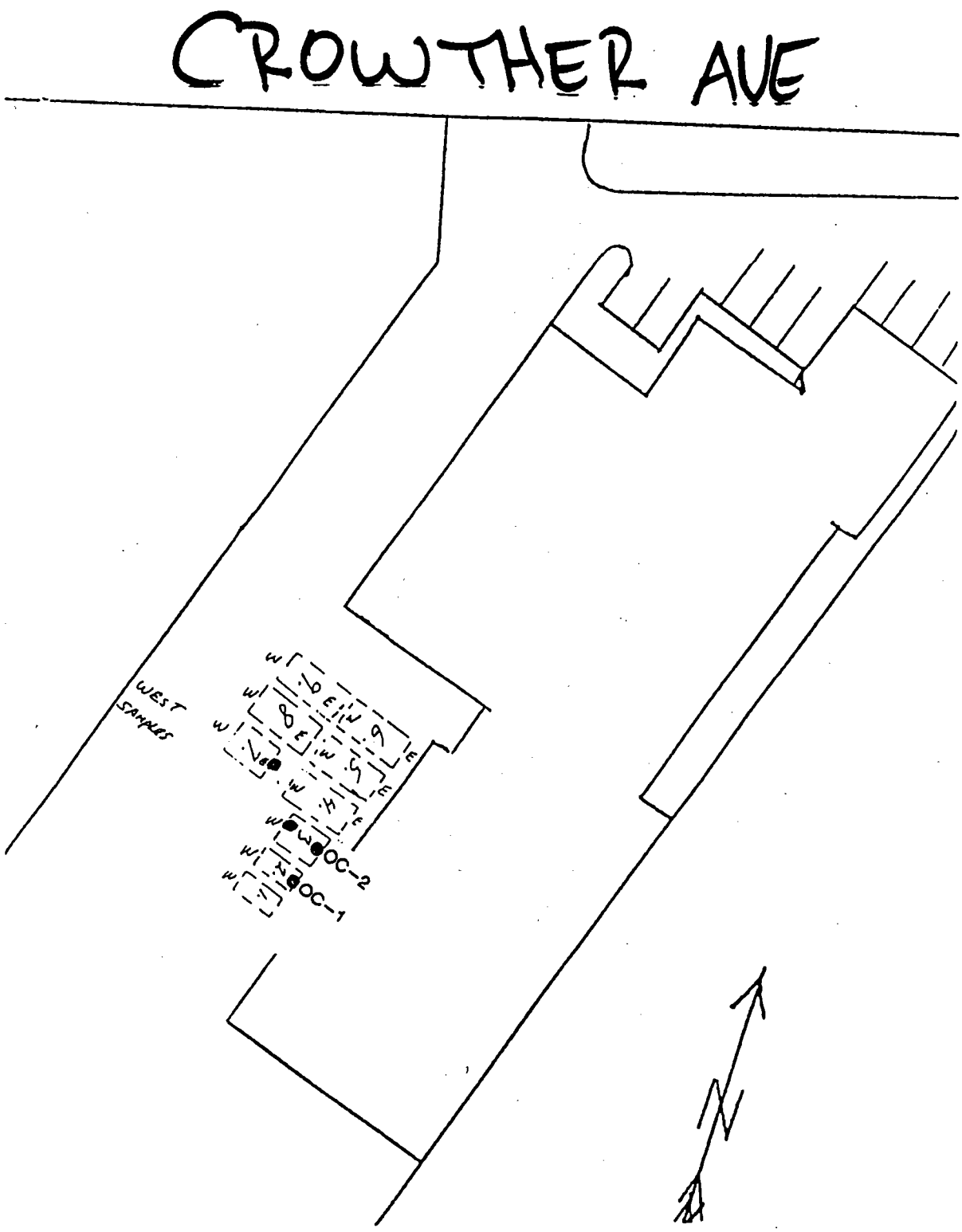
RECOMMENDATIONS

It is recommended that this site be accepted for closure.

Louis R. Reimer

Louis R. Reimer
Registered Geologist California #4336

REGISTERED GEOLOGIST
LOUIS R. REIMER
No. 4336
STATE OF CALIFORNIA



VECTOR THREE ENVIRONMENTAL, INC.

VIII # 9651 07/06/92
OCHCA PLAN #92-125

EXCALIBUR EXTRUSION, INC.
110 East Crowther Avenue
Placentia, CA.

11605 SO. EAST END AVENUE, CHINO, CA. 91710 714/627-0627 FAX 714/627-4464

ATTACHMENT 1

Vector Three Environmental Inc.

Environmental Engineering

Lic. #558239

JULY 6, 1992

COUNTY OF ORANGE HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH/HAZARDOUS MATERIALS SECTION
2009 East Edinger
Santa Ana, California 92702

ATTENTION: MR. JIM STROZIER

SUBJECT: Work Plan to further assess contamination at:

EXCALIBUR EXTRUSIONS, INC. - PLAN #92-125
110 East Crowther Avenue
Placentia, CA.

Dear Mr. Strozier,

Thank you for your speedy response in examining this project and determining O.C.H.C.A.'s requirements for final closure on this project.

Vector Three Environmental, Inc. has been retained by the property owner, Mr. Glenn Baldwin, to submit this Work Plan to further assess the contamination found under two (2) of the under ground storage tanks that were removed from this property on June 9, 1992.

VIII will, upon your approval, bore two (2) boring's in the same area where samples #TE-2 and TE-3 were taken. These two samples showed contamination of 1,1,1-Trichloroethane at levels of 400 and 330 ppm. The locations of the boring's are shown on the attached plot plan. The samples will be taken at depths of 16 feet and 21 feet by advancing a modified California split spoon sampler equipped with brass liners into the undisturbed soil beyond the tip of the auger. The soil samples will be collected in the brass liners, sealed with Teflon tape and plastic end caps, placed on ice and a proper chain of custody will be prepared. The samples will be transported to a California certified laboratory and analyzed for EPA method 8240.

Upon receipt of the results, the original laboratory report and chain of custody, these items will be forwarded to your office along with a report.

During the boring's all tailing's will be field-screened for volatile organic vapors using a flame ionization detector (F.I.D.). If any level of vapors are detected at the 21 feet depth, VIII will continue boring and taking samples a feet intervals.

If you have any questions or comments on this work plan. please call me at (714) 627-0627.

Yours Truly,

Donald Hollenbeck
President

DLH:smb

11605 So. East End Avenue,Chino, California 91710 714/627-0627 Fax 714/627-4464
P.O. Box 867, Chino,California 91708-0867

Vector Three Environmental Inc.

Environmental Engineering

Lic. #558239

JULY 16, 1992

COUNTY OF ORANGE HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS SECTION
2009 East Edinger
Santa Ana, California 92702

ATTENTION: MR. STEVE SHARP

SUBJECT: Addendum to Work Plan dated July 6, 1992

EXCALIBUR EXTRUSIONS, INC. - PLAN #92-125
110 East Crowther Avenue
Placentia, CA.

Dear Mr. Sharp,

Thank you for your speedy response in examining this project and determining O.C.H.C.A.'s requirements for final closure on this project.

As a result of our telephone conversation today, please accept the following additions to our Work Plan.

1. In the Work Plan, the levels of 1,1,1,-Trichloroethane found in the samples recovered were 400 and 330 ppb, not ppm as stated.

VIII will, upon your approval, bore two (2) boring's in the same area where samples #TE-2 and TE-3 were taken. These two samples showed contamination of 1,1,1-Trichloroethane at levels of 400 and 330 ppb. The locations of the boring's are shown on the attached plot plan. The samples will be taken at depths of 16 feet and 21 feet by advancing a modified California split spoon sampler equipped with brass liners into the undisturbed soil beyond the tip of the auger. The soil samples will be collected in the brass liners, sealed with Teflon tape and plastic end caps, placed on ice and a proper chain of custody will be prepared. The samples will be transported to a California certified laboratory and analyzed for EPA method 8240. Before the brass sleeves are placed in the split spoon sampler, they will be properly washed in TSP and double rinsed in distilled water. As you recommended, we will then have the samples analyzed for EPA Method 8010 and not 8240, which was in the original Work Plan.

Upon receipt of the results, the original laboratory report and chain of custody, these items will be forwarded to your office along with a report.

During the boring's all tailing's will be field-screened for volatile organic vapors using a GasTech Model #1314 combustible gas detector. If any level of vapors are detected at the 21 feet depth, VIII will continue boring and taking samples at 5' intervals.

As was discussed, Vector Three Environmental, Inc. will notify you at least 48 hours before proceeding with this Work Plan.

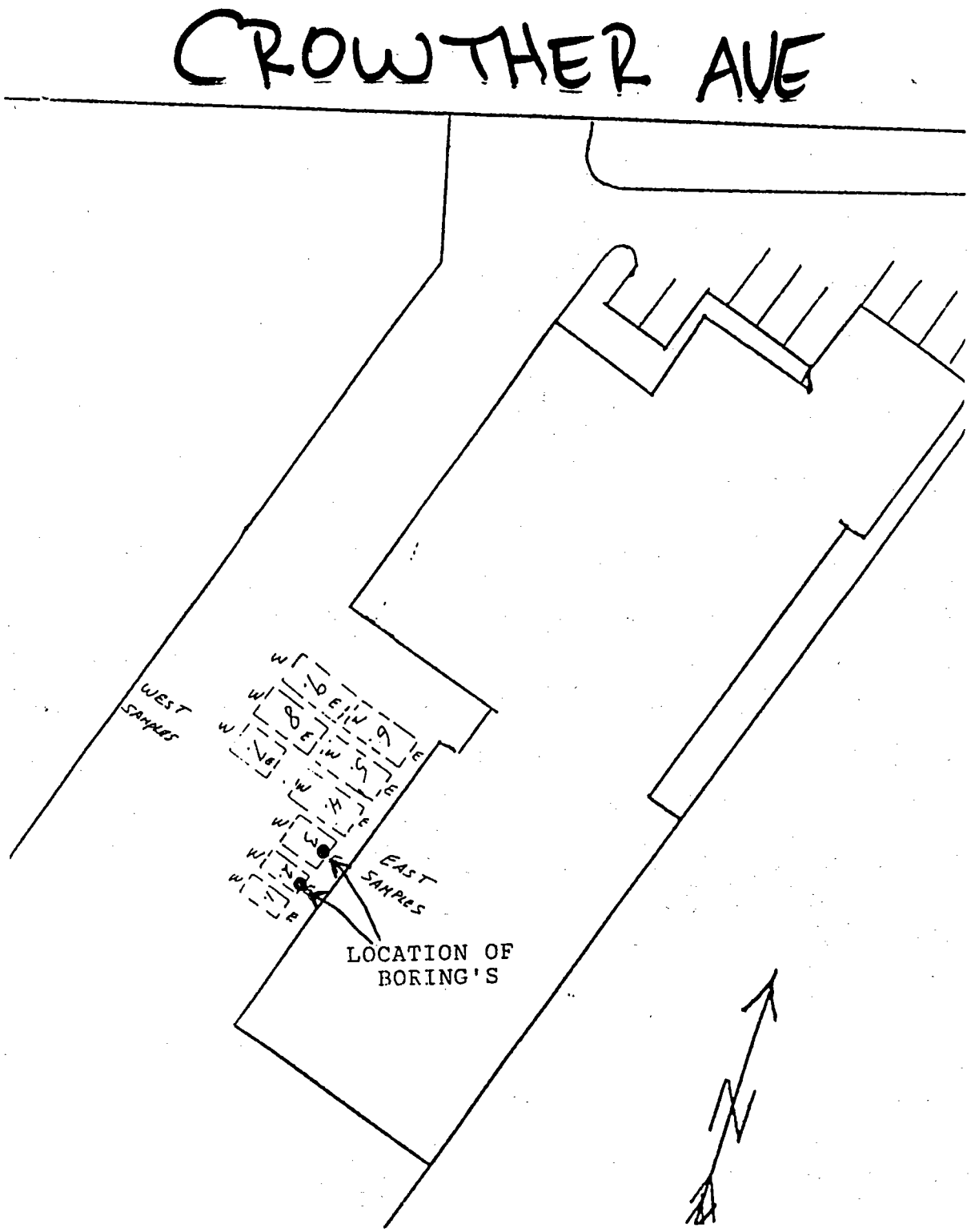
If you have any questions or comments on this work plan. please call me at (714) 627-0627.

Yours Truly,

Donald Hollenbeck
President

DLH:smb

11605 So. East End Avenue,Chino, California 91710 714/627-0627 Fax 714/627-4464
P.O. Box 867, Chino,California 91708-0867



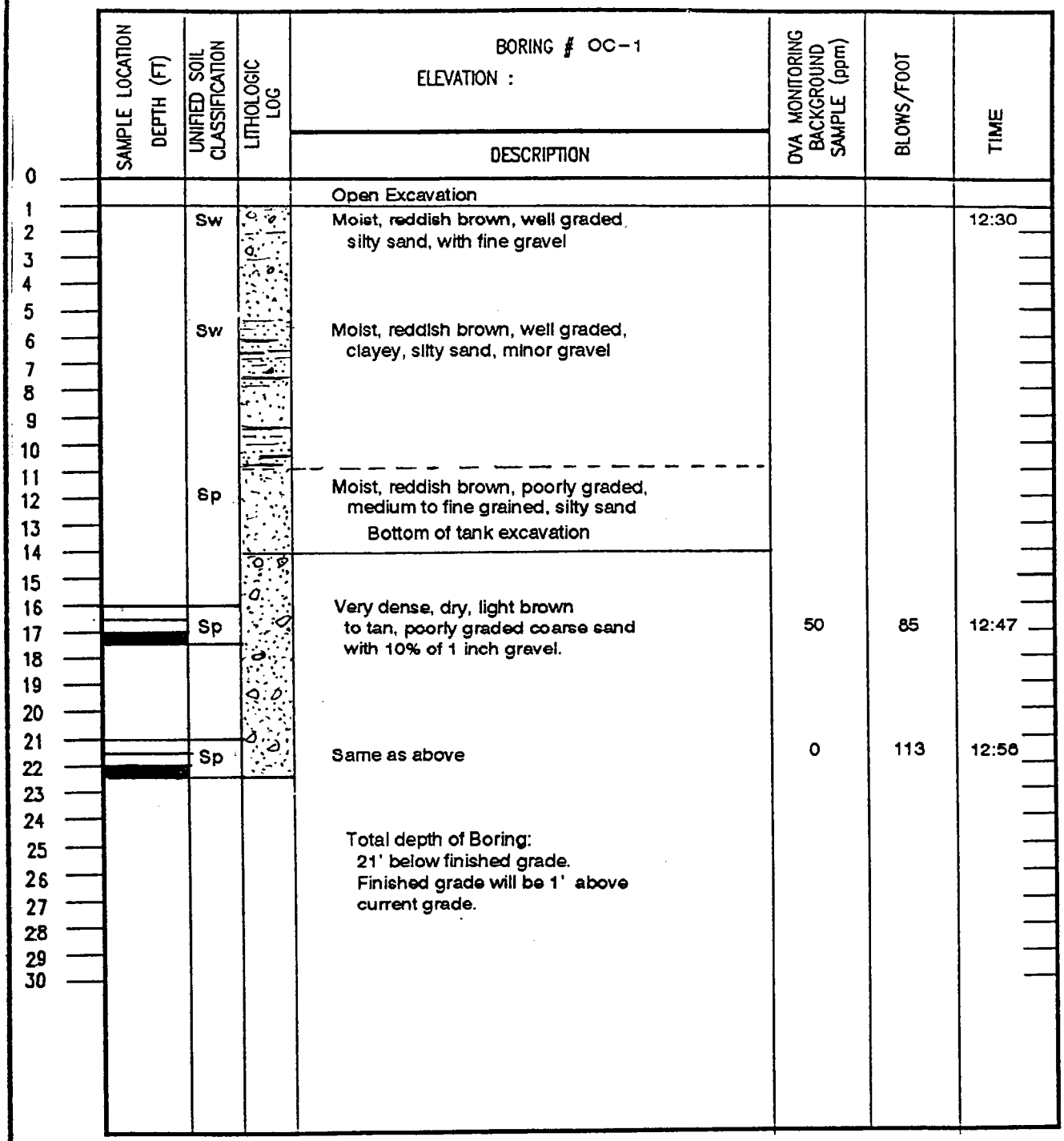
VECTOR THREE ENVIRONMENTAL, INC.

VIII # 9651 07/06/92
OCHCA PLAN #92-125

EXCALIBUR EXTRUSION, INC.
110 East Crowther Avenue
Placentia, CA.

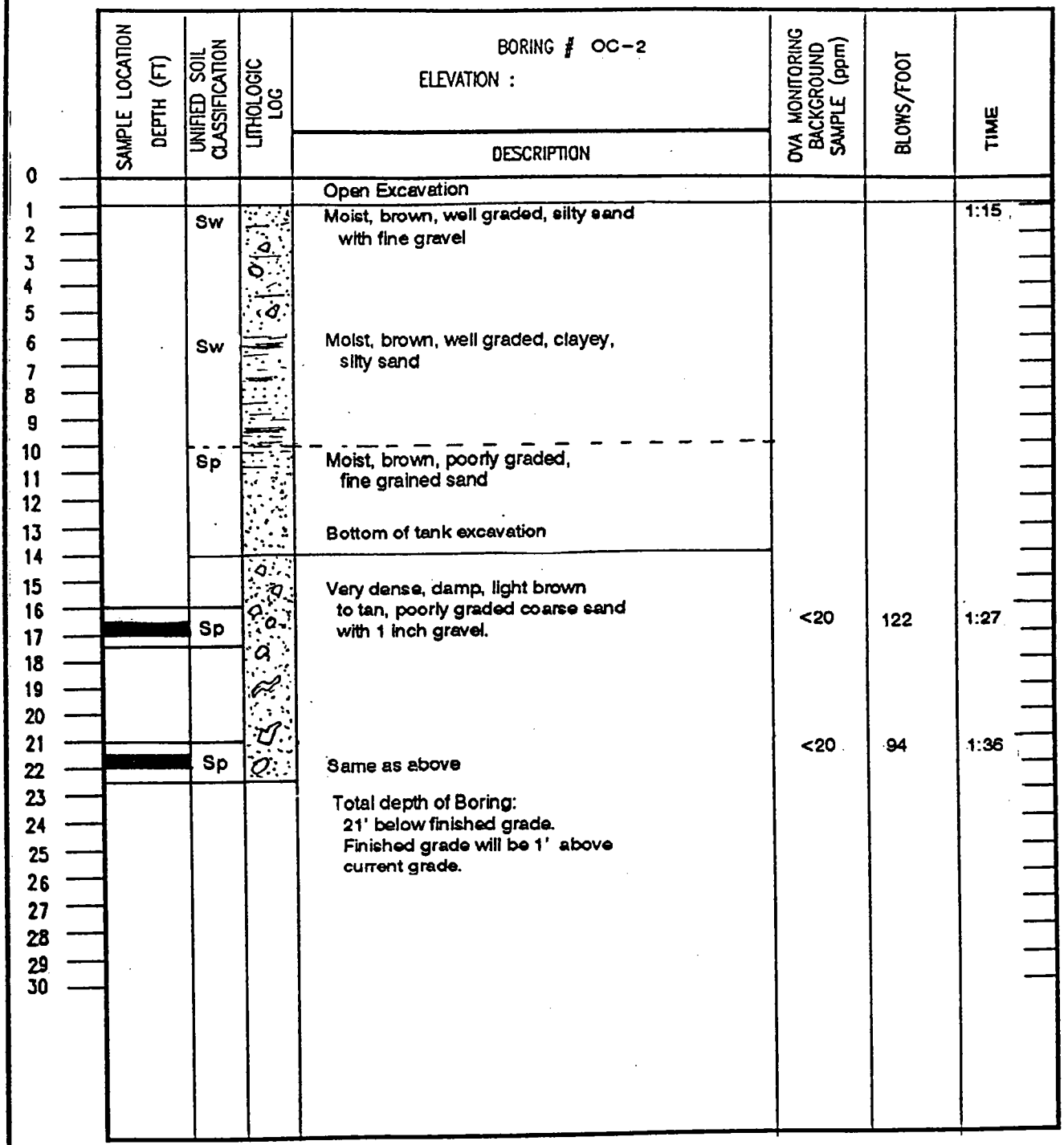
11605 SO. EAST END AVENUE. CHINO. CA. 91710 714/627-0627 FAX 714/627-4464

ATTACHMENT 2



DRAWING TITLE: BORING 0C-1
PROJECT: EXCALIBER EXTRUSIONS
LOCATION: 110 EAST CROWTHER AVE
PLACENTIA, CA
PROJECT IDENTIFICATION: ABU1A
DRAWN BY: L. R. REIMER
DATE: JULY 29, 1992

LOGGED BY:L. R. REIMER
DRILLING CO:GREAT SIERRA
DRILLER:CHRIS CUZZ
RIG TYPE:MOBILE DRILL B-53
USING HOLLOW STEM AUGERS
HOLE DIAMETER: 6 1/2 "
DATE DRILLED: JULY 27, 1992



DRAWING TITLE: BORING OC-2
PROJECT: EXCALIBER EXTRUSIONS
LOCATION: 110 EAST CROWTHER AVE
PLACENTIA, CA
PROJECT IDENTIFICATION: ABU1A
DRAWN BY: L. R. REIMER
DATE: JULY 29, 1992

LOGGED BY:L. R. REIMER
DRILLING CO:GREAT SIERRA
DRILLER:CHRIS CUZZ
RIG TYPE:MOBILE DRILL B-53
USING HOLLOW STEM AUGERS
HOLE DIAMETER: 6 1/2"
DATE DRILLED: JULY 27, 1992

ATTACHMENT 3

July 28, 1992

Mr. Don Hollenbeck
Vector Three Environmental Inc.
11605 East end Ave.
Chino, CA 91710

Dear Mr. Hollenbeck:

Enclosed please find the analytical report for the samples received on 7-27-92. The samples were received by C&E in a chilled state, intact and with the chain-of-custody record attached. In the report, the analytical results are summarized in total of two pages.

The analytical methods involved in this report are certified by the Department of Health Service (certificate number: 1597). Unless otherwise noted, all the quality assurance criteria required by our QA/QC program were achieved during the analysis.

If you have any questions concerning these results and our service, please call me.

Sincerely,

Larry Zhang

Larry Zhang, Ph.D.
Laboratory Director

14096 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 310 921-8123, Fax: 310 921-7974

ANALYTICAL RESULT REPORT

Halogenated Volatile Organics in Soil
----EPA Method 8010 ----

Client Name: VECTOR III ENVIRONMENTAL
Project Manager: DON HOLLENBECK
Project Number:
Report Issue Date: 7-28-92

C&E Sample ID		920727A-1	920727A-2	920727A-3	920727A-4	
Client Sample ID		OC1-16	OC1-21	OC2-16	OC2-21	
Date Sampled		7-27-92	7-27-92	7-27-92	7-27-92	
Date Analyzed		7-28-92	7-28-92	7-28-92	7-28-92	
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
Chloromethane	50	ND	ND	ND	ND	
Vinyl Chloride	50	ND	ND	ND	ND	
Bromomethane	50	ND	ND	ND	ND	
Chloroethane	50	ND	ND	ND	ND	
Dichlorodifluoromethane	50	ND	ND	ND	ND	
Trichlorofluoromethane	50	ND	ND	ND	ND	
1,1-Dichloroethene	10	ND	ND	ND	ND	
Methylene Chloride	50	ND	ND	ND	ND	
trans-1,2-Dichloroethene	10	ND	ND	ND	ND	
1,1-Dichloroethane	10	ND	ND	ND	ND	
Chloroform	10	ND	ND	ND	ND	
1,1,1-Trichloroethane	10	ND	ND	ND	ND	
Carbon Tetrachloride	10	ND	ND	ND	ND	
1,2-Dichloroethane	10	ND	ND	ND	ND	
Trichloroethene	10	ND	ND	ND	ND	

(Continued on the next page)

ANALYTICAL RESULT REPORT

Halogenated Volatile Organics in Soil
---EPA Method 8010 ---

Client Name: VECTOR III ENVIRONMENTAL
Project Manager: DON HOLLENBECK
Project Number:
Report Issue Date: 7-28-92

C&E Sample ID		920727A-1	920727A-2	920727A-3	920727A-4	
Client Sample ID		OC1-16	0C1-21	OC2-16	OC2-21	
Date Sampled		7-27-92	7-27-92	7-27-92	7-27-92	
Date Analyzed		7-28-92	7-28-92	7-28-92	7-28-92	
Compound	Detection Limit (ug/kg)	Concentration (ug/kg)				
1,2-Dichloropropane	10	ND	ND	ND	ND	
Bromodichloromethane	10	ND	ND	ND	ND	
cis-1,3-Dichloropropene	10	ND	ND	ND	ND	
trans-1,3-Dichloropropene	10	ND	ND	ND	ND	
2-Chloroethyl Vinyl Ether	10	ND	ND	ND	ND	
1,1,2-Trichloroethane	10	ND	ND	ND	ND	
Tetrachloroethene	10	ND	ND	ND	ND	
Dibromochloromethane	10	ND	ND	ND	ND	
Chlorobenzene	10	ND	ND	ND	ND	
Bromoform	10	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	10	ND	ND	ND	ND	
1,3-Dichlorobenzene	10	ND	ND	ND	ND	
1,4-Dichlorobenzene	10	ND	ND	ND	ND	
1,2-Dichlorobenzene	10	ND	ND	ND	ND	

ND = Not detected at the indicated detection limit.

CHAIN-OF-CUSTODY RECORD

Client: Victor Thru Enviro Ln
Date: 7-27-92
Project Name: Excalibur
Client Project #:
Project Address: 110 W. Crowther
Placentia
Sampler's Signature: K. R. Reimer

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Mobile Lab

TTL Project #:
Page: of

Lab Use Only.
Sample Condition as received:
Chilled yes / no
Sealed yes / no

Sample ID	Sample Location	Date	Time	Laboratory Sample Number	Sample Matrix: Soil(S), Sludge(SL), Aqueous(A)	Analysis Requested: Total Petroleum Hydrocarbons as Gasoline, LUFT Manual (P&T)	Analysis Requested: TPH as Diesel Fuel, LUFT Manual	Analysis Requested: TPH as Gasoline, Extractable	Analysis Requested: TPH by EPA Method 418.1	Analysis Requested: BTEX by EPA Method 8020	Analysis Requested: 8010	Analysis Requested:	Analysis Requested:	Number of Containers	Container / Comments
OC1-16		7-27-92	12:47 ~~1:00~~								X				
OC1-21		7-27-92	12:58								X				
OC2-16		7/27/92	1:27								X				
OC2-21		7/27/92	1:36								X				

	Date		Date		
① Relinquished by: (Signature) K. R. Reimer	7/27/92	② Received by: (Signature)	7.27.92		Total Number of Containers
Company: —	Time 1:40	Company: Victor Thru Enviro	Time 2:10		
③ Relinquished by: (Signature)	Date	④ Received by Laboratory: (Signature)	Date 7-27-92		
Company:	Time	Company:	Time 2:10		

TERRA TECH LABS, INC.
ENVIRONMENTAL TESTING
16371 Gothard Street, Suite G
Huntington Beach, CA 92647
Tel. (714) 842-6077

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 572-6200

September 13, 1991

Vector Three Environmental Inc
451 West Lambert Road #208
Brea, CA 92621

Attention: Donald L. Hollenbeck

(714) 256-9606
APPLICATION NO. 255285
COMPANY ID 67403

RULE 1166 CONTAMINATED SOIL MITIGATION PLAN

Reference is made to your Application (A/N 255285) received on August 26, 1991, for the excavation and handling of VOC-contaminated soil at various locations within the South Coast Air Quality Management District.

Your excavation and mitigation plan has been approved under the provisions of Rule 1166 of the Rules and Regulations of the SCAQMD and is subject to the following conditions.

PLAN CONDITIONS:

PROPERTY OWNER'S INITIALS

1. AT LEAST 24 HOURS PRIOR TO COMMENCING EXCAVATION OF UNDERGROUND TANKS WHICH HAVE STORED VOLATILE ORGANIC COMPOUNDS (VOC), THE EXECUTIVE OFFICER SHALL BE NOTIFIED OF ALL INFORMATION ITEMS LISTED IN **RULE 1166(c)(1)(A)** AND THE NAME OF THE COMPANY PERFORMING THE EXCAVATION. [ ]

   IF VOC-CONTAMINATED SOIL IS DETECTED, THE EXECUTIVE OFFICER SHALL BE NOTIFIED AGAIN WITHIN 24 HOURS. BOTH NOTIFICATIONS SHALL BE MADE BY CALLING (818) 572-6195, MONDAY THROUGH FRIDAY, BETWEEN 8 A.M. AND 5 P.M.

2. THIS PLAN IS VALID ONLY FOR THE EXCAVATION AND HANDLING OF A MAXIMUM OF **2000 CUBIC YARDS** OF VOC-CONTAMINATED SOIL AT EACH SITE. EXCAVATION OF A GREATER AMOUNT REQUIRES SUBMITTAL OF A SITE SPECIFIC RULE 1166 EXCAVATION PLAN. [ ]

3. ALL VOC-CONTAMINATED SOIL SHALL BE DISPOSED, BACKFILLED, OR REMOVED FROM THE SITE WITHIN **40 DAYS** AFTER IT HAS BEEN EXCAVATED FROM THE AFFECTED AREAS. [B]

   RECORDS OF DISPOSAL OR TREATMENT OF VOC-CONTAMINATED SOIL SHALL BE MAINTAINED FOR A PERIOD OF TWO (2) YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

4. THE OWNER OR OPERATOR SHALL PREPARE A WRITTEN PLAN WHICH INCLUDES METHODS TO TREAT THE VOC-CONTAMINATED SOIL, SCHEDULES TO HAUL THE SOIL AWAY, BACKFILL THE SOIL, OR OTHER MEANS OF DISPOSAL. THE PLAN SHALL ALSO INDICATE THAT THE NECESSARY PERMITS HAVE BEEN OBTAINED OR ARE IN THE PROCESS OF BEING OBTAINED. SUCH A PLAN SHALL BE PREPARED NO LATER THAN 5 DAYS AFTER THE COMPLETION OF THE EXCAVATION, AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. [A]

5. THE EXCAVATION SHALL BE CONDUCTED IN 50 FT. X 50 FT. OR SMALLER SECTIONS TO MINIMIZE EXPOSURE OF SOIL POTENTIALLY CONTAMINATED WITH VOC. [A]

6. THE EXCAVATION OPERATOR SHALL HAVE ON SITE AN ORGANIC VAPOR ANALYZER (OVA) USING FLAME IONIZATION OR PHOTO IONIZATION OR OTHER ANALYTICAL METHODS COMPLYING WITH 40 CFR PART 60 APPENDIX A, EPA METHOD 21 SECTION 3.1.1.a., "DETERMINATION OF VOLATILE ORGANIC COMPOUND LEAKS, MONITORING INSTRUMENT SPECIFICATIONS". [A]

7. THE OVA SHALL BE CAPABLE OF BEING CALIBRATED USING HEXANE AT A RANGE OF 0 PARTS PER MILLION BY VOLUME (PPMV) TO 50 PPMV AND AT A DETECTION RANGE OF AT LEAST 30 PPMV TO 1100 PPMV. THE OVA SHALL BE INITIALLY CALIBRATED USING HEXANE BY THE MANUFACTURER AND CALIBRATED AT LEAST ONCE AT THE BEGINNING OF EACH WORKING DAY WITH THE PROCEDURES SPECIFIED BY THE MANUFACTURER. [A]

8. DURING EXCAVATION, MONITORING SHALL BE CONDUCTED TO MEASURE VOC'S AT A DISTANCE NO MORE THAN 3 INCHES ABOVE THE FRESHLY DUG SOIL BY USING AN ORGANIC VAPOR ANALYZER (OVA) DESCRIBED UNDER CONDITION 7. THIS MEASUREMENT SHALL BE MADE FOR EVERY LOAD OF SOIL AND SHALL BE TAKEN NO LONGER THAN THREE (3) MINUTES AFTER EACH LOAD OF SOIL IS EXCAVATED. [A]

9. WRITTEN RECORDS OF OVA MONITORING AND CALIBRATIONS REQUIRED ABOVE SHALL BE KEPT IN A FORMAT APPROVED BY THE DISTRICT. A TYPICAL FORMAT IS ATTACHED WITH THIS PLAN. [A]

10. VOC-CONTAMINATED SOIL IS A SOIL WHICH REGISTERS 50 PPMV OR MORE WHEN MEASURED WITH AN ORGANIC VAPOR ANALYZER (CALIBRATED USING HEXANE) AT A DISTANCE OF NO MORE THAN THREE INCHES ABOVE EXCAVATED AND EXPOSED SOIL. [A]

11. IF THE OVA MEASUREMENT IS BETWEEN 50 PPMV AND 1000 PPMV, [8]

    A) THE WORKING AREA SHALL BE IMMEDIATELY SPRAYED WITH WATER, OR COVERED WITH CLEAN SOIL OR TREATED WITH A DISTRICT APPROVED SUPPRESSANT, AND

    B) EACH VOC-CONTAMINATED LOAD OF SOIL SHALL BE SPRAYED WITH WATER OR TREATED WITH A DISTRICT APPROVED VAPOR SUPPRESSANT AND BE STOCKPILED SEPARATELY.

12. IF THE OVA MEASUREMENT EQUALS OR IS GREATER THAN 1000 PPMV, [9]

    A) THE WORKING AREA SHALL BE SPRAYED WITH WATER OR DISTRICT APPROVED VAPOR SUPPRESSANTS OR COVERED WITH AT LEAST 4 INCHES OF CLEAN SOIL, AND

    B) THE SOIL DUG UNDER THE ABOVE CONDITIONS SHALL BE STORED IN DISTRICT APPROVED CONTAINERS, AND

    C) IN LIEU OF CONTAINERS, OTHER MITIGATION MEASURES MAY BE SUBSTITUTED WITH PRIOR WRITTEN APPROVAL OF THE EXECUTIVE OFFICER, IF THE OWNER OR OPERATOR CAN DEMONSTRATE THAT AN ALTERNATIVE MEASURE IS EQUALLY OR MORE EFFECTIVE IN REDUCING VOC EMISSIONS. PRIOR TO THE EXECUTIVE OFFICER'S APPROVAL, THE OWNER OR OPERATOR SHALL SUBMIT A COMPREHENSIVE WRITTEN STUDY WHICH COMPARES QUANTITATIVELY THE ESTIMATED VOC EMISSIONS DIFFERENCE BETWEEN THE ALTERNATIVE MITIGATION MEASURES.

13. ALL VOC-CONTAMINATED SOIL SHALL BE STOCKPILED SEPARATELY FROM NON VOC-CONTAMINATED SOIL AND KEPT MOIST, COVERED OR SPRAYED WITH WATER OR WITH A FUME SUPPRESSANT TO PREVENT EMISSIONS OF PARTICULATES OR VOC. [10]

14. AT THE END OF EACH WORKING DAY, ALL STOCKPILES SHALL BE COVERED WITH A HEAVY DUTY CONTINUOUS PLASTIC SHEET(S), JOINED AT THE SEAMS, AND SECURELY ANCHORED TO PREVENT ANY EXPOSURE OF SOIL TO THE ATMOSPHERE. [11]

15. A STOCKPILE SHALL NOT CONTAIN MORE THAN 450 CUBIC YARDS OF SOIL. [12]

16. WITHIN 5 DAYS AFTER THE EXCAVATION IS COMPLETED AT EACH SITE, THE WRITTEN RECORDS UNDER CONDITIONS 4 AND 9 SHALL BE SUBMITTED TO THE DISTRICT AT THE FOLLOWING ADDRESS. [13]

    SCAQMD
    ENFORCEMENT DIV.
    9150 FLAIR DR.
    EL MONTE CA. 91731

17. VOC-CONTAMINATED SOIL SHALL NOT BE SPREAD ON-SITE OR OFF-SITE TO CAUSE THE EVAPORATION OF UNCONTROLLED VOC TO THE ATMOSPHERE. [GB]

18. THIS PLAN IS NOT VALID FOR EXCAVATING VOC-CONTAMINATED SOILS AT LANDFILLS OR SITES USED FOR DISPOSAL OF REFUSE OR OTHER TYPES OF WASTE. [GB]

19. THIS PLAN DOES NOT ALLOW ANY TREATMENT OF VOC-CONTAMINATED SOIL. [GB]

20. A COPY OF THIS PLAN SHALL BE PRESENT AT EACH EXCAVATION SITE DURING ALL SOIL HANDLING AND STORAGE PROCESSES. [GB]

21. THIS PLAN IS NOT VALID UNTIL THE VERIFICATION BELOW IS SIGNED. [GB]

I GLENN BALDWIN, AM THE OWNER OF THE PROPERTY LOCATED AT 110 East Crowther Ave., Placentia, CA. (SITE OF THE EXCAVATION). I VERIFY THAT I HAVE READ, UNDERSTOOD, AND INITIALED EACH CONDITION OF THIS PLAN.

Glenn B Baldwin
SIGNED

6-2-92
DATE

Other governmental agencies may require approval before any excavation begins. It shall be the responsibility of the applicant to obtain that approval. The South Coast Air Quality Management District shall not be responsible or liable for any losses because of measures required or taken pursuant to the requirements of this approved 1166 Contaminated Soil Mitigation Plan.

If you have any questions concerning this plan, please call Mr. Arthur Lawler at (818) 572-6406.

Very truly yours,

for John Rhett
George Rhett
Supervising A. Q. Engineer

AL R1166VXE
cc: Rudy Eden, Enforcement, Data Management Branch

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RULE 1166 SOIL MONITORING RECORDS

SITE INFORMATION

OWNER: EXCALIBUR

ADDRESS: 110 E. Crowther Ave.

CITY: Placentia

ZIP CODE: 92670

DATE OF EXCAVATION: _____

MONITORING INFORMATION

COMPANY: _____

NAME OF PERSON: _____

MONITOR MFG: _____

MODEL NO: _____

CALIBRATION GAS _____

TIME	VOC CONCENTRATION (ppmV)		COMMENTS
	EACH LOAD AS REMOVED	STOCKPILE SURFACE	

SIGNATURE: _____ **DATE:** _____

COUNTY OF ORANGE

TOM URAM
DIRECTOR

L. REX EHLING, M.D.
HEALTH OFFICER

ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, R. S. MPH
DEPUTY DIRECTOR

HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
2009 E. EDINGER AVENUE
SANTA ANA, CALIFORNIA 92705
(714) 667-3700

October 1, 1992

Glenn Baldwin
Excalibur Extrusions
110 East Crowther Avenue
Placentia, CA 92670

Subject: Additional Site Assessment Plan

RE: Excalibur Extrusions
110 East Crowther Avenue
Placentia, CA 92670
O.C.H.C.A. Case #92UT87

Dear Mr. Baldwin:

Please be advised that this office has reviewed the above referenced plan. We have found the plan adequate to delineate the vertical extent of 1,1,1, Trichloroethane contamination detected beneath tank #7 following tank removal. This Agency must be notified within 48 hours prior to implementation of workplan. An O.C.H.C.A. representative may be on-site to witness drilling and sampling activities.

If you have any questions, please contact me at (714) 667-3721.

Very truly yours,

Steven R. Sharp
Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

SRS:cjr

cc: Kameron Saremi, Santa Ana Regional Water Quality Control Board
Don Hollenbeck, Vector Three Environmental, Inc.

Vector Three Environmental Inc.

Environmental Engineering

Lic. #558239

COPY

OCTOBER 19, 1992

COUNTY OF ORANGE HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS SECTION
2009 East Edinger
Santa Ana, CA 92702

ATTENTION: MR. STEVE SHARP

SUBJECT: Addendum to Work Plan dated July 6, 1992

EXCALIBUR EXTRUSIONS, INC. - PLAN #92-125
110 East Crowther Avenue
Placentia, CA

Dear Mr. Sharp,

Please find attached the geologist's report of the boring's performed on October 8, 1992. If this report meets with your satisfaction and there is no further investigation required, my client, the property owner, Glenn Baldwin, has requested that you please expedite the closure of this site as soon as possible. There is an escrow pending its arrival.

Thank you for your help in expediting this file to date. If you have any further questions, please do not hesitate to call.

Respectfully,

Donald L. Hollenbeck
President

DLH:smb

11605 So. East End Avenue,Chino, California 91710 714/627-0627 Fax 714/627-4464
P.O. Box 867, Chino,California 91708-0867

COPY

JEFF D. FINDL
Registered Geologist
California - No. 5464

1242 E. Andreas Rd. Palm Springs, CA 92262
(619) 327-5797

EXCALIBUR EXTRUSIONS - BORING OC-3

COPY

VECTOR THREE ENVIRONMENTAL, INC.
11605 South East End Ave.
Chino, CA 91710

Attention: Mr. Don Hollenbeck

Project: SITE INVESTIGATION - EXCALIBUR EXTRUSIONS, INC.
110 E. Crowther Ave.
Placentia, CA

Reference Report: Louis Reimer (RG)
(for) Excalibur Extrusions
(7/29/92)

INTRODUCTION

This report can be considered as an addendum to the Site Investigation Report (dated 7/29/92) by Louis R. Reimer (RG) which was submitted to Vector Three Environmental, Inc. The aforementioned report by Mr. Reimer dealt with the characterization and evaluation of soil samples gathered from two (2) borings drilled 21 feet each at the Excaliber Extrusions property in Placentia, CA.

The two (2) soil borings discussed in Mr. Reimer's report were drilled at the request of the Orange County Health Care Agency. These borings were drilled through an area formerly occupied by nine (9) underground storage tanks. The underground storage tanks were removed from the property on 6/9/92.

Following submittal of data from these two (2) borings, an additional soil boring was requested by the Orange County Health Care Agency. This additional boring (OC-3) is the focus of this brief Site Investigation Report.

Further background information concerning underground storage tank removal operations, previous soil borings, groundwater levels, or regional geologic setting can be referenced from Mr. Reimer's original report dated 2/29/92.

WORK PERFORMED

Field work was initiated at 8 am on 10/8/92 at the Excalibur Extrusions site. Personnel present at the site were Don Hollenbeck (Vector Three Environmental), Jeff Findl (geologist) and two drillers from Great Sierra Drilling Company. A Mobil Rig B-53 with 6.5 inch (O.D.) hollow-stem augers was utilized to drill the boring. This boring was designated as OC-3. The attached site map shows the location of OC-3 and previous borings on the property.

Soil samples (unconsolidated sand and gravel) were gathered at depths of 16 feet and 21 feet below grade. The boring was drilled 21 feet total depth. A California Modified Sampler was used to gather the samples. The Sampler holds three (3) 6 inch long brass tubes loaded end-to-end (total length - 18 inches). The sampler was driven into the subsurface at the sampling points by a 140 pound hammer apparatus equipped on the drilling rig.

Sampling equipment was washed in an Alconox-water solution, rinsed with tap water and given a final distilled water rinse before being used.

After soil samples were retrieved, the middle brass tube was sealed, labeled, double wrapped in "zip-lock" plastic bags and placed in an ice chest for transportation to the analytical laboratory. The contents in the remaining brass tubes were utilized by the field geologist to describe the lithology of the sample, and to screen each sample for organic vapors.

Field analysis for organic vapors was performed with a Gastech Model 1314 photoionization detector (PID), parts per million accuracy. The PID measures the total amount of organic vapors present, but does not identify what specific type(s) of vapor are present. Each soil sample to be screened for organic vapors was sealed in a "zip-lock" plastic bag and exposed to the sun's rays (heat) for about 15 minutes prior to testing. Minor amounts of organic vapors were detected in the field by the PID. The results of organic vapor screening are listed on the attached Boring Log.

SOIL SAMPLE DESCRIPTION

Clayey fill material was encountered in the boring immeadiatley below the cement slab surface, to an approximate depth of 14 feet. The two soil samples gathered from depths of 16 and 21 feet consisted of a light brown, unconsolidated sand with about 10 to 15 percent gravel (up to 1 1/2 inches diameter). The sand was fine to coarse grained, very slightly moist, with some silt particles. No chemical odors were observed upon smelling the samples.

LABORATORY ANALYSES

The soil samples were analyzed for halogenated compounds (EPA Test Method 8010) by C-E Laboratories, Santa Fe Springs, CA, a state certified laboratory. A copy of the Laboratory Report and Chain of Custody form is attached with this report.

No halogenated compounds were detected in the soil samples. A Summary of the laboratory analyses are listed in Table 1.

Table 1 - Laboratory Analyses
Halogenated Compounds: EPA-8010

Sample	Results
OC-3 @ 16'	non-detect (ND)
OC-3 @ 21'	non-detect (ND)

CONCLUSIONS

No halogenated compounds were detected in soil samples analyzed from boring OC-3. No visible or olfactory evidence of hazardous waste in the samples was observed in the field.

REGISTERED GEOLOGIST
JEFF D. FINDL
No 5464
STATE OF CALIFORNIA

Jeff D. Findl
California Registered Geologist #5464

LOG OF BORINGS

CLIENT: VECTOR THREE ENVIRONMENTAL | PAGE 1 OF 1

PROJECT: Excaliber Extrusions 110 Crowther, Placentia, CA

LOCATION: | BORING # OC-3

SOILS CLASSIFICATION SYSTEM: | DRILLING METHOD: Hollow-auger

SAMPLING METHOD: | DRILLING EQUIPMENT:

DATE STARTED: 10/8/92 | DATE FINISHED 10/8/92 | # SAMPLES ANALYZED 2

LOGGED BY: Jeff Findl | COMPLETION DEPTH: | DEPTH TO GROUNDWATER: est. 120'

TIME	BLOWS PER 6 INCHES	O.V.A. AUGER	O.V.A. SAMPLE	DEPTH (FEET)	CLASSIFICATION	SAMPLE DESCRIPTION
				0		Fill-Medium brown, silty clay, slightly moist. To approx. 14 feet.
				5		
				10		
				15		(OC-3 @ 16')
	15-29-43	20 ppm			SP	Sand-light brown, fine to coarse grained, approx. 10% small pebbles, unconsolidated, very slightly moist, no odor.
				20		
	23-40-47	40 ppm				(OC-3 @ 21')
					SP	Sand-light brown, fine to coarse grained, approx. 15% pebbles (up to 1 1/2" in diameter), unconsolidated very slightly moist, no oder
				25		
				30		
				35		Total Depth - 21'
				40		

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

October 12, 1992

Mr. Don Hollenbeck
Vector Three Environmental Inc.
11605 East End Ave.
Chino, CA 91710

Dear Mr. Hollenbeck:

Enclosed please find the analytical report for the samples received on 10-8-92. The samples were received in a chilled state, intact and with the chain-of-custody attached. In the report, the analytical results are summarized in total of one page.

The analytical methods involved in this report are certified by the Department of Health Service (certificate number: 1597). Unless otherwise noted, all the quality assurance criteria required by our QA/QC program were achieved during the analysis.

If you have any questions concerning these results and our service, please call me.

Sincerely,

Larry Zhang

Larry Zhang, Ph.D.
Laboratory Director

14096 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 310 921-8123, Fax: 310 921-7974

ANALYTICAL REPORT

---EPA 8010---

Client Name: Vector III
Project Manager: Don Hollenbeck
Project Number: N/A

Report Issue Date: 10-12-92
Date Analyzed: 10-8-92
Page Number: 1 of 1

C&E ID		21008A-1	21008A-2			
SAMPLE ID		OC-16	OC-21			
COMPOUND	Detection Limit (ug/kg)	CONCENTRATION (ug/kg)				
Chloromethane	50	ND	ND			
Vinyl Chloride	50	ND	ND			
Bromomethane	50	ND	ND			
Chloroethane	50	ND	ND			
Dichlorodifluoromethane	50	ND	ND			
Trichlorofluoromethane	50	ND	ND			
1,1-Dichloroethene	10	ND	ND			
Methylene Chloride	50	ND	ND			
t-1,2-Dichloroethene	10	ND	ND			
1,1-Dichloroethane	10	ND	ND			
Chloroform	10	ND	ND			
1,1,1-Trichloroethane	10	ND	ND			
Carbon Tetrachloride	10	ND	ND			
1,2-Dichloroethane	10	ND	ND			
Trichloroethene	10	ND	ND			
1,2-Dichloropropane	10	ND	ND			
Bromodichloromethane	10	ND	ND			
cis-1,3-Dichloropropene	10	ND	ND			
t-1,3-Dichloropropene	10	ND	ND			
2-Chloroethyl Vinyl Ether	10	ND	ND			
1,1,2-Trichloroethane	10	ND	ND			
Tetrachloroethene	10	ND	ND			
Dibromochloromethane	10	ND	ND			
Chlorobenzene	10	ND	ND			
Bromoform	10	ND	ND			
1,1,2,2-tetrachloroethane	10	ND	ND			
1,3-Dichlorobenzene	10	ND	ND			
1,4-Dichlorobenzene	10	ND	ND			
1,2-Dichlorobenzene	10	ND	ND			

ND = Not detected at the indicated detection limit.

14096 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 310 921-8123, Fax: 310 921-7974

Client: Vector III
Project Manager: Don Hollenbeck
Project Name: Excalibur
Address: Placentia

Tel: Fax:
Send Report To: Don Hollenbeck

CHAIN OF CUSTODY RECORD

REQUEST FOR ANALYSIS

No: 910781

C & E
Chemical & Environmental Laboratories, Inc.
~~1214~~ E. Lexington Ave.
Pomona, ~~CA~~ 91766
~~Tel:~~ 714 527-2604

Date: 10/8/92
Page: 1 of 1

Turnaround Time: Normal ☐ Rush ☐

Sampler Name/Signature: Jeff Findl / Jeff Findl

C&E ID	Sample ID	Sampling Date/Time	Container Size/Type	Preservative	Matrix: Water	Soil	Other	Analysis Required: 601/8010	602/8020	BTEX	M8015(D)	M8015(G)	413.2	418.1	PH Meas.
921008A1	OC-16'	10/8/92 8:30 Am	Brass Sleeve	4°C		X		X							
921008A2	OC-21'	10/8/92	Brass Sleeve	4°C		X		X							

Remarks:

Relinquished By Sampler: Jeff Findl	Date: 10/8/92	Time: 9am	Received By:	Date: 10/8/92	Time: 9:10AM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 10/8/92	Time: 10:35 Am

COUNTY OF ORANGE

HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
2009 E. EDINGER AVENUE
SANTA ANA, CALIFORNIA 92705
(714) 667-3700

TOM URAM
DIRECTOR

L. REX EHLING, M.D.
HEALTH OFFICER

ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, R. S. MPH
DEPUTY DIRECTOR

November 13, 1992

Glenn Baldwin
Excalibur Extrusions, Inc.
110 East Crowther Avenue
Placentia, CA 92670

Subject: Remedial Action At Excalibur Extrusions, 110 East Crowther Avenue, Placentia, CA 92670 - O.C.H.C.A. Case #92UT87

Dear Mr. Baldwin:

This letter confirms the completion of site investigation and remedial action at the above site. With the provision that the information provided to this Agency was accurate and representative of existing conditions, it is the position of this office that no further action is required at this time.

Please be advised that this letter does not relieve you of any liability under the California Health and Safety Code or Water Code for past, present, or future operations at the site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

Additionally, be advised that changes in the present or proposed use of the site may require further site characterization and mitigation activity. It is the property owner's responsibility to notify this Agency of any changes in report content, future contamination findings, or site usage.

If you have any questions regarding this matter, please contact Steve Sharp at (714) 667-3721.

Very truly yours,

Jack Miller, REHS
Program Manager
Hazardous Materials Mitigation Section
Environmental Health Division

JM:SS:md

cc: Sandy L. Malos, State Water Resources Control Board
Ken Holub, Santa Ana Regional Water Quality Control Board
Tony Riniti, Orange County Fire Department
Larry Honeybourne, Environmental Health, Water Quality Section

Case ID# 92UT87 Date Nov 9, 1992

Case Summary and Closure Rationale

D.B.A.: Excalibur Extrusions R.P.: Glenn Baldwin

Address: 110 East Crowther Avenue, Placentia, CA 92670

Current Land Use: Commercial Adjacent Land Use: Commercial

Future Land Use: Commercial

Site Information (Type of Business, Materials Used, etc.): 2-1,000 gallon USTs, 1-2,000 gallon UST, 1-3,000 gallon UST, 5-5,000 gallon USTs

Contaminant	Highest Conc. Soil (ppm) Initial	Final	Highest Conc. Groundwater (ppb) Initial	Final
1. 1,1,1, trichloroethane	.400	.400		
2. 1,1,1, trichloroethane	.330	.330		
3. 1,1,1, trichloroethane	.160	.160		
4.				
5.				
6.				

Depth of Highest 1,1,1, trichloroethane Conc. Remaining: N/A (ft) N/A (ppm)

Deepest Depth of 1,1,1, trichloroethane Remaining: N/A (ft) N/A (ppm)

Depth to Groundwater: 120 Ft. (X estimated ___ measured)

Soil Types: Dense dry poorly graded course sand with about 10% 1 inch gravel

Forebay X Pressure ___ Intrusion ___ Tidal ___ Hills ___ Near OCWD recharge ___

Case Summary (Cleanup Efforts and Closure Rationale):

This site was formerly an organic ceramics manufacturing facility and had nine underground storage tanks. It is not known what was stored in the tanks. The current property owner operates a plastic extrusion company and has never used the tanks to store hazardous materials. On June 9, 1992 all nine underground storage tanks were removed and twenty-two soil samples were collected. Field observations and gas tech readings collected during the tank removal did not detect any contaminated areas. Two soil samples which were collected beneath tank numbers two and three detected contamination above the MCL for 1,1,1, Trichloroethane. The sample collected beneath tank #2 detected 400 ppb of 1,1,1, Trichloroethane detected. The sample collected beneath tank #3 detected 330 ppb of 1,1,1,

Specialist: Susan R. Sharp

OK 11-9-92 JM 11/10/92

D.B.A.: Excalibur Extrusions Case ID# 92UT87

Trichloroethane. A third sample collected beneath tank #7 detected 160 ppb of 1,1,1, Trichloroethane. The MCL for 1,1,1, Trichloroethane is 200 ppb. All three samples were collected at 14 feet bgs. Three borings were drilled adjacent to the sampling locations to delineate the vertical extent of contamination. Undisturbed soil samples were collected at 16 feet bgs and 21 feet bgs. The samples were analyzed for chlorinated hydrocarbons by E.P.A. method 8010. All samples were non-detect for chlorinated hydrocarbons including 1,1,1, Trichloroethane.

This case should be closed since 1,1,1, Trichloroethane contamination detected beneath tank 2, 3, and 7 is very limited and does not extend vertically beyond 14 feet bgs. Additionally, no contamination was observed in the excavation during tank removal.

SRS:seb

Specialist: Steven R. Story

Appendix D

OCHCA HAZARDOUS MATERIALS INVENTORY

UNIFIED PROGRAM CONSOLIDATED FORM
FACILITY INFORMATION

BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID # (Agency Use Only)	FA0044283 [1]	EPA ID # (Hazardous Waste Only) [2]	CAL000249906
BUSINESS NAME (Same as Facility Name of DBA-Doing Business As) [3]	EXCALIBUR EXTRUSIONS INC		
BUSINESS SITE ADDRESS [103]	110 E CROWTHER		
BUSINESS SITE CITY [104]	PLACENTIA	CA	ZIP CODE 92870 [105]

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility…	If Yes, please complete these pages of the UPCF….	
A. HAZARDOUS MATERIALS Have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☒ YES	HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION
B. REGULATED SUBSTANCES Have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release prevention Program (CalARP)?	☐ YES	Coordinate with your local agency responsible for CalARP.
C. UNDERGROUND STORAGE TANKS (USTs) Own or operate underground storage tanks?	☐ YES	UST FACILITY (Formerly SWRCB Form A) UST TANK (one page per tank) (Formerly Form B)
D. ABOVE GROUND PETROLEUM STORAGE Own or operate ASTs above these thresholds: Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers.	☐ YES	NO FORM REQUIRED TO CUPAs
E. HAZARDOUS WASTE Generate hazardous waste?	☒ YES	EPA ID NUMBER – provide at the top of this page
Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ YES	RECYCLABLE MATERIALS REPORT (one per recycler)
Treat hazardous waste on-site?	☐ YES	ON-SITE HAZARDOUS WASTE TREATMENT – FACILITY ON-SITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit)
Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES	CERTIFICATION OF FINANCIAL ASSURANCE
Consolidate hazardous waste generated at a remote site?	☐ YES	REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION
Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?	☐ YES	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
Generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more than 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste.	☐ YES	Obtain federal EPA ID Number, file Biennial Report (EPA Form 8700-13A/B), and satisfy requirements for RCRA Large Quantity Generator.
Household Hazardous Waste (HHW) Collection site?	☐ YES	See CUPA for required forms.

F. LOCAL REQUIREMENTS [15]

(You may also be required to provide additional information by your CUPA or local agency.)

UNIFIED PROGRAM CONSOLIDATED FORM

FACILITY INFORMATION

BUSINESS OWNER/OPERATOR IDENTIFICATION

I. IDENTIFICATION

FACILITY ID#	BEGINNING DATE 100	ENDING DATE 101
FA0044283 1		

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3	BUSINESS PHONE 102
EXCALIBUR EXTRUSIONS INC	7145288834
BUSINESS SITE ADDRESS 103	BUSINESS FAX 102a
110 E CROWTHER	7145247453

BUSINESS SITE CITY 104		ZIP CODE 105	COUNTY 108
PLACENTIA	CA	92870	
DUN & BRADSTREET 106		PRIMARY SIC 107	PRIMARY NAICS 107a
		3084	326199

BUSINESS MAILING ADDRESS 108a		
110 E CROWTHER AV		
BUSINESS MAILING CITY 108b	STATE 108c	ZIP CODE 108d
PLACENTIA	CA	92870
BUSINESS OPERATOR NAME 109	BUSINESS OPERATOR PHONE 110	
Glenn Baldwin	7145288834	

II. BUSINESS OWNER

OWNER NAME 111	OWNER PHONE 112
EXCALIBUR EXTRUSIONS INC	7145288834
OWNER MAILING ADDRESS 113	
110 CROWTHER	

OWNER MAILING CITY 114	STATE 115	ZIP CODE 116
PLACENTIA	CA	92870

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117	CONTACT PHONE 118	
Ryan Baldwin	7145288834	
CONTACT MAILING ADDRESS 119	CONTACT EMAIL 119a	
110 E. Crowther Ave.	rbaldwin@excaliburextrusions.com	
CONTACT MAILING CITY 120	STATE 121	ZIP CODE 122
Placentia	CA	92870

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123	NAME 128
Ryan Baldwin	Victor Gomez
TITLE 124	TITLE 129
Vice President	Production Manager
BUSINESS PHONE 125	BUSINESS PHONE 130
7145288834	7145288834
24-HOUR PHONE 126	24-HOUR PHONE 131
7143183007	9512020424
CELL / PAGER # 127	CELL / PAGER # 132
EMAIL	EMAIL

ADDITIONAL LOCALLY COLLECTED INFORMATION: 133

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE 134	NAME OF DOCUMENT PREPARER 135
		Ryan Baldwin
NAME OF SIGNER (print) 136	TITLE OF SIGNER 137	
Ryan Baldwin	Vice President	

UNIFIED PROGRAM CONSOLIDATED FORM
HAZARDOUS MATERIALS

HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☐ REVISE 200 | Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3
E X C A L I B U R E X T R U S I O

CHEMICAL LOCATION 201
C o n t a i n m e n t

CHEMICAL LOCATION CONFIDENTIAL EPCRA 202
☐ YES

FACILITY ID # 1
F A 0 0 4 4

MAP# (optional) 203
1

GRID# (optional) 204

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
M e t h y l e t h y l

TRADE SECRET ☐ Yes 206
If Subject to EPCRA, refer to instructions

COMMON NAME 207
M E K

EHS* ☐ Yes 208

CAS# 209
7 8 - 9 3 - 3

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210
F l a m m a b l e L i q u i d ,

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☒ c. WASTE 211

RADIOACTIVE ☐ Yes 212

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☒ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER 5 5 . 0 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0 . 0 1	0 . 5		

UNITS* (Check one item only) ☒ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 1 8 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☒ d. STEEL DRUM ☐ e. PLASTIC/NONMETALLIC DRUM ☐ f. CAN ☐ g. CARBOY ☐ h. SILO ☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☐ l. CYLINDER ☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOTE BIN ☐ p. TANK WAGON ☐ q. RAIL CAR ☐ r. OTHER 223

STORAGE PRESSURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 225

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	1 6 0 226	m e t h y l e 227	☐ Yes 228	7 8 - 9 3 229
2	230	231	☐ Yes 232	233
3	234	235	☐ Yes 236	237
4	238	239	☐ Yes 240	241
5	242	243	☐ Yes 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here

UNIFIED PROGRAM CONSOLIDATED FORM
HAZARDOUS MATERIALS

HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☐ REVISE 200 | Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3
E X C A L I B U R E X T R U S I O

CHEMICAL LOCATION 201
C o n t a i n m e n t

CHEMICAL LOCATION CONFIDENTIAL EPCRA 202
☐ YES

FACILITY ID # 1
F A 0 0 4 4

MAP# (optional) 203
1

GRID# (optional) 204

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
O I L , [F L A M M

TRADE SECRET ☐ Yes 206
If Subject to EPCRA, refer to instructions

COMMON NAME 207
G e a r O i l

EHS* ☐ Yes 208

CAS# 209
6 4 7 4 2 - 5 4 - 7

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210
C o m b u s t i b l e L i q u i d

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☒ c. WASTE 211

RADIOACTIVE ☐ Yes 212

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☒ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER 215
5 5 . 0

FED HAZARD CATEGORIES (Check all that apply) 216
☒ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0 . 4	4 0 . 0	1 0 0 . 0	2 2 1

UNITS* (Check one item only) 221
☒ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS
* If EHS, amount must be in pounds.

DAYS ON SITE: 222
1 8

STORAGE CONTAINER 223
☐ a. ABOVE GROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☒ d. STEEL DRUM ☐ e. PLASTIC/NONMETALLIC DRUM ☐ f. CAN ☐ g. CARBOY ☐ h. SILO ☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☐ l. CYLINDER ☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOTE BIN ☐ p. TANK WAGON ☐ q. RAIL CAR ☐ r. OTHER

STORAGE PRESSURE 224
☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT

STORAGE TEMPERATURE 225
☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	1 1 0 226	O i l 227	☐ Yes 228	6 4 7 4 229 2
2	230	231	☐ Yes 232	233
3	234	235	☐ Yes 236	237
4	238	239	☐ Yes 240	241
5	242	243	☐ Yes 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here

UNIFIED PROGRAM CONSOLIDATED FORM
HAZARDOUS MATERIALS

HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☐ REVISE 200 | Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3
EXCALIBUR EXTRUSIO

CHEMICAL LOCATION 201
Parking Lot

CHEMICAL LOCATION CONFIDENTIAL EPCRA 202
☐ YES

FACILITY ID # 1
FA0044

MAP# (optional) 203
1

GRID# (optional) 204

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Propane (C

TRADE SECRET ☐ Yes 206
If Subject to EPCRA, refer to instructions

COMMON NAME 207
Liquefied Pe

EHS* ☐ Yes 208

CAS# 209
74-98-6

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210
Compressed Gas (CG

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☒ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes 212

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☐ b. LIQUID ☒ c. GAS 214

LARGEST CONTAINER 200.0 215

FED HAZARD CATEGORIES (Check all that apply) 216
☒ a. FIRE ☐ b. REACTIVE ☒ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
20000.(	24000.	0.0	

UNITS* (Check one item only) 221
☐ a. GALLONS ☒ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS
* If EHS, amount must be in pounds.

DAYS ON SITE: 222
36

STORAGE CONTAINER 223
☐ a. ABOVE GROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☐ d. STEEL DRUM
☐ e. PLASTIC/NONMETALLIC DRUM ☐ f. CAN ☐ g. CARBOY ☐ h. SILO
☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☒ l. CYLINDER
☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOTE BIN ☐ p. TANK WAGON
☐ q. RAIL CAR ☐ r. OTHER

STORAGE PRESSURE ☐ a. AMBIENT ☒ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

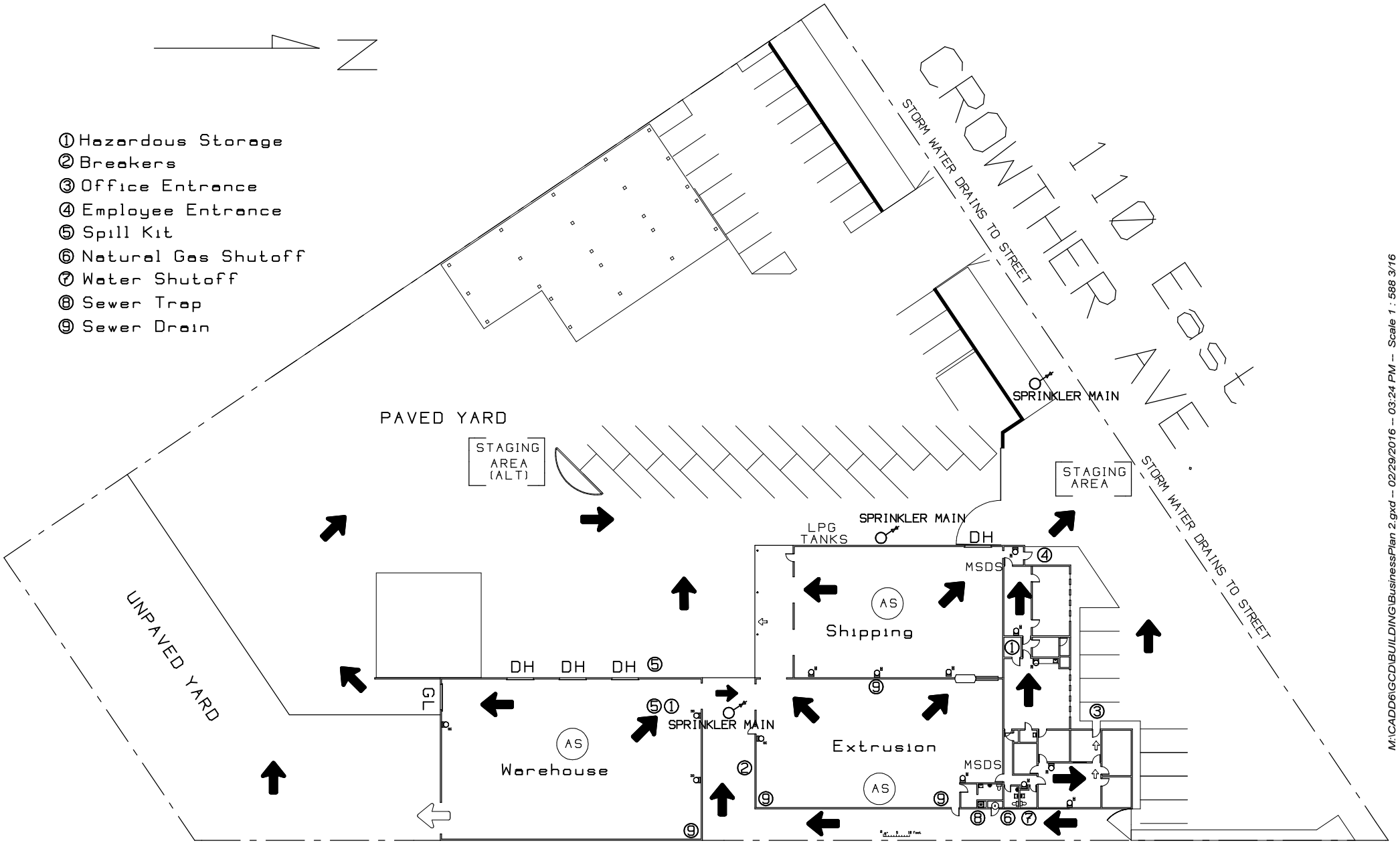
STORAGE TEMPERATURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☒ c. BELOW AMBIENT ☐ d. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1 226	Propane 227	☐ Yes 228	74- 229
2 230	PROPYLE 231	☐ Yes 232	115 233
32. 234	Butane 235	☐ Yes 236	106 237
4 238	239	☐ Yes 240	241
5 242	243	☐ Yes 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here



Evacuation Plan

TO STOP SPRINKLER FLOW - LOCATE SPRINKLER MAIN AND BREAK LOCK

M:\CADD6\GCD\BUILDING\BusinessPlan 2.gxd -- 02/29/2016 -- 03:24 PM -- Scale 1 : 588 3/16

Appendix E

ASBESTOS SURVEY

ECOS
INC.

September 21, 1992

Mr. Don Hollenbeck
VECTOR THREE ENVIRONMENTAL INC.
11605 So. East End Avenue
Chino, CA 91708-0867

RE: LIMITED ASBESTOS SURVEY
110 E. CROWTHER AVENUE, PLACENTIA, CA 92660
ECOS PROJECT #24447

Dear Mr. Hollenbeck:

ECOS was retained by Vector Three Environmental Inc. to conduct a limited asbestos survey at the above mentioned location. The extent of the inspection was limited by work scope and cost parameters. ECOS, Inc. conducted the survey on September 9, 1992. The survey was conducted by ECOS' Project Manager Humphrey Laurent and aided by Robert K. Nyein.

PROCEDURES AND METHODOLOGY

The inspection included visual examination and sampling of suspect materials located in the plant. Due to the limited scope of work, the emphasis was placed on locating, assessing and sampling accessible friable materials. Friable asbestos containing materials pose the greatest potential for fiber release. A preliminary walk-through of the plant, however, did not reveal any apparent or accessible suspect friable materials.

Non-friable materials were encountered and sampled. Non-friable materials maintained in good condition are unlikely to release asbestos fibers if left undisturbed. Samples of suspect non-friable materials were collected from grey roof mastic, built-up roofing and floor tiles and mastic. A total of six (6) samples were collected and analyzed. All non-friable materials were found to be in good condition.

All samples submitted were analyzed by Polarized Light Microscopy (PLM) with dispersion staining as described by the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", NIOSH Method 7403 (Federal Register/Volume 47, No. 103/May 27, 1982). This is a standard method of analysis in optical mineralogy and a definitive method for the determination of asbestos in bulk samples. Results of laboratory analysis are presented in Attachment A.

INSPECTION LIMITATIONS

The survey was limited in scope. A comprehensive asbestos inspection was not performed. The ECOS inspector emphasized locating and assessing suspect friable materials. When these materials were not encountered during the preliminary walk-through, The ECOS inspector located and sampled some accessible non-friable materials. A limited number of samples were collected. Results of single samples of the Roof mastic and the Built-up Roofing may not be representative of the entire roof. Some suspect materials were observed but not sampled due to the limited scope of the survey. These materials include fire doors, drywall, drywall tape joint compound and ceiling tiles. All of these materials were observed to be in good condition.

RESULTS AND CONCLUSIONS

Asbestos was found in the following locations:

1) Grey Roof Mastic on the Roof
2) 9" x 9" Off-white Floor Tile and Mastic in the hall
3) 12" x 12" Beige Floor Tile and Mastic in the Front Offices
4) 12" x 12" Green Floor Tile and Mastic in the Fabrication Room
5) 12" x 12" Brown Floor Tile and Mastic in the Fabrication Room

All of the confirmed asbestos and suspect materials discovered in the building were found to be in good condition and do not pose a fiber release hazard unless they are disturbed or damaged. Suspect materials mentioned above that were not sampled should be sampled prior to any renovation work that might disturb them. Additional samples should be collected on the roof to fully characterize the extent of asbestos prior to any roof removal work.

The discovery of asbestos in the building triggers employee and tenant notification requirements by the State of California Health and Safety Code Section 25915.

If you have any questions or require anything further, please feel free to call.

Sincerely,
ECOS, INC.

Humphrey O. Laurent
Project Manager

ATTACHMENT A

LABORATORY RESULTS

ECOS
INC.

CERTIFICATE OF ANALYSIS FOR POLARIZED LIGHT MICROSCOPY

Project No. : **24447** Date of Report: **09/08/92**

Project Name: **EXCALIBUR EXTRUSIONS** Customer Name: **ECOS, Inc.**
110 E. Crowther Ave

The following samples of materials suspected of containing asbestos were collected from the locations listed below and analyzed for asbestos content.

Percentage and type of asbestos were determined by using the principles of Polarized Light Microscopy and dispersion staining, using NIOSH approved Method 7403. The method is further defined in the E.P.A. 600/M4-82-020,"Interi Method for the Determination of Asbestos in Bulk Insulation Samples". The results, dates and locations of the samples are listed in the report below.

Client ID / Lab ID	Date Sample Taken	Sample Location Description	Type of Material	Asbestos Mineral Type	%	Non-Asbestos Mineral Type	%
RN-01 / 9662	09/04/92	Roof	Grey Mastic	Chrysotile	30	Cellulose Tar Synthetic Fib. Binder/Filler	05 40 20 05
RN-02 / 9663	09/04/92	Roof	Built-Up Roofing	None Detected		Cellulose Quartz Fibrous Glass Binder/Filler	10 40 40 10
RN-03 / 9664	09/04/92	Hall (Off White)	Floor Tiles (9x9)	Chrysotile	03	Cellulose Calcite Binder/Filler	30 47 20
RN-04 / 9665	09/04/92	Front Offices (Beige)	Floor Tiles (12x12)	Chrysotile	03	Cellulose Calcite Binder/Filler	20 52 25

10805 HOLDER STREET SUITE 210 CYPRESS, CALIFORNIA 90630 (714) 827-9748 FAX (714) 827-6270

CERTIFICATE OF ANALYSIS FOR POLARIZED LIGHT MICROSCOPY

Project No. : **24447** Date of Report: **09/08/92**

Project Name: **EXCALIBUR EXTRUSIONS** Customer Name : **ECOS, Inc.**

Client ID / Lab ID	Date Sample Taken	Sample Location Description	Type of Material	Asbestos Mineral Type	%	Non-Asbestos Mineral Type	
RN-05	09/04/92	Fabrication Room (Green)	Floor Tiles (12x12)	Chrysotile	05	Cellulose	3(
9666						Calcite	4!
						Binder/Filler	2(
RN-06	09/04/92	Fabrication Room (Brown)	Floor Tiles (12x12)	Chrysotile	05	Cellulose	2!
9667						Calcite	4!
						Binder/Filler	2!

John V. Pham
Laboratory Administrator

Note: Our policy is to dispose of samples unless written notification is received in our office within 30 days of this report.

ECOS INC

Attachment E

Water Quality Management Plan

Priority Project
Conceptual Water Quality Management Plan
(WQMP)

Project Name:

The Herald

110 & 132 E. CROWTHER AVENUE, PLACENTIA, CA 92870

APN 339-091-08, 09

Prepared for:

Integral Communities

888 San Clemente, Suite 100

Newport Beach, CA 92660

(949) 720-3612

Prepared by:

KHR Associates

James H. Kawamura, RCE No. 30560

20411 SW Birch Street, Suite 310

Newport Beach, CA 92660

(949) 756-6440

WQMP Prepared: May 5, 2017

Project Owner's Certification			
Planning Application No.		Grading Permit No.	
Tract/Parcel Map and Lot(s) No.	Tentative Parcel Map No. 2017-113	Building Permit No.	
Address of Project Site and APN			110 & 132 E. Crowther Ave., Placentia, CA 92870 339-091-08, 09

This Water Quality Management Plan (WQMP) has been prepared for Integral Communities by KHR Associates. The WQMP is intended to comply with the requirements of the County of Orange NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan , including the ongoing operation and maintenance of all best management practices (BMPs), and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Owner: Integral Communities			
Owner Representative	Edward Galigher		
Title	Vice President, Acquisitions and Entitlements		
Address	888 San Clemente, Suite 100, Newport Beach, CA 92660		
Email	egaligher@integralcommunities.com		
Telephone #	(949) 720-3612		
I understand my responsibility to implement the provisions of this WQMP including the ongoing operation and maintenance of the best management practices (BMPs) described herein.			
Owner Signature		Date	

ATTESTATION

This Water Quality Management Plan has been prepared by, and under the direction of the undersigned, a duly Registered Civil Engineer in the State of California. Except as noted, the undersigned attests to the technical information contained herein, and has judged to be acceptable the qualifications of any technical specialists providing engineering data for this report, upon which findings, conclusions, and recommendations are based.

Preparer (Engineer): James H. Kawamura, P.E.			
Title	President/CEO	PE Registration #	C30560
Company	KHR Associates		
Address	20411 SW Birch Street, Suite 310, Newport Beach, CA 92660		
Email	jkawamura@khrdesign.com		
Telephone #	(949) 756-6440		
I hereby certify that this Water Quality Management Plan is in compliance with, and meets the requirements set forth in, Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board**.**			
Preparer Signature		Date	May 5, 2017
Place Stamp Here			

Contents..... Page No.

Section I	**Permit(s) and Water Quality Conditions of Approval or Issuance**	**1**
Section II	**Project Description**	**2**
Section III	**Site Description**	**9**
Section IV	**Best Management Practices (BMPs)**	**15**
Section V	**Inspection/Maintenance Responsibility for BMPs**	**37**
Section VI	**BMP Exhibit (Site Plan)**	**40**
Section VII	**Educational Materials**	**41**

Attachments

Attachment A . ..... Educational Materials
Attachment B . ..... Operation and Maintenance
Attachment C . ..... Hydrology Information
Attachment D . ..... BMP Drainage Plan/Site Plan

Section I Permit(s) and Water Quality Conditions of Approval or Issuance

Project Infomation			
Permit/Application No. (If applicable)		Grading or Building Permit No. (If applicable)	
Address of Project Site (or Tract Map and Lot Number if no address) and APN	110 & 132 E. Crowther Avenue, Placentia, CA 92870 339-091-08, 339-091-09		
Water Quality Conditions of Approval or Issuance			
Water Quality Conditions of Approval or Issuance applied to this project. (Please list verbatim.)			
Conceptual WQMP			
Was a Conceptual Water Quality Management Plan previously approved for this project?			
Watershed-Based Plan Conditions			
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLs.	A WIHMP has not been developed as of this dated report. Coyote Creek: **Ammonia; Copper; Diazinon; Indicator Bacteria; Lead; pH; Toxicity** San Gabriel River Reach 1: **Coliform Bacteria; pH** San Gabriel River Estuary: **Copper; Dioxin; Nickel; Oxygen** San Pedro Bay: **Chlordane; DDT; PCBs; Sediment Toxicity**		

Section II Project Description

II.1 Project Description

Description of Proposed Project				
Development Category (From Model WQMP, Table 7.11-2; or -3):	All significant redevelopment projects, where significant redevelopment is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. If the redevelopment results in the addition or replacement of less than 50 percent of the impervious area on-site and the existing development was not subject to WQMP requirement, the numeric sizing criteria discussed in **Section 7.II-2.0** only applies to the addition or replacement area. If the addition or replacement accounts for 50 percent or more of the impervious area, the Project WQMP requirements apply to the entire development.			
Project Area (ft^2): 128,520	Number of Dwelling Units: 215		SIC Code: 8811	
Project Area	Pervious		Impervious	
	Area (acres or sq ft)	Percentage	Area (acres or sq ft)	Percentage
Pre-Project Conditions	0.30	0.10	2.65	0.90
Post-Project Conditions	0.38	0.13	2.57	0.87
Drainage Patterns/Connections	The existing site sheet flows to drop inlets that discharge at curb face and out driveways to Crowther Avenue. Discharge to Crowther Avenue is collected by a catch basin located to the west of the project site, on the south side of the street just east of Melrose Street.			

Narrative Project Description:	For the overall project, Integral Communities is proposing a 5-story, 215-unit multi-family development partially wrapped around a 6-story parking structure on a 2.95-acre site located at 110 and 132 East Crowther Avenue. The project will include a rooftop terrace on top of the parking structure, with a pool/spa, clubhouse and fitness center. Exposed impervious areas include the building, walks, roof terrace on the top level of the parking structure, and the drive aisle. Landscaped areas are located around the perimeter of the site and within the courtyards. Landscaping will consists of drought tolerant or native species grouped with similar irrigation needs. On-site activities will take place within the open space areas and include the use of the pool, spa, lounge areas, barbeques, and dining areas within the courtyard. Laundry facilities are located within the residential units. Trash enclosures are enclosed within the ground level of the parking structure. Materials expected to be used/stored will be maintenance materials stored within buildings. Waste expected from the site is trash from residential tenants, along with landscape waste. Equipment and vehicle fueling, maintenance and repair, and washing or cleaning will not be performed onsite.

II.2 Potential Stormwater Pollutants

Pollutants of Concern			
Pollutant	Highlight One: E=Expected to be of concern N=Not Expected to be of concern		Additional Information and Comments
Suspended-Solid/ Sediment	E	N	
Nutrients	E	N	
Heavy Metals	E	N	
Pathogens (Bacteria/Virus)	E	N	
Pesticides	E	N	
Oil and Grease	E	N	
Toxic Organic Compounds	E	N	
Trash and Debris	E	N	

II.3 Hydrologic Conditions of Concern

Determine if streams located downstream from the project area are potentially susceptible to hydromodification impacts.

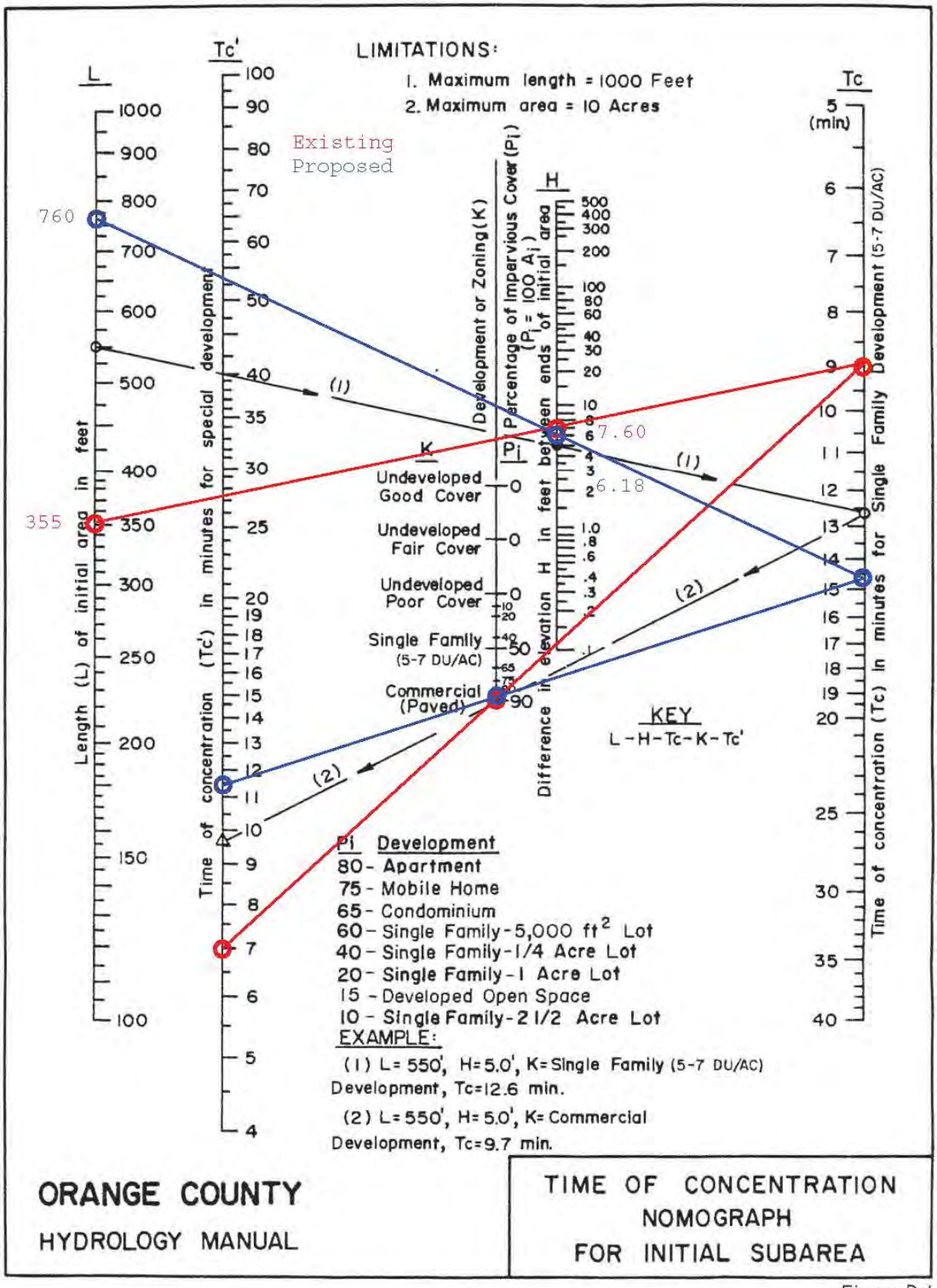
☐ No – Show map

☒ Yes – Describe applicable hydrologic conditions of concern below. *Refer to Section 2.2.3 in the Technical Guidance Document (TGD).*

According to the TGD's Susceptibility Analysis San Gabriel – Coyote Creek map, the project site is located in an area of potential erosion, habitat and physical structure susceptibility. A portion of the drainage channel downstream of the project site has a natural bottom and is subject to hydromodification impacts. Due to the increase in pervious area, retention of stormwater through infiltration by means of an underground perforated tank, and the design of the storm drain system, the volume of runoff from the proposed project has been decreased from the previous condition creating a negligible impact to the downstream storm drain system.

To determine the project's potential for HCOC, the existing and post development hydrological conditions were analyzed to ensure existing volume or time of concentration from the 24-hour, 2-year storm event were not exceeded by more than 5%by the proposed project peak flows or that the time of concentration was not decreased by more than 5%. Runoff calculations for this study were done using WinTR-55 software in accordance with the Technical Guidance Document for North Orange County and the TR-55 Manual. Both the existing and proposed sites were analyzed as a whole. Calculations for time of concentration and stormwater flow rate were then conducted using data derived from the proposed and existing site conditions. The nomograph from the Orange County Hydrology Manual was used to determine the Tc for the existing and proposed conditions. Runoff volume was calculated using the simple runoff coefficient method with the storm depth taken from the software output. The proposed project has a runoff flow rate of 2.26 cfs and a runoff volume of 9,548 cf, which is a decrease from the existing runoff flow rate of 2.88 cfs and runoff volume of 11,190 cf. The project also increases the T_C from 7.0 minutes to 11.3 minutes. Due to the stated conditions, a HCOC does not exist. See the following summary and volume calculations as well as the WinTR-55 and WinTR-22 reports in Attachment C.

HCOC Summary Table							
	Area (acre)	Impervious (acre)	Impervious (%)	Storm Depth (in.)	Tc (min.)	(cfs)	(cf)
Existing	2.95	2.65	90	1.264	7.0	2.88	11,190
Proposed	2.95	2.57	87	1.119	11.3	2.26	9,548


LIMITATIONS:
1. Maximum length = 1000 Feet
2. Maximum area = 10 Acres
Existing
Proposed
760
355
7.60
6.18
Length (L) of initial area in feet
Time of concentration (Tc') in minutes for special development
Development or Zoning (K)
Percentage of Impervious Cover (Pi) (Pi = 100 Ai)
Difference in elevation H in feet between ends of initial area
Time of concentration (Tc) in minutes for Single Family Development (5-7 DU/AC)
Undeveloped Good Cover
Undeveloped Fair Cover
Undeveloped Poor Cover
Single Family (5-7 DU/AC)
Commercial (Paved)
KEY
L-H-Tc-K-Tc'
Pi Development
80 - Apartment
75 - Mobile Home
65 - Condominium
60 - Single Family - 5,000 ft² Lot
40 - Single Family - 1/4 Acre Lot
20 - Single Family - 1 Acre Lot
15 - Developed Open Space
10 - Single Family - 2 1/2 Acre Lot
EXAMPLE:
(1) L = 550', H = 5.0', K = Single Family (5-7 DU/AC) Development, Tc = 12.6 min.
(2) L = 550', H = 5.0', K = Commercial Development, Tc = 9.7 min.
ORANGE COUNTY
HYDROLOGY MANUAL
TIME OF CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA

D-4

Figure D-1

Simple Method Runoff Coefficient for Volume:

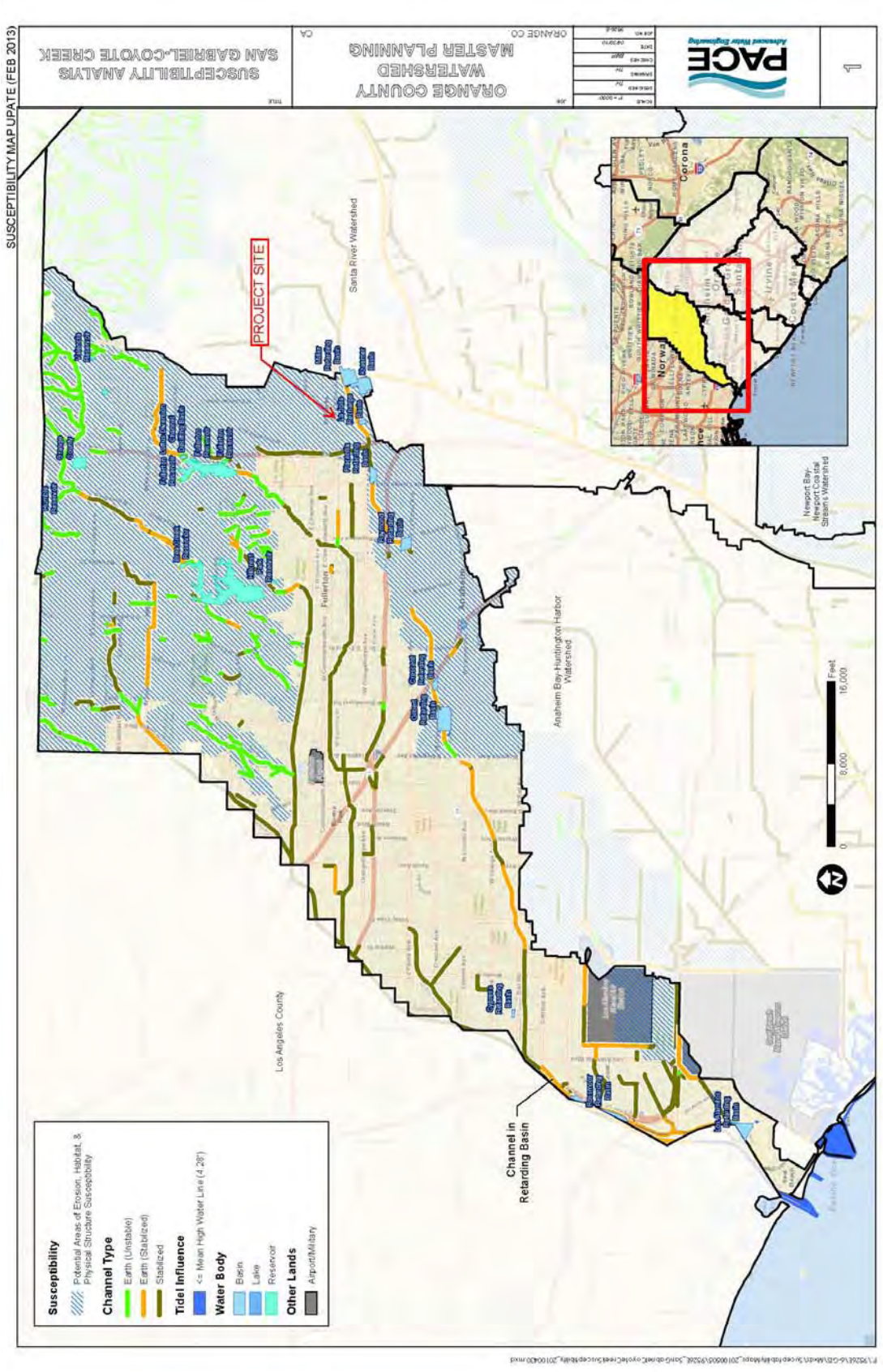
$$V = C * d * A * (1/12 \text{ in/ft}) * (43{,}560 \text{ ft}^2/\text{ac})$$

Where:

V = runoff volume during design storm event, cu-ft
C = runoff coefficient = (0.75 x *imp* + 0.15)
imp = impervious fraction of drainage area (range from 0 to 1)
d = storm depth, inches (from TR20 output file)
A = tributary area (acres)

Existing Property Area (2.95 acres)
C = 0.75 x 0.90 +.15 = .83
V = .83 x (1.264 in) x (2.95 ac) x (1 ft/ 12 in) x (43,560 ft²/ acre) = 11,190 cf

Proposed Property Area (2.95 acres)
C = 0.75 x 0.87 +.15 = .80
V = .80 x (1.119 in) x (2.95 ac) x (1 ft/ 12 in) x (43,560 ft²/ acre) = 9,548 cf


SUSCEPTIBILITY MAP UPATE (FEB 2013)
SUSCEPTIBILITY ANALYSIS
SAN GABRIEL-COYOTE CREEK
ORANGE COUNTY
WATERSHED
MASTER PLANNING
PACE
PROJECT SITE
Santa River Watershed
Newport Bay-Newport Coastal Streams Watershed
Anaheim Bay-Huntington Harbor Watershed
Los Angeles County
Channel in Retarding Basin
Corona
Norwalk
Feet
16,000
8,000
0
Susceptibility
Potential Areas of Erosion, Habitat, & Physical Structure Susceptibility
Channel Type
Earth (Unstable)
Earth (Stabilized)
Stabilized
Tidal Influence
<= Mean High Water Line (4.28')
Water Body
Basin
Lake
Reservoir
Other Lands
Airport/Military

II.4 Post Development Drainage Characteristics

Within the project site, stormwater is collected within the private storm drain system by roof drains, area drains, or drop inlets. The proposed project is divided into two drainage management areas (DMA). Within each DMA, a flow diverter routes the low flows to a perforated corrugated metal pipe (CMP) for infiltration while the high flows bypass the treatment system and are discharged into the public right of way via a culvert to curb face. The surface parking areas and the parking structure are directed to a Modular Wetlands system within their DMA for pretreatment prior to infiltration.

There is no storm drain adjacent the site within Crowther Avenue. Discharge to Crowther Avenue is collected by catch basins located to the west of the project site, just east of Melrose Street. The catch basins discharge to a storm drain main that travels west on Crowther Avenue, then flows in a southwesterly direction to an open channel, and then in a southerly and southwesterly direction until in discharges to Carbon Creek channel prior to Gilbert Retarding Basin. A portion of the channel downstream of the Gilbert Retarding Basin is considered impaired. Carbon Creek is a tributary to the San Gabriel River within Reach 1. The San Gabriel River discharges into the Pacific Ocean between the cities of Long Beach and Seal Beach.

II.5 Property Ownership/Management

All portions of the project site are owned by **Integral Communities**. No on-site infrastructures will be transferred to any public agency. **Integral Communities** shall be responsible for the long term maintenance and funding of the project's stormwater facilities.

Section III Site Description

III.1 Physical Setting

Name of Planned Community/Planning Area (if applicable)	N/A
Location/Address	110 & 132 E. Crowther Avenue
	Placentia, CA 92870
General Plan Land Use Designation	Industrial
Zoning	Manufacturing District (M), Combining Planned Manufacturing District (PMD)
Acreage of Project Site	2.95
Predominant Soil Type	Soil type A. Sand, silty, and clay.

III.2 Site Characteristics

Site Characteristics	
Precipitation Zone	0.87
Topography	Site topography is relatively flat with the southeast corner of the site being the highest elevation and the northwest corner of the site being at the lowest elevation.
Drainage Patterns/Connections	The existing site sheet flows to Crowther Avenue where it is collected by catch basins to the west of the proposed site, prior to Melrose Street.
Soil Type, Geology, and Infiltration Properties	The subsurface geotechnical evaluation for the project (Leighton and Associates, Inc., March 11, 2016) indicates that the soils consist of undocumented artificial fill soils to a depth of 8 to 10 feet, underlain by alluvium consisting primarily of massive thick sand channels grading laterally to thinly bedded sand, silty, and clay.
Hydrogeologic (Groundwater) Conditions	According to the geotechnical report by Leighton and Associates, Inc., groundwater was not encountered during field exploration up to the maximum explored depth of 45 feet. The historically high groundwater level is between approximately 50 to 60 feet.

Geotechnical Conditions (relevant to infiltration)	According to the Percolation Testing Results memorandum dated February 7, 2017 prepared by Leighton and Associates, Inc., the infiltration rate was calculated to be 3.71 inches per hour in test well location P-1 (northwest corner Fire Access Road), 0.27 inches per hour in test well location P-2 (northeastern portion of drive access), and 0.72 inches per hour in test well location P-3 (southeastern portion of drive access). The project will only infiltrate at test well locations P-1 and P-3.
Off-Site Drainage	The project site does not receive run-on from adjacent properties.
Utility and Infrastructure Information	Any remaining existing on-site subsurface utilities will be removed and disposed of.

Worksheet I: Summary of Groundwater-related Feasibility Criteria

1	Is project large or small? (as defined by Table VIII.2) (highlight one)	Large	Small	
2	What is the tributary area to the BMP?	A	2.95	acres
3	What type of BMP is proposed?	INF-7: Underground Infiltration (Perforated CSP)		
4	What is the infiltrating surface area of the proposed BMP?	A_{BMP}	3,824	sq-ft
5	What land use activities are present in the tributary area (list all): Rooftops, patios, sidewalks, drive aisles, surface parking			
6	What land use-based risk category is applicable?	L	M	H
7	If M or H, what pretreatment and source isolation BMPs have been considered and are proposed (describe all): Although the land use-based risk category is low, pre-treatment will be used for all vehicular areas by means of Modular Wetlands units.			
8	What minimum separation to mounded seasonally high groundwater applies to the proposed BMP? See Section VIII.2 (highlight one)	5 ft	10 ft	
9	Provide rationale for selection of applicable minimum separation to seasonally high mounded groundwater: Use of infiltration device that is considered to inject water below the subsurface.			
10	What is separation from the infiltrating surface to seasonally high groundwater?	SHGWT	40	ft
11	What is separation from the infiltrating surface to mounded seasonally high groundwater?	Mounded SHGWT	36.97	ft
12	Describe assumptions and methods used for mounding analysis: The mounding estimate was determined through the use of the USGS groundwater monitoring tool that solves the Hantush equation for groundwater mounding beneath an infiltration basin. Assumptions used in the tool were taken from the TGD and consist of 0.2 for the specific yield, 20 feet for the saturated zone thickness, and 10 days for the duration of infiltration period. All units were in either days or feet.			

13	Is the site within a plume protection boundary (See Figure VIII.2)?	Y N N/A
14	Is the site within a selenium source area or other natural plume area (See Figure VIII.2)?	Y N N/A
15	Is the site within 250 feet of a contaminated site?	Y N N/A
16	If site-specific study has been prepared, provide citation and briefly summarize relevant findings:	
17	Is the site within 100 feet of a water supply well, spring, septic system?	Y N N/A
18	Is infiltration feasible on the site relative to groundwater-related criteria?	Y N
Provide rationale for feasibility determination: All of the criteria to render infiltration feasible without adversely affecting the groundwater quality have been met.		

Note: if a single criterion or group of criteria would render infiltration infeasible, it is not necessary to evaluate every question in this worksheet.

This spreadsheet will calculate the height of a groundwater mound beneath a stormwater infiltration basin. More information can be found in the U.S. Geological Survey Scientific Investigations Report 2010-5102 "Simulation of groundwater mounding beneath hypothetical stormwater infiltration basins".

The user must specify infiltration rate (R), specific yield (Sy), horizontal hydraulic conductivity (Kh), basin dimensions (x, y), duration of infiltration period (t), and the initial thickness of the saturated zone (hi(0), height of the water table if the bottom of the aquifer is the datum). For a square basin the half width equals the half length (x = y). For a rectangular basin, if the user wants the water-table changes perpendicular to the long side, specify x as the short dimension and y as the long dimension. Conversely, if the user wants the values perpendicular to the short side, specify y as the short dimension, x as the long dimension. All distances are from the center of the basin. Users can change the distances from the center of the basin at which water-table aquifer thickness are calculated.
Cells highlighted in yellow are values that can be changed by the user. Cells highlighted in red are output values based on user-specified inputs. The user MUST click the blue "Re-Calculate Now" button each time ANY of the user-specified inputs are changed otherwise necessary iterations to converge on the correct solution will not be done and values shown will be incorrect. Use consistent units for all input values (for example, feet and days)

use consistent units (e.g. feet & days **or** inches & hours)

Input Values		
2.4200	R	**Recharge (infiltration) rate (feet/day)**
0.200	Sy	**Specific yield, Sy (dimensionless, between 0 and 1)**
74.20	K	**Horizontal hydraulic conductivity, Kh (feet/day)***
7.750	x	**1/2 length of basin (x direction, in feet)**
287.500	y	**1/2 width of basin (y direction, in feet)**
10.000	t	**duration of infiltration period (days)**
20.000	hi(0)	**initial thickness of saturated zone (feet)**

Conversion Table

inch/hour	feet/day
0.67	1.33
2.00	4.00

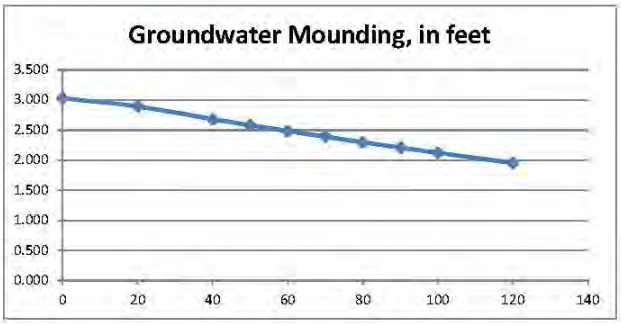
hours	days
36	1.50

In the report accompanying this spreadsheet (USGS SIR 2010-5102), vertical soil permeability (ft/d) is assumed to be one-tenth horizontal hydraulic conductivity (ft/d).

23.028	h(max)	**maximum thickness of saturated zone (beneath center of basin at end of infiltration period)**
3.028	Δh(max)	**maximum groundwater mounding (beneath center of basin at end of infiltration period)**

Ground-water Mounding, in feet	Distance from center of basin in x direction, in feet
3.028	0
2.882	20
2.652	40
2.452	50
2.268	60
2.100	70
1.947	80
1.808	90
1.683	100
1.570	120

Re-Calculate Now



Disclaimer

This spreadsheet solving the Hantush (1967) equation for ground-water mounding beneath an infiltration basin is made available to the general public as a convenience for those wishing to replicate values documented in the USGS Scientific Investigations Report 2010-5102 "Groundwater mounding beneath hypothetical stormwater infiltration basins" or to calculate values based on user-specified site conditions. Any changes made to the spreadsheet (other than values identified as user-specified) after transmission from the USGS could have unintended, undesirable consequences. These consequences could include, but may not be limited to: erroneous output, numerical instabilities, and violations of underlying assumptions that are inherent in results presented in the accompanying USGS published report. The USGS assumes no responsibility for the consequences of any changes made to the spreadsheet. If changes are made to the spreadsheet, the user is responsible for documenting the changes and justifying the results and conclusions.

III.3 Watershed Description

Receiving Waters	Carbon Canyon Creek Placentia Retarding Basin Raymond Retarding Basin Crescent Retarding Basin Gilbert Retarding Basin Coyote Creek San Gabriel River Reach 1/Estuary San Pedro Bay Pacific Ocean
303(d) Listed Impairments	Coyote Creek: **Ammonia; Copper; Diazinon; Indicator Bacteria; Lead; pH; Toxicity** San Gabriel River Reach 1: **Coliform Bacteria; pH** San Gabriel River Estuary: **Copper; Dioxin; Nickel; Oxygen** San Pedro Bay: **Chlordane; DDT; PCBs; Sediment Toxicity**
Applicable TMDLs	Coyote Creek: **Ammonia; Copper; Diazinon; Indicator Bacteria; Lead; pH; Toxicity** San Gabriel River Reach 1: **Coliform Bacteria; pH** San Gabriel River Estuary: **Copper; Dioxin; Nickel; Oxygen** San Pedro Bay: **Chlordane; DDT; PCBs; Sediment Toxicity**
Pollutants of Concern for the Project	Suspended Solids/Sediments, Nutrients, Heavy Metals, Pathogens, Pesticides, Oil & Grease, Toxic Organic Compounds, Trash & Debris
Environmentally Sensitive and Special Biological Significant Areas	None

Section IV Best Management Practices (BMPs)

IV. 1 Project Performance Criteria

(NOC Permit Area only) Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?	YES ☐	NO ☒
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	A WIHMP has not been developed for the project area at the time of this dated report.	

Project Performance Criteria	
If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)	According to the TGD's Susceptibility Analysis, the project site is located in an area of potential erosion, habitat, and physical structure susceptibility. Carbon Canyon Creek is impaired downstream of the subject site. The design of the proposed project has decreased the runoff volume as well as increased infiltration effectively eliminating any downstream impacts. Due to the stated conditions, a HCOC does not exist.
List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)	The following performance criteria for LID implementation are stated in both permits: • Priority Projects must infiltrate, harvest and use, evapotranspire, or biotreat/biofilter, the 85th percentile, 24-hour storm event (Design Capture Volume). • A properly designed biotreatment system may only be considered if infiltration, harvest and use, and evapotranspiration (ET) cannot be feasibly implemented for the full design capture volume. In this case, infiltration, harvest and use, and ET practices must be implemented to the greatest extent feasible and biotreatment may be provided for the remaining design capture volume. The following performance criteria result in capture and retention and/or biotreatment of 80 percent of average annual stormwater runoff volume. The performance criteria for LID are stated as follows: • LID BMPs must be designed to retain, on-site, (infiltrate, harvest and use, or evapotranspire) stormwater runoff up to 80 percent average annual capture efficiency

	• LID BMPs must be designed to: o Retain, on-site, (infiltrate, harvest and use, or evapotranspire) stormwater runoff as feasible up to the Design Capture Volume, and o Recover (i.e., draw down) the storage volume as soon as possible after a storm event (see criteria for maximizing drawdown rate in the TGD Appendix XI), and, if necessary o Biotreat, on-site, additional runoff, as feasible, up to 80 percent average annual capture efficiency (cumulative, retention plus biotreatment), and, if necessary o NOC Permit Area only – retain or biotreat, in a regional facility, the remaining runoff up to 80 percent average annual capture efficiency (cumulative, retention plus biotreatment, on-site plus off-site), and, if necessary o Fulfill alternative compliance obligations for runoff volume not retained or biotreated up to 80 percent average annual capture efficiency using treatment controls or other alternative approaches as described in Section 7.II-3. Subsurface infiltration is used for the entire Design Storm Capture Volume.
List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)	Subsurface infiltration is used for the entire Design Storm Capture Volume.
Calculate LID design storm capture volume for Project.	See the following calculations.

Total Project Site LID Capture Volume Calculation

Tributary Area: 2.95 acres
Impervious Area: 2.57 acres
Pervious Area: 0.38 acres
Rainfall Depth: 0.87 inches

DCV Equation:

$V_b = C * d * A_t * (1\ ft/12\ in) * (43{,}560\ ft^2/acre)$

Where:

C = runoff coefficient (0.75 x imp + 0.
d = rainfall dep
A_t = total area of site in acres

$C = 0.75 \times 0.87 + 0.15 = 0.80$

$V_b = 0.80 \times 0.87 \times 2.95 \times 0.083 \times 43{,}560 = 7{,}455$ cf

SQDF Equation:

$Q_{P,\ SQDF} = C * I * A$

Where:

C = runoff coefficient (0.75 x imp + 0.15)
i = rainfall intensity (0.26 in/hr)
A = total area of site in acres

$Q_{P,\ SQDF} = 0.803 \times 0.26 \times 2.95 = 0.62$ cfs

IV.2. Site Design and Drainage

The site perimeter is surrounded by landscaping except where access is required. Walkways will drain to adjacent landscaping. When possible, landscaping will use swales to increase the contact time of the runoff. The project will have both surface parking as well as a parking structure with a portion of the upper level exposed to above.

The project site has two drainage area with the low flows in each area being directed to a corrugated metal pipe (CMP) for treatment by means of infiltration while high flows for both areas are directed to a single parkway culvert discharging to curb face on Crowther Avenue. The surface parking and parking structure areas along with some roof areas are directed to two Modular Wetlands systems for pretreatment prior to infiltration. Only the vehicular areas require pretreatment, but a portion of roof and landscaped areas will be included for pretreatment due to the design of the storm drain system.

Drainage Management Area "A" is approximately 2.05 acres and drains to the perforated CMP (CMP "A" on BMP Exhibit) located near the northwest corner of the site. The DCV is 5,352 cubic feet and the CMP is sized to retain 6,248 cubic feet. The 4x6 Modular Wetlands unit (#1 on BMP Exhibit) located just north of the northwest corner of the parking structure receives approximately 0.31 acres of exposed parking area from the parking structure. The SQDF is 0.072 cubic feet per second.

Drainage Management Area "B" is approximately 0.90 acres and drains to the perforated CMP (CMP "B" on BMP Exhibit) located in the drive aisle near the southeast corner of the site. The DCV is 2,151 cubic feet and the CMP is sized to retain 2,333 cubic feet. The 4x15 Modular Wetlands unit (#2 on BMP Exhibit) located centrally adjacent the drive aisle on the westerly boundary of the site receives approximately 0.64 acres of exposed parking area from the parking structure, surface parking and drive aisle. The SQDF is 0.150 cubic feet per second.

BMP Calculation Summary

DMA #	BMP Identifier #	DCV or SQDF	Treatment	Pretreatment	Size & Treatment Flow/Volume
A	1	0.072 cfs	-	Biotreatment (Modular Wetlands)	MWS-L-4-6 0.073 cfs
A	A	5,352 cf	Infiltration (Perforated CMP)	-	6′ x 143′ 6,248 cf
B	2	0.150 cfs	-	Biotreatment (Modular Wetlands)	MWS-L-4-15 0.175 cfs
B	B	2,151 cf	Infiltration (Perforated CMP)	-	1.5′ x 424′ 2,333 cf

IV.3 LID BMP Selection and Project Conformance Analysis

IV.3.1 Hydrologic Source Controls (HSCs)

Name	Included?
Localized on-lot infiltration	☐
Impervious area dispersion (e.g. roof top disconnection)	☐
Street trees (canopy interception)	☐
Residential rain barrels (not actively managed)	☐
Green roofs/Brown roofs	☐
Blue roofs	☐
Impervious area reduction (e.g. permeable pavers, site design)	☐
Other:	☐

Stormwater will be collected by roof drains, area drains, or drop inlets into an underground storm drain pipe network that drains the low flows into two separate perforated CMP and discharges the high flows to street face on Crowther Avenue.

IV.3.2 Infiltration BMPs

Name	Included?
Bioretention without underdrains	☐
Rain gardens	☐
Porous landscaping	☐
Infiltration planters	☐
Retention swales	☐
Infiltration trenches	☐
Infiltration basins	☒
Drywells	☐
Subsurface infiltration galleries	☐
French drains	☐
Permeable asphalt	☐
Permeable concrete	☐
Permeable concrete pavers	☐
Other:	☐

The entire site will be infiltrated by two perforated Corrugated Metal Pipe (CMP). Vehicular areas will be pretreated by Modular Wetlands units. See the following CMP drawings and calculations which demonstrate that the LID DCV can be met with infiltration. See Section IV.3.4 Biotreatment BMPs for the Modular Wetlands pretreatment calculations.

Worksheet H: Factor of Safety and Design Infiltration Rate Worksheet

DMA A

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w x v
A	Suitability Assessment	Soil assessment methods	0.25	1	0.25
		Predominant soil texture	0.25	2	0.50
		Site soil variability	0.25	3	0.75
		Depth to groundwater / impervious layer	0.25	1	0.25
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			1.75
B	Design	Tributary area size	0.25	1	0.25
		Level of pretreatment/ expected sediment loads	0.25	2	0.50
		Redundancy	0.25	3	0.75
		Compaction during construction	0.25	1	0.25
		Design Safety Factor, $S_B = \Sigma p$			1.75
Combined Safety Factor, $S_{TOT} = S_A \times S_B$					3.06
Measured Infiltration Rate, inch/hr, K_M (corrected for test-specific bias)					3.71
Design Infiltration Rate, in/hr, $K_{DESIGN} = K_M / S_{TOT}$					1.21

Supporting Data

Briefly describe infiltration test and provide reference to test forms:

Worksheet B: Simple Design Capture Volume Sizing Method

DMA A

•	***Step 1: Determine the design capture storm depth used for calculating volume***			
1	Enter design capture storm depth from Figure III.1, *d* (inches)	d=	0.87	inches
2	Enter the effect of provided HSCs, d_{HSC} (inches) (Worksheet A)	d_{HSC}=	0	inches
3	Calculate the remainder of the design capture storm depth, $d_{remainder}$ (inches) (Line 1 – Line 2)	$d_{remainder}$=	0.87	inches
•	***Step 2: Calculate the DCV***			
1	Enter Project area tributary to BMP (s), *A* (acres)	A=	2.05	acres
2	Enter Project Imperviousness, *imp* (unitless)	imp=	.90	
3	Calculate runoff coefficient, *C= (0.75 x imp) + 0.15*	C=	0.83	
4	Calculate runoff volume, V_{design}= *(C x* $d_{remainder}$ *x A x 43560 x (1/12))*	V_{design}=	5,352	cu-ft
•	***Step 3: Design BMPs to ensure full retention of the DCV***			
•	**Step 3a: Determine design infiltration rate**			
1	Enter measured infiltration rate, $K_{measured}$ (in/hr) (Appendix VII)	$K_{measured}$=	3.71	In/hr
2	Enter combined safety factor from Worksheet H, S_{final} (unitless)	S_{final}=	3.06	
3	Calculate design infiltration rate, $K_{design} = K_{measured} / S_{final}$	K_{design}=	1.21	In/hr
•	**Step 3b: Determine minimum BMP footprint**			
4	Enter drawdown time, *T* (max 48 hours)	T=	48	Hours
5	Calculate max retention depth that can be drawn down within the drawdown time (feet), $D_{max} = K_{design} x T x (1/12)$	D_{max}=	4.82	feet
6	Calculate minimum area required for BMP (sq-ft), $A_{min} = V_{design} / d_{max}$	A_{min}=	1,110	sq-ft

DMA A

Tributary Area: 2.05 acres
Impervious Area: 1.76 acres
Pervious Area: 0.29 acres
Rainfall Depth: 0.87 inches

SQDF Equation:

$$C = 0.75 \times 0.86 + 0.15 = 0.79$$

$$Q_{P,\,SQDF} = 0.794 \times 0.26 \times 2.05 = 0.42 \text{ cfs}$$

EFFECTIVE DEPTH AND DRAWDOWN CALCULATION:

DMA A

CMP Diameter: 6.00 feet

G_{depth} (Porous Stone Below Pipe): 0.50 feet

$Trench_{width}$ (Porous Stone): 10.00 feet

$Trench_{depth}$ (Porous Stone): 6.00 feet

$K_{sat/design}$ = 1.21 in/hr (from Worksheet H)

Determine CMP Area

$CMP_{Area} = \pi r^2$

CMP_{Area} = 28.27 S.F.

Determine Trench Area

$Trench_{Area} = Trench_{width} \times Trench_{depth}$

$Trench_{Area}$ = 60.00 S.F.

Determine Area of Stone

$A_{stone} = Trench_{Area} - CMP_{Area}$

A_{stone} = 31.73 S.F.

Determine % Area of Stone

$\%_{stone} = A_{stone} \div Trench_{Area}$

$\%_{stone}$ = 53% (3.18 feet deep at 40% porosity)

Determine % Area of CMP

$\%_{CMP} = CMP_{Area} \div Trench_{Area}$

$\%_{CMP}$ = 47% (2.82 feet deep at 100% porosity)

Determine Trench & CMP Effective Depth

E_{depth} = (3.18 F.T. x 0.40) + 2.18 F.T. x 1.00)

E_{depth} = 4.09 F.T.

Determine G_{depth} Effective Depth

$G_{depth}E = G_{depth} \times 0.40$ porosity

$G_{depth}E$ = 0.20 F.T.

Determine Total Effective Depth

$d_p = E_{depth} + G_{depth}E$

d_p = 4.29 F.T.

Determine Drawdown

$DD = (d_p / K_{sat/design}) \times 12$

DD = 42.57 hrs

LID CALCULATIONS CMP INFILTRATION:

DMA A

CMP Diameter: 6.00 feet

CMP_{Length}: 143 linear feet

G_{depth} (Porous Stone): 6.50 feet

G_{width} (Porous Stone): 10.00 feet

G_{length} (Porous Stone): 147 feet

T (Max. Drawdown Time): 48 hr

V_{design} (CF) = From Worksheet B

V_{design} (CF) = 5,352 C.F.

Determine $K_{sat,design}$

$K_{sat,design}$ = From Worksheet H

$K_{sat,design}$ = 1.21 in/hr

Determine A_{min}

$A_{min} = (V_{design} \times 12\ in/ft) \div (T \times K_{sat,design})$

A_{min} = 1,106 S.F.

Determine V_{CMP}

$V_{CMP} = (\pi r2) x CMP_{Length}$

V_{CMP} = 4,043 C.F.

Determine V_{Stone}

$V_{stone} = ((G_{depth} \times G_{width} \times G_{length}) - V_{CMP}) \times 0.40$

V_{stone} = 2,205 C.F.

Determine V_{Actual}

$V_{actual} = V_{CMP} + V_{stone}$

V_{actual} = 6,248 C.F.

Determine A_{actual}

$A_{actual} = G_{width} \times G_{length}$

A_{actual} = 1,470 S.F.

Determine T_{actual}

$T_{actual} = (V_{design} \times 12\ in/ft) \div (A_{actual} \times K_{sat,design})$

T_{actual} = 42.15 hr

Worksheet H: Factor of Safety and Design Infiltration Rate Worksheet

DMA B

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w x v
A	Suitability Assessment	Soil assessment methods	0.25	1	0.25
		Predominant soil texture	0.25	2	0.50
		Site soil variability	0.25	3	0.75
		Depth to groundwater / impervious layer	0.25	1	0.25
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			1.75
B	Design	Tributary area size	0.25	1	0.25
		Level of pretreatment/ expected sediment loads	0.25	2	0.50
		Redundancy	0.25	3	0.75
		Compaction during construction	0.25	1	0.25
		Design Safety Factor, $S_B = \Sigma p$			1.75
Combined Safety Factor, $S_{TOT} = S_A \times S_B$					3.06
Measured Infiltration Rate, inch/hr, K_M (corrected for test-specific bias)					0.72
Design Infiltration Rate, in/hr, $K_{DESIGN} = K_M / S_{TOT}$					0.24

Supporting Data

Briefly describe infiltration test and provide reference to test forms:

Worksheet B: Simple Design Capture Volume Sizing Method

DMA B

•	***Step 1: Determine the design capture storm depth used for calculating volume***			
1	Enter design capture storm depth from Figure III.1, *d* (inches)	d=	0.87	inches
2	Enter the effect of provided HSCs, d_{HSC} (inches) (Worksheet A)	d_{HSC}=	0	inches
3	Calculate the remainder of the design capture storm depth, $d_{remainder}$ (inches) (Line 1 – Line 2)	$d_{remainder}$=	0.87	inches
•	***Step 2: Calculate the DCV***			
1	Enter Project area tributary to BMP (s), *A* (acres)	A=	0.90	acres
2	Enter Project Imperviousness, *imp* (unitless)	imp=	0.81	
3	Calculate runoff coefficient, *C= (0.75 x imp) + 0.15*	C=	0.76	
4	Calculate runoff volume, V_{design}= *(C x* $d_{remainder}$ *x A x 43560 x (1/12))*	V_{design}=	2,151	cu-ft
•	***Step 3: Design BMPs to ensure full retention of the DCV***			
•	**Step 3a: Determine design infiltration rate**			
1	Enter measured infiltration rate, $K_{measured}$ (in/hr) (Appendix VII)	$K_{measured}$=	0.72	In/hr
2	Enter combined safety factor from Worksheet H, S_{final} (unitless)	S_{final}=	3.06	
3	Calculate design infiltration rate, $K_{design} = K_{measured} / S_{final}$	K_{design}=	0.24	In/hr
•	**Step 3b: Determine minimum BMP footprint**			
4	Enter drawdown time, *T* (max 48 hours)	T=	48	Hours
5	Calculate max retention depth that can be drawn down within the drawdown time (feet), $D_{max} = K_{design} x T x (1/12)$	D_{max}=	0.96	feet
6	Calculate minimum area required for BMP (sq-ft), $A_{min} = V_{design} / d_{max}$	A_{min}=	2,241	sq-ft

DMA B

Tributary Area: 0.90 acres
Impervious Area: 0.73 acres
Pervious Area: 0.17 acres
Rainfall Depth: 0.87 inches

SQDF Equation:

$$C = 0.75 \times 0.81 + 0.15 = 0.76$$

$$Q_{P,\,SQDF} = 0.758 \times 0.26 \times 0.90 = 0.18 \text{ cfs}$$

EFFECTIVE DEPTH AND DRAWDOWN CALCULATION:

DMA B

CMP Diameter: 1.50 feet

G_{depth} (Porous Stone Below Pipe): 0.50 feet

$Trench_{width}$ (Porous Stone): 5.50 feet

$Trench_{depth}$ (Porous Stone): 1.50 feet

$K_{sat/design}$ = 0.24 in/hr (from Worksheet H)

Determine CMP Area

$CMP_{Area} = \pi r^2$

CMP_{Area} = 1.77 S.F.

Determine Trench Area

$Trench_{Area} = Trench_{width} \times Trench_{depth}$

$Trench_{Area}$ = 8.25 S.F.

Determine Area of Stone

$A_{stone} = Trench_{Area} - CMP_{Area}$

A_{stone} = 6.48 S.F.

Determine % Area of Stone

$\%_{stone} = A_{stone} \div Trench_{Area}$

$\%_{stone}$ = 79% (1.19 feet deep at 40% porosity)

Determine % Area of CMP

$\%_{CMP} = CMP_{Area} \div Trench_{Area}$

$\%_{CMP}$ = 21% (0.31 feet deep at 100% porosity)

Determine Trench & CMP Effective Depth

E_{depth} = (1.19 F.T. x 0.40) + (0.31 F.T. x 1.00)

E_{depth} = 0.79 F.T.

Determine G_{depth} Effective Depth

$G_{depth}E = G_{depth} \times 0.40$ porosity

$G_{depth}E$ = 0.20 F.T.

Determine Total Effective Depth

$d_p = E_{depth} + G_{depth}E$

d_p = 0.99 F.T.

Determine Drawdown

$DD = (d_p / K_{sat/design}) \times 12$

DD = 49.30 hrs

LID CALCULATIONS CMP INFILTRATION:

DMA B

CMP Diameter: 1.50 feet

CMP_{Length}: 424 linear feet

G_{depth} (Porous Stone): 2.00 feet

G_{width} (Porous Stone): 5.50 feet

G_{length} (Porous Stone): 428 feet

T (Max. Drawdown Time): 48 hr

V_{design} (CF) = From Worksheet B

V_{design} (CF) = 2,241 C.F.

Determine $K_{sat,design}$

$K_{sat,design}$ = From Worksheet H

$K_{sat,design}$ = 0.24 in/hr

Determine A_{min}

$A_{min} = (V_{design} \times 12\ in/ft) \div (T \times K_{sat,design})$

A_{min} = 2,334 S.F.

Determine V_{CMP}

$V_{CMP} = (\pi r2) x CMP_{Length}$

V_{CMP} = 749 C.F.

Determine V_{Stone}

$V_{stone} = ((G_{depth} \times G_{width} \times G_{length}) - V_{CMP}) \times 0.40$

V_{stone} = 1,583 C.F.

Determine V_{Actual}

$V_{actual} = V_{CMP} + V_{stone}$

V_{actual} = 2,333 C.F.

Determine A_{actual}

$A_{actual} = G_{width} \times G_{length}$

A_{actual} = 2,354 S.F.

Determine T_{actual}

$T_{actual} = (V_{design} \times 12\ in/ft) \div (A_{actual} \times K_{sat,design})$

T_{actual} = 49.55 hr

IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs

Name	Included?
All HSCs; *See Section IV.3.1*	☐
Surface-based infiltration BMPs	☐
Biotreatment BMPs	☐
Above-ground cisterns and basins	☐
Underground detention	☐
Other:	☐

N/A

IV.3.4 Biotreatment BMPs

Name	Included?
Bioretention with underdrains	☐
Stormwater planter boxes with underdrains	☐
Rain gardens with underdrains	☐
Constructed wetlands	☐
Vegetated swales	☐
Vegetated filter strips	☐
Proprietary vegetated biotreatment systems	☒
Wet extended detention basin	☐
Dry extended detention basins	☐
Other:	☐

Modular Wetlands systems will be used for stormwater pretreatment of vehicular areas (surface parking and parking structure) prior to infiltration by the perforated CMPs. Subarea 1 Modular Wetlands (MWS-L-4-6) has a treatment flow rate of 0.075 cfs and the SQDF for this area is 0.072 cfs. Subarea 2 Modular Wetlands (MWS-L-4-15) has a treatment flow rate of 0.175 cfs and the SQDF for this area is 0.150 cfs. See the following calculations.

MWS #A - Pretreatment BMP Sizing Spreadsheet

Tributary Area:	0.309	acres
Impervious Area:	0.309	acres
Pervious Area:	0.000	acres
Rainfall Depth:	0.87	inches

SQDF Equation:

$Q_{P,\,SQDF} = C * I * A$

Where:

C = runoff coefficient (0.75 x imp + 0.15)

i = rainfall intensity (0.26 in/hr)

A = total area of site in acres

C =	0.75	x	1.00	+	0.15	=	0.90	
$Q_{P,\,SQDF}$ =	0.90	x	0.26	x	0.309	=	0.072	cfs
Modular Wetlands:					MWS-L-4-6	=	0.073	cfs

MWS #B - Pretreatment BMP Sizing Spreadsheet

Tributary Area:	0.642	acres
Impervious Area:	0.642	acres
Pervious Area:	0.000	acres
Rainfall Depth:	0.87	inches

SQDF Equation:

$Q_{P,\,SQDF} = C * I * A$

Where:

C = runoff coefficient (0.75 x imp + 0.15)

i = rainfall intensity (0.26 in/hr)

A = total area of site in acres

C =	0.75	x	1.00	+	0.15	=	0.90	
$Q_{P,\,SQDF}$ =	0.90	x	0.26	x	0.642	=	0.150	cfs
Modular Wetlands:					MWS-L-4-15	=	0.175	cfs

IV.3.5 Hydromodification Control BMPs

Hydromodification Control BMPs	
BMP Name	**BMP Description**
N/A	

IV.3.6 Regional/Sub-Regional LID BMPs

Regional/Sub-Regional LID BMPs
N/A

IV.3.7 Treatment Control BMPs

Treatment Control BMPs	
BMP Name	**BMP Description**
N/A	

IV.3.8 Non-structural Source Control BMPs

Non-Structural Source Control BMPs				
Identifier	**Name**	**Check One**		**If not applicable, state brief reason**
		Included	**Not Applicable**	
N1	Education for Property Owners, Tenants and Occupants	☒	☐	
N2	Activity Restrictions	☒	☐	
N3	Common Area Landscape Management	☒	☐	
N4	BMP Maintenance	☒	☐	
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	Project does not contain hazardous substances.
N6	Local Industrial Permit Compliance	☐	☒	Project is not an industrial site.
N7	Spill Contingency Plan	☐	☒	Project does not contain hazardous substances.
N8	Underground Storage Tank Compliance	☐	☒	Project site does not have any UST's.
N9	Hazardous Materials Disclosure Compliance	☐	☒	Project does not contain hazardous substances.
N10	Uniform Fire Code Implementation	☐	☒	Project does not contain hazardous substances.
N11	Common Area Litter Control	☒	☐	
N12	Employee Training	☒	☐	
N13	Housekeeping of Loading Docks	☐	☒	Project site does not have any loading docks.
N14	Common Area Catch Basin Inspection	☒	☐	
N15	Street Sweeping Private Streets and Parking Lots	☒	☐	
N16	Retail Gasoline Outlets	☐	☒	Project site does not include a retail gasoline outlet.

(N1) Education

Educational materials for good housekeeping practices, this report, as well as other applicable stormwater BMP materials will be distributed by the owner to all employees and contractors that will perform any task affiliated with the BMPs mentioned within this report. Materials will be presented upon hire and materials review will be done annually.

(N2) Activity Restrictions

No outdoor storage shall be permitted.

No hosing down of any paved surfaces will occur where the result would be the flow of non-stormwater into the street or storm drains.
No dumping of any waste into drop inlets or catch basins.
No blowing or sweeping of debris such as leaf litter, grass clippings, miscellaneous litter, etc. into catch basins, area drains, or streets.
These and any other restrictions shall be adhered to daily.

(N3) Common Landscape Management

Maintenance shall include trimming, mowing, weeding, removal of litter, fertilizing, water conservation, and replacement of dead, diseased, or dying plants. Any plant materials shall be installed and maintained in a neat, vigorous, and healthy condition. Irrigation will be monitored to establish proper time of watering. Landscape waste will be properly disposed of. Any fertilizer or pesticides used will be done so sparingly, according to Federal, State, and County standards, and applied in accordance with the directions on the label. Landscape Management shall be performed on a monthly basis. Irrigation Management shall be done in accordance with the landscapes watering schedule. CASQA BMP SC-41

(N4) BMP Maintenance

BMP maintenance refers to the proper inspection and maintenance at specified frequencies of all Routine Structural BMPs, Non-Structural BMPs, and Treatment Control BMPs mentioned within this report. Record of inspections and maintenances shall be made and kept on-site. BMP Maintenance shall be adhered to as required. See **Section VI** for locations of BMPs.

(N11) Common Area Litter Control

Routine maintenance shall consist of litter control throughout entire site, closing trash can lids, cleaning area around trash can, emptying trash containers throughout the site and inspecting and implementing the Best Management Practices. Common Area Litter Control shall be adhered to on a weekly basis. BMP FF-13

(N12) Employee Training

Training will begin with a general review and explanation of stormwater/urban runoff and its effect on the environment. Applicable Federal, State, and City stormwater requirements will be discussed including stormwater discharge prohibitions, and wastewater discharge requirements. New employees/contractors are to be given a basic orientation on all aspects of pollution preventative measures, and shall begin training immediately after hire (i.e. within 30 days of the start date) and shall be required to attend meetings thereafter, as scheduled by the property owner. An annual BMP meeting, at a minimum, will be conducted on preventative measures, inspection, and maintenance. This WQMP report shall be reviewed at the meetings. Documentation of training as well as the individuals responsible for preparation, implementation, and compliance shall be kept on-site.

(N14) Common Area Catch Basin Inspection

Inspection shall be performed monthly and after every rain event. Catch basins shall be cleaned when sump is 40% full but at a minimum annually before the rainy season. Repair any damage to catch basins or drop inlets. CASQA BMP SC-44

(N15) Street Sweeping Private Streets and Parking Lots

Surface inspection of the parking area shall be performed on a monthly basis at a minimum. The parking structure shall be swept and cleaned monthly to prevent potential debris and pollutants from entering into the storm drain system. Hosing off the parking structure surface is prohibited. CASQA BMP SC-43

IV.3.9 Structural Source Control BMPs

Structural Source Control BMPs				
Identifier	**Name**	**Check One**		**If not applicable, state brief reason**
		Included	**Not Applicable**	
S1	Provide storm drain system stenciling and signage	☒	☐	
S2	Design and construct outdoor material storage areas to reduce pollution introduction	☐	☒	Any stored materials will be stored within structure.
S3	Design and construct trash and waste storage areas to reduce pollution introduction	☐	☒	Trash enclosure is within parking structure.
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐	
S5	Protect slopes and channels and provide energy dissipation	☐	☒	Project does not have any slopes or channels.
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	☐	☒	Project is within SARWQCB NPDES Permit area and is not subject to this criterion.
S6	Dock areas	☐	☒	Project does not have dock areas.
S7	Maintenance bays	☐	☒	Project does not have maintenance bays.
S8	Vehicle wash areas	☐	☒	Project does not have wash areas.
S9	Outdoor processing areas	☐	☒	Project does not have outdoor processing areas.
S10	Equipment wash areas	☐	☒	Project does not have equipment wash areas.
S11	Fueling areas	☐	☒	Project does not have fueling areas.
S12	Hillside landscaping	☐	☒	Project does not have hillside landscaping.
S13	Wash water control for food preparation areas	☐	☒	Project does not have food preparation areas.
S14	Community car wash racks	☐	☒	Project does not have community car wash racks.

S1 Catch Basin Stenciling

The on-site proposed drop inlets will use City markers that state "No Dumping – Drains to Ocean." Inspection of drop inlet markers shall be done annually. Re-stenciling shall be done as needed, with a minimum frequency of every five years, to ensure legibility. CASQA BMP SD-13

S4 Use Efficient Irrigation Systems and Landscaping Design

Landscaping will consist of drought tolerant or native plants, grouped by similar irrigation needs. Any plant materials shall be installed and maintained in a neat, vigorous, and healthy condition. Irrigation will be monitored to establish proper time of watering. Rain shutoff devices and shut off valves/flow reducers will be used to prevent erosion, over watering, and prolong plant life. The irrigation system shall minimize excess irrigation and irrigation runoff throughout the project site. Landscaping and irrigation systems will be inspected monthly and maintained as needed. CASQA BMP SD-12

Funding for the Operation and Maintenance program for the site will be by **Integral Communities**.

Section V Inspection/Maintenance Responsibility for BMPs

Inspection and maintenance records must be kept for a minimum of five years for inspection by the regulatory agencies. Responsibility and funding for long term inspection and maintenance of all non-structural and structural source control BMPs and all treatment control BMPs is by:

Integral Communities
888 San Clemente, Suite 100
Newport Beach, CA 92660
(949) 720-3612
Edward Galigher

BMP Inspection/Maintenance

BMP	Reponsible Party(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
SD-12 Efficient Irrigation	Integral Communities	Vegetation shall be grouped according to similar watering needs. Rain shutoff devices and shut off valves/flow reducers will be used to prevent erosion, overwatering, and prolong plant life. Irrigation system shall minimize excess irrigation and irrigation runoff throughout the project site. Broken heads or lines will be replaced within a timely manner.	Monthly
SD-13 Storm Drain Stencilling and Signage	Integral Communities	Check for legibility and repaint when necessary	Annually. Re-stencilling is required, at a minimum, every five years.

SD-32 Trash Enclosure	Integral Communities	Keep lids closed. Keep area clean. Replace damaged and leaking dumpsters.	Weekly
Education for Property Owners, Tenants and Occupants	Integral Communities	Have educational and BMP materials available to distribute/review.	Upon hire or signing and annually
Activity Restrictions	Integral Communities	Review restricted activities. Monitoring for evidence of performed restricted activities.	Daily
SC-41 Common Area Landscape Management	Integral Communities	Maintenance: trimming; mowing; weeding; removal of litter; fertilizing; water conservation; replacement of dead, diseased, or dying plants; properly dispose of waste; minimize pesticide and fertilizer use and apply in accordance with governing regulations.	Monthly
BMP Maintenance	Integral Communities	As specified within this list and report.	As required
FF-13 Common Area Litter Control	Integral Communities	Closing lids of waste receptacles. Keep trash receptacle area clean. Empty containers before they are full. Picking up litter and debris from site.	Weekly

Employee Training	Integral Communities	Periodic review of this report and other materials that educate about stormwater pollution and its prevention.	Upon hire and annually
SC-44 Common Area Catch Basin Inspection	Integral Communities	Remove waste and debris. Repair any damages.	Inspection shall be performed monthly and after every rain event.
			Catch Basins shall be cleaned when sump is 40% full but at a minimum annually before the rain season.
SC-43 Sweeping of street and parking structure	Integral Communities	Sweep street and parking structure and properly dispose of trash and material.	Monthly
Modular Wetlands (Quantity) & Models: (qty. 1) MWS-L-4-6; (qty. 1) MWS-L-4-15	Integral Communities	Inspect and remove trash and debris from outlet pipe and vault twice a year. Maintain and replace planting and filter media once a year as necessary. Replace mulch annually.	Inspection: Bi-Annual Maintenance: Annual
CMPs	Integral Communities	Inspect and remove trash and debris from tank twice a year.	Bi-Annual
		Remove accumulated sediment.	Annual

Section VI BMP Exhibit (Site Plan)

VI.1 BMP Exhibit (Site Plan)

See Attachment D.

Section VII Educational Materials

Refer to the Orange County Stormwater Program (ocwatersheds.com) for a library of materials available.

Education Materials			
Residential Material (http://www.ocwatersheds.com)	**Check If Applicable**	**Business Material (http://www.ocwatersheds.com)**	**Check If Applicable**
The Ocean Begins at Your Front Door	☒	Tips for the Automotive Industry	☐
Tips for Car Wash Fund-raisers	☐	Tips for Using Concrete and Mortar	☐
Tips for the Home Mechanic	☐	Tips for the Food Service Industry	☐
Homeowners Guide for Sustainable Water Use	☐	Proper Maintenance Practices for Your Business	☐
Household Tips	☒	**Other Material**	**Check If Attached**
Proper Disposal of Household Hazardous Waste	☒		
Recycle at Your Local Used Oil Collection Center (North County)	☐		☐
Recycle at Your Local Used Oil Collection Center (Central County)	☐		☐
Recycle at Your Local Used Oil Collection Center (South County)	☐		☐
Tips for Maintaining a Septic Tank System	☐		☐
Responsible Pest Control	☒		☐
Sewer Spill	☐		☐
Tips for the Home Improvement Projects	☐		☐
Tips for Horse Care	☐		☐
Tips for Landscaping and Gardening	☒		☐
Tips for Pet Care	☐		☐
Tips for Pool Maintenance	☒		☐
Tips for Residential Pool, Landscape and Hardscape Drains	☒		☐
Tips for Projects Using Paint	☐		☐

Attachments

Attachment A Educational Materials

City of Placentia
STORMWATER POLLUTION PROGRAM

APARTMENT MANAGER'S CHECKLIST

The most important thing to know about sewers and storm drains is that they are two different systems. All outside storm drains flow directly to the nearest creek or river, where pollutants such as paint, oil, soap, and chemicals can harm fish, wildlife, and people. In contrast, all indoor drains (sinks, showers, toilets) flow directly to the sewage treatment plant. There, the water undergoes advanced treatment that removes toxic materials. Many people mistakenly believe they can discharge toxics into storm drains without harm. ***Apartment managers can play a key role in helping prevent the creek damage that results and reducing the likelihood of a costly clean-up.***

First, you can help educate residents and maintenance staff on the vital difference between storm drains and indoor plumbing. Second, you can follow the suggestions on the Manager's Checklist below. **Be part of the solution for clean water!**

Manager's Checklist for Routine Site Inspections

- Landscaped Areas
- Building Maintenance Areas
- Parking Areas
- Dumpster Areas
- After Evictions/Move-Outs

Landscaped Areas

- Yard clippings and leaves are disposed of in yard waste recycling containers. In rivers, streams, and channels yard clippings and leaves can harm fish by removing oxygen from the water.
- Pet feces should be picked-up and disposed of in the garbage. Pet waste washed into rivers, streams, and channels can cause harmful water-borne diseases.
- Check the irrigation system to prevent overwatering. Overwatering wastes precious water and can carry harmful fertilizers and pesticides into rivers, streams, and channels through the street and storm drains. Check the City website for water conservation tips at www.placentia.org
- Gutters should be watched for signs of discharge. Gutters wet from anything but rainwater during dry weather could mean pollutants have the potential to enter the storm drain system and cause potential pollution. Locate the source. If more than rain water or irrigation water blocks the flow into the storm drain system then clean-up the spill. If the substance has entered the storm drain system and a storm drain cleaning company is unable to respond, immediately call the City at (714) 993-8149. If caught in time, substances can be prevented from reaching waterways.

Building Maintenance Areas

- Chemicals, paints, solvents, cleaning agents, oils, fuels, pesticides and other toxic materials should be properly stored in a covered area. This will prevent contact should it rain. These chemicals should also be kept out of reach of children and others who may want to tamper with them. State regulations must be followed in disposing of hazardous materials. Orange County

residents can dispose their household hazardous waste at any of the County collection centers. Visit http://wastefreeoc.com/hazardous/ for more information.

- Construction materials such as concrete, dry wall, dirt, and paint are stored under a waterproof cover and away from storm drains. These materials are extremely harmful to fish and their habitat.
- Discuss disposal practices with builders, painters, carpet cleaners and other who work in the complex. Storm drains must never be used to dispose of paint, construction wastes or cleaning wastewater. Storm drains must never be used to dispose of paint, construction wastes or cleaning wastewater. Include appropriate language in work contracts to ensure a contractor's responsibility to prevent illegal discharges.

Parking Areas

- Automotive fluids leaked from vehicles are to be cleaned from the pavement. Dripping oil, antifreeze, and other automotive fluids can easily wash into rivers, where they are lethal to fish and wildlife. Use absorbents like kitty litter on puddles or drips or use drip pans, then dispose of as hazardous waste at the nearest Household Hazardous Waste Collection Center http://wastefreeoc.com/hazardous/.
- Parking areas should be swept rather than watered down to prevent runoff of harmful chemicals, such as oils and grease.
- On-site car washing by tenants should only be permitted when soapy run-off is clearly directed to gravel or landscaped areas. All soaps, even when labeled "bio-degradable" are toxic to fish and wildlife.
- Inspections and grounds clean-up should be performed at least once annually using a method that does not wash materials downstream. Dirt, garbage, leaves, and other debris can wash into storm drains or block them during winter storms.
- All storm drains on site should be labeled "No Dumping – Drains to Ocean." With assistance from the City, you can educate your tenants and show your commitment to preventing stormwater pollution. Call (714) 993-8149 for more information on how the City's Environmental Programs Division can help you.
- Spill clean-up procedures should be in place and staff should be trained on a regular basis on spill prevention and control. If a hazardous spill occurs, call a recommended clean-up service and then immediately notify the City at (714) 993-8149. If caught in time, materials can be prevented from reaching waterways.

Dumpster Areas

- Dumpster lids are to be kept closed at all times.
- The pavement area around the dumpster is to be kept clean, with all wastes deposited into the dumpster. More frequent pick-ups can be scheduled by calling Republic Services at (714) 238-3300.
- Make sure the dumpster does not leak and has a drain hole plug in place. If you detect a leak or missing drain hole in your dumpster, contact Republic Services at (714) 238-3300. Republic Services should replace leaking dumpsters free of charge.

After Evictions/Move Outs

Evicted tenants can sometimes pose problems, which result in damage to your property. Use the checklist below to help assure an orderly, trouble free transition.

- Premises with an interior and exterior have been inspected.
- Locks on the doors have been changed to prevent potential vandalism.
- Parking and storage areas have been inspected. This will insure that no illegal dumping of household hazardous waste or chemicals occurred.
- Dumpster and storm drain nearest the tenant's unit has been inspected.
- Garbage left by the tenant has been removed. If the tenant left hazardous materials, please dispose of them properly. If you are unsure of how to dispose of these materials please call the City's Environmental Programs division at (714) 993-8149.

Questions?

Call the Public Works Department, Environmental Programs Division at (714) 993-8149 or visit www.placentia.org

What the Law Says

Apartment managers should let residents know in the rental agreement that dumping or discharging contaminants into storm drains, rivers, or creeks, is against the law. Both the property owner and the offending discharger may be subject to prosecution and fines of up to $1,000.00 per day, per violation (Placentia Municipal Code Chapter 16.20).

Important Numbers

Environmental Concerns, (714) 993-8149

To Report Illegal Storm Water Discharge, 1-877-89-SPILL

The Ocean Begins at Your Front Door

Even if you live miles from the Pacific Ocean, you may be unknowingly polluting it.

Did You Know?

- Most people believe that the largest source of water pollution in urban areas comes from specific sources such as factories and sewage treatment plants. In fact, the largest source of water pollution comes from city streets, neighborhoods, construction sites and parking lots. This type of pollution is sometimes called “non-point source” pollution.
- There are two types of non-point source pollution: stormwater and urban runoff pollution.
- Stormwater runoff results from rainfall. When rainstorms cause large volumes of water to rinse the urban landscape, picking up pollutants along the way.
- Urban runoff can happen any time of the year when excessive water use from irrigation, vehicle washing and other sources carries trash, lawn clippings and other urban pollutants into storm drains.

Where Does It Go?

- Anything we use outside homes, vehicles and businesses – like motor oil, paint, pesticides, fertilizers and cleaners – can be blown or washed into storm drains.
- A little water from a garden hose or rain can also send materials into storm drains.
- Storm drains are separate from our sanitary sewer systems; unlike water in sanitary sewers (from sinks or toilets), water in storm drains is not treated before entering our waterways.

Sources of Non-Point Source Pollution

- Automotive leaks and spills.
- Improper disposal of used oil and other engine fluids.
- Metals found in vehicle exhaust, weathered paint, rust, metal plating and tires.
- Pesticides and fertilizers from lawns, gardens and farms.
- Improper disposal of cleaners, paint and paint removers.
- Soil erosion and dust debris from landscape and construction activities.
- Litter, lawn clippings, animal waste, and other organic matter.
- Oil stains on parking lots and paved surfaces.

The Effect on the Ocean

Non-point source pollution can have a serious impact on water quality in Orange County. Pollutants from the storm drain system can harm marine life as well as coastal and wetland habitats. They can also degrade recreation areas such as beaches, harbors and bays.

Stormwater quality management programs have been developed throughout Orange County to educate and encourage the public to protect water quality, monitor runoff in the storm drain system, investigate illegal dumping and maintain storm drains.

Support from Orange County residents and businesses is needed to improve water quality and reduce urban runoff pollution. Proper use and disposal of materials will help stop pollution before it reaches the storm drain and the ocean.

Dumping one quart of motor oil into a storm drain can contaminate 250,000 gallons of water.

For More Information

Orange County Stormwater Program

California Environmental Protection Agency
www.calepa.ca.gov

- **Air Resources Board**
  www.arb.ca.gov
- **Department of Pesticide Regulation**
  www.cdpr.ca.gov
- **Department of Toxic Substances Control**
  www.dtsc.ca.gov
- **Integrated Waste Management Board**
  www.ciwmb.ca.gov
- **Office of Environmental Health Hazard Assessment**
  www.oehha.ca.gov
- **State Water Resources Control Board**
  www.waterboards.ca.gov

Earth 911 - Community-Specific Environmental Information 1-800-cleanup or visit www.1800cleanup.org

Health Care Agency’s Ocean and Bay Water Closure and Posting Hotline
(714) 433-6400 or visit www.ocbeachinfo.com

Integrated Waste Management Dept. of Orange County (714) 834-6752 or visit www.oclandfills.com for information on household hazardous waste collection centers, recycling centers and solid waste collection

O.C. Agriculture Commissioner
(714) 447-7100 or visit www.ocagcomm.com

Stormwater Best Management Practice Handbook
Visit www.cabmphandbooks.com

UC Master Gardener Hotline
(714) 708-1646 or visit www.uccemg.com

The Orange County Stormwater Program has created and moderates an electronic mailing list to facilitate communications, take questions and exchange ideas among its users about issues and topics related to stormwater and urban runoff and the implementation of program elements. To join the list, please send an email to ocstormwaterinfo-join@list.ocwatersheds.com

Aliso Viejo	(949) 425-2535
Anaheim Public Works Operations	(714) 765-6860
Brea Engineering	(714) 990-7666
Buena Park Public Works	(714) 562-3655
Costa Mesa Public Services	(714) 754-5323
Cypress Public Works	(714) 229-6740
Dana Point Public Works	(949) 248-3584
Fountain Valley Public Works	(714) 593-4441
Fullerton Engineering Dept.	(714) 738-6853
Garden Grove Public Works	(714) 741-5956
Huntington Beach Public Works	(714) 536-5431
Irvine Public Works	(949) 724-6315
La Habra Public Services	(562) 905-9792
La Palma Public Works	(714) 690-3310
Laguna Beach Water Quality	(949) 497-0378
Laguna Hills Public Services	(949) 707-2650
Laguna Niguel Public Works	(949) 362-4337
Laguna Woods Public Works	(949) 639-0500
Lake Forest Public Works	(949) 461-3480
Los Alamitos Community Dev.	(562) 431-3538
Mission Viejo Public Works	(949) 470-3056
Newport Beach, Code & Water Quality Enforcement	(949) 644-3215
Orange Public Works	(714) 532-6480
Placentia Public Works	(714) 993-8245
Rancho Santa Margarita	(949) 635-1800
San Clemente Environmental Programs	(949) 361-6143
San Juan Capistrano Engineering	(949) 234-4413
Santa Ana Public Works	(714) 647-3380
Seal Beach Engineering	(562) 431-2527 x317
Stanton Public Works	(714) 379-9222 x204
Tustin Public Works/Engineering	(714) 573-3150
Villa Park Engineering	(714) 998-1500
Westminster Public Works/Engineering	(714) 898-3311 x446
Yorba Linda Engineering	(714) 961-7138
Orange County Stormwater Program	(877) 897-7455

Orange County 24-Hour Water Pollution Problem Reporting Hotline
1-877-89-SPILL (1-877-897-7455)

On-line Water Pollution Problem Reporting Form
www.ocwatersheds.com

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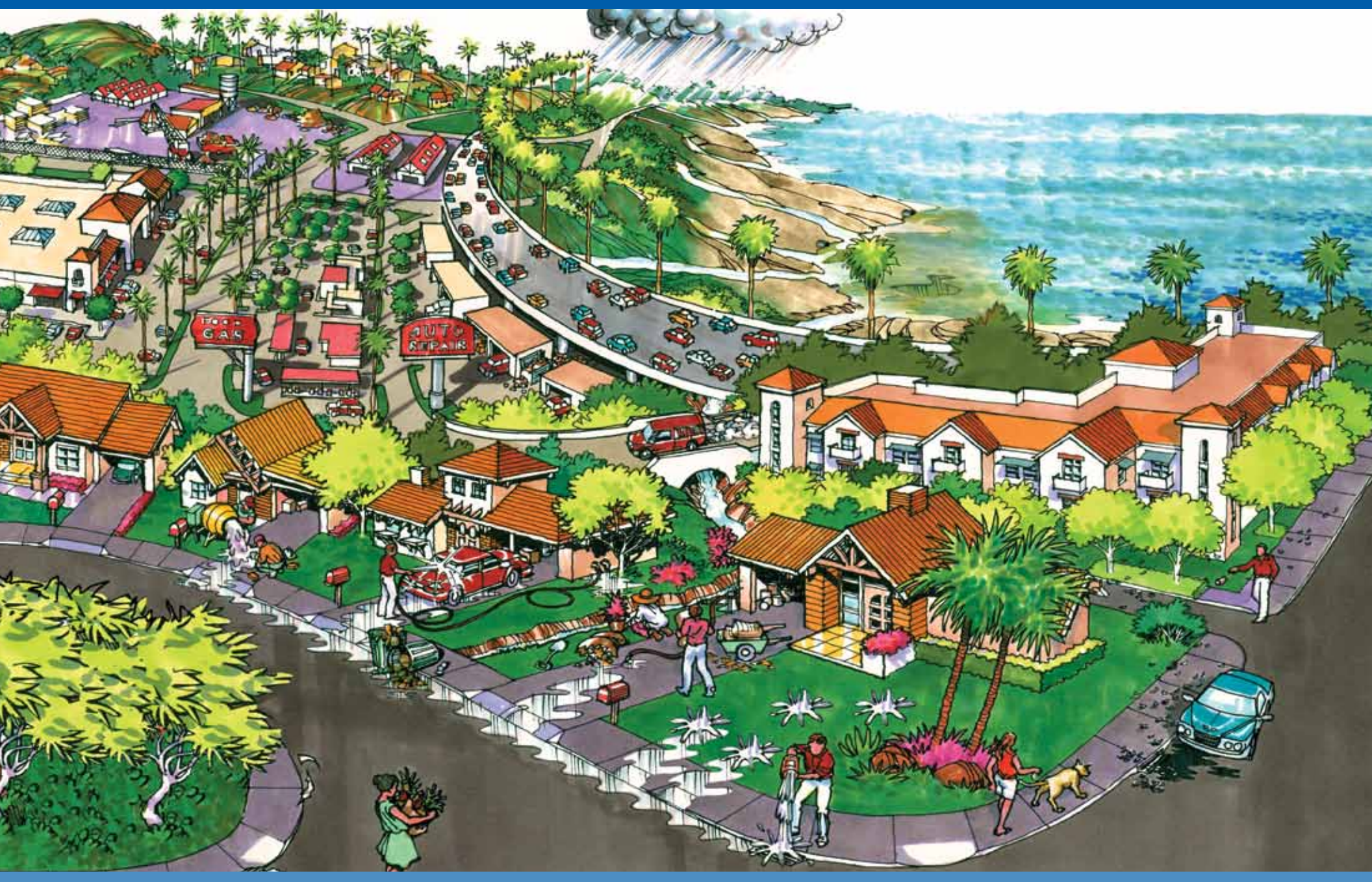
The Ocean Begins at Your Front Door



Never allow pollutants to enter the street, gutter or storm drain!

Follow these simple steps to help reduce water pollution:

Household Activities

- Do not rinse spills with water. Use dry cleanup methods such as applying cat litter or another absorbent material, sweep and dispose of in the trash. Take items such as used or excess batteries, oven cleaners, automotive fluids, painting products and cathode ray tubes, like TVs and computer monitors, to a Household Hazardous Waste Collection Center (HHWCC).
- For a HHWCC near you call (714) 834-6752 or visit www.oclandfills.com.
- Do not hose down your driveway, sidewalk or patio to the street, gutter or storm drain. Sweep up debris and dispose of it in the trash.

Automotive

- Take your vehicle to a commercial car wash whenever possible. If you wash your vehicle at home, choose soaps, cleaners, or detergents labeled non-toxic, phosphate- free or biodegradable. Vegetable and citrus-based products are typically safest for the environment.
- Do not allow washwater from vehicle washing to drain into the street, gutter or storm drain. Excess washwater should be disposed of in the sanitary sewer (through a sink or toilet) or onto an absorbent surface like your lawn.
- Monitor your vehicles for leaks and place a pan under leaks. Keep your vehicles well maintained to stop and prevent leaks.
- Never pour oil or antifreeze in the street, gutter or storm drain. Recycle these substances at a service station, a waste oil collection center or used oil recycling center. For the nearest Used Oil Collection Center call 1-800-CLEANUP or visit www.1800cleanup.org.

Pool Maintenance

- Pool and spa water must be dechlorinated and free of excess acid, alkali or color to be allowed in the street, gutter or storm drain.
- When it is not raining, drain dechlorinated pool and spa water directly into the sanitary sewer.
- Some cities may have ordinances that do not allow pool water to be disposed of in the storm drain. Check with your city.

Landscape and Gardening

- Do not over-water. Water your lawn and garden by hand to control the amount of water you use or set irrigation systems to reflect seasonal water needs. If water flows off your yard onto your driveway or sidewalk, your system is over-watering. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of waste by composting, hauling it to a permitted landfill, or as green waste through your city's recycling program.
- Follow directions on pesticides and fertilizer, (measure, do not estimate amounts) and do not use if rain is predicted within 48 hours.
- Take unwanted pesticides to a HHWCC to be recycled. For locations and hours of HHWCC, call (714) 834-6752 or visit www.oclandfills.com.

Trash

- Place trash and litter that cannot be recycled in securely covered trash cans.
- Whenever possible, buy recycled products.
- Remember: Reduce, Reuse, Recycle.

Pet Care

- Always pick up after your pet. Flush waste down the toilet or dispose of it in the trash. Pet waste, if left outdoors, can wash into the street, gutter or storm drain.
- If possible, bathe your pets indoors. If you must bathe your pet outside, wash it on your lawn or another absorbent/permeable surface to keep the washwater from entering the street, gutter or storm drain.
- Follow directions for use of pet care products and dispose of any unused products at a HHWCC.

Common Pollutants

Home Maintenance
- Detergents, cleaners and solvents
- Oil and latex paint
- Swimming pool chemicals
- Outdoor trash and litter

Lawn and Garden
- Pet and animal waste
- Pesticides
- Clippings, leaves and soil
- Fertilizer

Automobile
- Oil and grease
- Radiator fluids and antifreeze
- Cleaning chemicals
- Brake pad dust

Do your part to prevent water pollution in our creeks, rivers, bays and ocean.

Clean beaches and healthy creeks, rivers, bays, and ocean are important to Orange County. However, many common household activities can lead to water pollution if you're not careful.

Remember the Water in Your Storm Drain is Not Treated BEFORE It Enters Our Waterways

Litter, oil, chemicals and other substances that are left on your yard or driveway can be blown or washed into storm drains that flow to the ocean. Over-watering your lawn and washing your car can also flush materials into the storm drains. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated.

You would never pour soap, fertilizers or oil into the ocean, so don't let them enter streets, gutters or storm drains. Follow the easy tips in this brochure to help prevent water pollution.

For more information, please call the **Orange County Stormwater Program** at **1-877-89-SPILL** (1-877-897-7455) or visit **www.ocwatersheds.com**

To report a spill, call the **Orange County 24-Hour Water Pollution Problem Reporting Hotline 1-877-89-SPILL** (1-877-897-7455).

For emergencies, dial 911.

The tips contained in this brochure provide useful information to help prevent water pollution while performing everyday household activities. If you have other suggestions, please contact your city's stormwater representatives or call the Orange County Stormwater Program.

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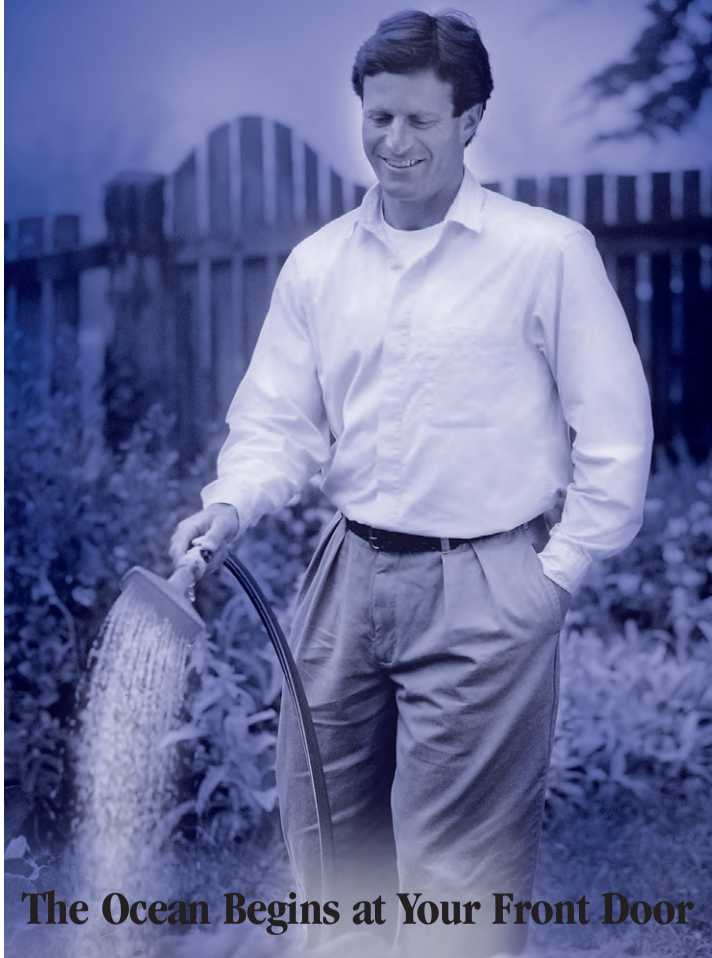
50% PRE-CONSUMER AND 15% POST-CONSUMER

RECYCLE USED OIL

Help Prevent Ocean Pollution:

Household Tips



The Ocean Begins at Your Front Door

PROJECT Pollution PREVENTION

Pollution Prevention

Household Activities

- **Do not rinse spills with water!** Sweep outdoor spills and dispose of in the trash. For wet spills like oil, apply cat litter or another absorbent material, then sweep and bring to a household hazardous waste collection center (HHWCC).
- Securely cover trash cans.
- Take household hazardous waste to a household hazardous waste collection center.
- Store household hazardous waste in closed, labeled containers inside or under a cover.
- Do not hose down your driveway, sidewalk or patio. Sweep up debris and dispose of in trash.
- Always pick up after your pet. Flush waste down the toilet or dispose of in the trash.
- Bathe pets indoors or have them professionally groomed.

Household Hazardous Wastes include:

- ▲ **Batteries**
- ▲ **Paint thinners, paint strippers and removers**
- ▲ **Adhesives**
- ▲ **Drain openers**
- ▲ **Oven cleaners**
- ▲ **Wood and metal cleaners and polishes**
- ▲ **Herbicides and pesticides**
- ▲ **Fungicides/wood preservatives**
- ▲ **Automotive fluids and products**
- ▲ **Grease and rust solvents**
- ▲ **Thermometers and other products containing mercury**
- ▲ **Fluorescent lamps**
- ▲ **Cathode ray tubes, e.g. TVs, computer monitors**
- ▲ **Pool and spa chemicals**

Gardening Activities

- Follow directions on pesticides and fertilizers, (measure, do not estimate amounts) and do not use if rain is predicted within 48 hours.
- Water your lawn and garden by hand to control the amount of water you use. Set irrigation systems to reflect seasonal water needs. If water flows off your yard and onto your driveway or sidewalk, your system is over-watering.
- Mulch clippings or leave them on the lawn. If necessary, dispose in a green waste container.
- Cultivate your garden often to control weeds.

Washing and Maintaining Your Car

- Take your car to a commercial car wash whenever possible.
- Choose soaps, cleaners, or detergents labeled "non-toxic," "phosphate free" or "biodegradable." Vegetable and citrus-based products are typically safest for the environment, **but even these should not be allowed into the storm drain.**
- Shake floor mats into a trash can or vacuum to clean.
- Do not use acid-based wheel cleaners and "hose off" engine degreasers at home. They can be used at a commercial facility, which can properly process the washwater.
- **Do not dump washwater onto your driveway, sidewalk, street, gutter or storm drain.** Excess washwater should be disposed of in the sanitary sewers (through a sink, or toilet) or onto an absorbent surface like your lawn.
- Use a nozzle to turn off water when not actively washing down automobile.
- Monitor vehicles for leaks and place pans under leaks. Keep your car well maintained to stop and prevent leaks.
- Use cat litter or other absorbents and sweep to remove any materials deposited by vehicles. Contain sweepings and dispose of at a HHWCC.
- Perform automobile repair and maintenance under a covered area and use drip pans or plastic sheeting to keep spills and waste material from reaching storm drains.
- **Never pour oil or antifreeze in the street, gutter or storm drains.** Recycle these substances at a service station, HHWCC, or used oil recycling center. For the nearest Used Oil Collection Center call 1-800-CLEANUP or visit www.ciwmb.ca.gov/UsedOil.

For locations and hours of Household Hazardous Waste Collection Centers in Anaheim, Huntington Beach, Irvine and San Juan Capistrano, call (714)834-6752 or visit www.oclandfills.com.

Do your part to prevent water pollution in our creeks, rivers, bays and ocean.

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, not properly disposing of household hazardous waste can lead to water pollution. Batteries, electronics, paint, oil, gardening chemicals, cleaners and other hazardous materials cannot be thrown in the trash. They also must never be poured or thrown into yards, sidewalks, driveways, gutters or streets. Rain or other water could wash the materials into the storm drain and eventually into our waterways and the ocean. In addition, hazardous waste must not be poured in the sanitary sewers (sinks and toilets).

NEVER DISPOSE OF HOUSEHOLD HAZARDOUS WASTE IN THE TRASH, STREET, GUTTER, STORM DRAIN OR SEWER.

For more information, please call the **Orange County Stormwater Program** at **1-877-89-SPILL** (1-877-897-7455) or visit **www.ocwatersheds.com**

To Report Illegal Dumping of Household Hazardous Waste call 1-800-69-TOXIC

To report a spill, call the **Orange County 24-Hour Water Pollution Problem Reporting Hotline 1-877-89-SPILL** (1-877-897-7455).

For emergencies, dial 911.

RECYCLE USED OIL

Printed on Recycled Paper

Help Prevent Ocean Pollution:

Proper Disposal of Household Hazardous Waste

The Ocean Begins at Your Front Door

PROJECT Pollution PREVENTION

ORANGE COUNTY

Pollution Prevention

Leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients are considered to be "household hazardous waste" or "HHW." HHW can be found throughout your home, including the bathroom, kitchen, laundry room and garage.

WHEN POSSIBLE, USE NON-HAZARDOUS OR LESS-HAZARDOUS PRODUCTS.

Disposal of HHW down the drain, on the ground, into storm drains, or in the trash is illegal and unsafe.

Proper disposal of HHW is actually easy. Simply drop them off at a Household Hazardous Waste Collection Center (HHWCC) for free disposal and recycling. Many materials including anti-freeze, latex-based paint, motor oil and batteries can be recycled. Some centers have a "Stop & Swap" program that lets you take partially used home, garden, and automobile products free of charge. There are four HHWCCs in Orange County:

Anaheim:.....1071 N. Blue Gum St
Huntington Beach:.....17121 Nichols St
Irvine:.....6411 Oak Canyon
San Juan Capistrano:... 32250 La Pata Ave

Centers are open Tuesday-Saturday, 9 a.m.-3 p.m. Centers are closed on rainy days and major holidays. For more information, call **(714) 834-6752** or visit **www.oclandfills.com.**

Common household hazardous wastes

- Batteries
- Paint and paint products
- Adhesives
- Drain openers
- Household cleaning products
- Wood and metal cleaners and polishes
- Pesticides
- Fungicides/wood preservatives
- Automotive products (antifreeze, motor oil, fluids)
- Grease and rust solvents
- Fluorescent lamps
- Mercury (thermometers & thermostats)
- All forms of electronic waste including computers and microwaves
- Pool & spa chemicals
- Cleaners
- Medications
- Propane (camping & BBQ)
- Mercury-containing lamps
- Television & monitors (CRTs, flatscreens)

Tips for household hazardous waste

- Never dispose of HHW in the trash, street, gutter, storm drain or sewer.
- Keep these materials in closed, labeled containers and store materials indoors or under a cover.
- When possible, use non-hazardous products.
- Reuse products whenever possible or share with family and friends.
- Purchase only as much of a product as you'll need. Empty containers may be disposed of in the trash.
- HHW can be harmful to humans, pets and the environment. Report emergencies to 911.

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many common activities such as pest control can lead to water pollution if you're not careful. Pesticide treatments must be planned and applied properly to ensure that pesticides do not enter the street, gutter or storm drain. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never dump pesticides into the ocean, so don't let it enter the storm drains. Pesticides can cause significant damage to our environment if used improperly. If you are thinking of using a pesticide to control a pest, there are some important things to consider.

For more information,
please call
University of California Cooperative
Extension Master Gardeners at
(714) 708-1646
or visit these Web sites:
www.uccemg.org
www.ipm.ucdavis.edu

For instructions on collecting a specimen sample visit the Orange County Agriculture Commissioner's website at:
http://www.ocagcomm.com/ser_lab.asp

To report a spill, call the
Orange County 24-Hour
Water Pollution Problem
Reporting Hotline
at 1-877-89-SPILL (1-877-897-7455).

For emergencies, dial 911.

Information From:
Cheryl Wilen, Area IPM Advisor; Darren Haver, Watershed Management Advisor; Mary Louise Flint, IPM Education and Publication Director; Pamela M. Geisel, Environmental Horticulture Advisor; Carolyn L. Unruh, University of California Cooperative Extension staff writer. Photos courtesy of the UC Statewide IPM Program and Darren Haver.

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Help Prevent Ocean Pollution:

Responsible Pest Control

Tips for Pest Control

Key Steps to Follow:

Step 1: Correctly identify the pest (insect, weed, rodent, or disease) and verify that it is actually causing the problem.

Three life stages of the common lady beetle, a beneficial insect.

This is important because beneficial insects are often mistaken for pests and sprayed with pesticides needlessly.

Consult with a Certified Nursery Professional at a local nursery or garden center or send a sample of the pest to the Orange County Agricultural Commissioner's Office.

Determine if the pest is still present – even though you see damage, the pest may have left.

Step 2: Determine how many pests are present and causing damage.

Small pest populations may be controlled more safely using non-pesticide techniques. These include removing food sources, washing off leaves with a strong stream of water, blocking entry into the home using caulking and replacing problem plants with ones less susceptible to pests.

Integrated Pest Management (IPM) usually combines several least toxic pest control methods for long-term prevention and management of pest problems without harming you, your family, or the environment.

UC CE University of California Cooperative Extension

Step 3: If a pesticide must be used, choose the least toxic chemical.

Obtain information on the least toxic pesticides that are effective at controlling the target pest from the UC Statewide Integrated Pest Management (IPM) Program's Web site at www.ipm.ucdavis.edu.

Seek out the assistance of a Certified Nursery Professional at a local nursery or garden center when selecting a pesticide. Purchase the smallest amount of pesticide available.

Apply the pesticide to the pest during its most vulnerable life stage. This information can be found on the pesticide label.

Step 4: Wear appropriate protective clothing.

Follow pesticide labels regarding specific types of protective equipment you should wear. Protective clothing should always be washed separately from other clothing.

Step 5: Continuously monitor external conditions when applying pesticides such as weather, irrigation, and the presence of children and animals.

Never apply pesticides when rain is predicted within the next 48 hours. Also, do not water after applying pesticides unless the directions say it is necessary.

Apply pesticides when the air is still; breezy conditions may cause the spray or dust to drift away from your targeted area.

In case of an emergency call 911 and/or the regional poison control number at (714) 634-5988 or (800) 544-4404 (CA only).

For general questions you may also visit www.calpoison.org.

Step 6: In the event of accidental spills, sweep up or use an absorbent agent to remove any excess pesticides. Avoid the use of water.

Be prepared. Have a broom, dust pan, or dry absorbent material, such as cat litter, newspapers or paper towels, ready to assist in cleaning up spills.

Contain and clean up the spill right away. Place contaminated materials in a doubled plastic bag. All materials used to clean up the spill should be properly disposed of according to your local Household Hazardous Waste Disposal site.

Step 7: Properly store and dispose of unused pesticides.

Purchase Ready-To-Use (RTU) products to avoid storing large concentrated quantities of pesticides.

Store unused chemicals in a locked cabinet.

Unused pesticide chemicals may be disposed of at a Household Hazardous Waste Collection Center.

Empty pesticide containers should be triple rinsed prior to disposing of them in the trash.

Household Hazardous Waste Collection Center
(714) 834-6752
www.oclandfills.com

PROJECT Pollution PREVENTION

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many common activities can lead to water pollution if you're not careful. Fertilizers, pesticides and other chemicals that are left on yards or driveways can be blown or washed into storm drains that flow to the ocean. Overwatering lawns can also send materials into storm drains. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never pour gardening products into the ocean, so don't let them enter the storm drains. Follow these easy tips to help prevent water pollution.

For more information,
please call the
Orange County Stormwater Program
at **1-877-89-SPILL** (1-877-897-7455)
or visit
www.ocwatersheds.com

UCCE Master Gardener Hotline:
(714) 708-1646

To report a spill,
call the
Orange County 24-Hour
Water Pollution Problem
Reporting Hotline
1-877-89-SPILL (1-877-897-7455).

For emergencies, dial 911.

The tips contained in this brochure provide useful information to help prevent water pollution while landscaping or gardening. If you have other suggestions, please contact your city's stormwater representatives or call the Orange County Stormwater Program.

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Help Prevent Ocean Pollution:

Tips for Landscape & Gardening

The Ocean Begins at Your Front Door

PROJECT Pollution PREVENTION

Tips for Landscape & Gardening

Never allow gardening products or polluted water to enter the street, gutter or storm drain.

General Landscaping Tips

- Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Prevent erosion of slopes by planting fast-growing, dense ground covering plants. These will shield and bind the soil.
- Plant native vegetation to reduce the amount of water, fertilizers, and pesticide applied to the landscape.

- Never apply pesticides or fertilizers when rain is predicted within the next 48 hours.

Garden & Lawn Maintenance

- Do not overwater. Use irrigation practices such as drip irrigation, soaker hoses or micro spray systems. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of green waste by composting, hauling it to a permitted landfill, or recycling it through your city's program.

- Use slow-release fertilizers to minimize leaching, and use organic fertilizers.
- Read labels and use only as directed. Do not over-apply pesticides or fertilizers. Apply to spots as needed, rather than blanketing an entire area.
- Store pesticides, fertilizers and other chemicals in a dry covered area to prevent exposure that may result in the deterioration of containers and packaging.

- Rinse empty pesticide containers and re-use rinse water as you would use the product. Do not dump rinse water down storm drains. Dispose of empty containers in the trash.
- When available, use non-toxic alternatives to traditional pesticides, and use pesticides specifically designed to control the pest you are targeting. For more information, visit **www.ipm.ucdavis.edu**.
- If fertilizer is spilled, sweep up the spill before irrigating. If the spill is liquid, apply an absorbent material such as cat litter, and then sweep it up and dispose of it in the trash.
- Take unwanted pesticides to a Household Hazardous Waste Collection Center to be recycled. Locations are provided below.

Household Hazardous Waste Collection Centers

Anaheim:	1071 N. Blue Gum St.
Huntington Beach:	17121 Nichols St.
Irvine:	6411 Oak Canyon
San Juan Capistrano:	32250 La Pata Ave.

For more information, call (714) 834-6752 or visit www.oclandfills.com

Clean beaches and healthy creeks, rivers, bays, and ocean are important to Orange County. However, many common activities can lead to water pollution if you're not careful. Swimming pools and spas are common in Orange County, but they must be maintained properly to guarantee that chemicals aren't allowed to enter the street, where they can flow into the storm drains and then into the waterways. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never dump pool chemicals into the ocean, so don't let it enter the storm drains. Follow these easy tips to help prevent water pollution.

For more information,
please call the
Orange County Stormwater Program
at **1-877-89-SPILL** (1-877-897-7455)
or visit
www.ocwatersheds.com

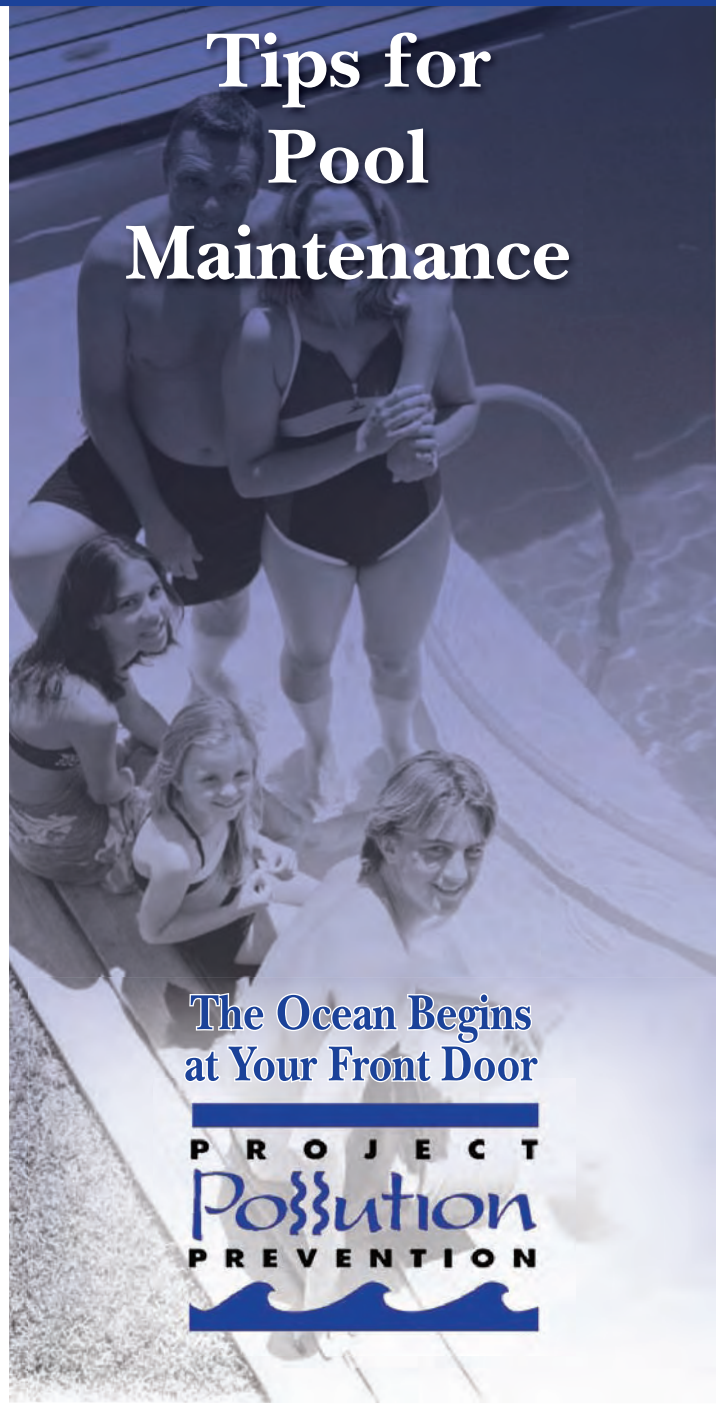
To report a spill,
call the
Orange County 24-Hour
Water Pollution Reporting Hotline
1-877-89-SPILL (1-877-897-7455).

For emergencies, dial 911.

The tips contained in this brochure provide useful information to help prevent water pollution while maintaining your pool. If you have other suggestions, please contact your city's stormwater representatives or call the Orange County Stormwater Program.

Help Prevent Ocean Pollution:

Tips for Pool Maintenance



The Ocean Begins at Your Front Door

PROJECT Pollution PREVENTION

Tips for Pool Maintenance

Many pools are plumbed to allow the pool to drain directly to the sanitary sewer. If yours is not, follow these instructions for disposing of pool and spa water.

Acceptable and Preferred Method of Disposal

When you cannot dispose of pool water in the sanitary sewer, the release of dechlorinated swimming pool water is allowed if all of these tips are followed:

- The residual chlorine does not exceed 0.1 mg/l (parts per million).
- The pH is between 6.5 and 8.5.
- The water is free of any unusual coloration, dirt or algae.
- There is no discharge of filter media.
- There is no discharge of acid cleaning wastes.
- Some cities may have ordinances that do not allow pool water to be disposed into a storm drain. Check with your city.

How to Know if You're Following the Standards

You can find out how much chlorine is in your water by using a pool testing kit. Excess chlorine can be removed by discontinuing the use of chlorine for a few days prior to discharge or by purchasing dechlorinating chemicals from a local pool supply company. Always make sure to follow the instructions that come with any products you use.

Doing Your Part

By complying with these guidelines, you will make a significant contribution toward keeping pollutants out of Orange County's creeks, streams, rivers, bays and the ocean. This helps to protect organisms that are sensitive to pool chemicals, and helps to maintain the health of our environment.

PROJECT Pollution PREVENTION

For more information,
please call the
Orange County Stormwater Program
at **1-877-89-SPILL** (1-877-897-7455)
or visit
www.ocwatersheds.com

To report a spill,
call the
Orange County 24-Hour
Water Pollution Problem
Reporting Hotline
at **1-877-89-SPILL** (1-877-897-7455).

For emergencies, dial 911.

The tips contained in this brochure provide useful information to help prevent water pollution. If you have other suggestions, please contact your city's stormwater representatives or call the Orange County Stormwater Program.

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Help Prevent Ocean Pollution:

Tips for Residential Pool, Landscape and Hardscape Drains

The Ocean Begins at Your Front Door

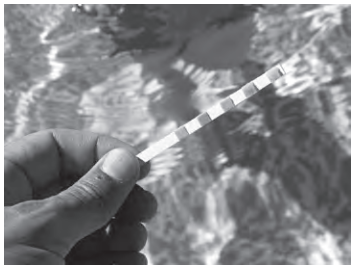
PROJECT Pollution PREVENTION

Tips for Residential Pool, Landscape and Hardscape Drains

Pool Maintenance

All pool water discharged to the curb, gutter or permitted pool drain from your property must meet the following water quality criteria:

- The residual chlorine does not exceed 0.1 mg/L (parts per million).
- The pH is between 6.5 and 8.5.
- The water is free of any unusual coloration.
- There is no discharge of filter media or acid cleaning wastes.



Some cities have ordinances that do not allow pool water to be discharged to the storm drain. Check with your city.

Landscape and Hardscape Drains

The following recommendations will help reduce or prevent pollutants from your landscape and hardscape drains from entering the street, gutter or storm drain. Unlike water that enters the sewer (from sinks and toilets), water that enters a landscape or hardscape drain is not treated before entering our creeks, rivers, bays and ocean.

Household Activities

- Do not rinse spills of materials or chemicals to any drain.
- Use dry cleanup methods such as applying cat litter or another absorbent material, then sweep it up and dispose of it in the trash. If the material is hazardous, dispose of it at a Household Hazardous Waste Collection Center (HHWCC). For locations, call **(714) 834-6752** or visit **www.oclandfills.com**.
- Do not hose down your driveways, sidewalks or patios to your landscape or hardscape drain. Sweep up debris and dispose of it in the trash.
- Always pick up after your pet. Flush waste down the toilet or dispose of it in the trash.
- Do not store items such as cleaners, batteries, automotive fluids, paint products, TVs, or computer monitors uncovered outdoors. Take them to a HHWCC for disposal.

Yard Maintenance

- Do not overwater. Water by hand or set automated irrigation systems to reflect seasonal water needs.
- Follow directions on pesticides and fertilizers (measure, do not estimate amounts) and do not use if rain is predicted within 48 hours.
- Cultivate your garden often to control weeds and reduce the need to use chemicals.

Vehicle Maintenance

- Never pour oil or antifreeze down your landscape or hardscape drain. Recycle these substances at a service station, a waste collection center or used oil recycling center. For locations, contact the Used Oil Program at **1-800-CLEANUP** or visit **www.CLEANUP.org**.
- Whenever possible, take your vehicle to a commercial car wash.
- If you do wash your vehicle at home, do not allow the washwater to go down your landscape or hardscape drain. Instead, dispose of it in the sanitary sewer (a sink or toilet) or onto an absorbent surface such as your lawn.
- Use a spray nozzle that will shut off the water when not in use.

Efficient Irrigation SD-12

Design Objectives

- ✓ Maximize Infiltration
- ✓ Provide Retention
- ✓ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

CASQA California Stormwater Quality Association

- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.
- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:
  - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff
  - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect
  - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible
  - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth
- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Storm Drain Signage SD-13

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ✓ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include "NO DUMPING –

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DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.
- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Trash Storage Areas SD-32

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ✓ Contain Pollutants
- Collect and Convey

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Building & Grounds Maintenance SC-41

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

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- Encourage use of Integrated Pest Management techniques for pest control.
- Encourage proper onsite recycling of yard trimmings.
- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.
- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.
- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.
- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.
- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.
- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures when soils are exposed.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.
- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.
- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Use the minimum amount needed for the job.
- Calibrate fertilizer distributors to avoid excessive application.
- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.
- Apply pesticides only when wind speeds are low.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Dispose of empty pesticide containers according to the instructions on the container label.

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training

- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.
- Train employees and contractors in proper techniques for spill containment and cleanup.
- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.
- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.
- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.
- Clean up spills immediately.

Other Considerations

Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements

Costs

- Cost will vary depending on the type and size of facility.
- Overall costs should be low in comparison to other BMPs.

Maintenance

Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, poly-phosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Parking/Storage Area Maintenance SC-43

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Description

Parking lots and storage areas can contribute a number of substances, such as trash, suspended solids, hydrocarbons, oil and grease, and heavy metals that can enter receiving waters through stormwater runoff or non-stormwater discharges. The protocols in this fact sheet are intended to prevent or reduce the discharge of pollutants from parking/storage areas and include using good housekeeping practices, following appropriate cleaning BMPs, and training employees.

Approach

The goal of this program is to ensure stormwater pollution prevention practices are considered when conducting activities on or around parking areas and storage areas to reduce potential for pollutant discharge to receiving waters. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Encourage alternative designs and maintenance strategies for impervious parking lots. (See New Development and Redevelopment BMP Handbook)
- Keep accurate maintenance logs to evaluate BMP implementation.

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Suggested Protocols

General

- Keep the parking and storage areas clean and orderly. Remove debris in a timely fashion.
- Allow sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices.
- Utilize sand filters or oleophilic collectors for oily waste in low quantities.
- Arrange rooftop drains to prevent drainage directly onto paved surfaces.
- Design lot to include semi-permeable hardscape.
- Discharge soapy water remaining in mop or wash buckets to the sanitary sewer through a sink, toilet, clean-out, or wash area with drain.

Controlling Litter

- Post "No Littering" signs and enforce anti-litter laws.
- Provide an adequate number of litter receptacles.
- Clean out and cover litter receptacles frequently to prevent spillage.
- Provide trash receptacles in parking lots to discourage litter.
- Routinely sweep, shovel, and dispose of litter in the trash.

Surface Cleaning

- Use dry cleaning methods (e.g., sweeping, vacuuming) to prevent the discharge of pollutants into the stormwater conveyance system if possible.
- Establish frequency of public parking lot sweeping based on usage and field observations of waste accumulation.
- Sweep all parking lots at least once before the onset of the wet season.
- Follow the procedures below if water is used to clean surfaces:
  - Block the storm drain or contain runoff.
  - Collect and pump wash water to the sanitary sewer or discharge to a pervious surface. Do not allow wash water to enter storm drains.
  - Dispose of parking lot sweeping debris and dirt at a landfill.
- Follow the procedures below when cleaning heavy oily deposits:
  - Clean oily spots with absorbent materials.
  - Use a screen or filter fabric over inlet, then wash surfaces.

- Do not allow discharges to the storm drain.
- Vacuum/pump discharges to a tank or discharge to sanitary sewer.
- Appropriately dispose of spilled materials and absorbents.

Surface Repair

- Preheat, transfer or load hot bituminous material away from storm drain inlets.
- Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff.
- Cover and seal nearby storm drain inlets where applicable (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal.
- Use only as much water as necessary for dust control, to avoid runoff.
- Catch drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Dispose of collected material and absorbents properly.

Inspection

- Have designated personnel conduct inspections of parking facilities and stormwater conveyance systems associated with parking facilities on a regular basis.
- Inspect cleaning equipment/sweepers for leaks on a regular basis.

Training

- Provide regular training to field employees and/or contractors regarding cleaning of paved areas and proper operation of equipment.
- Train employees and contractors in proper techniques for spill containment and cleanup.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials where it will be readily accessible or at a central location.
- Clean up fluid spills immediately with absorbent rags or material.
- Dispose of spilled material and absorbents properly.

Other Considerations

Limitations related to sweeping activities at large parking facilities may include high equipment costs, the need for sweeper operator training, and the inability of current sweeper technology to remove oil and grease.

SC-43 Parking/Storage Area Maintenance

Requirements

Costs

Cleaning/sweeping costs can be quite large. Construction and maintenance of stormwater structural controls can be quite expensive as well.

Maintenance

- Sweep parking lot regularly to minimize cleaning with water.
- Clean out oil/water/sand separators regularly, especially after heavy storms.
- Clean parking facilities regularly to prevent accumulated wastes and pollutants from being discharged into conveyance systems during rainy conditions.

Supplemental Information

Further Detail of the BMP

Surface Repair

Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff. Where applicable, cover and seal nearby storm drain inlets (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal. Only use only as much water as is necessary for dust control to avoid runoff.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Drainage System Maintenance SC-44

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Description

As a consequence of its function, the stormwater conveyance system collects and transports urban runoff and stormwater that may contain certain pollutants. The protocols in this fact sheet are intended to reduce pollutants reaching receiving waters through proper conveyance system operation and maintenance.

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	✓
Oil and Grease	
Organics	

Approach

Pollution Prevention

Maintain catch basins, stormwater inlets, and other stormwater conveyance structures on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, restore catch basins' sediment trapping capacity, and ensure the system functions properly hydraulically to avoid flooding.

Suggested Protocols

Catch Basins/Inlet Structures

- Staff should regularly inspect facilities to ensure compliance with the following:
  - Immediate repair of any deterioration threatening structural integrity.
  - Cleaning before the sump is 40% full. Catch basins should be cleaned as frequently as needed to meet this standard.
  - Stenciling of catch basins and inlets (see SC34 Waste Handling and Disposal).

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- Clean catch basins, storm drain inlets, and other conveyance structures before the wet season to remove sediments and debris accumulated during the summer.
- Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.
- Keep accurate logs of the number of catch basins cleaned.
- Store wastes collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain.
- Dewater the wastes if necessary with outflow into the sanitary sewer if permitted. Water should be treated with an appropriate filtering device prior to discharge to the sanitary sewer. If discharge to the sanitary sewer is not allowed, water should be pumped or vacuumed to a tank and properly disposed. Do not dewater near a storm drain or stream.

Storm Drain Conveyance System

- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.
- Collect and pump flushed effluent to the sanitary sewer for treatment whenever possible.

Pump Stations

- Clean all storm drain pump stations prior to the wet season to remove silt and trash.
- Do not allow discharge to reach the storm drain system when cleaning a storm drain pump station or other facility.
- Conduct routine maintenance at each pump station.
- Inspect, clean, and repair as necessary all outlet structures prior to the wet season.

Open Channel

- Modify storm channel characteristics to improve channel hydraulics, increase pollutant removals, and enhance channel/creek aesthetic and habitat value.
- Conduct channel modification/improvement in accordance with existing laws. Any person, government agency, or public utility proposing an activity that will change the natural (emphasis added) state of any river, stream, or lake in California, must enter into a Steam or Lake Alteration Agreement with the Department of Fish and Game. The developer-applicant should also contact local governments (city, county, special districts), other state agencies (SWRCB, RWQCB, Department of Forestry, Department of Water Resources), and Federal Corps of Engineers and USFWS.

Illicit Connections and Discharges

- Look for evidence of illegal discharges or illicit connections during routine maintenance of conveyance system and drainage structures:
  - Is there evidence of spills such as paints, discoloring, etc?

- Are there any odors associated with the drainage system?
- Record locations of apparent illegal discharges/illicit connections?
- Track flows back to potential dischargers and conduct aboveground inspections. This can be done through visual inspection of upgradient manholes or alternate techniques including zinc chloride smoke testing, fluorometric dye testing, physical inspection testing, or television camera inspection.
- Eliminate the discharge once the origin of flow is established.

- Stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as "Dump No Waste Drains to Stream" stenciled next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.
- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Illegal Dumping

- Inspect and clean up hot spots and other storm drainage areas regularly where illegal dumping and disposal occurs.
- Establish a system for tracking incidents. The system should be designed to identify the following:
  - Illegal dumping hot spots
  - Types and quantities (in some cases) of wastes
  - Patterns in time of occurrence (time of day/night, month, or year)
  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)
  - Responsible parties
- Post "No Dumping" signs in problem areas with a phone number for reporting dumping and disposal. Signs should also indicate fines and penalties for illegal dumping.
- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Training

- Train crews in proper maintenance activities, including record keeping and disposal.
- Allow only properly trained individuals to handle hazardous materials/wastes.
- Have staff involved in detection and removal of illicit connections trained in the following:
  - OSHA-required Health and Safety Training (29 CFR 1910.120) plus annual refresher training (as needed).

- OSHA Confined Space Entry training (Cal-OSHA Confined Space, Title 8 and Federal OSHA 29 CFR 1910.146).

- Procedural training (field screening, sampling, smoke/dye testing, TV inspection).

Spill Response and Prevention

- Investigate all reports of spills, leaks, and/or illegal dumping promptly.
- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags) or dig up, remove, and properly dispose of contaminated soil.
- Refer to fact sheet SC-11 Spill Prevention, Control, and Cleanup.

Other Considerations (Limitations and Regulations)

- Clean-up activities may create a slight disturbance for local aquatic species. Access to items and material on private property may be limited. Trade-offs may exist between channel hydraulics and water quality/riparian habitat. If storm channels or basins are recognized as wetlands, many activities, including maintenance, may be subject to regulation and permitting.
- Storm drain flushing is most effective in small diameter pipes (36-inch diameter pipe or less, depending on water supply and sediment collection capacity). Other considerations associated with storm drain flushing may include the availability of a water source, finding a downstream area to collect sediments, liquid/sediment disposal, and prohibition against disposal of flushed effluent to sanitary sewer in some areas.
- Regulations may include adoption of substantial penalties for illegal dumping and disposal.
- Local municipal codes may include sections prohibiting discharge of soil, debris, refuse, hazardous wastes, and other pollutants into the storm drain system.

Requirements

Costs

- An aggressive catch basin cleaning program could require a significant capital and O&M budget.
- The elimination of illegal dumping is dependent on the availability, convenience, and cost of alternative means of disposal. The primary cost is for staff time. Cost depends on how aggressively a program is implemented. Other cost considerations for an illegal dumping program include:

  - Purchase and installation of signs.

  - Rental of vehicle(s) to haul illegally-disposed items and material to landfills.

  - Rental of heavy equipment to remove larger items (e.g., car bodies) from channels.

  - Purchase of landfill space to dispose of illegally-dumped items and material.

- Methods used for illicit connection detection (smoke testing, dye testing, visual inspection, and flow monitoring) can be costly and time-consuming. Site-specific factors, such as the level of impervious area, the density and ages of buildings, and type of land use will determine the level of investigation necessary.

Maintenance

- Two-person teams may be required to clean catch basins with vactor trucks.
- Teams of at least two people plus administrative personnel are required to identify illicit discharges, depending on the complexity of the storm sewer system.
- Arrangements must be made for proper disposal of collected wastes.
- Technical staff are required to detect and investigate illegal dumping violations.

Supplemental Information

Further Detail of the BMP

Storm Drain Flushing

Flushing is a common maintenance activity used to improve pipe hydraulics and to remove pollutants in storm drainage systems. Flushing may be designed to hydraulically convey accumulated material to strategic locations, such as an open channel, another point where flushing will be initiated, or the sanitary sewer and the treatment facilities, thus preventing resuspension and overflow of a portion of the solids during storm events. Flushing prevents "plug flow" discharges of concentrated pollutant loadings and sediments. Deposits can hinder the designed conveyance capacity of the storm drain system and potentially cause backwater conditions in severe cases of clogging.

Storm drain flushing usually takes place along segments of pipe with grades that are too flat to maintain adequate velocity to keep particles in suspension. An upstream manhole is selected to place an inflatable device that temporarily plugs the pipe. Further upstream, water is pumped into the line to create a flushing wave. When the upstream reach of pipe is sufficiently full to cause a flushing wave, the inflated device is rapidly deflated with the assistance of a vacuum pump, thereby releasing the backed up water and resulting in the cleaning of the storm drain segment.

To further reduce impacts of stormwater pollution, a second inflatable device placed well downstream may be used to recollect the water after the force of the flushing wave has dissipated. A pump may then be used to transfer the water and accumulated material to the sanitary sewer for treatment. In some cases, an interceptor structure may be more practical or required to recollect the flushed waters.

It has been found that cleansing efficiency of periodic flush waves is dependent upon flush volume, flush discharge rate, sewer slope, sewer length, sewer flow rate, sewer diameter, and population density. As a rule of thumb, the length of line to be flushed should not exceed 700 feet. At this maximum recommended length, the percent removal efficiency ranges between 65-75% for organics and 55-65% for dry weather grit/inorganic material. The percent removal efficiency drops rapidly beyond that. Water is commonly supplied by a water truck, but fire hydrants can also supply water. To make the best use of water, it is recommended that reclaimed water be used or that fire hydrant line flushing coincide with storm sewer flushing.

References and Resources

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Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

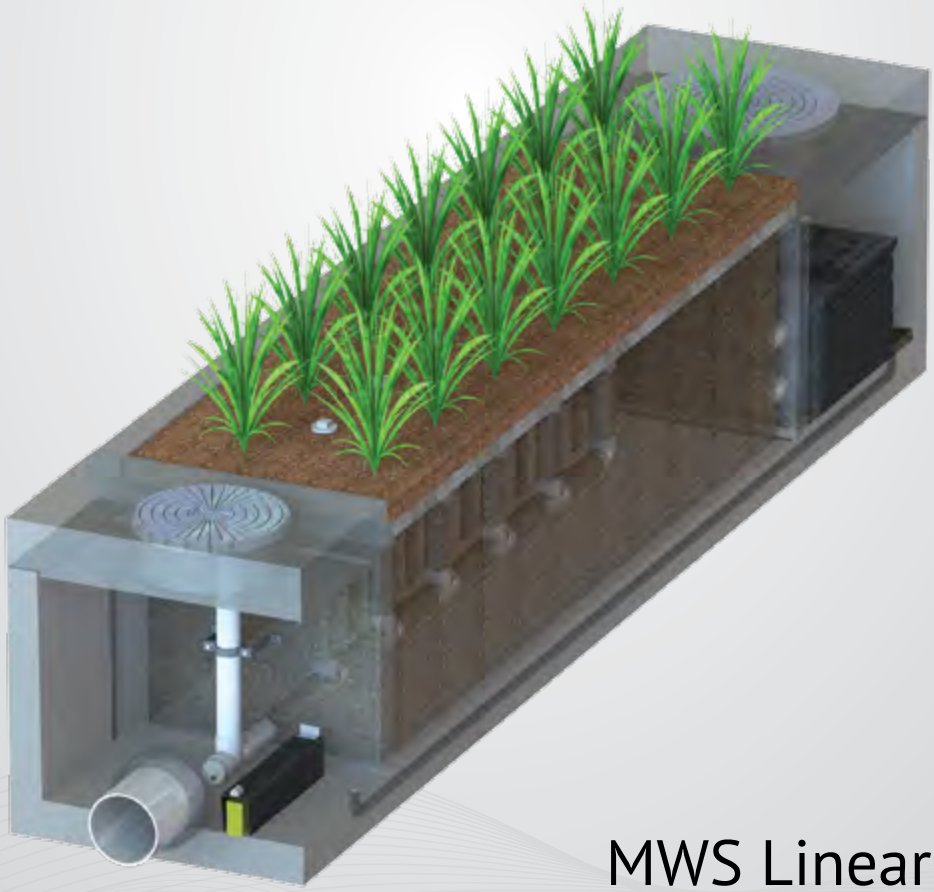
The Storm Water Managers Resource Center http://www.stormwatercenter.net

United States Environmental Protection Agency (USEPA). 2002. Pollution Prevention/Good Housekeeping for Municipal Operations Storm Drain System Cleaning. On line:
http://www.epa.gov/npdes/menuofbmps/poll_16.htm

Attachment B Operation and Maintenance

MODULAR WETLANDS™

*Advanced **Stormwater** Biofiltration*



MWS Linear

Contents

1 Introduction

2 Applications

3 Configurations

4 Advantages

5 Operation

6 Orientations | Bypass

7 Performance | Approvals

8 Sizing

9 Installation | Maintenance | Plants

The Urban Impact

For hundreds of years natural wetlands surrounding our shores have played an integral role as nature's stormwater treatment system. But as our cities grow and develop, these natural wetlands have perished under countless roads, rooftops, and parking lots.

Plant A Wetland

Without natural wetlands our cities are deprived of water purification, flood control, and land stability. Modular Wetlands and the MWS Linear re-establish nature's presence and rejuvenate water ways in urban areas.

MWS Linear

The Modular Wetland System Linear represents a pioneering breakthrough in stormwater technology as the only biofiltration system to utilize patented horizontal flow, allowing for a smaller footprint and higher treatment capacity. While most biofilters use little or no pre-treatment, the MWS Linear incorporates an advanced pre-treatment chamber that includes separation and pre-filter cartridges. In this chamber sediment and hydrocarbons are removed from runoff before it enters the biofiltration chamber, in turn reducing maintenance costs and improving performance.

Applications

The MWS Linear has been successfully used on numerous new construction and retrofit projects. The system's superior versatility makes it beneficial for a wide range of stormwater and waste water applications - treating rooftops, streetscapes, parking lots, and industrial sites.

Industrial

Many states enforce strict regulations for discharges from industrial sites. The MWS Linear has helped various sites meet difficult EPA mandated effluent limits for dissolved metals and other pollutants.

Residential

Low to high density developments can benefit from the versatile design of the MWS Linear. The system can be used in both decentralized LID design and cost-effective end-of-the-line configurations.

Streets

Street applications can be challenging due to limited space. The MWS Linear is very adaptable, and offers the smallest footprint to work around the constraints of existing utilities on retrofit projects.

Parking Lots

Parking lots are designed to maximize space and the MWS Linear's 4 ft. standard planter width allows for easy integration into parking lot islands and other landscape medians.

Commercial

Compared to bioretention systems, the MWS Linear can treat far more area in less space - meeting treatment and volume control requirements.

Mixed Use

The MWS Linear can be installed as a raised planter to treat runoff from rooftops or patios, making it perfect for sustainable "live-work" spaces.

More applications are available on our website: www.ModularWetlands.com/Applications

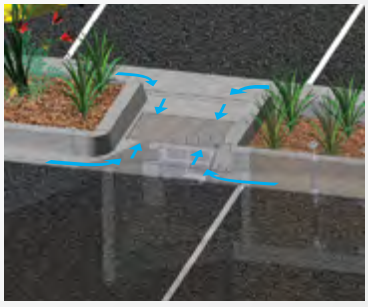
- Agriculture
- Reuse
- Low Impact Development
- Waste Water

Configurations

The MWS Linear is the preferred biofiltration system of Civil Engineers across the country due to its versatile design. This highly versatile system has available "pipe-in" options on most models, along with built-in curb or grated inlets for simple integration into your stormdrain design.

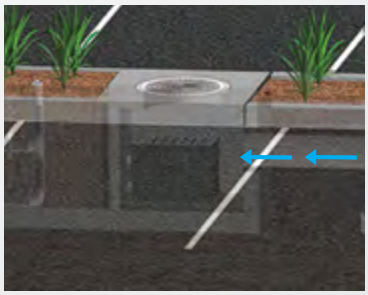
Curb Type

The *Curb Type* configuration accepts sheet flow through a curb opening and is commonly used along road ways and parking lots. It can be used in sump or flow by conditions. Length of curb opening varies based on model and size.



Grate Type

The *Grate Type* configuration offers the same features and benefits as the *Curb Type* but with a grated/drop inlet above the systems pre-treatment chamber. It has the added benefit of allowing for pedestrian access over the inlet. ADA compliant grates are available to assure easy and safe access. The *Grate Type* can also be used in scenarios where runoff needs to be intercepted on both sides of landscape islands.



Vault Type

The system's patented horizontal flow biofilter is able to accept inflow pipes directly into the pre-treatment chamber, meaning the MWS Linear can be used in end-of-the-line installations. This greatly improves feasibility over typical decentralized designs that are required with other biofiltration/bioretention systems. Another benefit of the "pipe in" design is the ability to install the system downstream of underground detention systems to meet water quality volume requirements.

Downspout Type

The *Downspout Type* is a variation of the *Vault Type* and is designed to accept a vertical downspout pipe from roof top and podium areas. Some models have the option of utilizing an internal bypass, simplifying the overall design. The system can be installed as a raised planter and the exterior can be stuccoed or covered with other finishes to match the look of adjacent buildings.

Advantages & Operation

The MWS Linear is the most efficient and versatile biofiltration system on the market, and the only system with horizontal flow which improves performance, reduces footprint, and minimizes maintenance. Figure-1 and Figure-2 illustrate the invaluable benefits of horizontal flow and the multiple treatment stages.

Featured Advantages

- Horizontal Flow Biofiltration
- Greater Filter Surface Area
- Pre-Treatment Chamber
- Patented Perimeter Void Area
- Flow Control
- No Depressed Planter Area

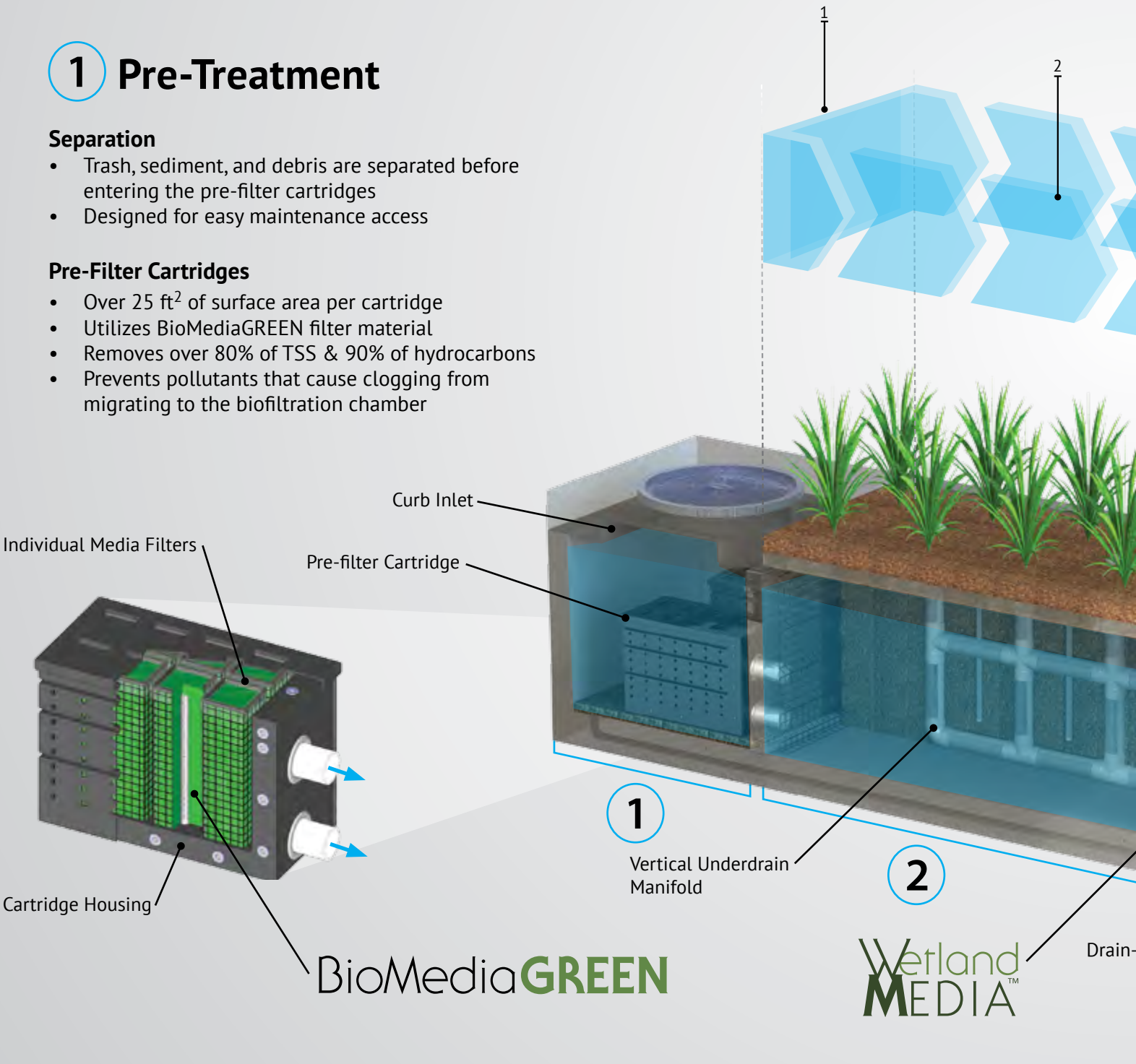
1 Pre-Treatment

Separation

- Trash, sediment, and debris are separated before entering the pre-filter cartridges
- Designed for easy maintenance access

Pre-Filter Cartridges

- Over 25 ft^2 of surface area per cartridge
- Utilizes BioMediaGREEN filter material
- Removes over 80% of TSS & 90% of hydrocarbons
- Prevents pollutants that cause clogging from migrating to the biofiltration chamber



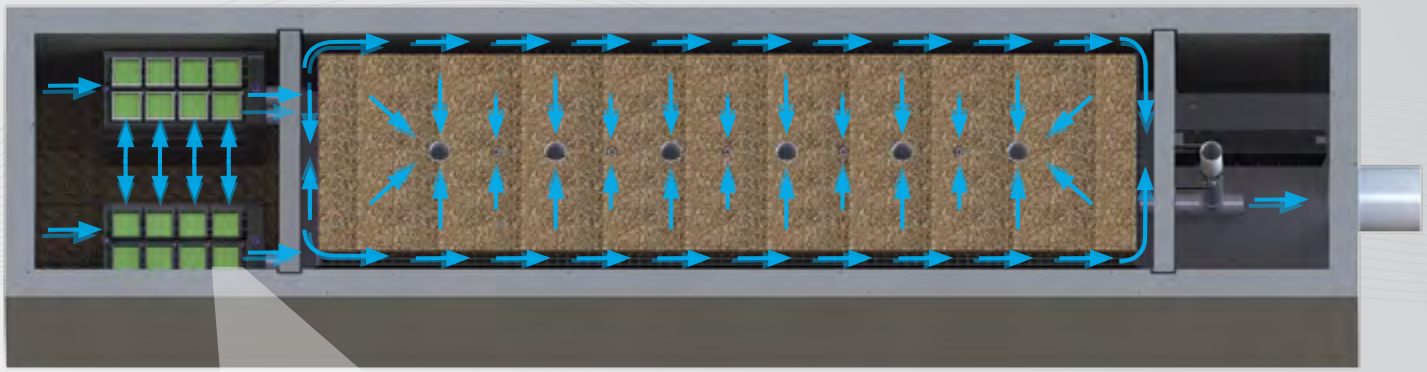


Fig. 2 - Top View

2x to 3x More Surface Area Than Traditional Downward Flow Bioretention Systems.

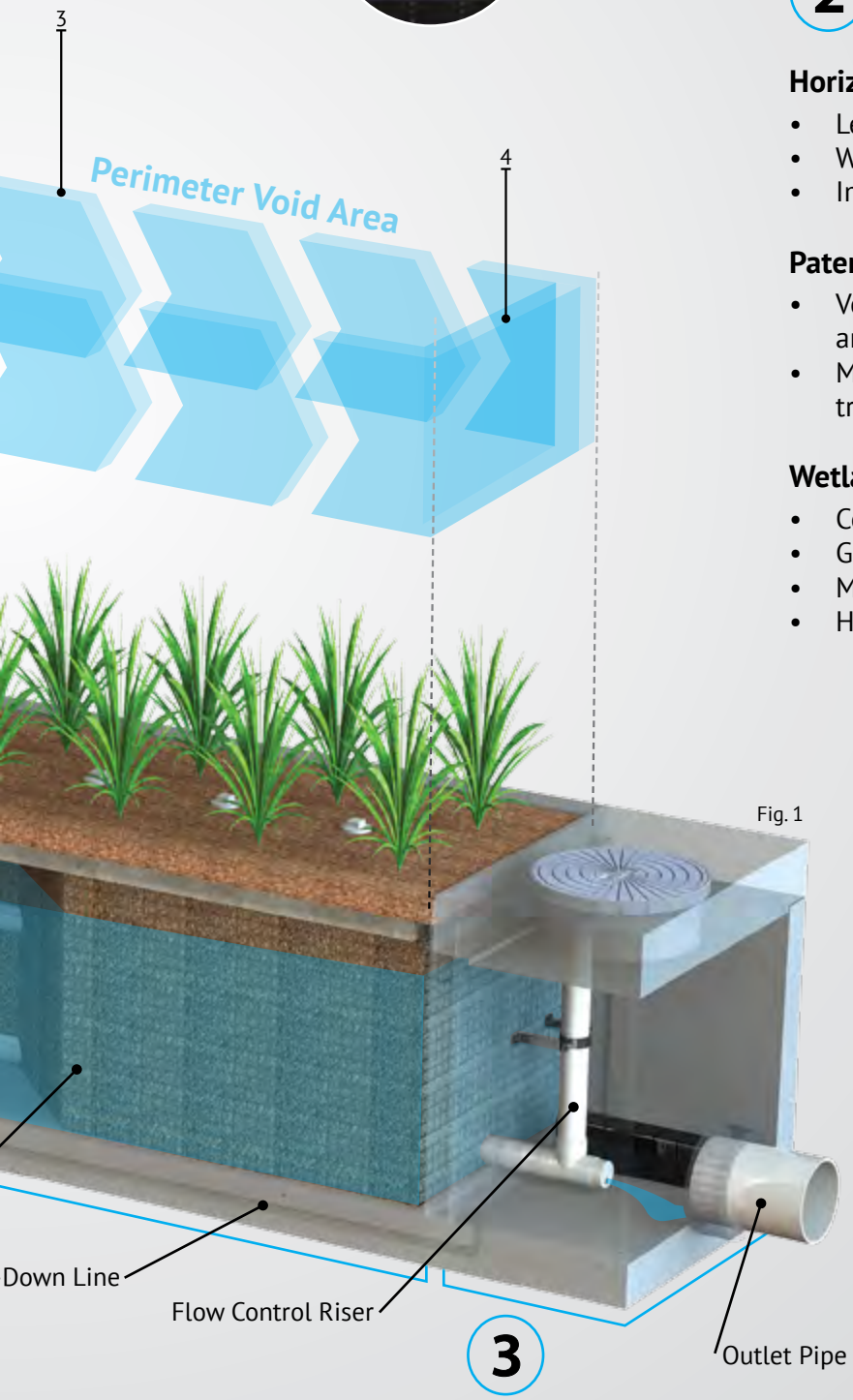


Fig. 1

2 Biofiltration

Horizontal Flow

- Less clogging than downward flow biofilters
- Water flow is subsurface
- Improves biological filtration

Patented Perimeter Void Area

- Vertically extends void area between the walls and the WetlandMEDIA on all four sides.
- Maximizes surface area of the media for higher treatment capacity

WetlandMEDIA

- Contains no organics and removes phosphorus
- Greater surface area and 48% void space
- Maximum evapotranspiration
- High ion exchange capacity and light weight

3 Discharge

Flow Control

- Orifice plate controls flow of water through WetlandMEDIA to a level lower than the media's capacity.
- Extends the life of the media and improves performance

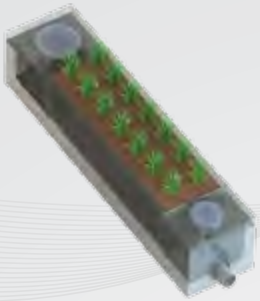
Drain-Down Filter

- The Drain-Down is an optional feature that completely drains the pre-treatment chamber
- Water that drains from the pre-treatment chamber between storm events will be treated

Orientations

Side-By-Side

The *Side-By-Side* orientation places the pre-treatment and discharge chamber adjacent to one another with the biofiltration chamber running parallel on either side. This minimizes the system length, providing a highly compact footprint. It has been proven useful in situations such as streets with directly adjacent sidewalks, as half of the system can be placed under that sidewalk. This orientation also offers internal bypass options as discussed below.



End-To-End

The *End-To-End* orientation places the pre-treatment and discharge chambers on opposite ends of the biofiltration chamber therefore minimizing the width of the system to 5 ft (outside dimension). This orientation is perfect for linear projects and street retrofits where existing utilities and sidewalks limit the amount of space available for installation. One limitation of this orientation is bypass must be external.

Bypass

Internal Bypass Weir (Side-by-Side Only)

The *Side-By-Side* orientation places the pre-treatment and discharge chambers adjacent to one another allowing for integration of internal bypass. The wall between these chambers can act as a bypass weir when flows exceed the system's treatment capacity, thus allowing bypass from the pre-treatment chamber directly to the discharge chamber.

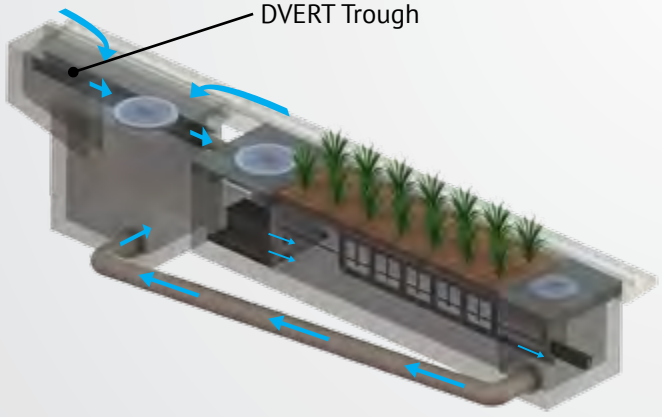
External Diversion Weir Structure

This traditional offline diversion method can be used with the MWS Linear in scenarios where runoff is being piped to the system. These simple and effective structures are generally configured with two outflow pipes. The first is a smaller pipe on the upstream side of the diversion weir - to divert low flows over to the MWS Linear for treatment. The second is the main pipe that receives water once the system has exceeded treatment capacity and water flows over the weir.

Flow By Design

This method is one in which the system is placed just upstream of a standard curb or grate inlet to intercept the first flush. Higher flows simply pass by the MWS Linear and into the standard inlet downstream.

DVERT Low Flow Diversion



This simple yet innovative diversion trough can be installed in existing or new curb and grate inlets to divert the first flush to the MWS Linear via pipe. It works similar to a rain gutter and is installed just below the opening into the inlet. It captures the low flows and channels them over to a connecting pipe exiting out the wall of the inlet and leading to the MWS Linear. The DVERT is perfect for retrofit and green street applications that allows the MWS Linear to be installed anywhere space is available.

Performance

The MWS Linear continues to outperform other treatment methods with superior pollutant removal for TSS, heavy metals, nutrients, hydrocarbons and bacteria. Since 2007 the MWS Linear has been field tested on numerous sites across the country. With it's advanced pre-treatment chamber and innovative horizontal flow biofilter, the system is able to effectively remove pollutants through a combination of physical, chemical, and biological filtration processes. With the same biological processes found in natural wetlands, the MWS Linear harnesses natures ability to process, transform, and remove even the most harmful pollutants.

Approvals

The MWS Linear has successfully met years of challenging technical reviews and testing from some of the most prestigious and demanding agencies in the nation, and perhaps the world.

Washington State DOE Approved

The MWS Linear is approved for General Use Level Designation (GULD) for Basic, Enhanced, and Phosphorus treatment at 1 gpm/ft^2 loading rate. The highest performing BMP on the market for all main pollutant categories.

TSS	Total Phosphorus	Ortho Phosphorus	Nitrogen	Dissolved Zinc	Dissolved Copper	Total Zinc	Total Copper	Motor Oil
85%	64%	67%	45%	66%	38%	69%	50%	95%

DEQ Assignment

The Virginia Department of Environmental Quality assigned the MWS Linear, the highest phosphorus removal rating for manufactured treatment devices to meet the new Virginia Stormwater Management Program (VSMP) Technical Criteria.

MASTEP Evaluation

The University of Massachusetts at Amherst – Water Resources Research Center, issued a technical evaluation report noting removal rates up to 84% TSS, 70% Total Phosphorus, 68.5% Total Zinc, and more.

Rhode Island DEM Approved

Approved as an authorized BMP and noted to achieve the following minimum removal efficiencies: 85% TSS, 60% Pathogens, 30% Total Phosphorus for discharges to freshwater systems, and 30% Total Nitrogen for discharges to saltwater or tidal systems.

Flow Based Sizing

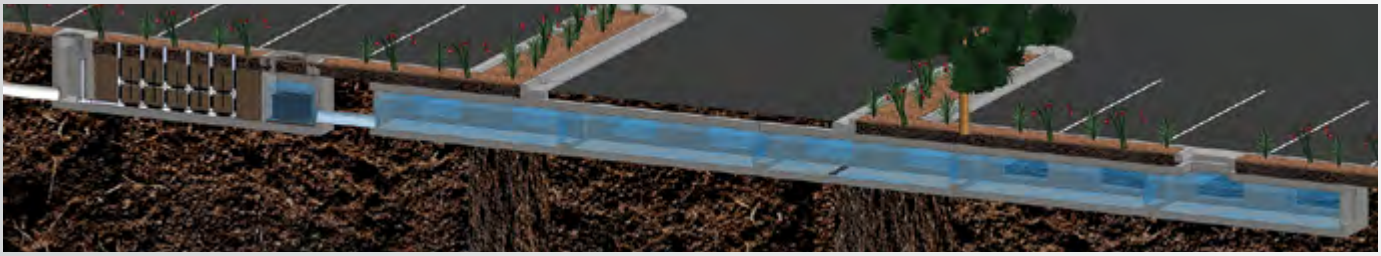
The MWS Linear can be used in stand alone applications to meet treatment flow requirements. Since the MWS Linear is the only biofiltration system that can accept inflow pipes several feet below the surface it can be used not only in decentralized design applications but also as a large central end-of-the-line application for maximum feasibility.

Treatment Flow Sizing Table

Model #	Dimensions	WetlandMedia Surface Area	Treatment Flow Rate (cfs)
MWS-L-4-4	4' x 4'	23 ft^2	0.052
MWS-L-4-6	4' x 6'	32 ft^2	0.073
MWS-L-4-8	4' x 8'	50 ft^2	0.115
MWS-L-4-13	4' x 13'	63 ft^2	0.144
MWS-L-4-15	4' x 15'	76 ft^2	0.175
MWS-L-4-17	4' x 17'	90 ft^2	0.206
MWS-L-4-19	4' x 19'	103 ft^2	0.237
MWS-L-4-21	4' x 21'	117 ft^2	0.268
MWS-L-8-8	8' x 8'	100 ft^2	0.230
MWS-L-8-12	8' x 12'	151 ft^2	0.346
MWS-L-8-16	8' x 16'	201 ft^2	0.462

Volume Based Sizing

Many states require treatment of a water quality volume and do not offer the option of flow based design. The MWS Linear and its unique horizontal flow makes it the only biofilter that can be used in volume based design installed downstream of ponds, detention basins, and underground storage systems.



Treatment Volume Sizing Table

Model #	Treatment Capacity (cu. ft.) @ 24-Hour Drain Down	Treatment Capacity (cu. ft.) @ 48-Hour Drain Down
MWS-L-4-4	1140	2280
MWS-L-4-6	1600	3200
MWS-L-4-8	2518	5036
MWS-L-4-13	3131	6261
MWS-L-4-15	3811	7623
MWS-L-4-17	4492	8984
MWS-L-4-19	5172	10345
MWS-L-4-21	5853	11706
MWS-L-8-8	5036	10072
MWS-L-8-12	7554	15109
MWS-L-8-16	10073	20145

Installation

The MWS Linear is simple, easy to install, and has a space efficient design that offers lower excavation and installation costs compared to traditional tree-box type systems. The structure of the system resembles pre-cast catch basin or utility vaults and is installed in a similar fashion.

The system is delivered fully assembled for quick installation. Generally, the structure can be unloaded and set in place in 15 minutes. Our experienced team of field technicians are available to supervise installations and provide technical support.

Maintenance

Reduce your maintenance costs, man hours, and materials with the MWS Linear. Unlike other biofiltration systems that provide no pre-treatment, the MWS Linear is a self-contained treatment train which incorporates simple and effective pre-treatment.

Maintenance requirements for the biofilter itself are almost completely eliminated, as the pre-treatment chamber removes and isolates trash, sediments, and hydrocarbons. What's left is the simple maintenance of an easily accessible pre-treatment chamber that can be cleaned by hand or with a standard vac truck. Only periodic replacement of low-cost media in the pre-filter cartridges is required for long term operation and there is absolutely no need to replace expensive biofiltration media.

Plant Selection

Abundant plants, trees, and grasses bring value and an aesthetic benefit to any urban setting, but those in the MWS Linear do even more - they increase pollutant removal. What's not seen, but very important, is that below grade the stormwater runoff/flow is being subjected to nature's secret weapon: a dynamic physical, chemical, and biological process working to break down and remove non-point source pollutants. The flow rate is controlled in the MWS Linear, giving the plants more "contact time" so that pollutants are more successfully decomposed, volatilized and incorporated into the biomass of The MWS Linear's micro/macro flora and fauna.

A wide range of plants are suitable for use in the MWS Linear, but selections vary by location and climate. View suitable plants by selecting the list relative to your project location's hardy zone.

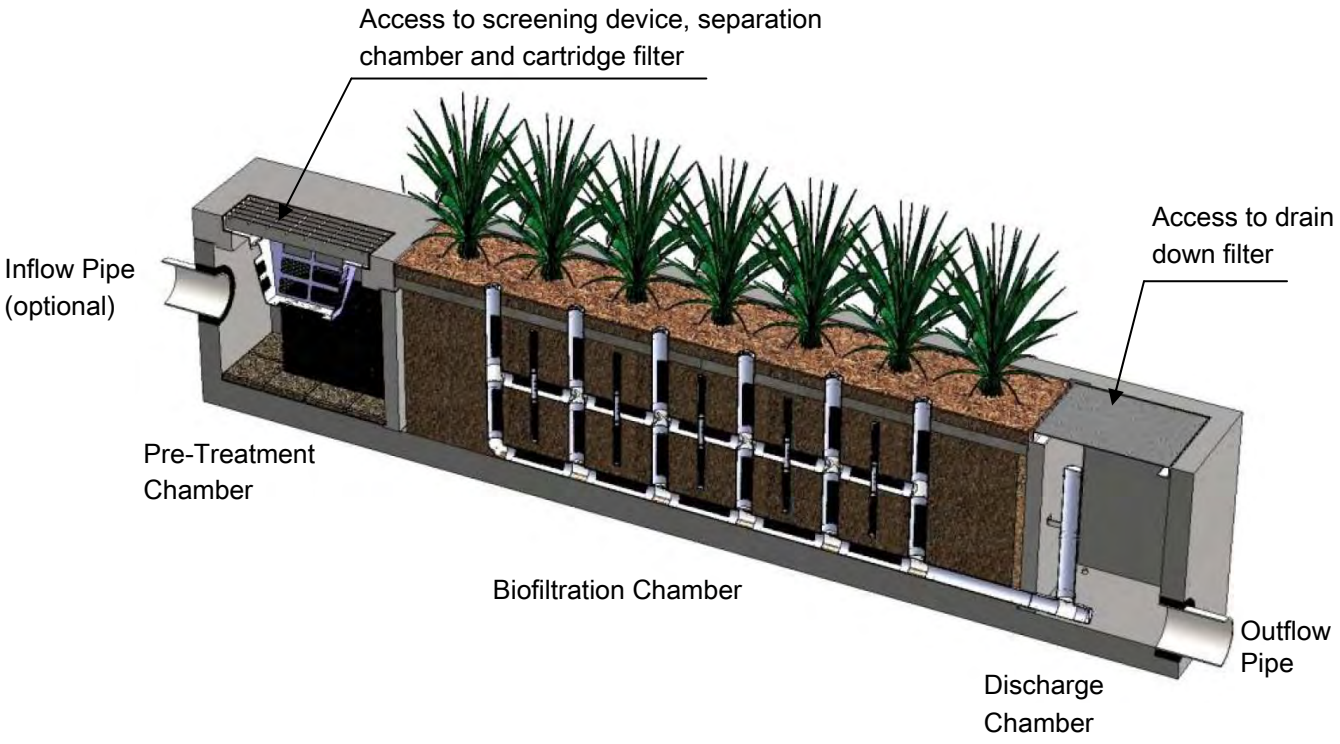
Please visit www.ModularWetlands.com/Plants for more information and various plant lists.

Maintenance Guidelines for Modular Wetland System - Linear

Maintenance Summary

- Remove Trash from Screening Device – average maintenance interval is 6 to 12 months.
  - (*5 minute average service time*).
- Remove Sediment from Separation Chamber – average maintenance interval is 12 to 24 months.
  - (*10 minute average service time*).
- Replace Cartridge Filter Media – average maintenance interval 12 to 24 months.
  - (*10-15 minute per cartridge average service time*).
- Replace Drain Down Filter Media – average maintenance interval is 12 to 24 months.
  - (*5 minute average service time*).
- Trim Vegetation – average maintenance interval is 6 to 12 months.
  - (*Service time varies*).

System Diagram



Maintenance Procedures

Screening Device

1. Remove grate or manhole cover to gain access to the screening device in the Pre-Treatment Chamber. Vault type units do not have screening device. Maintenance can be performed without entry.
2. Remove all pollutants collected by the screening device. Removal can be done manually or with the use of a vacuum truck. The hose of the vacuum truck will not damage the screening device.
3. Screening device can easily be removed from the Pre-Treatment Chamber to gain access to separation chamber and media filters below. Replace grate or manhole cover when completed.

Separation Chamber

1. Perform maintenance procedures of screening device listed above before maintaining the separation chamber.
2. With a pressure washer spray down pollutants accumulated on walls and cartridge filters.
3. Vacuum out Separation Chamber and remove all accumulated pollutants. Replace screening device, grate or manhole cover when completed.

Cartridge Filters

1. Perform maintenance procedures on screening device and separation chamber before maintaining cartridge filters.
2. Enter separation chamber.
3. Unscrew the two bolts holding the lid on each cartridge filter and remove lid.
4. Remove each of 4 to 8 media cages holding the media in place.
5. Spray down the cartridge filter to remove any accumulated pollutants.
6. Vacuum out old media and accumulated pollutants.
7. Reinstall media cages and fill with new media from manufacturer or outside supplier. Manufacturer will provide specification of media and sources to purchase.
8. Replace the lid and tighten down bolts. Replace screening device, grate or manhole cover when completed.

Drain Down Filter

1. Remove hatch or manhole cover over discharge chamber and enter chamber.
2. Unlock and lift drain down filter housing and remove old media block. Replace with new media block. Lower drain down filter housing and lock into place.
3. Exit chamber and replace hatch or manhole cover.

Maintenance Notes

1. Following maintenance and/or inspection, it is recommended the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.

2. The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.

3. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.

4. Entry into chambers may require confined space training based on state and local regulations.

5. No fertilizer shall be used in the Biofiltration Chamber.

6. Irrigation should be provided as recommended by manufacturer and/or landscape architect. Amount of irrigation required is dependent on plant species. Some plants may require irrigation.

Maintenance Procedure Illustration

Screening Device

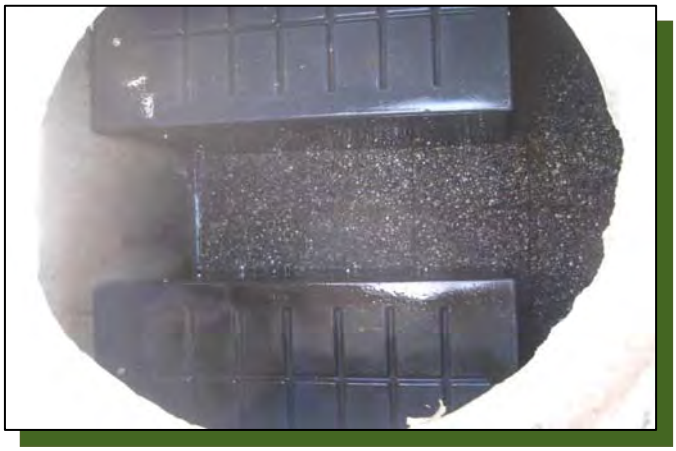
The screening device is located directly under the manhole or grate over the Pre-Treatment Chamber. It's mounted directly underneath for easy access and cleaning. Device can be cleaned by hand or with a vacuum truck.

Separation Chamber

The separation chamber is located directly beneath the screening device. It can be quickly cleaned using a vacuum truck or by hand. A pressure washer is useful to assist in the cleaning process.

Cartridge Filters

The cartridge filters are located in the Pre-Treatment chamber connected to the wall adjacent to the biofiltration chamber. The cartridges have removable tops to access the individual media filters. Once the cartridge is open media can be easily removed and replaced by hand or a vacuum truck.



Drain Down Filter

The drain down filter is located in the Discharge Chamber. The drain filter unlocks from the wall mount and hinges up. Remove filter block and replace with new block.

Trim Vegetation

Vegetation should be maintained in the same manner as surrounding vegetation and trimmed as needed. No fertilizer shall be used on the plants. Irrigation per the recommendation of the manufacturer and or landscape architect. Different types of vegetation requires different amounts of irrigation.

Inspection Form

Modular Wetland System, Inc.
P. 760.433-7640
F. 760-433-3176
E. Info@modularwetlands.com

www.modularwetlands.com

Inspection Report
Modular Wetlands System

Project Name _____

Project Address _____ (city) (Zip Code)

Owner / Management Company _____

Contact _____ Phone ( ) –

Inspector Name _____ Date ___/___/___ Time _____ AM / PM

For Office Use Only
(Reviewed By)
(Date)
Office personnel to complete section to the left.

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition _____ Additional Notes _____

Inspection Checklist

Modular Wetland System Type (Curb, Grate or UG Vault): _____ Size (22', 14' or etc.): _____

Structural Integrity:	**Yes**	**No**	**Comments**
Damage to pre-treatment access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?			
Damage to discharge chamber access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?			
Does the MWS unit show signs of structural deterioration (cracks in the wall, damage to frame)?			
Is the inlet/outlet pipe or drain down pipe damaged or otherwise not functioning properly?			
Working Condition:			
Is there evidence of illicit discharge or excessive oil, grease, or other automobile fluids entering and clogging the unit?			
Is there standing water in inappropriate areas after a dry period?			
Is the filter insert (if applicable) at capacity and/or is there an accumulation of debris/trash on the shelf system?			
Does the depth of sediment/trash/debris suggest a blockage of the inflow pipe, bypass or cartridge filter? If yes, specify which one in the comments section. Note depth of accumulation in in pre-treatment chamber.			Depth:
Does the cartridge filter media need replacement in pre-treatment chamber and/or discharge chamber?			Chamber:
Any signs of improper functioning in the discharge chamber? Note issues in comments section.			
Other Inspection Items:			
Is there an accumulation of sediment/trash/debris in the wetland media (if applicable)?			
Is it evident that the plants are alive and healthy (if applicable)? Please note Plant Information below.			
Is there a septic or foul odor coming from inside the system?			

Waste:	**Yes**	**No**
Sediment / Silt / Clay		
Trash / Bags / Bottles		
Green Waste / Leaves / Foliage		

Recommended Maintenance	
No Cleaning Needed	
Schedule Maintenance as Planned	
Needs Immediate Maintenance	

Plant Information	
Damage to Plants	
Plant Replacement	
Plant Trimming	

Additional Notes:

2972 San Luis Rey Road, Oceanside, CA 92058 P (760) 433-7640 F (760) 433-3176

Maintenance Report

Modular Wetland System, Inc.
P. 760.433-7640
F. 760-433-3176
E. Info@modularwetlands.com

www.modularwetlands.com

Cleaning and Maintenance Report
Modular Wetlands System

Project Name _____

Project Address _____
(city) (Zip Code)

Owner / Management Company _____

Contact _____ Phone ( ) –

Inspector Name _____ Date ____/____/____ Time _____ AM / PM

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

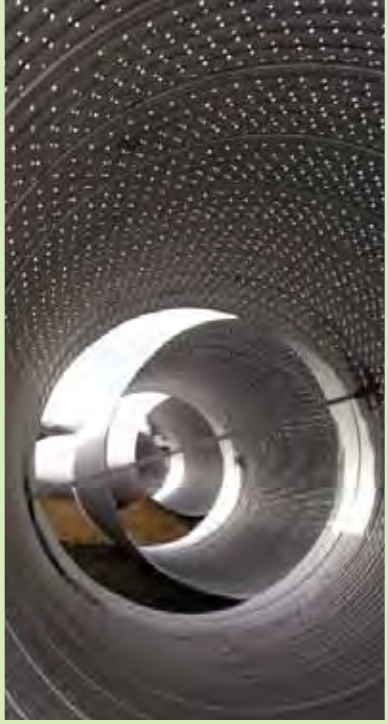
Weather Condition _____ Additional Notes _____

For Office Use Only
(Reviewed By)
(Date)
Office personnel to complete section to the left.

Site Map #	GPS Coordinates of Insert	Manufacturer / Description / Sizing	Trash Accumulation	Foliage Accumulation	Sediment Accumulation	Total Debris Accumulation	Condition of Media 25/50/75/100 (will be changed @ 75%)	Operational Per Manufactures' Specifications (If not, why?)
	Lat: Long:	MWS Catch Basins						
		MWS Sedimentation Basin						
		Media Filter Condition						
		Plant Condition						
		Drain Down Media Condition						
		Discharge Chamber Condition						
		Drain Down Pipe Condition						
		Inlet and Outlet Pipe Condition						

Comments:

2972 San Luis Rey Road, Oceanside, CA 92058 P. 760.433.7640 F. 760.433.3176



CONTECH®
ENGINEERED SOLUTIONS

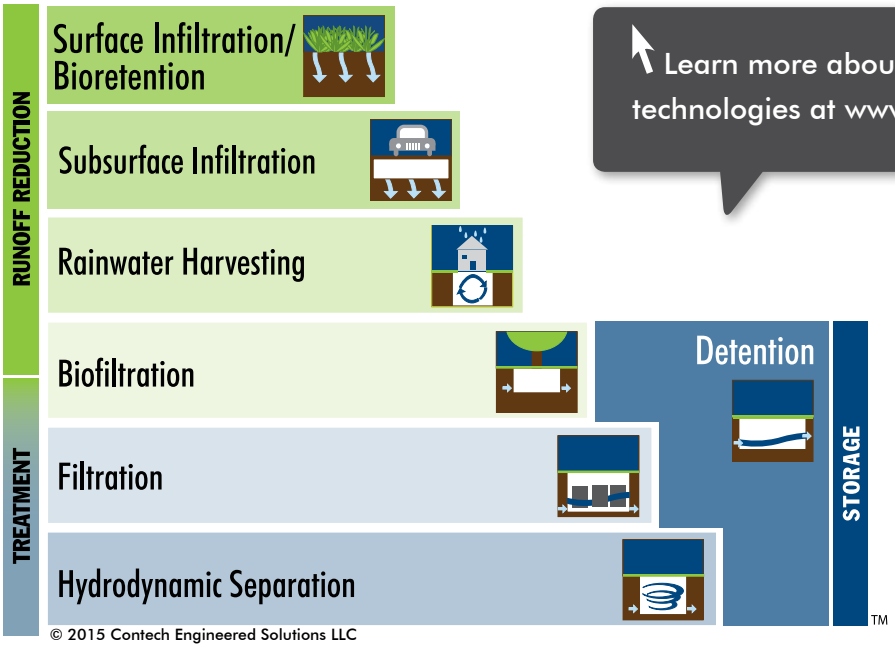
Corrugated Metal Pipe Infiltration System

Solutions Guide

Stormwater Solutions from Contech

Selecting the Right Stormwater Solution Just Got Easier...

It's simple to choose the right stormwater solution to achieve your goals with the Contech Stormwater Solutions Staircase. First, select the runoff reduction practices that are most appropriate for your site, paying particular attention to pretreatment needs. If the entire design storm cannot be retained, select a treatment best management practice (BMP) for the balance. Finally, select a detention system to address any outstanding downstream erosion.



Learn more about all of our stormwater technologies at www.ContechES.com/urbangreen

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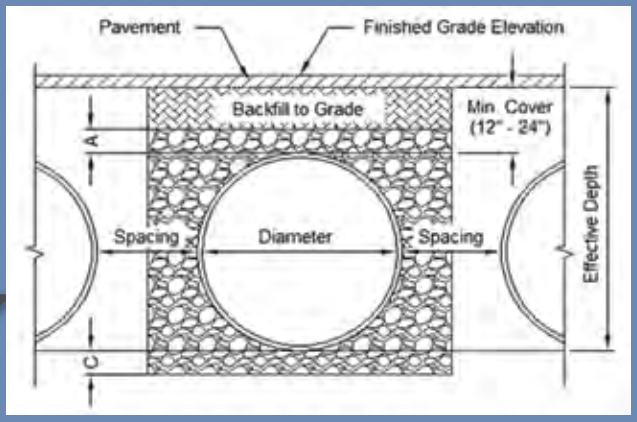
DYODS

Design Your Own Detention or Infiltration System

The Contech DYODS is an exclusive online design tool to that allows users to quickly and easily design their own detention or infiltration system. Just input your required storage volume to calculate the quantity of the material needed for your Contech CMP, CON/SPAN®, or ChamberMaxx® system.

To use the *Design Your Own Detention or Infiltration System* tool, visit: www.ContechES.com/dyods



Subsurface Infiltration as a Stormwater Management Strategy

The only sure way to eliminate stormwater pollution is to eliminate stormwater runoff. In recognition of this fact, Green Infrastructure and Low Impact Development based stormwater management regulations prioritizing runoff reduction have proliferated throughout the United States.

Where site conditions allow, infiltration is typically the most cost effective and reliable runoff reduction approach. In urban environments where there are competing demands for land, subsurface infiltration can provide many of the benefits of landscape based systems but without requiring dedicated land area. Infiltration systems are commonly comprised of a pretreatment component designed to remove sediment, trash, and oil, followed by plastic, metal or concrete storage units surrounded by permeable stone creating a high voids storage gallery. Infiltration systems are typically designed to support vehicular loading and to withstand lateral pressures from surrounding soil that allows the overlying land to be used for virtually any non-building application.

Subsurface infiltration meets the objectives of LID by reducing runoff with the added benefit of saving land space in urban environments.

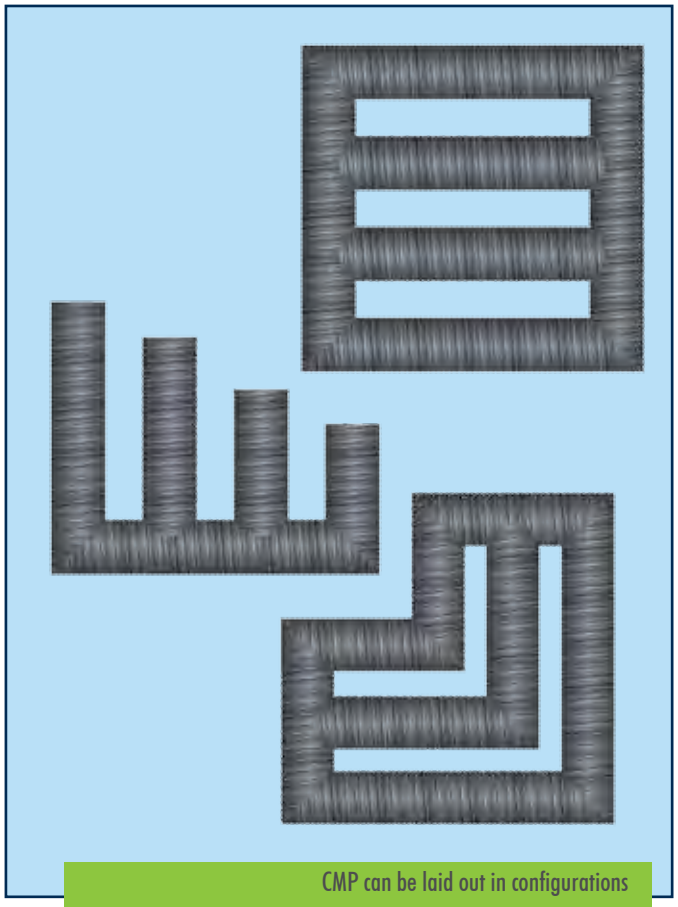
LID benefits include runoff volume reduction, peak flow control, ground water recharge, and water quality improvement.

CMP infiltration is used at Pitzer College in Claremont, California.

CMP – the "Go To" Material for Subsurface Infiltration

The purpose of the storage vessel is to hold stormwater runoff underground while allowing it to infiltrate the surrounding soil. For the majority of applications, corrugated metal pipe (CMP) is the "go to" material for subsurface infiltration.

- A minimum of 75-year service life for most soil/water conditions.
- Various pipe coatings and materials are available to accommodate site-specific needs and extend service life: Aluminized Steel Type 2 (ALT2), Galvanized, CORLIX® Aluminum, and Polymeric.
- Wide range of gages, corrugations, and shapes, in diameters 12" – 144".
- Pipe can be fully or partially perforated for infiltration, retention, or groundwater recharge applications.
- Custom access risers and manifolds provide direct access for maintenance.
- Outlet control devices can be incorporated within the system, eliminating the need for a separate structure.
- Customizable - a variety of fittings allow CMP to match most layout configurations.
- May be designed for heavy loading and high maximum cover.
- Contributes to LEED points.
- Available locally; quick turnaround time.
- The most economical installed solution.



CMP can be laid out in configurations not achievable with other materials.

With its low cost, a wide variety of diameters, layout configurations, and materials, no other material can match CMP's flexibility and versatility.

A wide range of CMP diameters and coatings are available to meet site specific needs.

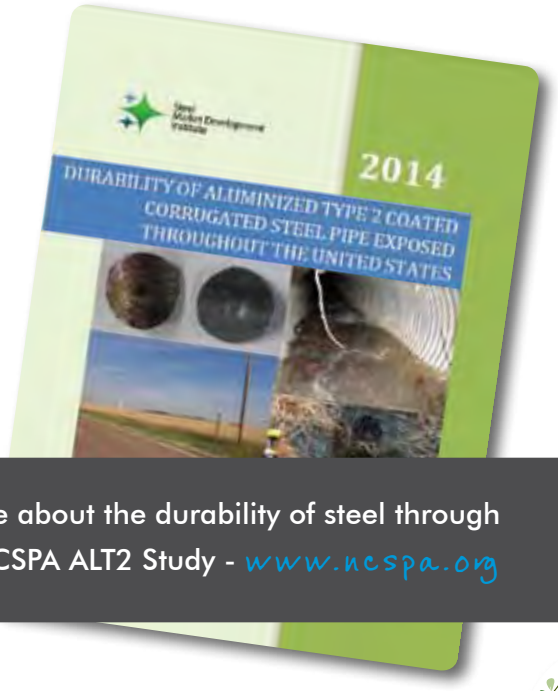
Addressing the Question of Longevity

Some engineers are hesitant to use corrugated metal pipe (CMP) for stormwater applications because they have read or heard about CMP being used in culverts that have corroded. This shouldn't be the case. Many decades ago, galvanized pipe was the coating of choice for culverts; that now has been replaced with Aluminized Type 2 (ALT2). The primary reason for culvert failure is the galvanized coating was not properly designed to withstand a high flow and abrasive environment, which wears the galvanized coating off the invert of the pipe. The ALT2 is far more abrasive resistant for applications such as culverts and has a wider range for pH and resistivity. Additionally, a detention/infiltration application is not an abrasive environment, so these concerns are further mitigated. Finally, a properly designed infiltration system includes pretreatment and flow control, as well as a stone envelope which prevents interaction with native soils, further reducing the potential for abrasion and corrosion.

- A minimum of 75 year service life for most soil/water conditions and has a proven service life that exceed 100 years with proper specification that meets all AASHTO and ASTM pipe specifications.
- CMP infiltration systems can be designed to meet HS-20 or greater load requirements with proper depths of cover.
- With no abrasion and low flows, coatings remain intact and protect against corrosion inside the pipe that holds stormwater runoff.
- Protective pipe coatings and materials such as ALT2, Galvanized, Polymeric, and CORLIX® Aluminum are matched to the pH and resistivity of the surrounding soil.
- CMP infiltration systems are surrounded by clean crushed rock to provide increased storage capacity. The entire system is wrapped with fabric on the sides and top to prevent the soils from having contact with CMP. Thus, corrosive soils do not come into contact with the pipe.

CMP infiltration systems have a proven service life that exceeds 100-years with proper specification that meets all AASHTO and ASTM pipe specifications.

CMP has a proven service life



Learn more about the durability of steel through the recent NCSPA ALT2 Study - www.ncspa.org

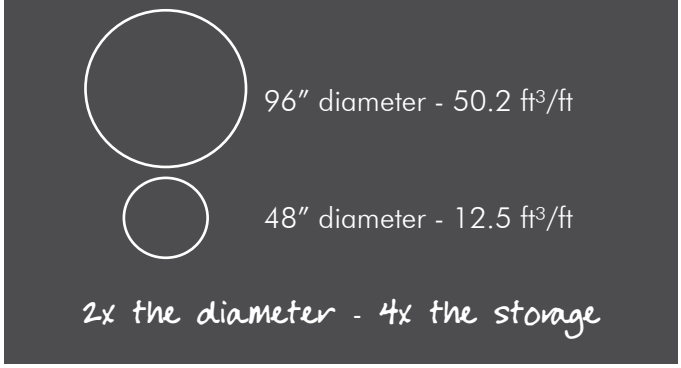
Learn more at www.ContechES.com/cmp-detention

Maximizing Vertical Space: Every Inch Counts

One of the most overlooked advantages of CMP is its ability to maximize vertical storage space.

Increasing the depth of a CMP infiltration system allows for more water storage in the same footprint. For example, doubling the diameter of pipe yields four times as much storage volume in the pipe. This provides a significant cost savings per cubic foot of storage. In addition, more vertical storage space means a smaller footprint, less excavation, and lower project costs.

Contech's Corrugated Metal Pipe Detention systems maximize vertical storage space.



Sizing

Round Pipe – CMP → 6-in to 144-in

Diameter (inches)	Volume (ft^3/ft)	Min. Cover Height	Diameter (inches)	Volume (ft^3/ft)	Min. Cover Height
12	.78	12″	78	33.1	12″
15	1.22	12″	84	38.4	12″
18	1.76	12″	90	44.1	12″
21	2.40	12″	96	50.2	12″
24	3.14	12″	102	56.7	18″
30	4.9	12″	108	63.6	18″
36	7.0	12″	114	70.8	18″
42	9.6	12″	120	78.5	18″
48	12.5	12″	126	86.5	18″
54	15.9	12″	132	95.0	18″
60	19.6	12″	138	103.8	18″
66	23.7	12″	144	113.1	18″
72	28.2	12″			

The Need for Effective Pretreatment

Infiltration systems have multiple components, and one of the most important is pretreatment. The purpose of a pretreatment device is to prolong the life of the infiltration system by removing debris and sediment that can collect on the invert and within the stone backfill voids. Pretreatment will maintain the efficiency of an infiltration system as well as extend the life cycle, therefore preventing a premature replacement. Pretreatment also offers these additional benefits:

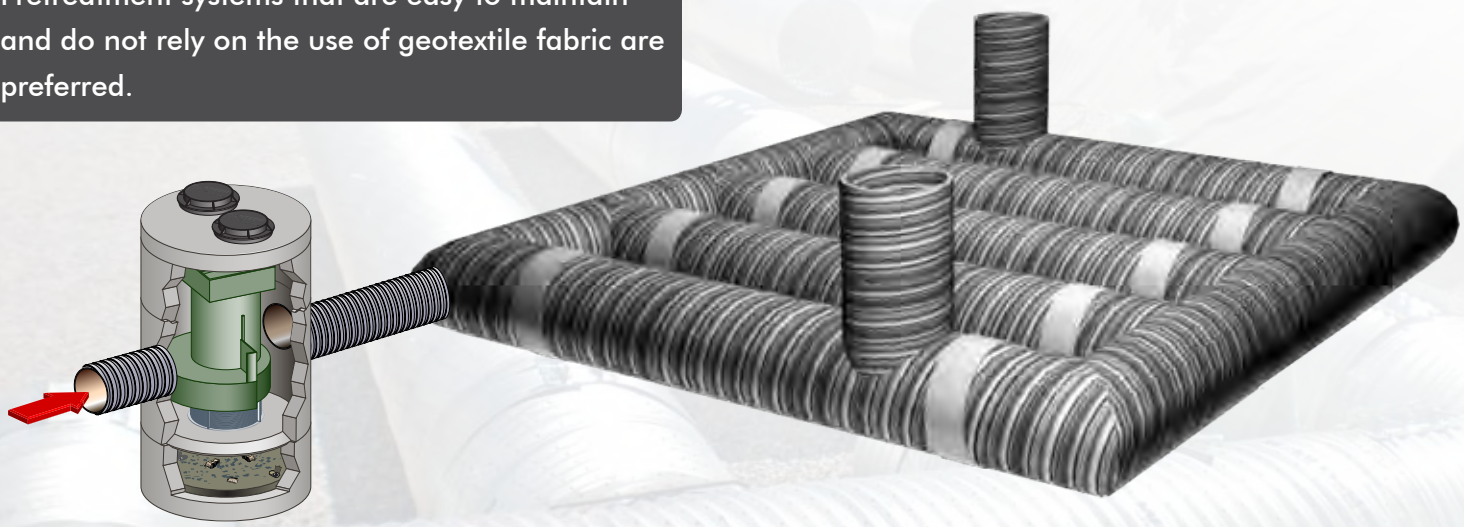
- Easier to clean and maintain compared to the infiltration system itself.
- Cost savings due to the extended service life of the system.
- Removing trash and debris protects downstream outlet control structures from clogging.

Pretreatment Design Considerations

When choosing a pretreatment system, it is important to consider the following:

- Downstream outlet control structures may require protection from a pretreatment device that screens trash and debris.
- Pretreatment system selection depends on pollutant targets. Trash, debris, and larger particles can be removed with hydrodynamic separators. Removing high percentages of fine particles and associated heavy metals and nutrients requires filtration.
- Reduced long term maintenance or replacement cost of the infiltration system can help justify pretreatment construction costs.
- Inlet and pipe layout will influence the number and type of pretreatment systems used. A combination of different systems may be appropriate for the various inlet locations and flows.

Pretreatment systems that are easy to maintain and do not rely on the use of geotextile fabric are preferred.



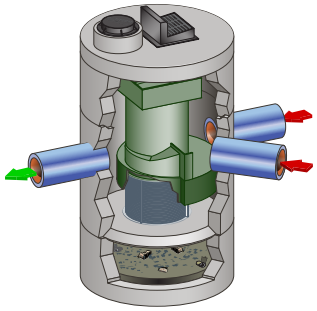
Learn more at www.ContechES.com/cmp-detention

7

Pretreatment Options

Contech offers a number of pretreatment options, all of which will extend the life of subsurface infiltration systems and improve water quality. The type of system chosen will depend on a number of factors including footprint, soil conditions, local regulations, and the desired level of pretreatment.

CDS provides direct access to cleaning, and the built-in high flow bypass weir eliminates the need for a separate bypass structure.



Hydrodynamic Separation

Hydrodynamic Separation (HDS) provides a basic level of pretreatment by capturing and retaining trash and debris, sediment, and oil from stormwater runoff.

CDS®

The CDS uses a combination of swirl concentration and indirect screening and is the only non-blocking screening technology available in an HDS system.

Filtration

Filtration provides a higher level of pretreatment and improved water quality by removing trash and debris, oil, fine solids, and dissolved pollutants such as metals, hydrocarbons, and nutrients.

Filterra® Bioretention System

Filterra is an engineered bioretention system that has been optimized for high volume/flow treatment and high pollutant removal.

The Stormwater Management StormFilter®

The StormFilter system is comprised of a structure that houses rechargeable, media-filled cartridges. The media can be customized to target site-specific pollutants.

Jellyfish® Filter

The Jellyfish filter uses membrane filtration in a compact footprint to remove a high level and a wide variety of stormwater pollutants such as fine particulates, oil, trash and debris, metals, and nutrients.

Alternative Materials for Subsurface Infiltration

There may be instances where alternative materials are needed for subsurface infiltration due to site specific needs.

Plastic Chambers

Plastic chambers are best suited to shallow depth applications; minimum cover is 18 inches, and maximum cover is 96 inches. Some benefits of chambers are:

- Chambers may be beneficial for sites with limited vertical storage.
- Lightweight and installed by hand.
- Heavy equipment is not required to set units into place.
- Centralized stocking locations for short lead times.

Concrete Structures/Vaults

Some concrete structures and vaults are best suited for high loading applications such as railroads or airports. Concrete units are also ideal in corrosive environments or areas with high salinity. Some benefits of concrete structures are:

- Wide range of spans and heights.
- Greater underground infiltration storage in a smaller footprint.
- Ample and easy maintenance access.
- Fast installation.

Project Profiles: CMP Infiltration Systems in Action

Edie and Lew Wasserman Building, UCLA

Westwood, California

- The new six-story, 100,000 square foot Edie and Lew Wasserman Building was built on a very dense site that needed to meet sustainability requirements.
- The design needed to maximize infiltration volume, match existing inverts, and work around existing utilities.
- The stormwater management systems included a CDS pretreatment system and a CMP infiltration system using 57' of 72" perforated CMP.
- Perforated CMP was selected to avoid utilities, minimize excavation, meet the City of LA LID requirements, contribute to the building's LEED certification, and to provide space for the buildings "outdoor room" and gardens.

Creative Office Space

El Segundo, California

- A stormwater infiltration solution was needed for a new group of office buildings.
- The owner wanted to maximize the use of the parking area in the urban setting.
- The site had a tight footprint and multiple utility constraints, requiring the design of five separate systems.
- A total of 860 LF of perforated CMP was installed providing of 25,265 CF of storage.
- Perforated CMP was selected for its design flexibility, cost effectiveness, and ease of installation.

City Center Regional Stormwater Facility

Mountlake Terrace, Washington

- The city of Mountlake Terrace, Washington needed a new stormwater retention facility to provide stormwater treatment and downstream flood control.
- There was limited footprint for 80,000 CF of runoff, and the system was required to be very deep, with about 15' of cover.
- Engineers designed a system consisting of a CDS pretreatment system in front of 800 linear feet of 120" diameter, perforated, aluminized type 2 CMP that allows the runoff to slowly infiltrate the surrounding soil.
- Perforated CMP was selected for its ability to accommodate the deep bury, the relatively small footprint, and cost effectiveness.

The Right Partner Can Make All the Difference

Regardless of your project's objectives and constraints, our team of stormwater design engineers, regulatory managers, and local stormwater consultants are here to provide you with expert advice and assistance. If your goal is to eliminate or detain runoff, you can rely on Contech for a wide range of subsurface infiltration, detention, and rainwater harvesting solutions. If treatment is needed, our landscape-based biofiltration or subsurface filtration designs can fit into virtually any site and can be tailored to address specific pollutants.

At every stage of your project, count on Contech to provide engineering services including:

- Regulatory guidance and permitting assistance
- Preliminary standard details and/or site specific final CAD drawings and specifications
- Low Impact Development design assistance
- Engineering calculations for hydraulics/hydrology, rainwater harvesting, and detention/retention
- Online "Design Your Own" tools
- Review of preliminary site design, feasibility screening, and layout assistance
- Value engineering – cost estimates and options analysis
- Pre-construction support, project scheduling, and contractor coordination
- Installation and construction support
- Maintenance support:
  - » Guidance manuals
  - » Demonstrations
  - » Qualified contractor identification

The result: an efficient design process, the right product, greater land space savings, and faster permitting. The entire Contech stormwater team welcomes the opportunity to work with you on your stormwater projects.

To get started, please visit www.conteches.com/localresources or call us at 800-338-1122.

Dig Deeper

Find all the information you need at www.ContechES.com, including field and laboratory test results, approvals, brochures, design guides, standard details, and specifications within the product section of our site.

Connect with Us

We're here to make your job easier – and that includes being able to get in touch with us when you need to. Go to www.ContechES.com/ConnectwithContech.

While you're there, be sure to check out our upcoming seminar schedule or request an in-house technical presentation.

Start a Project

If you are ready to begin a project, contact your local representative to get started. Or you can check out our design toolbox for all our online resources at www.ContechES.com/designtoolbox.

Links to Stormwater Tools:

To use the Land Value Calculator, visit:
www.ContechES.com/lvc
(Look under the Stormwater Management section to download the Land Value Calculator)

To use the Design Your Own Detention System tool, visit:
www.ContechES.com/dyods

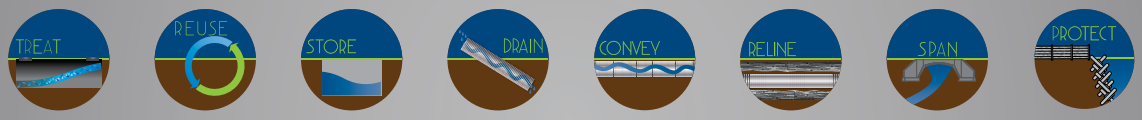
To use the Design Your Own Hydrodynamic Separator tool, visit: www.ContechES.com/dyohds

To use the Rainwater Harvesting Runoff Reduction Calculator tool, visit: www.ContechES.com/rwh-calculator

To use the LID Site Planner , visit:
www.ContechES.com/LIDsiteplanner

CONTECH® ENGINEERED SOLUTIONS

COMPLETE SITE SOLUTIONS



Treatment Solutions
Helping to satisfy stormwater management requirements on land development projects
- Stormwater Treatment
- Detention/Infiltration
- Rainwater Harvesting
- Biofiltration/Bioretention

Pipe Solutions
Meeting project needs for durability, hydraulics, corrosion resistance, and stiffness
- Corrugated Metal Pipe (CMP)
- Steel Reinforced Polyethylene (SRPE)
- High Density Polyethylene (HDPE)
- Polyvinyl Chloride (PVC)

Structures Solutions
Providing innovative options and support for crossings, culverts, and bridges
- Plate, Precast & Truss bridges
- Hard Armor
- Retaining Walls
- Tunnel Liner Plate

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CMP Infiltration Bro (5M as of 1/15) PDF 10/15

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FSC

Maintenance

Underground storm water detention and retention systems should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size or configuration of the system.

Inspection

Inspection is the key to effective maintenance and is easily performed. CONTECH recommends ongoing quarterly inspections of the accumulated sediment. Sediment deposition and transport may vary from year to year and quarterly inspections will help insure that systems are cleaned out at the appropriate time. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. It is very useful to keep a record of each inspection. A sample inspection log is included for your use.

Systems should be cleaned when inspection reveals that accumulated sediment or trash is clogging the discharge orifice. CONTECH suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Cleaning

Maintaining an underground detention or retention system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities.

BMP OPERATION & MAINTENANCE LOG

SITE ADDRESS - **110 & 132 E. Crowther Avenue, Placentia, CA 92870**

Today's Date: _____

Name of Person Performing Activity: _____

Signature: _____

BMP Name (As Shown on BMP Exhibits)	Brief Description of Implementation, Maintenance, and Inspection Activity Performed
MWS #1 (Modular Wetlands unit)	
MWS #2 (Modular Wetlands unit)	
A (Corrugated Steel Pipe (CSP)) – Access by Manhole	
B (Corrugated Steel Pipe (CSP)) – Access by manhole	

Attachment C Hydrology Information (Q2 – Two-year frequency storm evaluation)

WinTR-55 Current Data Description

--- Identification Data ---

User: KHR Assoc.
Project: The Herald
SubTitle: Ex. 2 Year
State: California
County: Orange
Filename: R:\Integral\Documents\WQMP\Conceptual WQMP\Back up Documents\VIII - Attachment C - Ex.w55

Date: 5/5/2017
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Site Area		Outlet	2.95	92	0.117

Total area: 2.95 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
2.05	.0	.0	.0	.0	.0	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type I
Dimensionless Unit Hydrograph: <standard>

The Herald
Ex. 2 Year
Orange County, California

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
2.05	.0	.0	.0	.0	.0	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type I
Dimensionless Unit Hydrograph: <standard>

The Herald
Ex. 2 Year
Orange County, California

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 2-Yr (cfs)
SUBAREAS	
Site Area	2.88
REACHES	
OUTLET	2.88

The Herald
Ex. 2 Year
Orange County, California

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 2-Yr (cfs) (hr)
SUBAREAS	
Site Area	2.88 9.94
REACHES	
OUTLET	2.88

The Herald
Ex. 2 Year
Orange County, California

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Site Area	2.95	0.117	92	Outlet	

Total Area: 2.95 (ac)

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Site Area							
User-provided							0.117
						Time of Concentration	0.117

The Herald
Ex. 2 Year
Orange County, California

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Site Area	Open space; grass cover > 75% (good)	A	.3	39
	Paved parking lots, roofs, driveways	A	2.65	98
	Total Area / Weighted Curve Number		2.95	92

WinTR-20 Printed Page File Beginning of Input Data List
TR20.inp

WinTR-20: Version 1.10 0 0 0.05
The Herald
Ex. 2 Year

SUB-AREA:
  Site Area Outlet .00461 92. .117

STREAM REACH:

STORM ANALYSIS:
  2-Yr 2.05 Type I 2

STRUCTURE RATING:

GLOBAL OUTPUT:
  2 0.05 YYYYN YYYYNN

WinTR-20 Printed Page File End of Input Data List

The Herald
Ex. 2 Year

Name of printed page file:
TR20.out

STORM 2-Yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
Site Area	0.005		1.264		9.94	2.88	624.18

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)						
6.864	0.05	0.05	0.05	0.05	0.05	0.05	0.05
6.916	0.05	0.05	0.05	0.05	0.05	0.05	0.05
6.968	0.05	0.05	0.05	0.06	0.06	0.06	0.06
7.020	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.071	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.123	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.175	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.227	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.278	0.06	0.06	0.07	0.07	0.07	0.07	0.07
7.330	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.382	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.433	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.485	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.537	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.589	0.07	0.07	0.07	0.07	0.07	0.07	0.08
7.640	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.692	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.744	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.796	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.847	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.899	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.951	0.08	0.08	0.09	0.09	0.09	0.09	0.09
8.002	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8.054	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8.106	0.09	0.09	0.09	0.09	0.09	0.10	0.10
8.158	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8.209	0.10	0.10	0.10	0.11	0.11	0.11	0.11
8.261	0.11	0.11	0.11	0.11	0.11	0.11	0.12
8.313	0.12	0.12	0.12	0.12	0.12	0.12	0.12
8.365	0.12	0.12	0.13	0.13	0.13	0.13	0.13
8.416	0.13	0.13	0.13	0.13	0.13	0.14	0.14
8.468	0.14	0.14	0.14	0.14	0.14	0.14	0.14
8.520	0.14	0.15	0.15	0.15	0.15	0.15	0.15
8.571	0.15	0.15	0.16	0.16	0.16	0.16	0.16
8.623	0.16	0.16	0.16	0.16	0.16	0.17	0.17

8.675	0.17	0.17	0.17	0.17	0.17	0.17	0.17
8.727	0.18	0.18	0.18	0.18	0.18	0.18	0.18
8.778	0.18	0.19	0.19	0.19	0.19	0.19	0.19
8.830	0.19	0.19	0.19	0.20	0.20	0.20	0.20
8.882	0.20	0.20	0.20	0.20	0.21	0.21	0.21

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.933	0.21	0.21	0.21	0.21	0.21	0.22	0.22
8.985	0.22	0.22	0.22	0.22	0.22	0.23	0.23
9.037	0.23	0.23	0.23	0.23	0.23	0.24	0.24
9.089	0.24	0.24	0.24	0.25	0.25	0.25	0.25
9.140	0.25	0.25	0.26	0.26	0.26	0.26	0.27
9.192	0.27	0.27	0.27	0.27	0.28	0.28	0.28
9.244	0.28	0.28	0.29	0.29	0.29	0.30	0.30
9.296	0.30	0.30	0.30	0.31	0.31	0.31	0.31
9.347	0.32	0.32	0.32	0.32	0.33	0.33	0.33
9.399	0.33	0.34	0.34	0.34	0.34	0.34	0.35
9.451	0.35	0.35	0.36	0.36	0.36	0.36	0.37
9.502	0.37	0.37	0.38	0.38	0.39	0.40	0.41
9.554	0.42	0.43	0.45	0.46	0.48	0.49	0.50
9.606	0.52	0.53	0.54	0.56	0.57	0.59	0.62
9.658	0.65	0.68	0.71	0.74	0.77	0.79	0.82
9.709	0.84	0.87	0.89	0.92	0.96	1.01	1.06
9.761	1.11	1.17	1.22	1.28	1.33	1.38	1.42
9.813	1.47	1.52	1.58	1.64	1.73	1.83	1.94
9.865	2.06	2.18	2.30	2.41	2.52	2.62	2.71
9.916	2.78	2.83	2.86	2.88	2.87	2.85	2.81
9.968	2.77	2.73	2.68	2.63	2.59	2.55	2.50
10.020	2.46	2.41	2.34	2.26	2.16	2.04	1.92
10.071	1.80	1.67	1.56	1.45	1.35	1.26	1.19
10.123	1.13	1.08	1.03	0.99	0.96	0.92	0.90
10.175	0.87	0.85	0.83	0.81	0.80	0.79	0.77
10.227	0.76	0.75	0.74	0.74	0.73	0.72	0.71
10.278	0.70	0.69	0.68	0.68	0.67	0.67	0.66
10.330	0.66	0.65	0.64	0.64	0.63	0.62	0.61
10.382	0.61	0.60	0.60	0.59	0.59	0.58	0.58
10.434	0.57	0.57	0.56	0.55	0.54	0.54	0.53
10.485	0.52	0.52	0.51	0.51	0.50	0.50	0.49
10.537	0.49	0.48	0.48	0.47	0.47	0.46	0.46
10.589	0.46	0.45	0.45	0.44	0.44	0.44	0.44
10.640	0.43	0.43	0.43	0.43	0.43	0.42	0.42
10.692	0.42	0.42	0.42	0.42	0.41	0.41	0.41
10.744	0.41	0.41	0.41	0.40	0.40	0.40	0.40
10.796	0.40	0.40	0.40	0.39	0.39	0.39	0.39
10.847	0.39	0.39	0.39	0.38	0.38	0.38	0.38
10.899	0.38	0.38	0.37	0.37	0.37	0.37	0.37
10.951	0.37	0.37	0.36	0.36	0.36	0.36	0.36
11.003	0.36	0.36	0.35	0.35	0.35	0.35	0.35
11.054	0.35	0.35	0.35	0.34	0.34	0.34	0.34
11.106	0.34	0.34	0.34	0.34	0.34	0.34	0.34
11.158	0.34	0.33	0.33	0.33	0.33	0.33	0.33
11.209	0.33	0.33	0.33	0.33	0.33	0.33	0.33
11.261	0.33	0.33	0.33	0.33	0.33	0.32	0.32
11.313	0.32	0.32	0.32	0.32	0.32	0.32	0.32
11.365	0.32	0.32	0.32	0.32	0.32	0.32	0.32
11.416	0.32	0.32	0.32	0.32	0.31	0.31	0.31
11.468	0.31	0.31	0.31	0.31	0.31	0.31	0.31
11.520	0.31	0.31	0.31	0.31	0.31	0.31	0.31

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.572	0.31	0.31	0.30	0.30	0.30	0.30	0.30
11.623	0.30	0.30	0.30	0.30	0.30	0.30	0.30
11.675	0.30	0.30	0.30	0.30	0.30	0.30	0.30
11.727	0.29	0.29	0.29	0.29	0.29	0.29	0.29
11.778	0.29	0.29	0.29	0.29	0.29	0.29	0.29
11.830	0.29	0.29	0.29	0.29	0.29	0.28	0.28
11.882	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11.934	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11.985	0.28	0.27	0.27	0.27	0.27	0.27	0.27
12.037	0.27	0.27	0.27	0.27	0.27	0.27	0.27
12.089	0.27	0.27	0.27	0.27	0.27	0.27	0.27
12.141	0.27	0.27	0.27	0.26	0.26	0.26	0.26
12.192	0.26	0.26	0.26	0.26	0.26	0.26	0.26
12.244	0.26	0.26	0.26	0.26	0.26	0.26	0.26
12.296	0.26	0.26	0.26	0.26	0.26	0.26	0.26
12.347	0.26	0.26	0.26	0.26	0.25	0.25	0.25
12.399	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.451	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.503	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.554	0.25	0.25	0.25	0.25	0.25	0.24	0.24
12.606	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.658	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.710	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.761	0.24	0.24	0.24	0.24	0.24	0.23	0.23
12.813	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.865	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.916	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.968	0.23	0.23	0.23	0.23	0.23	0.23	0.22
13.020	0.22	0.22	0.22	0.22	0.22	0.22	0.22
13.072	0.22	0.22	0.22	0.22	0.22	0.22	0.22

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

13.123	0.22	0.22	0.22	0.22	0.22	0.22	0.22
13.175	0.22	0.22	0.22	0.22	0.22	0.22	0.21
13.227	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.279	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.330	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.382	0.21	0.21	0.21	0.21	0.21	0.21	0.20
13.434	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.485	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.537	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.589	0.20	0.20	0.20	0.20	0.20	0.20	0.19
13.641	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.692	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.744	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.796	0.19	0.19	0.19	0.19	0.19	0.18	0.18
13.847	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.899	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.951	0.18	0.18	0.18	0.18	0.18	0.18	0.18
14.003	0.18	0.18	0.18	0.18	0.18	0.17	0.17
14.054	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.106	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.158	0.17	0.17	0.17	0.17	0.17	0.17	0.17

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)						
14.210	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.261	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.313	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.365	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.416	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.468	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.520	0.17	0.17	0.17	0.17	0.17	0.17	0.17

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

14.572	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.623	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.675	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.727	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.779	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.830	0.17	0.17	0.17	0.17	0.17	0.16	0.16
14.882	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.934	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.985	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.037	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.089	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.141	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.192	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.244	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.296	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.348	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.399	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.451	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.503	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.554	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.606	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.658	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.710	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.761	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.813	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.865	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.917	0.16	0.16	0.16	0.16	0.16	0.15	0.15
15.968	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.020	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.072	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.123	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.175	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.227	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.279	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.330	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.382	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.434	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.486	0.15	0.15	0.15	0.15	0.15	0.15	0.15

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

16.537	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.589	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.641	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.692	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.744	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.796	0.15	0.15	0.15	0.15	0.15	0.15	0.15

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
16.848	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.899	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.951	0.15	0.15	0.15	0.15	0.15	0.15	0.14
17.003	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.055	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.106	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.158	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.210	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.261	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.313	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.365	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.417	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.468	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.520	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.572	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.624	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.675	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.727	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.779	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.830	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.882	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.934	0.14	0.14	0.14	0.14	0.14	0.14	0.14

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

17.986	0.14	0.14	0.14	0.14	0.13	0.13	0.13
18.037	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.089	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.141	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.193	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.244	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.296	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.348	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.399	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.451	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.503	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.555	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.606	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.658	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.710	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.761	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.813	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.865	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.917	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.968	0.13	0.13	0.13	0.13	0.13	0.12	0.12
19.020	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.072	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.124	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.175	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.227	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.279	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.330	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.382	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.434	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Line
Start Time ---------- Flow Values @ time increment of 0.007 hr ----------
(hr) (cfs) (cfs) (cfs) (cfs) (cfs) (cfs) (cfs)

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

19.486	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.537	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.589	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.641	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.693	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.744	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.796	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.848	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.899	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.951	0.12	0.12	0.12	0.12	0.11	0.11	0.11
20.003	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.055	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.106	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.158	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.210	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.262	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.313	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.365	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.417	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.468	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.520	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.572	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.624	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.675	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.727	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.779	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.831	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.882	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.934	0.11	0.10	0.10	0.10	0.10	0.10	0.10
20.986	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.037	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.089	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.141	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.193	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.244	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.296	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.348	0.10	0.10	0.10	0.10	0.10	0.10	0.10

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

21.400	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.451	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.503	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.555	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.606	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.658	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.710	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.762	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.813	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.865	0.10	0.10	0.10	0.09	0.09	0.09	0.09
21.917	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.969	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.020	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.072	0.09	0.09	0.09	0.09	0.09	0.09	0.09

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
22.124	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.175	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.227	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.279	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.331	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.382	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.434	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.486	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.538	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.589	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.641	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.693	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.744	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.796	0.09	0.09	0.09	0.09	0.08	0.08	0.08

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

22.848	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.900	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.951	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.003	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.055	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.107	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.158	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.210	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.262	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.313	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.365	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.417	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.469	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.520	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.572	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.624	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.675	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.727	0.08	0.08	0.08	0.08	0.07	0.07	0.07
23.779	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.831	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.882	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.934	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.986	0.07	0.07	0.07	0.07	0.07	0.07	0.07
24.038	0.07	0.06	0.06	0.05			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.005		1.264		9.94	2.88	624.18

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)						
6.864	0.05	0.05	0.05	0.05	0.05	0.05	0.05
6.916	0.05	0.05	0.05	0.05	0.05	0.05	0.05

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.968	0.05	0.05	0.05	0.06	0.06	0.06	0.06
7.020	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.071	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.123	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.175	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.227	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7.278	0.06	0.06	0.07	0.07	0.07	0.07	0.07
7.330	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.382	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.433	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.485	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.537	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.589	0.07	0.07	0.07	0.07	0.07	0.07	0.08
7.640	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.692	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.744	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.796	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.847	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.899	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7.951	0.08	0.08	0.09	0.09	0.09	0.09	0.09
8.002	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8.054	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8.106	0.09	0.09	0.09	0.09	0.09	0.10	0.10
8.158	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8.209	0.10	0.10	0.10	0.11	0.11	0.11	0.11
8.261	0.11	0.11	0.11	0.11	0.11	0.11	0.12
8.313	0.12	0.12	0.12	0.12	0.12	0.12	0.12
8.365	0.12	0.12	0.13	0.13	0.13	0.13	0.13
8.416	0.13	0.13	0.13	0.13	0.13	0.14	0.14

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

8.468	0.14	0.14	0.14	0.14	0.14	0.14	0.14
8.520	0.14	0.15	0.15	0.15	0.15	0.15	0.15
8.571	0.15	0.15	0.16	0.16	0.16	0.16	0.16
8.623	0.16	0.16	0.16	0.16	0.16	0.17	0.17
8.675	0.17	0.17	0.17	0.17	0.17	0.17	0.17
8.727	0.18	0.18	0.18	0.18	0.18	0.18	0.18
8.778	0.18	0.19	0.19	0.19	0.19	0.19	0.19
8.830	0.19	0.19	0.19	0.20	0.20	0.20	0.20
8.882	0.20	0.20	0.20	0.20	0.21	0.21	0.21
8.933	0.21	0.21	0.21	0.21	0.21	0.22	0.22
8.985	0.22	0.22	0.22	0.22	0.22	0.23	0.23
9.037	0.23	0.23	0.23	0.23	0.23	0.24	0.24
9.089	0.24	0.24	0.24	0.25	0.25	0.25	0.25
9.140	0.25	0.25	0.26	0.26	0.26	0.26	0.27
9.192	0.27	0.27	0.27	0.27	0.28	0.28	0.28
9.244	0.28	0.28	0.29	0.29	0.29	0.30	0.30
9.296	0.30	0.30	0.30	0.31	0.31	0.31	0.31
9.347	0.32	0.32	0.32	0.32	0.33	0.33	0.33
9.399	0.33	0.34	0.34	0.34	0.34	0.34	0.35
9.451	0.35	0.35	0.36	0.36	0.36	0.36	0.37
9.502	0.37	0.37	0.38	0.38	0.39	0.40	0.41
9.554	0.42	0.43	0.45	0.46	0.48	0.49	0.50

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.606	0.52	0.53	0.54	0.56	0.57	0.59	0.62
9.658	0.65	0.68	0.71	0.74	0.77	0.79	0.82
9.709	0.84	0.87	0.89	0.92	0.96	1.01	1.06
9.761	1.11	1.17	1.22	1.28	1.33	1.38	1.42
9.813	1.47	1.52	1.58	1.64	1.73	1.83	1.94
9.865	2.06	2.18	2.30	2.41	2.52	2.62	2.71

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

9.916	2.78	2.83	2.86	2.88	2.87	2.85	2.81
9.968	2.77	2.73	2.68	2.63	2.59	2.55	2.50
10.020	2.46	2.41	2.34	2.26	2.16	2.04	1.92
10.071	1.80	1.67	1.56	1.45	1.35	1.26	1.19
10.123	1.13	1.08	1.03	0.99	0.96	0.92	0.90
10.175	0.87	0.85	0.83	0.81	0.80	0.79	0.77
10.227	0.76	0.75	0.74	0.74	0.73	0.72	0.71
10.278	0.70	0.69	0.68	0.68	0.67	0.67	0.66
10.330	0.66	0.65	0.64	0.64	0.63	0.62	0.61
10.382	0.61	0.60	0.60	0.59	0.59	0.58	0.58
10.434	0.57	0.57	0.56	0.55	0.54	0.54	0.53
10.485	0.52	0.52	0.51	0.51	0.50	0.50	0.49
10.537	0.49	0.48	0.48	0.47	0.47	0.46	0.46
10.589	0.46	0.45	0.45	0.44	0.44	0.44	0.44
10.640	0.43	0.43	0.43	0.43	0.43	0.42	0.42
10.692	0.42	0.42	0.42	0.42	0.41	0.41	0.41
10.744	0.41	0.41	0.41	0.40	0.40	0.40	0.40
10.796	0.40	0.40	0.40	0.39	0.39	0.39	0.39
10.847	0.39	0.39	0.39	0.38	0.38	0.38	0.38
10.899	0.38	0.38	0.37	0.37	0.37	0.37	0.37
10.951	0.37	0.37	0.36	0.36	0.36	0.36	0.36
11.003	0.36	0.36	0.35	0.35	0.35	0.35	0.35
11.054	0.35	0.35	0.35	0.34	0.34	0.34	0.34
11.106	0.34	0.34	0.34	0.34	0.34	0.34	0.34
11.158	0.34	0.33	0.33	0.33	0.33	0.33	0.33
11.209	0.33	0.33	0.33	0.33	0.33	0.33	0.33
11.261	0.33	0.33	0.33	0.33	0.33	0.32	0.32
11.313	0.32	0.32	0.32	0.32	0.32	0.32	0.32
11.365	0.32	0.32	0.32	0.32	0.32	0.32	0.32
11.416	0.32	0.32	0.32	0.32	0.31	0.31	0.31
11.468	0.31	0.31	0.31	0.31	0.31	0.31	0.31
11.520	0.31	0.31	0.31	0.31	0.31	0.31	0.31
11.572	0.31	0.31	0.30	0.30	0.30	0.30	0.30
11.623	0.30	0.30	0.30	0.30	0.30	0.30	0.30
11.675	0.30	0.30	0.30	0.30	0.30	0.30	0.30
11.727	0.29	0.29	0.29	0.29	0.29	0.29	0.29
11.778	0.29	0.29	0.29	0.29	0.29	0.29	0.29
11.830	0.29	0.29	0.29	0.29	0.29	0.28	0.28

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

11.882	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11.934	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11.985	0.28	0.27	0.27	0.27	0.27	0.27	0.27
12.037	0.27	0.27	0.27	0.27	0.27	0.27	0.27
12.089	0.27	0.27	0.27	0.27	0.27	0.27	0.27
12.141	0.27	0.27	0.27	0.26	0.26	0.26	0.26
12.192	0.26	0.26	0.26	0.26	0.26	0.26	0.26

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)						
12.244	0.26	0.26	0.26	0.26	0.26	0.26	0.26
12.296	0.26	0.26	0.26	0.26	0.26	0.26	0.26
12.347	0.26	0.26	0.26	0.26	0.25	0.25	0.25
12.399	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.451	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.503	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.554	0.25	0.25	0.25	0.25	0.25	0.24	0.24
12.606	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.658	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.710	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.761	0.24	0.24	0.24	0.24	0.24	0.23	0.23
12.813	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.865	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.916	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.968	0.23	0.23	0.23	0.23	0.23	0.23	0.22
13.020	0.22	0.22	0.22	0.22	0.22	0.22	0.22
13.072	0.22	0.22	0.22	0.22	0.22	0.22	0.22
13.123	0.22	0.22	0.22	0.22	0.22	0.22	0.22
13.175	0.22	0.22	0.22	0.22	0.22	0.22	0.21
13.227	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.279	0.21	0.21	0.21	0.21	0.21	0.21	0.21

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

13.330	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.382	0.21	0.21	0.21	0.21	0.21	0.21	0.20
13.434	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.485	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.537	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.589	0.20	0.20	0.20	0.20	0.20	0.20	0.19
13.641	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.692	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.744	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.796	0.19	0.19	0.19	0.19	0.19	0.18	0.18
13.847	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.899	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.951	0.18	0.18	0.18	0.18	0.18	0.18	0.18
14.003	0.18	0.18	0.18	0.18	0.18	0.17	0.17
14.054	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.106	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.158	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.210	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.261	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.313	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.365	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.416	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.468	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.520	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.572	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.623	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.675	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.727	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.779	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.830	0.17	0.17	0.17	0.17	0.17	0.16	0.16

The Herald
Ex. 2 Year

Line
Start Time ---------- Flow Values @ time increment of 0.007 hr ----------

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
14.882	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.934	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.985	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.037	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.089	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.141	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.192	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.244	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.296	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.348	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.399	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.451	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.503	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.554	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.606	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.658	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.710	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.761	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.813	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.865	0.16	0.16	0.16	0.16	0.16	0.16	0.16
15.917	0.16	0.16	0.16	0.16	0.16	0.15	0.15
15.968	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.020	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.072	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.123	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.175	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.227	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.279	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.330	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.382	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.434	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.486	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.537	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.589	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.641	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.692	0.15	0.15	0.15	0.15	0.15	0.15	0.15

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

16.744	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.796	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.848	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.899	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.951	0.15	0.15	0.15	0.15	0.15	0.15	0.14
17.003	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.055	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.106	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.158	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.210	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.261	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.313	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.365	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.417	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.468	0.14	0.14	0.14	0.14	0.14	0.14	0.14

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
17.520	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.572	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.624	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.675	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.727	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.779	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.830	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.882	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.934	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.986	0.14	0.14	0.14	0.14	0.13	0.13	0.13
18.037	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.089	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.141	0.13	0.13	0.13	0.13	0.13	0.13	0.13

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

18.193	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.244	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.296	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.348	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.399	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.451	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.503	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.555	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.606	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.658	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.710	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.761	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.813	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.865	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.917	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.968	0.13	0.13	0.13	0.13	0.13	0.12	0.12
19.020	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.072	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.124	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.175	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.227	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.279	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.330	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.382	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.434	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.486	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.537	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.589	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.641	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.693	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.744	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.796	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.848	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.899	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.951	0.12	0.12	0.12	0.12	0.11	0.11	0.11
20.003	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.055	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.106	0.11	0.11	0.11	0.11	0.11	0.11	0.11

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

The Herald
Ex. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
20.158	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.210	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.262	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.313	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.365	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.417	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.468	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.520	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.572	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.624	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.675	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.727	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.779	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.831	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.882	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.934	0.11	0.10	0.10	0.10	0.10	0.10	0.10
20.986	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.037	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.089	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.141	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.193	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.244	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.296	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.348	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.400	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.451	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.503	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.555	0.10	0.10	0.10	0.10	0.10	0.10	0.10

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

21.606	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.658	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.710	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.762	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.813	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.865	0.10	0.10	0.10	0.09	0.09	0.09	0.09
21.917	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.969	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.020	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.072	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.124	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.175	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.227	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.279	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.331	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.382	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.434	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.486	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.538	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.589	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.641	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.693	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.744	0.09	0.09	0.09	0.09	0.09	0.09	0.09

Line Start Time (hr)	Flow Values @ time increment of 0.007 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
22.796	0.09	0.09	0.09	0.09	0.08	0.08	0.08
22.848	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.900	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.951	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.003	0.08	0.08	0.08	0.08	0.08	0.08	0.08

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

23.055	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.107	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.158	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.210	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.262	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.313	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.365	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.417	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.469	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.520	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.572	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.624	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.675	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.727	0.08	0.08	0.08	0.08	0.07	0.07	0.07
23.779	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.831	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.882	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.934	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.986	0.07	0.07	0.07	0.07	0.07	0.07	0.07
24.038	0.07	0.06	0.06	0.05			

WinTR-20 Printed Page File TR20.inp Beginning of Input Data List

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

The Herald
Ex. 2 Year

Area or Reach Identifier	Drainage Area (sq mi)	Alternate	Peak Flow by Storm 2-Yr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)
Site Area	0.005		2.88				
OUTLET	0.005		2.88				

WinTR-20 Printed Page File Beginning of Input Data List
TR20.inp

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Ex. 2 Year
STORM 2-Yr
SUB-AREA:
Site Area Outlet .00461 92. .117

STREAM REACH:

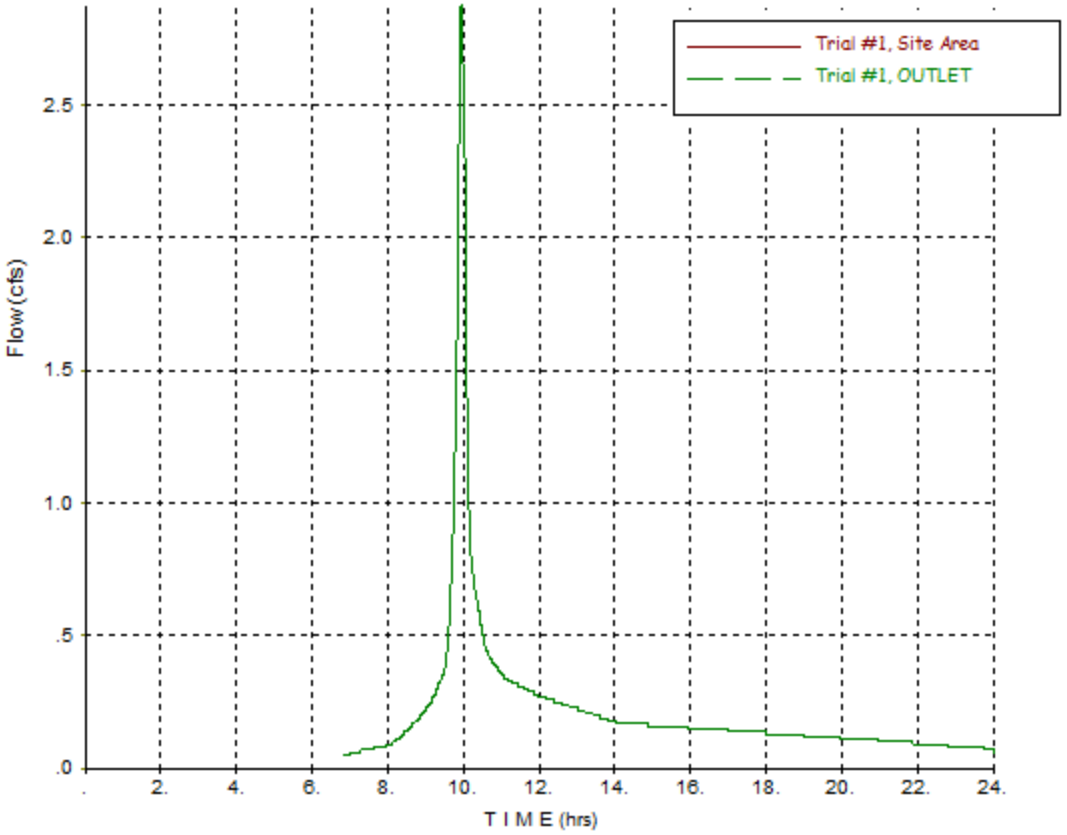
WinTR-55 Output Hydrograph

Project: The Herald

5/5/2017

Subareas: (Site Area, Outlet) Storm: 2-Yr

R:\Integra\Documents\WQMP\Conceptual WQMP\Back up Documents\VIII - Attachment C - Ex.w55



WinTR-55 Current Data Description

--- Identification Data ---

User: KHR Assoc.
Project: The Herald
SubTitle: Prop. 2 Year
State: California
County: Orange
Filename: R:\Integral\Documents\WQMP\Conceptual WQMP\Back up Documents\VIII - Attachment C - Prop.w55

Date: 5/5/2017
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Site Area		Outlet	2.95	90	0.188

Total area: 2.95 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
2.05	.0	.0	.0	.0	.0	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type I
Dimensionless Unit Hydrograph: <standard>

The Herald
Prop. 2 Year
Orange County, California

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
2.05	.0	.0	.0	.0	.0	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type I
Dimensionless Unit Hydrograph: <standard>

The Herald
Prop. 2 Year
Orange County, California

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 2-Yr (cfs)
SUBAREAS	
Site Area	2.26
REACHES	
OUTLET	2.26

The Herald
Prop. 2 Year
Orange County, California

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 2-Yr (cfs) (hr)
SUBAREAS	
Site Area	2.26 10.00
REACHES	
OUTLET	2.26

The Herald
Prop. 2 Year
Orange County, California

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Site Area	2.95	0.188	90	Outlet	

Total Area: 2.95 (ac)

The Herald
Prop. 2 Year
Orange County, California

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Site Area							
User-provided							0.188
					Time of Concentration		0.188

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Prop. 2 Year
Orange County, California

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Site Area	Open space; grass cover > 75% (good)	A	.38	39
	Paved parking lots, roofs, driveways	A	2.57	98
	Total Area / Weighted Curve Number		2.95	90

WinTR-20 Printed Page File Beginning of Input Data List
TR20.inp

WinTR-20: Version 1.10 0 0 0.05
The Herald
Prop. 2 Year

SUB-AREA:
  Site Area Outlet .00461 90. .188

STREAM REACH:

STORM ANALYSIS:
  2-Yr 2.05 Type I 2

STRUCTURE RATING:

GLOBAL OUTPUT:
  2 0.05 YYYYN YYYYNN

WinTR-20 Printed Page File End of Input Data List

The Herald
Prop. 2 Year

Name of printed page file:
TR20.out

STORM 2-Yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
Site Area	0.005		1.119		10.00	2.26	489.57

Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)						
7.741	0.05	0.05	0.05	0.05	0.05	0.05	0.05
7.824	0.05	0.05	0.05	0.05	0.05	0.05	0.05
7.907	0.05	0.06	0.06	0.06	0.06	0.06	0.06
7.990	0.06	0.06	0.06	0.06	0.06	0.06	0.06
8.073	0.06	0.06	0.06	0.06	0.06	0.06	0.06
8.156	0.06	0.06	0.07	0.07	0.07	0.07	0.07
8.239	0.07	0.07	0.07	0.07	0.07	0.08	0.08
8.323	0.08	0.08	0.08	0.08	0.08	0.08	0.09
8.406	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8.489	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8.572	0.11	0.11	0.11	0.11	0.11	0.11	0.11
8.655	0.12	0.12	0.12	0.12	0.12	0.12	0.12
8.738	0.13	0.13	0.13	0.13	0.13	0.13	0.13
8.821	0.14	0.14	0.14	0.14	0.14	0.14	0.15
8.904	0.15	0.15	0.15	0.15	0.15	0.16	0.16
8.987	0.16	0.16	0.16	0.17	0.17	0.17	0.17
9.071	0.17	0.17	0.18	0.18	0.18	0.18	0.19
9.154	0.19	0.19	0.19	0.20	0.20	0.20	0.20
9.237	0.21	0.21	0.21	0.22	0.22	0.22	0.23
9.320	0.23	0.23	0.23	0.24	0.24	0.24	0.25
9.403	0.25	0.25	0.26	0.26	0.27	0.27	0.27
9.486	0.28	0.28	0.28	0.29	0.29	0.30	0.31
9.569	0.32	0.33	0.34	0.35	0.37	0.38	0.40
9.652	0.42	0.45	0.47	0.50	0.53	0.56	0.59
9.735	0.63	0.67	0.71	0.76	0.81	0.87	0.93
9.819	0.99	1.06	1.13	1.22	1.32	1.43	1.54
9.902	1.66	1.79	1.90	2.01	2.10	2.17	2.22
9.985	2.25	2.26	2.25	2.24	2.20	2.16	2.10
10.068	2.02	1.92	1.82	1.71	1.60	1.49	1.38
10.151	1.29	1.20	1.12	1.05	0.99	0.94	0.90
10.234	0.86	0.83	0.80	0.77	0.75	0.73	0.71
10.317	0.69	0.67	0.66	0.64	0.63	0.62	0.60
10.400	0.59	0.58	0.57	0.56	0.55	0.54	0.53
10.484	0.52	0.51	0.50	0.49	0.48	0.48	0.47
10.567	0.46	0.45	0.45	0.44	0.43	0.43	0.42

10.650	0.42	0.41	0.41	0.40	0.40	0.40	0.39
10.733	0.39	0.39	0.38	0.38	0.38	0.38	0.37
10.816	0.37	0.37	0.37	0.36	0.36	0.36	0.36
10.899	0.35	0.35	0.35	0.35	0.35	0.34	0.34
10.982	0.34	0.34	0.34	0.33	0.33	0.33	0.33

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Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.065	0.33	0.32	0.32	0.32	0.32	0.32	0.32
11.148	0.31	0.31	0.31	0.31	0.31	0.31	0.31
11.232	0.31	0.31	0.30	0.30	0.30	0.30	0.30
11.315	0.30	0.30	0.30	0.30	0.30	0.30	0.30
11.398	0.30	0.29	0.29	0.29	0.29	0.29	0.29
11.481	0.29	0.29	0.29	0.29	0.29	0.29	0.29
11.564	0.29	0.28	0.28	0.28	0.28	0.28	0.28
11.647	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11.730	0.27	0.27	0.27	0.27	0.27	0.27	0.27
11.813	0.27	0.27	0.27	0.27	0.27	0.27	0.26
11.896	0.26	0.26	0.26	0.26	0.26	0.26	0.26
11.980	0.26	0.26	0.26	0.26	0.26	0.25	0.25
12.063	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.146	0.25	0.25	0.25	0.25	0.25	0.25	0.24
12.229	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.312	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.395	0.24	0.24	0.24	0.24	0.24	0.23	0.23
12.478	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.561	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.645	0.23	0.23	0.23	0.23	0.22	0.22	0.22
12.728	0.22	0.22	0.22	0.22	0.22	0.22	0.22
12.811	0.22	0.22	0.22	0.22	0.22	0.22	0.22
12.894	0.22	0.22	0.22	0.21	0.21	0.21	0.21
12.977	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.060	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.143	0.21	0.21	0.20	0.20	0.20	0.20	0.20
13.226	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.309	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.393	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.476	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.559	0.19	0.19	0.19	0.19	0.19	0.18	0.18
13.642	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.725	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.808	0.18	0.18	0.17	0.17	0.17	0.17	0.17
13.891	0.17	0.17	0.17	0.17	0.17	0.17	0.17
13.974	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.057	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.141	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.224	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.307	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.390	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.473	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.556	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.639	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.722	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.806	0.16	0.16	0.16	0.16	0.16	0.15	0.15
14.889	0.15	0.15	0.15	0.15	0.15	0.15	0.15
14.972	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.055	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.138	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.221	0.15	0.15	0.15	0.15	0.15	0.15	0.15

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erald (continued)
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STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

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Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
15.304	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.387	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.470	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.554	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.637	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.720	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.803	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.886	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.969	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.052	0.15	0.15	0.15	0.14	0.14	0.14	0.14
16.135	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.219	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.302	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.385	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.468	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.551	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.634	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.717	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.800	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.883	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.967	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.050	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.133	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.216	0.14	0.14	0.13	0.13	0.13	0.13	0.13
17.299	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.382	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.465	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.548	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.631	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.715	0.13	0.13	0.13	0.13	0.13	0.13	0.13

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erald (continued)
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STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

17.798	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.881	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.964	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.047	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.130	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.213	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.296	0.13	0.13	0.13	0.13	0.12	0.12	0.12
18.380	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.463	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.546	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.629	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.712	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.795	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.878	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.961	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.044	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.128	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.211	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.294	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.377	0.12	0.12	0.12	0.11	0.11	0.11	0.11
19.460	0.11	0.11	0.11	0.11	0.11	0.11	0.11

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Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)						
19.543	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.626	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.709	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.792	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.876	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.959	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.042	0.11	0.11	0.11	0.11	0.11	0.11	0.11

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erald (continued)
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STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

20.125	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.208	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.291	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.374	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.457	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.541	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.624	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.707	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.790	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.873	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.956	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.039	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.122	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.205	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.289	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.372	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.455	0.10	0.09	0.09	0.09	0.09	0.09	0.09
21.538	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.621	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.704	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.787	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.870	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.953	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.037	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.120	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.203	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.286	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.369	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.452	0.09	0.09	0.08	0.08	0.08	0.08	0.08
22.535	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.618	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.702	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.785	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.868	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.951	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.034	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.117	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.200	0.08	0.08	0.08	0.08	0.08	0.08	0.08

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erald (continued)
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STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

23.283	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.366	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.450	0.08	0.07	0.07	0.07	0.07	0.07	0.07
23.533	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.616	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.699	0.07	0.07	0.07	0.07	0.07	0.07	0.07

The Herald
Prop. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
23.782	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.865	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.948	0.07	0.07	0.07	0.07	0.07	0.07	0.07
24.031	0.07	0.07	0.06	0.06	0.06	0.05	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.005		1.119		10.00	2.26	489.57

Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.741	0.05	0.05	0.05	0.05	0.05	0.05	0.05
7.824	0.05	0.05	0.05	0.05	0.05	0.05	0.05
7.907	0.05	0.06	0.06	0.06	0.06	0.06	0.06
7.990	0.06	0.06	0.06	0.06	0.06	0.06	0.06
8.073	0.06	0.06	0.06	0.06	0.06	0.06	0.06
8.156	0.06	0.06	0.07	0.07	0.07	0.07	0.07
8.239	0.07	0.07	0.07	0.07	0.07	0.08	0.08

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

8.323	0.08	0.08	0.08	0.08	0.08	0.08	0.09
8.406	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8.489	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8.572	0.11	0.11	0.11	0.11	0.11	0.11	0.11
8.655	0.12	0.12	0.12	0.12	0.12	0.12	0.12
8.738	0.13	0.13	0.13	0.13	0.13	0.13	0.13
8.821	0.14	0.14	0.14	0.14	0.14	0.14	0.15
8.904	0.15	0.15	0.15	0.15	0.15	0.16	0.16
8.987	0.16	0.16	0.16	0.17	0.17	0.17	0.17
9.071	0.17	0.17	0.18	0.18	0.18	0.18	0.19
9.154	0.19	0.19	0.19	0.20	0.20	0.20	0.20
9.237	0.21	0.21	0.21	0.22	0.22	0.22	0.23
9.320	0.23	0.23	0.23	0.24	0.24	0.24	0.25
9.403	0.25	0.25	0.26	0.26	0.27	0.27	0.27
9.486	0.28	0.28	0.28	0.29	0.29	0.30	0.31
9.569	0.32	0.33	0.34	0.35	0.37	0.38	0.40
9.652	0.42	0.45	0.47	0.50	0.53	0.56	0.59
9.735	0.63	0.67	0.71	0.76	0.81	0.87	0.93
9.819	0.99	1.06	1.13	1.22	1.32	1.43	1.54
9.902	1.66	1.79	1.90	2.01	2.10	2.17	2.22
9.985	2.25	2.26	2.25	2.24	2.20	2.16	2.10
10.068	2.02	1.92	1.82	1.71	1.60	1.49	1.38
10.151	1.29	1.20	1.12	1.05	0.99	0.94	0.90
10.234	0.86	0.83	0.80	0.77	0.75	0.73	0.71
10.317	0.69	0.67	0.66	0.64	0.63	0.62	0.60
10.400	0.59	0.58	0.57	0.56	0.55	0.54	0.53
10.484	0.52	0.51	0.50	0.49	0.48	0.48	0.47
10.567	0.46	0.45	0.45	0.44	0.43	0.43	0.42
10.650	0.42	0.41	0.41	0.40	0.40	0.40	0.39

Line
Start Time ---------- Flow Values @ time increment of 0.012 hr ----------
(hr) (cfs) (cfs) (cfs) (cfs) (cfs) (cfs) (cfs)

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

10.733	0.39	0.39	0.38	0.38	0.38	0.38	0.37
10.816	0.37	0.37	0.37	0.36	0.36	0.36	0.36
10.899	0.35	0.35	0.35	0.35	0.35	0.34	0.34
10.982	0.34	0.34	0.34	0.33	0.33	0.33	0.33
11.065	0.33	0.32	0.32	0.32	0.32	0.32	0.32
11.148	0.31	0.31	0.31	0.31	0.31	0.31	0.31
11.232	0.31	0.31	0.30	0.30	0.30	0.30	0.30
11.315	0.30	0.30	0.30	0.30	0.30	0.30	0.30
11.398	0.30	0.29	0.29	0.29	0.29	0.29	0.29
11.481	0.29	0.29	0.29	0.29	0.29	0.29	0.29
11.564	0.29	0.28	0.28	0.28	0.28	0.28	0.28
11.647	0.28	0.28	0.28	0.28	0.28	0.28	0.28
11.730	0.27	0.27	0.27	0.27	0.27	0.27	0.27
11.813	0.27	0.27	0.27	0.27	0.27	0.27	0.26
11.896	0.26	0.26	0.26	0.26	0.26	0.26	0.26
11.980	0.26	0.26	0.26	0.26	0.26	0.25	0.25
12.063	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12.146	0.25	0.25	0.25	0.25	0.25	0.25	0.24
12.229	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.312	0.24	0.24	0.24	0.24	0.24	0.24	0.24
12.395	0.24	0.24	0.24	0.24	0.24	0.23	0.23
12.478	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.561	0.23	0.23	0.23	0.23	0.23	0.23	0.23
12.645	0.23	0.23	0.23	0.23	0.22	0.22	0.22
12.728	0.22	0.22	0.22	0.22	0.22	0.22	0.22
12.811	0.22	0.22	0.22	0.22	0.22	0.22	0.22
12.894	0.22	0.22	0.22	0.21	0.21	0.21	0.21
12.977	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.060	0.21	0.21	0.21	0.21	0.21	0.21	0.21
13.143	0.21	0.21	0.20	0.20	0.20	0.20	0.20
13.226	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.309	0.20	0.20	0.20	0.20	0.20	0.20	0.20
13.393	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.476	0.19	0.19	0.19	0.19	0.19	0.19	0.19
13.559	0.19	0.19	0.19	0.19	0.19	0.18	0.18
13.642	0.18	0.18	0.18	0.18	0.18	0.18	0.18
13.725	0.18	0.18	0.18	0.18	0.18	0.18	0.18

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

13.808	0.18	0.18	0.17	0.17	0.17	0.17	0.17
13.891	0.17	0.17	0.17	0.17	0.17	0.17	0.17
13.974	0.17	0.17	0.17	0.17	0.17	0.17	0.17
14.057	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.141	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.224	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.307	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.390	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.473	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.556	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.639	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.722	0.16	0.16	0.16	0.16	0.16	0.16	0.16
14.806	0.16	0.16	0.16	0.16	0.16	0.15	0.15
14.889	0.15	0.15	0.15	0.15	0.15	0.15	0.15

The Herald
Prop. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
14.972	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.055	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.138	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.221	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.304	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.387	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.470	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.554	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.637	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.720	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.803	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.886	0.15	0.15	0.15	0.15	0.15	0.15	0.15
15.969	0.15	0.15	0.15	0.15	0.15	0.15	0.15
16.052	0.15	0.15	0.15	0.14	0.14	0.14	0.14

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

16.135	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.219	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.302	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.385	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.468	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.551	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.634	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.717	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.800	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.883	0.14	0.14	0.14	0.14	0.14	0.14	0.14
16.967	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.050	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.133	0.14	0.14	0.14	0.14	0.14	0.14	0.14
17.216	0.14	0.14	0.13	0.13	0.13	0.13	0.13
17.299	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.382	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.465	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.548	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.631	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.715	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.798	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.881	0.13	0.13	0.13	0.13	0.13	0.13	0.13
17.964	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.047	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.130	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.213	0.13	0.13	0.13	0.13	0.13	0.13	0.13
18.296	0.13	0.13	0.13	0.13	0.12	0.12	0.12
18.380	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.463	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.546	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.629	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.712	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.795	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.878	0.12	0.12	0.12	0.12	0.12	0.12	0.12
18.961	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.044	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.128	0.12	0.12	0.12	0.12	0.12	0.12	0.12

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

The Herald
Prop. 2 Year

Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
19.211	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.294	0.12	0.12	0.12	0.12	0.12	0.12	0.12
19.377	0.12	0.12	0.12	0.11	0.11	0.11	0.11
19.460	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.543	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.626	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.709	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.792	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.876	0.11	0.11	0.11	0.11	0.11	0.11	0.11
19.959	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.042	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.125	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.208	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.291	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.374	0.11	0.11	0.11	0.11	0.11	0.11	0.11
20.457	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.541	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.624	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.707	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.790	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.873	0.10	0.10	0.10	0.10	0.10	0.10	0.10
20.956	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.039	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.122	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.205	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.289	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.372	0.10	0.10	0.10	0.10	0.10	0.10	0.10
21.455	0.10	0.09	0.09	0.09	0.09	0.09	0.09
21.538	0.09	0.09	0.09	0.09	0.09	0.09	0.09

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

21.621	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.704	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.787	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.870	0.09	0.09	0.09	0.09	0.09	0.09	0.09
21.953	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.037	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.120	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.203	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.286	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.369	0.09	0.09	0.09	0.09	0.09	0.09	0.09
22.452	0.09	0.09	0.08	0.08	0.08	0.08	0.08
22.535	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.618	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.702	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.785	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.868	0.08	0.08	0.08	0.08	0.08	0.08	0.08
22.951	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.034	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.117	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.200	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.283	0.08	0.08	0.08	0.08	0.08	0.08	0.08
23.366	0.08	0.08	0.08	0.08	0.08	0.08	0.08

Line Start Time (hr)	Flow Values @ time increment of 0.012 hr (cfs)						
23.450	0.08	0.07	0.07	0.07	0.07	0.07	0.07
23.533	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.616	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.699	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.782	0.07	0.07	0.07	0.07	0.07	0.07	0.07
23.865	0.07	0.07	0.07	0.07	0.07	0.07	0.07

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year
STORM 2-Yr
SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

23.948	0.07	0.07	0.07	0.07	0.07	0.07	0.07
24.031	0.07	0.07	0.06	0.06	0.06	0.05	

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year

STORM 2-Yr

SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

The Herald
Prop. 2 Year

Area or Reach Identifier	Drainage Area (sq mi)	Alternate	Peak Flow by Storm 2-Yr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)
Site Area	0.005		2.26				
OUTLET	0.005		2.26				

WinTR-20 Printed Page File TR20.inp Beginning of Input Data List

WinTR-20: Version 1.10 0 0 0.05
erald (continued)
Prop. 2 Year
STORM 2-Yr
SUB-AREA:
Site Area Outlet .00461 90. .188

STREAM REACH:

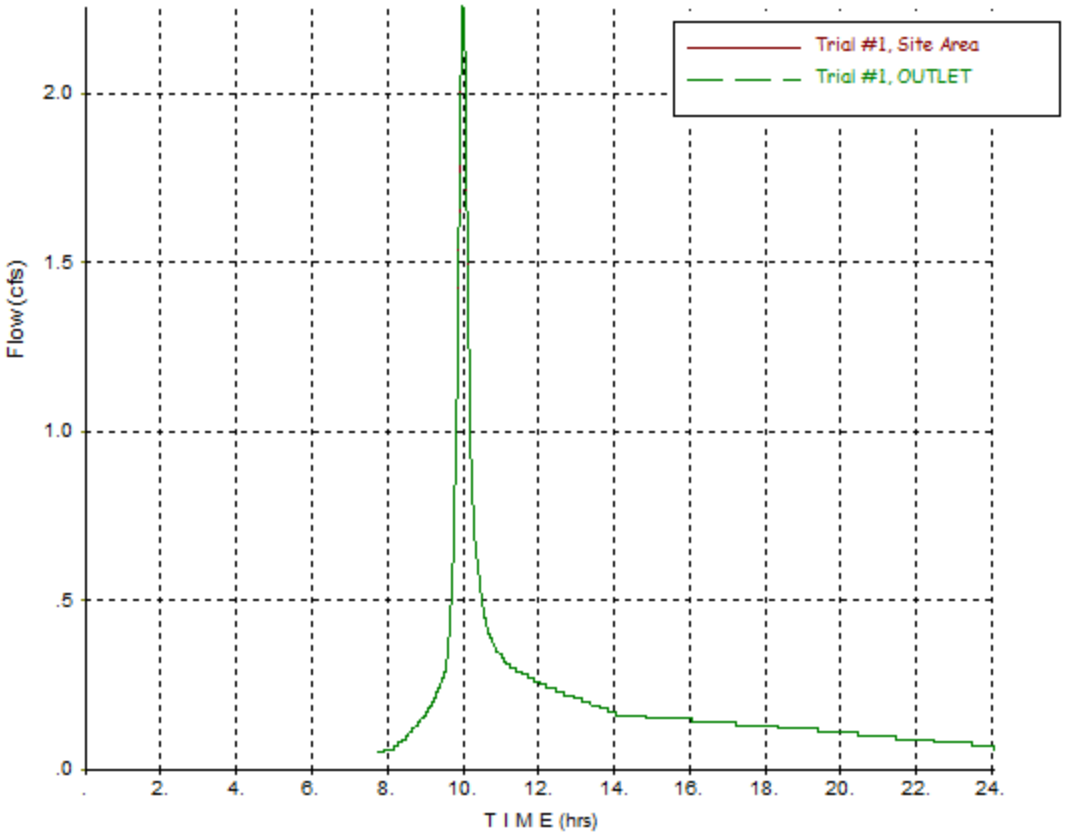
WinTR-55 Output Hydrograph

Project: The Herald

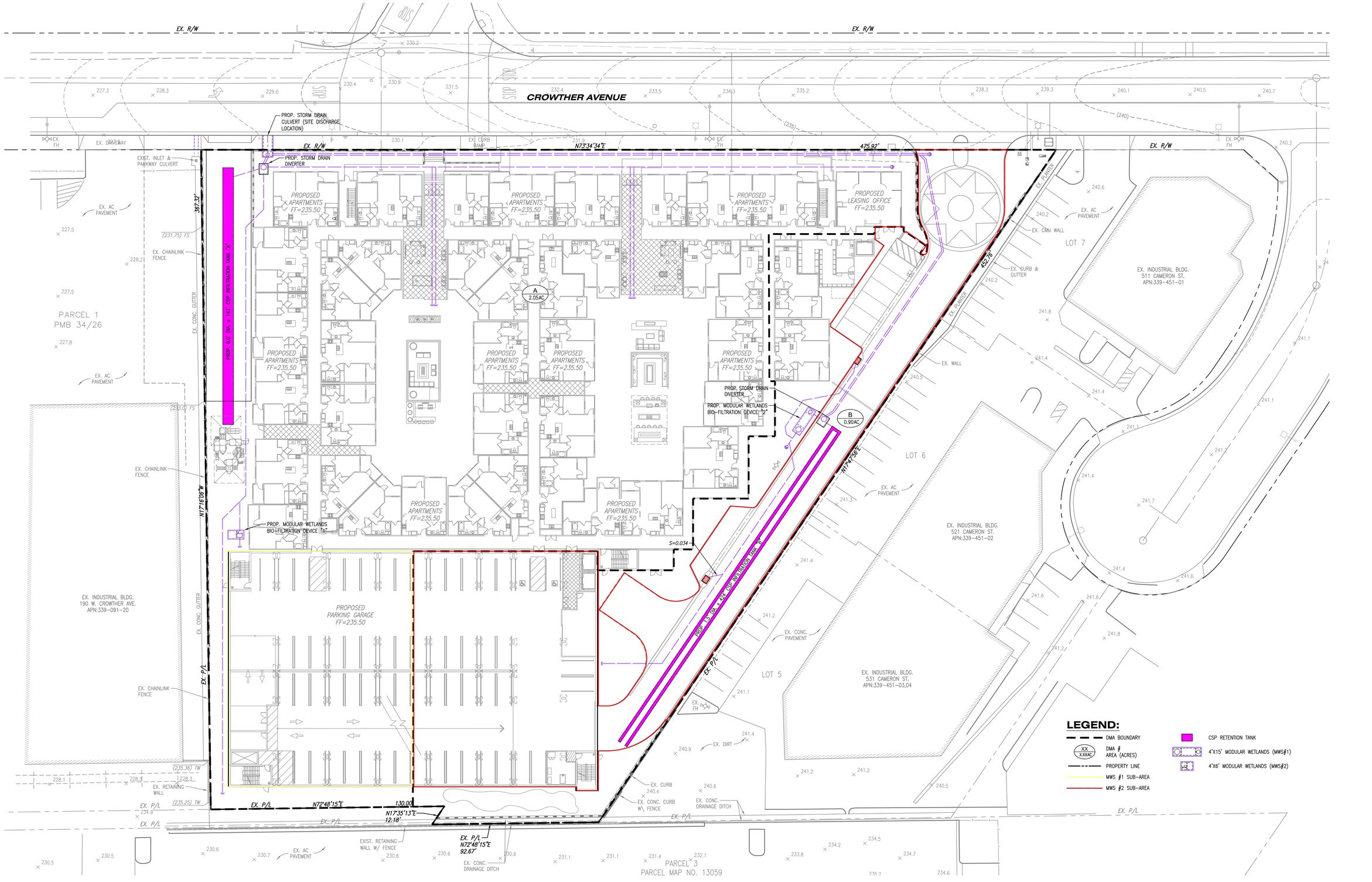
5/5/2017

Subareas: (Site Area, Outlet) Storm: 2-Yr

R:\Integral\Documents\WQMP\Conceptual WQMP\Back up Documents\VIII - Attachment C - Prop.w55



Attachment D BMP Drainage Plan/Site Plan



SCALE: 1"=20' DATE: 05/05/17

MULTIFAMILY DEVELOPMENT

INTEGRAL COMMUNITIES

LID BMP PLAN

PLACENTIA, CALIFORNIA

PREPARED BY:
KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
20411 SW Birch Street - Suite 310 Newport Beach, California 92660
(949) 756-6440 Fax (949) 756-6444

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Attachment F

Noise and Vibration Analysis

HELIX Environmental Planning

Placentia Crowther Project

Noise and Vibration Analysis Report

May 2017

Prepared for:
Integral Communities
888 San Clemente Drive, Suite 100
Newport Beach, CA 92660

Prepared by:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

Placentia Crowther Project
Noise and Vibration Analysis Report

Prepared for:
Integral Communities
888 San Clemente Drive, Suite 100
Newport Beach, CA 92660

Prepared by:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

May 2017

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LIST OF ACRONYMS

ADT	average daily traffic
AGA	Albert Grover & Associates
ANSI	American National Standards Institute
CEQA	California Environmental Quality Act
City	City of Placentia
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibels
FTA	Federal Transit Administration
HVAC	Heating, ventilation, and air conditioning
Hz	Hertz
in/sec	inches per second
kHz	kilohertz
L_{DN}	Day-Night level
L_{EQ}	equivalent sound level
L_{MAX}	maximum noise level
L_V	velocity level
mPa	micro-Pascals
NSLU	noise-sensitive land use
PPV	peak particle velocity
RCNM	Roadway Construction Noise Model
RMS	root mean square
SPL	sound pressure level
STC	Sound Transmission Class
S_{WL}	sound power level
TOD	Transit Oriented Development
USDOT	U.S. Department of Transportation
V	RMS velocity amplitude
VdB	Vibration decibel

EXECUTIVE SUMMARY

This report presents an assessment of potential noise and vibration impacts from construction and operations associated with the proposed Placentia Crowther project (project).

The project is located in the City of Placentia (City) on a 2.95-acre site. The project would construct a 5-story residential building containing 215 residential units and a 7-level parking structure with a rooftop terrace. The project is located approximately 212 feet south of an existing Burlington Northern Santa Fe (BNSF) railway used by freight trains, Metrolink commuter rail, and Amtrak trains. The project is located south of the planned Placentia Metrolink station, and would be within the City's Packing House District Transit Oriented Development (TOD) District.

The project would add some traffic to nearby roadways, but transportation noise impacts to off-site noise-sensitive land uses would be less than significant.

Noise levels from vehicular traffic and train noise would not exceed the City's 55 Community Noise Equivalent Level (CNEL) for the project's exterior use areas. Noise levels at the building façades were modeled at over 60 CNEL, so an exterior-to-interior noise reduction analysis was conducted to determine if the interior noise levels would comply with the Title 24 noise standard of 45 CNEL. The analysis determined that with the implementation of mitigation measure NOI-1, which requires a minimum window standard of Sound Transmission Class (STC) 31, and a wall standard of STC 46, interior noise levels would be below 45 CNEL. Proper ventilation in accordance with the International Building Code would ensure that the windows could remain closed to maintain adequate interior noise levels.

Construction of the project would not cause any noise or vibration impacts to nearby residents. Due to the distance from the nearby railway, impacts from ground-borne vibration and ground-borne noise would be less than significant.

Operational noise sources such as the project's heating, ventilation, and air conditioning (HVAC) noise would not exceed allowable City limits within the noise ordinance for operational sources at the nearest property lines.

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1.0 INTRODUCTION

1.1 Purpose of the Report

This report analyzes potential noise and vibration impacts associated with the proposed Placentia Crowther Project (project). The analysis includes a description of existing conditions in the project vicinity, an assessment of potential impacts associated with project construction, and an evaluation of project operational impacts. Analysis within this report addresses the relevant issues listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

1.2 Project Location

The project is located on a 2.95-acre site in the City of Placentia (City). The site is south of East Crowther Avenue, and west of Cameron Street. The project site approximately 212 feet south of a Burlington Northern Santa Fe (BNSF) railway line used by freight trains, the Metrolink commuter rail system, and Amtrak trains. The project is south of a planned Placentia Metrolink station. The site is located within the City's Packing House Transit Oriented Development (TOD) District. See Figure 1, *Regional Location*, and Figure 2, *Project Vicinity Map*.

1.3 Project Description

The project proposes a multi-family residential development containing 215 residential units, two landscaped courtyards, and a 7-level parking structure with a rooftop terrace. The residences would be located in 5-story buildings. Exterior use areas include the aforementioned landscaped courtyards and rooftop terrace, as well as a tot lot and dog run. A ground-floor leasing office would be located near the northeastern corner of the development. The project also involves the demolition and removal of existing vacant industrial/warehouse buildings, including four buildings, sheet metal canopy structures, a carport, and related infrastructure. See Figure 3a, *Project Site Plan*, and Figure 3b, *Rooftop Terrace and Noise Receivers*.

The project site is zoned and designated in the General Plan as Transit-Oriented Development (TOD).

1.4 Noise and Sound Level Descriptors and Terminology

1.4.1 Descriptors

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day-Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

1.4.2 Terminology

1.4.2.1 *Sound, Noise, and Acoustics*

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

1.4.2.2 *Frequency*

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

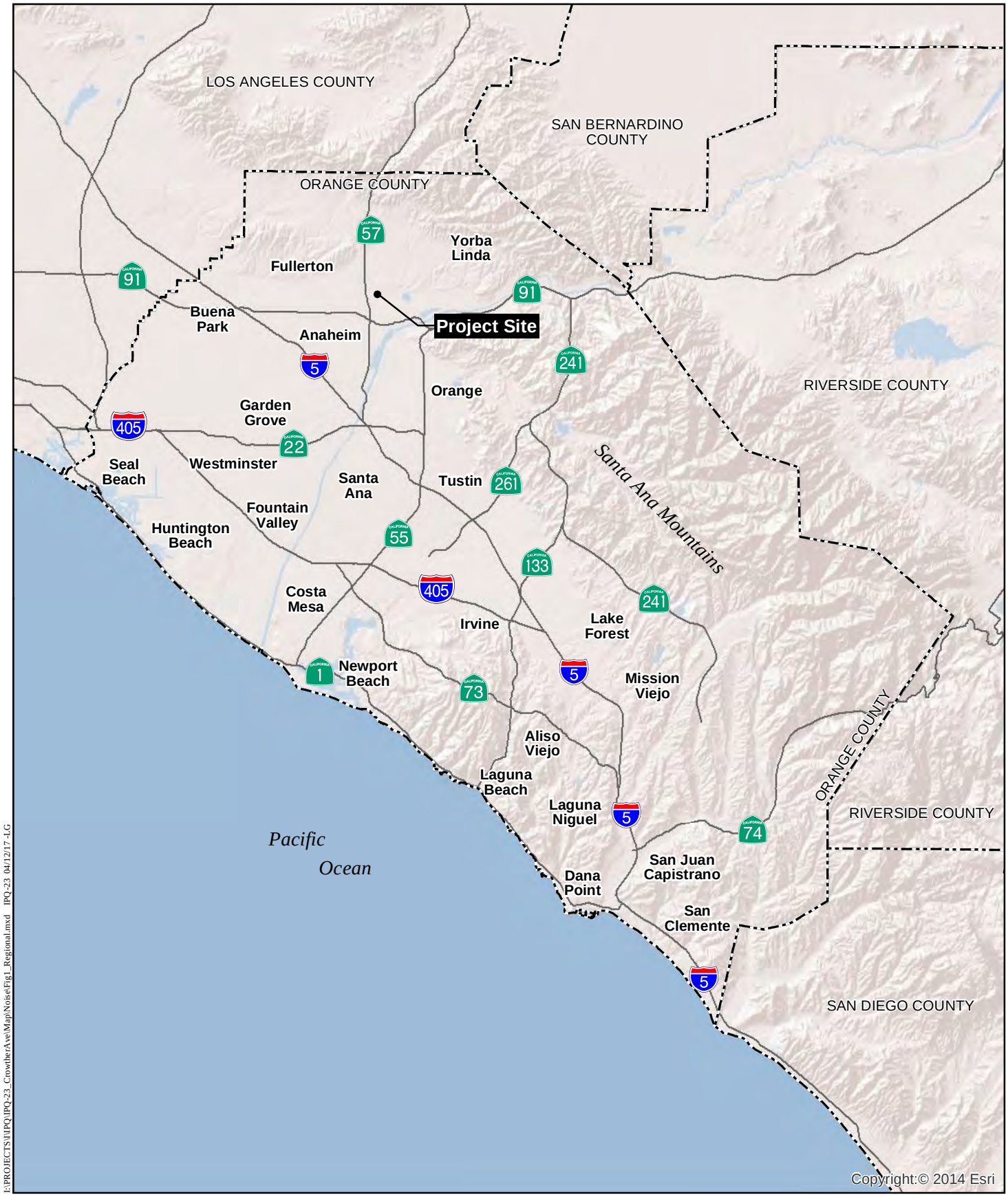
1.4.2.3 *Sound Pressure Levels and Decibels*

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this wide range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA. The threshold of hearing for the human ear is about 0 dBA, which corresponds to 20 mPa.

1.4.2.4 *Addition of Decibels*

Because decibels are logarithmic units, SPL cannot be added or subtracted through standard arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than from one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dBA—rather, they would combine to produce 73 dBA. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dBA louder than one source.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dBA changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 Hz–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dBA are generally not perceptible. It is widely accepted, however, that people begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dBA



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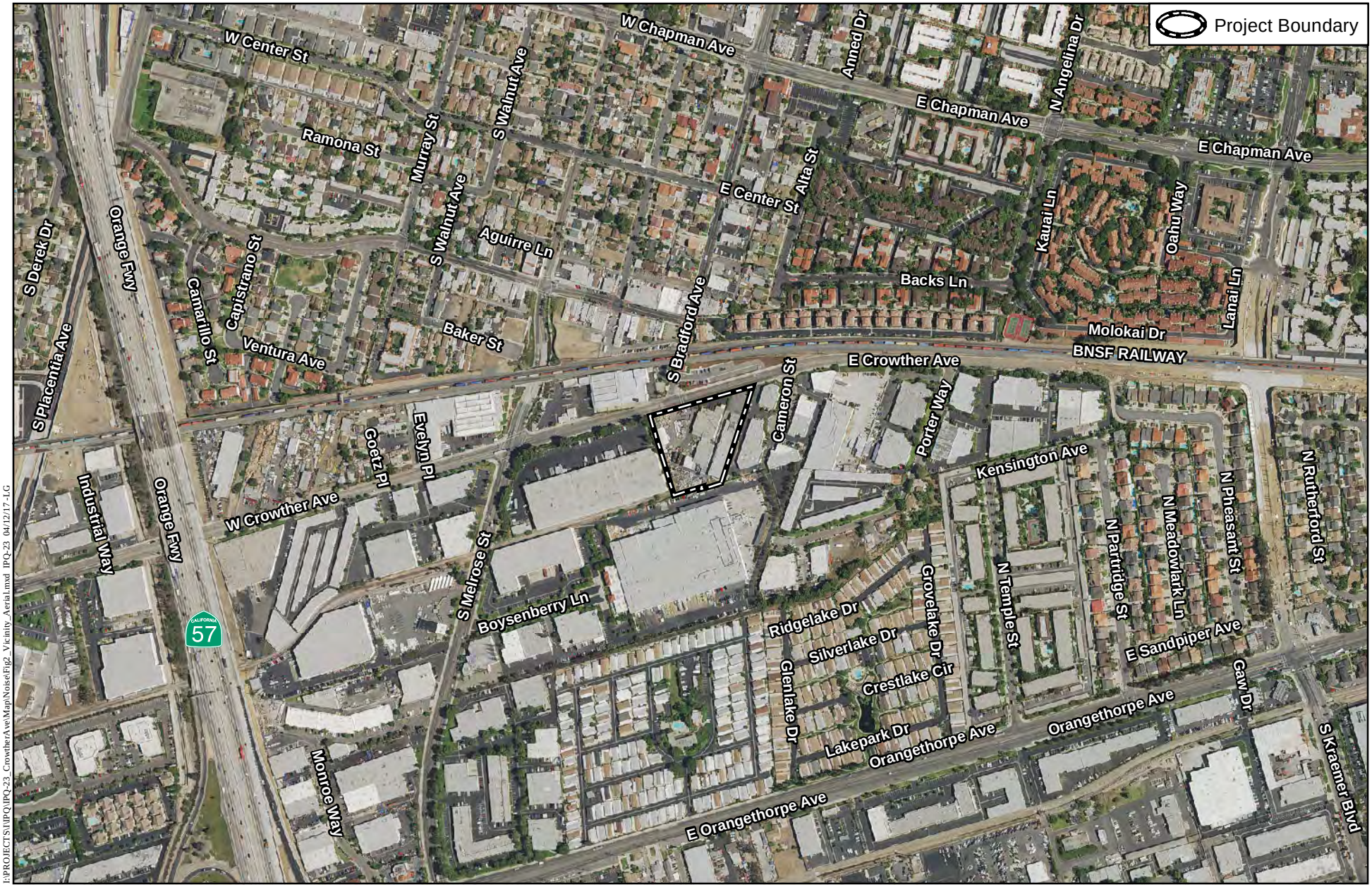
Regional Location

EAST CROWTHER AVENUE

HELIX Environmental Planning

N 0 6 Miles

Figure 1



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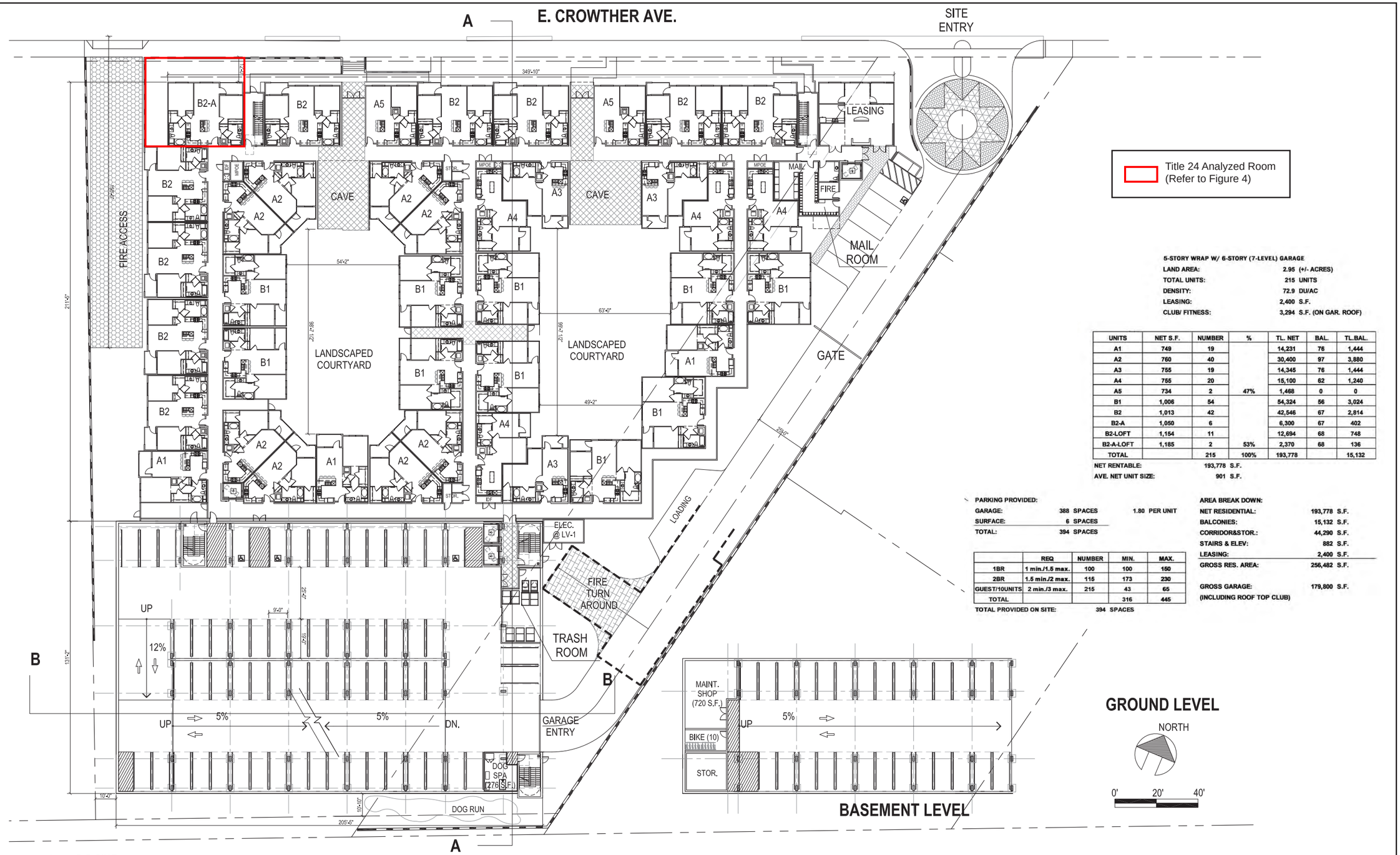
Project Vicinity Map

EAST CROWTHER AVENUE

HELIX Environmental Planning

N 0 600 Feet

Figure 2



5-STORY WRAP W/ 6-STORY (7-LEVEL) GARAGE

LAND AREA:	2.95 (+/- ACRES)
TOTAL UNITS:	215 UNITS
DENSITY:	72.9 DU/AC
LEASING:	2,400 S.F.
CLUB/ FITNESS:	3,294 S.F. (ON GAR. ROOF)

UNITS	NET S.F.	NUMBER	%	TL. NET	BAL.	TL.BAL.
A1	749	19		14,231	76	1,444
A2	760	40		30,400	97	3,880
A3	755	19		14,345	76	1,444
A4	755	20		15,100	62	1,240
A5	734	2	47%	1,468	0	0
B1	1,006	54		54,324	56	3,024
B2	1,013	42		42,546	67	2,814
B2-A	1,050	6		6,300	67	402
B2-LOFT	1,154	11		12,694	68	748
B2-A-LOFT	1,185	2	53%	2,370	68	136
TOTAL		215	100%	193,778		15,132
NET RENTABLE:		193,778 S.F.				
AVE. NET UNIT SIZE:		901 S.F.				

PARKING PROVIDED:

GARAGE:	388 SPACES	1.80 PER UNIT
SURFACE:	6 SPACES	
TOTAL:	394 SPACES	

	REQ	NUMBER	MIN.	MAX.
1BR	1 min./1.5 max.	100	100	150
2BR	1.5 min./2 max.	115	173	230
GUEST/10UNITS	2 min./3 max.	215	43	65
TOTAL			316	445

TOTAL PROVIDED ON SITE: 394 SPACES

AREA BREAK DOWN:

NET RESIDENTIAL:	193,778 S.F.
BALCONIES:	15,132 S.F.
CORRIDOR&STOR.:	44,290 S.F.
STAIRS & ELEV:	882 S.F.
LEASING:	2,400 S.F.
GROSS RES. AREA:	256,482 S.F.
GROSS GARAGE: (INCLUDING ROOF TOP CLUB)	179,800 S.F.

Source: Humphreys and Partners Architects, L.P. 2017

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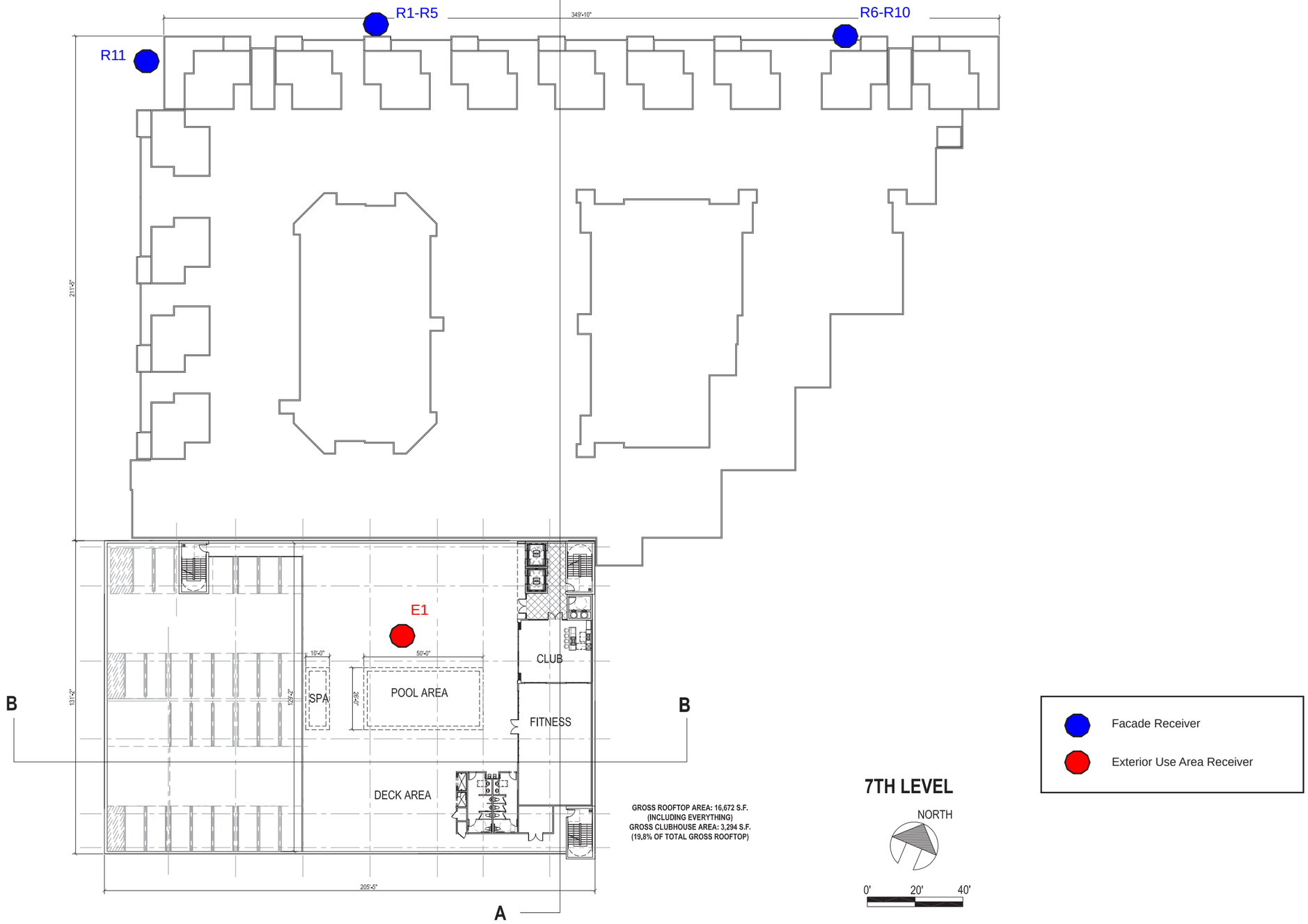
Project Site Plan

EAST CROWTHER AVENUE

Figure 3a

HELIX Environmental Planning



Source: Humphreys and Partners Architects, L.P. 2017

Rooftop Terrace and Noise Receivers

EAST CROWTHER AVENUE

Figure 3b

HELIX Environmental Planning

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increase is generally perceived as a distinctly noticeable increase, and a 10 dBA increase is generally perceived as a doubling of loudness.

No known studies have directly correlated the ability of a healthy human ear to discern specific levels of change in traffic noise over a 24-hour period. Many ordinances, however, specify a change of 3 CNEL as the significant impact threshold. This is based on the concept of a doubling in noise energy resulting in a 3 dBA change in noise, which is the amount of change in noise necessary for the increase to be perceptible to the average healthy human ear.

1.4.3 Noise-Sensitive Land Uses

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors are individual locations that may be affected by noise. NSLUs in the project vicinity include residences located approximately 450 feet to the north.

1.5 Vibration

Ground vibration is an oscillatory motion of soil particles with respect to the equilibrium position that can be described in terms of displacement, velocity, or acceleration.

1.5.1 Ground-borne Noise

The audible sound caused by the vibration of room surfaces is called ground-borne noise. The annoyance potential of ground-borne noise is usually characterized by using the A-weighted sound level. Although the A-weighted level is almost exclusively used as the descriptor for community noise, there are potential problems when characterizing low-frequency noise using A-weighting. This is because of the nonlinearity of human hearing, which causes sounds dominated by low-frequency components to seem louder than broadband sounds that have the same A-weighted level. The result is that a ground-borne noise level of 40 dBA sounds louder than 40-dBA broadband airborne noise. This anomaly is accounted for by setting the limits for ground-borne noise lower than would be the case for broadband noise.

1.5.2 Vibration Waves

A Rayleigh wave (R-wave), is a seismic surface wave causing the ground to shake in an elliptical motion, with no transverse, or perpendicular, motion. Rayleigh waves include both longitudinal and transverse motions that decrease exponentially in amplitude as distance from the surface increases. Trains and other surface disturbance primarily create energy in R-waves.

The normal propagation path for rail vibration is similar to that of acoustic propagation. The vibration wave travels outward and downward from the rail. Vibration levels reduce with distance from the source; this is primarily due to the damping of the vibration that occurs as the wave travels through soil.

1.5.3 Vibration Descriptors

Vibration is measured in either feet or inches. Acceleration is measured by comparing acceleration to that of the Earth's gravity. These units of acceleration or velocity are relative to time in seconds and are noted as in/sec^2 for acceleration and in/sec for velocity.

Vibration effects can be described by its peak and root mean square (RMS) amplitudes. Building damage is often discussed in terms of peak velocity, or peak particle velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is related to the stresses that are experienced by buildings; it is often used in monitoring of blasting vibration and to discuss construction vibration. PPV is appropriate for evaluating the potential for building damage, and RMS amplitude is useful for assessing human annoyance.

Decibel notation is commonly used for vibration. Decibel notation serves to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as: L_V=20 × LOG10(V/V_{ref}), where Lv is the velocity level in decibels, V is the RMS velocity amplitude, and V_{ref} is the reference velocity amplitude. The reference must be specified whenever a quantity is expressed in terms of decibels. All railroad vibration levels in this report are referenced to 1×10^{-6} in/sec with the notation VdB for vibration decibels.

1.5.4 Typical levels of Ground-borne Vibration and Noise

The background vibration velocity level in residential areas is usually 50 VdB or lower. Humans can perceive vibration velocity levels of approximately 65 VdB. Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads.

1.5.5 Vibration Sensitive Land Uses

Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations are considered vibration-sensitive. The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. Other vibration sensitive land uses include residences and buildings where people sleep such as hotels, hospitals, and dormitories.

1.6 Regulatory Framework

California Noise Control Act

The California Noise Control Act is a section within the California Health and Safety Code that describes excessive noise as a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and

abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Noise Insulation Standards [California's Title 24 Noise Standards. Cal. Adm. Code Title 24, Chap. 2-35]

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for multi-family residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or L_{DN}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{DN}) of 45 dBA or less.

City of Placentia General Plan, Noise Element

The Noise Element of the City's General Plan was completed in 1974. Rail and roadways are identified as the main generators of noise, with future residences along the railway corridor as a specific concern. The Noise Element lists three standards of acceptability for noise exposure:

1) Clearly Acceptable: The noise exposure that is such that both the indoor and outdoor environments are pleasant.
2) Discretionary
    a. Normally Acceptable: The noise exposure is great enough to be of some concern but common building constructions will make the indoor environment acceptable, even for sleeping quarters, and the outdoor environment will be reasonably pleasant and not impair hearing
    b. Normally Unacceptable: the noise exposure is significantly more severe so that unusual and costly building constructions are necessary to insure some tranquility indoors, and barriers must be erected between the site and prominent noise sources to make the outdoor environment tolerable and not harmful enough to impair hearing.
3) Clearly Unacceptable: The noise exposure at the site is so severe that persistent noise impairs hearing and the outdoor environment would be intolerable.

The maximum ambient noise base level in a residential district shall be 45 dBA when read in any inhabitable room and shall not exceed 55 dBA at the property line for a cumulative period of more than 15 minutes in any hour. The maximum ambient base noise level in a residential district adjacent to a commercial or industrial district shall be 45 dBA when read in any inhabitable room and shall not exceed 60 dBA at the property line for a cumulative period of more than 15 minutes in any hour.

Noise standards modified from the United States Department of Housing and Urban Development Guidelines and California's Office of Planning and Research Guidelines are shown in Table 1 below.

Table 1
NOISE AND LAND USE COMPATIBILITY GUIDELINES

Land Use Category	Community Noise Exposure Ldn or CNEL, dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density	50-60	60-65	65-75	75-85
Residential – Multiple Family	50-60	60-65	65-75	75-85
Transient Lodging – Motels, Hotels	50-65	65-70	70-80	80-85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-60	60-65	65-80	80-85
Auditoriums, Concert Halls, Amphitheaters	N/A	50-65	N/A	65-85
Sports Arenas, Outdoor Spectator Sports	N/A	50-70	N/A	70-85
Playgrounds, Neighborhood Parks	50-70	N/A	70-75	75-85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-70	N/A	70-80	80-85
Office Buildings, Business Commercial and Professional	50-67.5	67.5-75	75-85	N/A
Industrial, Manufacturing, Utilities, Agriculture	50-70	70-75	75-85	N/A

Notes:
Normally Acceptable: Specified Land Use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development should generally not be undertaken.
N/A: Not Applicable.
Source: Modified from the U.S. Department of Housing and Urban Development Guidelines and State of California Standards.

Exceptions to these standards are made for construction. Construction and operation of construction equipment shall not be permitted between 6:00 p.m. and 7:00 a.m. The ambient noise level shall not exceed 75 dBA for a cumulative period of one hour. Furthermore, maximum noise levels are not to exceed 110 dBA.

City of Placentia Noise Ordinance (Municipal Code, Chapter 23.76, Noise Control)

Chapters 25.76.050 and 25.76.060 regulate exterior and interior noise standards, respectively. Table 2, *Applicable Exterior Noise Standards*, lists the applicable exterior property line noise limits.

Table 2 APPLICABLE EXTERIOR NOISE STANDARDS		
Zone	**Time**	**Noise Level (dBA)**
All Residential Property	7:00 a.m. – 10:00 p. m. 10:00 p.m. – 7:00 a. m.	55 50
All Commercial Property	Anytime	65
All Industrial Property	Anytime	70

Source: City of Placentia Municipal Code Chapter 23.76.050
In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5 dBA.

It is unlawful for any person at any location within the City to create any noise, or to allow the creation of any noise when the foregoing causes the noise level, when measured on any other residential, commercial, or industrial property, to exceed:

1) The noise standards for a cumulative period of time more than 30 minutes in any hour; or
2) The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
3) The noise standard plus 10 dBA for a cumulative period of more than five minutes in any hour; or
4) The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour; or
5) The noise standard plus 20 dBA for any period of time.

In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Interior noise standards for all residential property are 55 dBA between 7:00 a.m. and 10:00 p.m. and 45 dBA between 10:00 p.m. and 7:00 a.m. It is unlawful for any person to create any noise to exceed:

1) The interior noise standard for a cumulative period of more than five (5) minutes in any hour; or

2) The interior noise standard plus five (5) dBA for a cumulative period of more than one (1) minute in any hour; or

3) Interior noise standard plus ten (10) dBA for any period of time.

In the event the ambient noise level exceeds either of the first two noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Chapter 23.76.085 prohibits the use of a locomotive bell, air siren, steam, or air whistle at all gate-protected grade crossings except to avert an immediate threat to life or property.

Chapter 23.81 of the Municipal Code permits construction activity between 7:00 a.m. and 7:00 p.m. Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturdays.

The project site is zoned for Transit-Oriented Development (TOD), therefore the residential limits apply.

Federal Transit Administration Guidelines

The Federal Transit Administration (FTA) has established guidelines for the evaluation of transit noise and vibration for trains that operate at speeds generally less than 90 mph. The guidelines are set forth in the Transit Noise and Vibration Impact Assessment (FTA 2006). The guidelines establish impact criteria for rail noise and vibration, define sensitive receivers, and provide methodology for assessing impacts. These guidelines are appropriate to use for the existing rail operations in the vicinity of the proposed project and are therefore used in this analysis.

Three categories are typically used to differentiate the sensitivity to ground-borne vibration:

- **Category 1** includes buildings where vibration would interfere with interior operations. Typical land uses covered by Category 1 are manufacturing, hospitals with vibration-sensitive equipment, and research operations. The degree of sensitivity to vibration depends on the specific equipment that will be affected by the vibration.
- **Category 2** includes residences and buildings where people sleep (hotels, hospitals, and dormitories).
- **Category 3** includes institutional land uses with primarily daytime use that do not have vibration-sensitive equipment (schools, churches, office buildings).

The impact criteria for general assessment are based on the vibration-sensitive land use categories. Table 3 describes the FTA's ground-borne vibration and ground-borne noise impact criteria for general assessment.

Table 3
GROUND-BORNE VIBRATION AND GROUND-BORNE NOISE IMPACT CRITERIA FOR GENERAL ASSESSMENT

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro-in/sec)			Ground-Borne Noise Impact Levels (dB re 20 mPa)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[5]	N/A[5]	N/A[5]
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Source: FTA 2006

[1] Frequent Events is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.

[2] Occasional Events is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.

[3] Infrequent Events is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

[4] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

[5] Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

The proposed project would be considered a Category 2 land use and would be subject to maximum ground-borne vibration impact levels of 72 VdB and ground-borne noise of 35 dBA.

2.0 ENVIRONMENTAL SETTING

2.1 Surrounding Land Uses

The project site is within a predominantly urban area, with existing adjacent uses including industrial development to the east, west, and south; and East Crowther Avenue, a parking lot, and a graded/undeveloped lot to the north. More distant land uses include the Metrolink rail corridor and mixed residential, commercial, institutional (school/church), and recreational (park) uses north of East Crowther Avenue; a mix of residential and commercial sites to the east and south; and predominantly commercial and industrial development to the west. Land use and

zoning designations in surrounding areas reflect these uses, and include a number of residential, commercial, and industrial/manufacturing categories.

2.2 Existing Noise Environment

The existing noise environment includes noise from nearby industrial uses to the south, east, and west, nearby train traffic, and some vehicular traffic on East Crowther Avenue. Existing industrial uses utilize large air-handling systems, which are the main noise sources contributing to the ambient noise environment in the area. Metrolink trains periodically pass by the site, causing short bursts of loud noise levels. Nine Metrolink commuter trains pass by the site in a given day, with three trains during the busiest hour between 6:00 a.m. and 7:00 a.m. Other trains include two daily Amtrak Southwest Chief trains and freight train traffic during nighttime and daytime hours. An estimated 75 freight trains pass the site per day, which is expected to rise to 125 per day by 2025 (Orange County Transit Authority 2017). The project is subject to some distant aircraft noise, though the site is not located near any active airports. The nearest airport is Fullerton Municipal Airport, located approximately six miles to the west.

2.2.1 Ambient Noise Survey

Two measurements on a single site were included in the ambient noise survey. The measurement site was located on the project site approximately 50 feet south of East Crowther Avenue. One measurement was conducted for 15 minutes that included nearby traffic noise. Traffic counts were recorded for automobiles, medium-size trucks (double-tires/two axles), and heavy trucks (three or more axles). Traffic counts for the timed measurement and the one-hour equivalent volume are shown in Table 5, *Recorded Traffic Volume and Vehicle Mix.*

A second measurement was taken to isolate background ambient noise without traffic from East Crowther Avenue. The measured noise levels and related environmental conditions are shown in Table 4, *Noise Measurement Results.*

Table 4 NOISE MEASUREMENT RESULTS	
Measurement 1 - Traffic	
Date:	May 10, 2017
Conditions:	Temperature: 70°F. Wind Speed: 0 mph. 50% humidity.
Time:	10:35 a.m. – 10:50 a.m.
Location:	110 East Crowther Avenue
Measured Noise Level:	64.5 dBA L_{EQ}
Notes:	Paused for light aircraft overflight and backup alarm nearby
Measurement 2 – No Traffic	
Date:	May 10, 2017
Conditions:	Temperature: 70°F. Wind Speed: 0 mph. 50% humidity.
Time:	10:50 a.m. – 11:05 a.m.
Location:	110 East Crowther Avenue
Measured Noise Level:	54.2 dBA L_{EQ}
Notes:	Nearby industrial facilities' air handling systems contributed to ambient noise level. Measurement did not include car or train pass-bys.

Table 5
RECORDED TRAFFIC VOLUME AND VEHICLE MIX

Roadway	Traffic	Autos	MT[1]	HT[2]
East Crowther Avenue	15-minute Count	54	6	0
	One-hour Equivalent	216	24	0
	Percent	**90%**	**10%**	**0%**

[1] Medium Trucks (double tires/two axles)
[2] Heavy Trucks (three or more axles)

3.0 ANALYSIS METHODOLOGY AND ASSUMPTIONS

3.1 Methodology

3.1.1 Ambient Noise Survey

The following equipment was used to measure existing noise levels at the project site:

- Larson Davis Model 831 Meter
- Larson Davis Model CA250 Calibrator
- Windscreen and tripod for the sound level meter

The sound level meter was field-calibrated immediately prior to the noise measurements to ensure accuracy. All sound level measurements conducted and presented in this report were made with a sound level meter that conforms to the American National Standards Institute (ANSI) specifications for sound level meters (ANSI SI.4-1983 R2006). All instruments were

maintained with National Institute of Standards and Technology traceable calibration per the manufacturers' standards.

3.1.2 Noise Modeling Software

Modeling of the exterior noise environment for this report was accomplished using two computer noise models: Computer Aided Noise Abatement (CadnaA) version 2017 and Traffic Noise Model (TNM) version 2.5. CadnaA is a model-based computer program developed by *DataKustik* for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed CadnaA model, and uses the most up-to-date calculation standards to predict outdoor noise impacts. CadnaA traffic noise prediction is based on the data and methodology used in the TNM. The TNM was released in February 2004 by the U.S. Department of Transportation (USDOT), and calculates the daytime average hourly L_{EQ} from three-dimensional model inputs and traffic data (Caltrans 2004). The TNM used in this analysis was developed from Computer Aided Design (CAD) plans provided by the project architect. Input variables included railway alignment, locomotive types and lengths, train speeds, and HVAC unit types and locations.

The one-hour L_{EQ} noise level is calculated utilizing peak-hour traffic; peak-hour traffic volumes can be estimated based on the assumption that 10 percent of the average daily traffic would occur during a peak hour. The model-calculated one-hour L_{EQ} noise output is the equivalent to the CNEL (Caltrans 2009).

Due to the high ambient noise levels from nearby industrial facilities, the measured noise level from the May 11, 2017 site visit was not used for model calibration.

Project construction noise was analyzed using the Roadway Construction Noise Model (RCNM; USDOT 2008), which utilizes estimates of sound levels from standard construction equipment.

3.2 Assumptions

3.2.1 Construction

3.2.1.1 *General Equipment Assumptions*

Construction would require the use of equipment throughout the site for the full term of construction. Standard equipment used on the site is assumed to include an excavator, front-end loader, grader, scraper, vibratory roller, and bulldozer.

The most likely source of vibration during project construction would be a vibratory roller, which may be used to achieve soil compaction as part of foundation construction and fill compaction.

3.2.2 Operation

Anticipated project site operational noise sources include heating, ventilation, and air conditioning (HVAC) systems and vehicular traffic.

3.2.2.1 *Residential Air Conditioners*

Specific planning data for the future HVAC systems is not available at this stage of project design; however, analysis using a typical to larger-sized residential condenser mounted on the rooftop provides a reasonable basis for analysis. The unit used in this analysis is a Carrier 38HDR060 split system condenser (see Appendix A, *Carrier 38HDR060 Split System Condenser*). The manufacturer's noise data is provided below in Table 6, *Carrier HDR060 Condenser Noise.*

Table 6
CARRIER 38HDR060 CONDENSER NOISE

Noise Levels in Decibels[1] (dB) Measured at Octave Frequencies							Overall Noise Level in A-weighted Scale (dBA)[1]
125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
63.0	61.5	64.0	66.5	66.0	64.5	55.5	72.0

[1] Sound Power Levels (S_{WL})
Hz = Hertz; kHz = kilohertz

3.2.2.2 *Vehicular Traffic*

Traffic data for roadways in the project vicinity are based on volumes provided in the project's traffic analysis (Fehr & Peers 2017), which are in part based on the Traffic Impact Study for the Proposed Packing House Area Redevelopment (Albert Grover & Associates [AGA] 2016). The Memorandum assumed a total of 1,430 average daily trips (ADT) due to the project. After subtracting trips from the site's existing use, and after a transit reduction due to the project's proximity to the future Metrolink station, the project would contribute 275 net new daily trips to nearby roadways.

The AGA study provided existing (2016) traffic volumes for nearby intersections and traffic volumes for the area's buildout in 2035. These intersection traffic volumes were used to calculate roadway segment volumes. Under the assumption that 10 percent of ADT would occur during a peak hour, the project would produce approximately 28 trips during a given hour. All 28 trips were calculated for each segment as a conservative assumption. Peak hour traffic volumes on nearby streets are shown in Table 7, *Existing and Future Traffic Volumes*.

Table 7 EXISTING AND FUTURE TRAFFIC VOLUMES				
Roadway Segment	**Peak Hour Traffic**			
	Existing	**Project**	**Existing + Project**	**2035 Buildout + Project**
Crowther Avenue				
Placentia Ave. to Melrose Ave.	474	28	502	661
Melrose St. to Kramer Blvd.	509	28	537	1,219
Melrose Street				
Orangethorpe Ave. to Crowther Ave.	892	28	920	1,808
Crowther Ave. to Chapman Ave.	709	28	737	1,604

Source: Fehr & Peers 2017

3.2.2.3 *Railway Noise and Vibration*

The project is located along a rail line between Fullerton and Corona upon which carries passenger trains (Amtrak, Metrolink) and freight trains. The project is located between the Fullerton Transportation Center and the West Corona station. A total of nine Metrolink commuter trains pass the site per day. During the busiest hour, two Metrolink trains pass the site on the westbound tracks and one train passes the site on the eastbound tracks for a total of three Metrolink trains between 6:00 a.m. and 7:00 a.m. on weekdays. Metrolink trains are approximately 500 feet in length based on the assumption of five passenger cars and a single locomotive (Metrolink 2014). Based on distance between stations and schedule, it was assumed that Metrolink trains would be travelling approximately 45 mph. Two Amtrak passenger trains pass the site daily during nighttime hours.

No set freight schedule is available, but the line is anticipated to carry approximately 125 daily freight trains by 2025 (Orange County Transportation Authority 2017). This equates to approximately five freight trains per hour during daytime and nighttime hours. A freight train is estimated to consist of 4 locomotives and 75 cars, traveling at approximately 35 mph.

There are no level rail crossings within the vicinity of the project. The nearest crossings are approximately 1.5 mile west and 2 miles east of the project site. Therefore, no noise from train horns or crossing bells is anticipated along the railway.

For a conservative estimate of railway noise and vibration, analysis assumes project completion prior to construction of the future Placentia Metrolink station. Therefore, this analysis makes the conservative assumption that commuter trains do not reduce speed or stop.

3.3 Guidelines for the Determination of Significance

Based on Appendix G of the CEQA Guidelines and the U.S. Department of Housing and Urban Management, implementation of the project would result in a significant adverse impact if it would result in:

Threshold 1: *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.*

According to the guidelines developed by the U.S. Department of Housing and Urban Management and the State of California, the project would have a significant impact if it would expose proposed residential uses to exterior noise levels exceeding the "normally acceptable" threshold of 60 CNEL. Per Title 24 standards, interior noise levels would be significant if they exceed 45 CNEL. According to the City Noise Ordinance, the project would have a significant impact if it would generate noise levels at nearby residential uses to noise levels of 55 dBA from 7:00 a.m. to 10:00 p.m. and 50 dBA from 10:00 p.m. to 7:00 a.m., at commercial properties to noise levels of 65 dBA at any time, and industrial properties to noise levels of 70 dBA at any time.

Threshold 2: *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.*

According to the FTA Transit Noise and Vibration Impact Assessment (FTA 2006), excessive railroad ground-borne vibration for a Category 2 land use is defined as equal to or in excess of 72 VdB. For construction equipment, excessive ground-borne vibration is defined as equal or in excess of 0.4 inches per second (in/sec) PPV (Caltrans 2013).

Threshold 3: *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.*

Based on the City of Placentia General Plan, traffic-related noise impacts are considered significant in areas where existing traffic noise exceeds 55 CNEL (in residential areas) and implementation of the proposed project results in a 3 CNEL or greater increase in traffic noise on the roadway segment.

Threshold 4: *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.*

According to the City of Placentia General Plan, construction activity would be considered significant for nearby residences if it exceeds 75 dBA for a cumulative one-hour, or a maximum noise level of 110 dBA. The City noise ordinance prohibits construction outside the hours of 7:00 p.m. and 7:00 a.m. from Monday through Friday and 9:00 a.m. through 6:00 p.m. on Saturdays.

Threshold 5: *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 use airport or private airstrip, expose people residing or working in the project area to excessive noise.*

Excessive noise exposure is defined as noise levels that exceed the standards in the Placentia General Plan for the associated land use.

4.0 IMPACTS

4.1 Issue 1: Excessive Noise Levels

Would the project expose persons to or generate noise levels in excess of standards established in the City of Placentia General Plan or noise ordinance?

4.1.1 On-site Exterior Use Area Noise Exposure

4.1.1.1 *Transportation (Combined Railway and Roadway) Noise*

As noted in the assumptions listed in Section 3.2.2.2, future roadway traffic noise levels presented in this analysis are based on traffic volumes provided by the project's traffic analysis (Fehr & Peers 2017) and from the Traffic Impact Study for the Proposed Packing House Area Redevelopment (AGA 2016). Because the highest traffic volumes were estimated under the 2035 Buildout + Project scenario, this scenario was used to conservatively estimate on-site traffic noise impacts (see Table 7). Although the roadway's speed limit is posted as 45 mph, the presence of a three-way stop sign would reduce speeds to zero directly abutting the project. Road speeds were reduced to 20 mph for modeling purposes.

As noted in the assumptions listed in Section 3.2.2.3, railway noise levels presented in this analysis are based on the number of train trips throughout the day along the BNSF railway corridor. Up to three Metrolink trains may pass the project vicinity during a given hour between 4:00 a.m. and 9:00 p.m. Freight traffic is assumed to be five trips per hour both day and night. Nighttime train traffic includes the two daily Amtrak trains.

For anticipated vehicular and railway noise, multiple receiver locations along the project building's façade were modeled. As shown on Figure 3b, receivers were placed vertically at 2 locations on each floor along the northern façade for a total of 10 receivers (Receivers R1 to R10). A receiver was placed at one location on the ground floor of the western façade (R11) and at the proposed exterior use area on the parking garage rooftop (Receiver E1). Descriptions of each location and results of the modeling are shown in Table 8, *Project Façade and Exterior Use Area Noise Levels* below. Project traffic information and the CadnaA model's train inputs were used to determine noise levels from outside noise sources to the project site. Railway and vehicular traffic were modeled in CadnaA for daytime hours, and nighttime freight and Amtrak traffic were modeled for their respective nighttime hours. The results from the separate models were then combined to calculate the CNEL at the receivers. The CNEL results of this modeling are shown in Table 8 below.

Table 8
PROJECT FAÇADE AND EXTERIOR USE AREA NOISE LEVEL EXPOSURE

Receiver	Location	Noise Levels (CNEL)
R1	West end of north façade, 5 feet from ground	68.8
R2	West end of north façade, 17 feet from ground	68.5
R3	West end of north façade, 29 feet from ground	68.4
R4	West end of north façade, 41 feet from ground	68.4
R5	West end of north façade, 53 feet from ground	68.1
R6	East end of north façade, 5 feet from ground	68.9
R7	East end of north façade, 17 feet from ground	68.7
R8	East end of north façade, 29 feet from ground	68.6
R9	East end of north façade, 41 feet from ground	68.5
R10	East end of north façade, 53 feet from ground	68.4
R11	East façade, 5 feet from ground	66.0
E1	Exterior Use Area (Rooftop Pool Area)	52.6

Note: Noise levels include Metrolink noise, freight train noise, and 2035 Buildout + Project scenario traffic conditions.

As seen in Table 8, noise levels at the northern building façade would be exposed to transportation (rail and traffic) noise that would exceed the allowable residential standards of 60 dBA. The analysis included an exterior use area location (E1) on the parking garage rooftop, which was modeled at 53 dBA, which is within the allowable noise standard. Other exterior use areas on the project site would be within interior courtyards, where exterior noise levels are likely to be lower due to shielding from the surrounding building.

4.1.2 Interior Noise

Building façade noise levels are used to estimate noise levels at road and rail-facing units to determine whether interior noise levels would meet City General Plan and Title 24 standards. Table 8, *Project Façade and Exterior Use Area Noise Levels*, shows the modeling results for the building façades at multiple heights. Locations of the façade receivers used for this analysis are shown on Figure 3b.

As shown in Table 8, building façade noise levels would exceed 60 CNEL on all floors facing the railway. Conservatively assuming that standard architectural materials attenuate noise levels by 15 CNEL, interior noise levels could potentially exceed the Title 24 interior noise standard of 45 CNEL for residences. Impacts related to interior noise levels would therefore be potentially significant.

An exterior-to-interior noise analysis was conducted to calculate expected interior noise levels at a typical unit. The information in the interior noise analysis includes wall heights/lengths, room volumes, window/door tables typical for a standard building plan, and information on any other openings in the building shell. The analysis provides information for the rooms with the highest potential interior noise level and extends these requirements to other similar rooms.

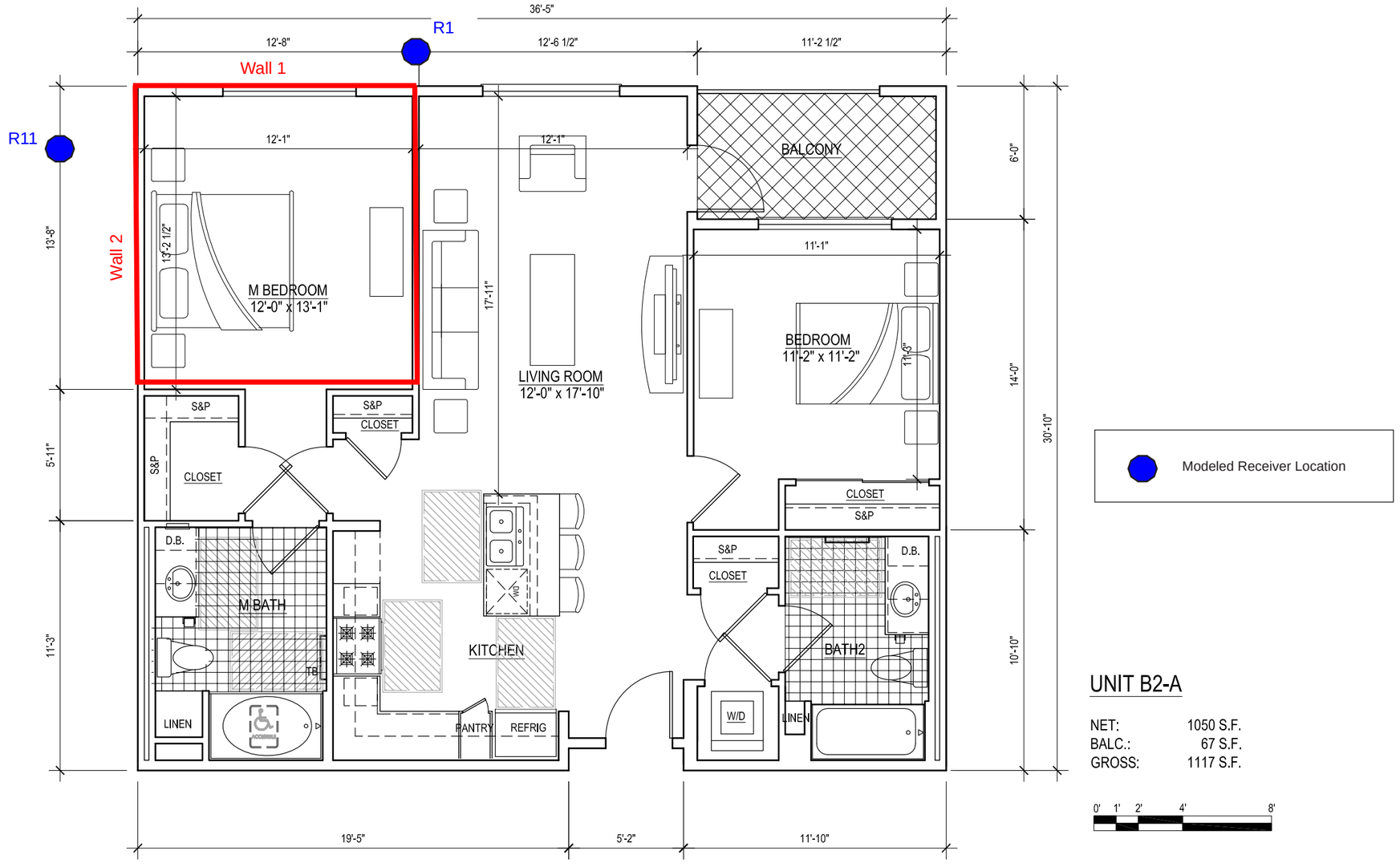
The residential room used in the exterior-to-interior analysis was the master bedroom of the B2-A residential unit (Receivers R1 and R11), as shown in Figure 3b. This room is exposed to the greatest amount of exterior noise due to its corner location and proximity to the railroad tracks and roadway. The noise level at the other residential uses would be expected to be lower. The master bedroom specifications used in this analysis were based on January 2017 floor plans provided by the project applicant. Refer to Figure 4, *Exterior-to-Interior Title 24 Analyzed Rooms*, for the project plans depicting the room included in this Title 24 analysis. The analyzed room has two walls, Wall 1 and Wall 2 that are exposed to railway and traffic noise.

Table 9, *Exterior-to-Interior Noise Levels – Unit B2-A* displays the Sound Transmission Class (STC) ratings necessary to ensure interior noise levels for the proposed project would be below the 45 CNEL threshold. Detailed modeling results can be seen in Appendix B, *Exterior-to-Interior Noise Reduction Analysis*.

Table 9
EXTERIOR-TO-INTERIOR NOISE LEVELS – UNIT B2-A

Specification	Master Bedroom
Exterior wall requirement	STC 46
Minimum window requirement	STC 31
Minimum door requirement	N/A
Window construction	Dual Glazing Window Thickness ⅛- and ½-inch Air Gap
Glass Door construction	N/A
Exterior Noise	68.8 CNEL on Wall 1 66.0 CNEL on Wall 2
Interior Noise (calculated)	**38.5 CNEL** with windows closed **48.1 CNEL** with windows open
Above 45 CNEL interior noise standard with windows closed?	**No**

With standard dual glazing and the incorporation of the building materials as described above, all rooms would be in compliance with the relevant interior noise standards of 45 CNEL for residences. Appropriate means of air circulation and provision of fresh air must be present to allow windows to remain closed for extended intervals of time so that acceptable levels of noise can be maintained on the interior. The building design would include HVAC units that would



Modeled Receiver Location

UNIT B2-A

NET:	1050 S.F.
BALC.:	67 S.F.
GROSS:	1117 S.F.

0' 1' 2' 4' 8'

I:\PROJECTS\IIPQ\IPQ-23_CrowtherAveMapNoiseFig4_Title24_AnalyzedRooms.indd IPQ-23 05/05/17 -CL

Source: Humphreys and Partners Architects, L.P. 2017

Title 24 Analyzed Room

EAST CROWTHER AVENUE

Figure 4

HELIX Environmental Planning

meet the criteria of the International Building Code (Chapter 12, Section 1203.3 of the 2013 California Building Code) to ensure that windows would be able to remain closed for extended periods of time. With the incorporation of mitigation measure NOI-1 below, noise levels would be reduced to acceptable levels as described by Threshold 3.

NOI-1 **Noise-Reducing Building Materials.** Interior noise levels shall not exceed the Title 24 interior noise standard of 45 CNEL for multi-family residences. The following building materials shall be used in the construction of all units facing East Crowther Avenue and the railway to reduce interior noise to acceptable levels:

- Exterior walls shall have an STC 46 rating
- Windows shall have an STC 31 rating
- Exterior doors shall have an STC 28 rating
- Glass doors shall be at least 0.5 inch thick

4.1.3 Operational Noise

The known or anticipated project stationary noise sources include the residential HVAC systems. Potential impacts from these noise sources are discussed below.

4.1.3.1 *Heating Ventilation and Air Conditioning (HVAC)*

The project includes the outdoor installation of HVAC condenser units. HVAC units would be placed on the building rooftops. As mentioned in the assumptions, modeling assumed that the air conditioning condenser would be a Carrier 38HDR060 split system. This unit typically generates a noise level of 56 dBA at a distance of 7 feet. Modeling assumed that each residential unit would have a corresponding condenser unit on the rooftop. The building rooftop would therefore contain 215 individual units. Assuming an architectural parapet typical for a building of this size, multiple condensers would generate an hourly noise level of approximately 39.9 dBA at ground level of the nearest property line. Noise levels would be 40.6 dBA at 15 feet, and 41.5 dBA at 25 feet. These levels would not exceed the City's nighttime allowable hourly limit of 50 dBA for residential zones as defined in Threshold 1. Impacts would be less than significant.

4.2 Issue 2: Excessive Vibration

Would the project expose persons to or generate excessive ground-borne vibration or noise levels?

4.2.1 Ground-Borne Vibration and Noise

The FTA's Transit Noise and Vibration Impact Assessment provides screening distances for vibration assessment based on the type of vibration source and land use. For a residential project near a conventional commuter railroad, the screening distance from a railway right-of-way is 200 feet. The project is located beyond this distance at approximately 212 feet from the centerline of the closest active track. Therefore, a detailed analysis of vibration is not warranted.

However, to provide an additional estimate of vibration levels, the FTA provides a generalized assessment of vibration distances for transportation types (see Appendix E, *Generalized Ground Surface Vibration Curves*, which depicts Figure 10-1 from the FTA's Transit Noise and Vibration Impact Assessment). The vibration curve is applicable for locomotive powered passenger or freight trains. Vibration levels are approximately proportional to 20*log (speed/$speed_{ref}$), where $speed_{ref}$ is the referenced 50 mph speed shown in the FTA graph.

Using the vibration curves in Appendix E, Table 10 below provides the calculated change in vibration levels for various rail speeds. It is assumed that passenger trains would travel speeds of approximately 45 mph through the railway corridor. Using the vibration curve from the FTA graph and the adjustment for change in speed in Table 10, the vibration levels at the project building are assumed to be approximately 70.1 VdB at 212 feet. Because ground-borne vibration is below 72 VdB, associated ground-borne noise would likewise be below 35 dBA.

Table 10
ADJUSTMENT TO VIBRATION DUE TO CHANGE IN SPEED

Speed (mph)	Adjustment to Figure (VdB)
70	2.9
65	2.3
60	1.6
55	0.8
50	0.0
45	-0.9
40	-1.9
35	-3.1
30	-4.4

Vibration levels are approximately proportional to 20*log (speed/50).

To confirm these adjustments, two rail planning vibration reports were reviewed in corridors with combined passenger and freight traffic. The Noise and Vibration Technical Report for the Perris Valley Line Commuter Rail (STV Incorporated 2010) provides measurements taken along a similar alignment. All measurements were below the values predicted by the FTA graph. The Lindley Avenue to Balboa Boulevard Vibration Study (HDR 2015) depicts measurements that provide regression lines which predict vibration between 66 VdB and 70 VdB at 212 feet. Both reports indicate that the guidance provided by the FTA, and used in this report, are appropriate to show a conservative estimate for the project's vibration impacts.

Because ground-borne vibration and noise levels are expected to be below the allowable 72 VdB and 35 dBA thresholds, respectively, vibration and noise impacts from nearby railway uses would be less than significant.

4.2.2 Construction Vibration

An on-site source of vibration during project construction other than from blasting would be a vibratory roller (primarily used to achieve soil compaction as part of the foundation and paving construction), which is expected to be used within 450 feet of the nearest occupied residence. A vibratory roller creates approximately 0.210 in/sec PPV at a distance of 25 feet. Using the construction vibration damage criteria from the Transit Noise and Vibration Impacts Assessment (FTA 2006), a vibratory roller would fall below the 0.2 in/sec PPV threshold for non-engineered buildings at 450 feet as defined in Threshold 2. Therefore, temporary impacts associated with the vibratory roller (and other potential equipment) would be less than significant.

4.3 Issue 3: Permanent Increase in Ambient Noise Levels

Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

4.3.1 Off-site Transportation Noise

As noted in the assumptions, future traffic noise levels presented in this analysis are based on traffic volumes provided by the project's traffic analysis (Fehr & Peers 2017). Refer to Table 7 for the forecasted peak hour traffic data for existing and project-added traffic volumes.

TNM software was used to calculate the noise contour distances for Existing and Existing + Project conditions. The off-site roadway modeling represents a conservative analysis that does not take into account topography or attenuation provided by existing structures. The results of this analysis for the CNEL at 50 feet are shown below in Table 11, *Off-site Traffic Noise Levels.* Additional analysis for the 70, 65, and 60 CNEL distances are provided in Appendix C, *Existing and Future Traffic Noise Levels.*

As noted in Section 3.3, a significant direct impact would occur if existing conditions approach or exceed City standards and the project more than doubles (increases by more than 3 CNEL) the existing noise level. The project would not increase any of the noise levels by more than 3 CNEL, as specified in Threshold 3. Therefore, exterior off-site direct transportation noise impacts would be less than significant.

Table 11 OFF-SITE TRAFFIC NOISE LEVELS				
Roadway Segment	**CNEL @ 50 feet**			
	Existing	**Existing + Project**	**Change from Existing**	**Direct Impact[1]**
Crowther Avenue				
Placentia Ave. to Melrose St.	64.7	65.0	0.3	No
Melrose St. to Kraemer Blvd.	65.1	65.3	0.2	No
Melrose Street				
Orangethorpe Ave. to E. Crowther Ave.	66.1	66.3	0.2	No
E. Crowther Ave. to Chapman Ave.	62.2	62.4	0.2	No

[1] A direct impact to off-site uses would occur if the project more than doubles (increases by more than 3 CNEL) the existing noise level.

4.4 Issue 4: Temporary Increase in Ambient Noise

Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

4.4.1 Construction Noise

Construction of the project would involve demolition of existing structures, minor grading, paving of the site, and erecting new buildings. The magnitude of the impact would depend on the type of construction activity, equipment, duration of each construction phase, distance between the noise source and receiver, and any intervening structures. Construction would generate elevated noise levels that may disrupt nearby residences. Residences are located approximately 450 feet north of the project across East Crowther Avenue and the BNSF railway tracks.

As noted in Section 3.2, construction would rely on the use of equipment including an excavator, front-end loader, grader, scraper, and bulldozer. Table 12, *Construction Equipment Noise Levels*, provides the 450-foot distance noise level for expected (highest noise-generating) construction equipment.

Table 12 CONSTRUCTION EQUIPMENT NOISE LEVELS			
Unit	**Percent Operating Time**	**L_{MAX} at 450 feet**	**dBA L_{EQ} at 450 feet**
Dozer	40	62.6	58.6
Excavator	40	61.6	57.6
Front End Loader	40	60.0	56.0
Grader	40	65.9	61.9
Scraper	40	64.5	60.5
Scraper/Dozer	40	64.5	60.5

Source: RCNM

Construction equipment would not all operate at the same time or location. A dozer and an excavator may be working on the site simultaneously, but would not be working in close proximity to one another at a given time due to the nature of their respective operations. A scraper and dozer were analyzed together for construction noise impacts due to their likelihood of being used in conjunction with one another. RCNM was used to determine reasonable construction noise levels at nearby residential locations for a given hour.

Based on these assumptions, the highest impact level for a scraper and dozer at the nearest NSLU is 60.5 dBA L_{EQ} (see Appendix D, *Construction Noise Modeling Outputs*). The impact level for a grader in isolation at the nearest NSLU is 61.9 dBA L_{EQ}. Construction noise from this equipment was modeled below the significance threshold defined in Threshold 4 of 75 dBA L_{EQ}. Furthermore, construction would not occur between the hours of 7:00 p.m. and 7:00 a.m. as stated in the City Noise Ordinance. Construction noise impacts would be less than significant.

4.5 Issue 5: Airport Noise Exposure

Would the project expose people residing or working in the project area to excessive noise from a nearby public use airport or private airstrip?

4.5.1 Airport Noise

The project is subject to some distant aircraft noise, though the site is not located near any active airports. The nearest airport is Fullerton Municipal Airport, located six miles to the west. Furthermore, no private airstrips are located in the vicinity of the project site. At these distances, no effects related to airport noise would occur at the project site, and impacts would be less than significant.

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Fehr & Peers

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2008 Roadway Construction Noise Model.

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Appendix A

CARRIER 38HDR060 SPLIT SYSTEM CONDENSER

ELECTRICAL DATA

38HDR UNIT SIZE	V–PH–Hz	VOLTAGE RANGE*		COMPRESSOR		OUTDOOR FAN MOTOR			MIN CKT AMPS	FUSE/ HACR BKR AMPS
		Min	Max	RLA	LRA	FLA	NEC Hp	kW Out		
018	208/230–1–60	187	253	9.0	48.0	0.80	0.125	0.09	12.1	20
024	208/230–1–60	187	253	12.8	58.3	0.80	0.125	0.09	16.8	25
030	208/230–1–60	187	253	14.1	73.0	1.45	0.25	0.19	19.1	30
036	208/230–1–60	187	253	14.1	77.0	1.45	0.25	0.19	19.1	30
	208/230–3–60	187	253	9.0	71.0	1.45	0.25	0.19	12.7	20
	460–3–60	414	506	5.6	38.0	0.80	0.25	0.19	7.8	15
048	208/230–1–60	187	253	21.8	117.0	1.45	0.25	0.19	28.7	50
	208/230–3–60	187	253	13.7	83.1	1.45	0.25	0.19	18.6	30
	460–3–60	414	506	6.2	41.0	0.80	0.25	0.19	8.6	15
060	208/230–1–60	187	253	26.4	134.0	1.45	0.25	0.19	34.5	60
	208/230–3–60	187	253	16.0	110.0	1.45	0.25	0.19	21.5	35
	460–3–60	414	506	7.8	52.0	0.80	0.25	0.19	10.6	15

* Permissible limits of the voltage range at which the unit will operate satisfactorily

FLA – Full Load Amps
HACR – Heating, Air Conditininng, Refrigeration
LRA – Locked Rotor Amps
NEC – National Electrical Code
RLA – Rated Load Amps (compressor)

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit.
All motors/compressors contain internal overload protection.

SOUND LEVEL

Unit Size	Standard Rating (dB)	Typical Octave Band Spectrum (dBA) (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018	68	52.0	57.5	60.5	63.5	60.5	57.5	46.5
024	69	57.5	61.5	63.0	61.0	60.0	56.0	45.0
030	72	56.5	63.0	65.0	66.0	64.0	62.5	57.0
036	72	65.0	61.5	63.5	65.0	64.5	61.0	54.5
048	72	58.5	61.0	64.0	67.5	66.0	64.0	57.0
060	72	63.0	61.5	64.0	66.5	66.0	64.5	55.5

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
018	12 (6.7)
024	12 (6.7)
030	12 (6.7)
036	12 (6.7)
048	12 (6.7)
060	12 (6.7)

Appendix B

EXTERIOR-TO-INTERIOR NOISE REDUCTION ANALYSIS

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: E Crowther Avenue Project
Project # : IPQ-23
Room Name: Unit B2-A Master Bedroom (Ground Floor)

Wall 1 of 2

Room Type : **Soft**

	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Reverberation Time (sec) :	0.8	0.8	0.8	0.8	0.7	0.7	: Highly Absorptive Room
Room Absorption (Sabins) :	112	112	112	112	140	140	

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	**Train**	**68.8**	**CNEL**	62.2	55.7	62.1	62.3	61.5	58.3	: Train Spectrum
Source 2:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**68.8**	**CNEL**	62.2	55.7	62.1	62.3	61.5	58.3	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
STC 46 Typical Exterior Wall	N	12.1	9	1	78.9	29	40	46	46	44	53
STC 31 5/8-inch Dual Insulating Window	Y	6	5	1	30.0	24	20	26	34	46	39
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Room Depth: **17.1** ft

Overall Area: **108.9** ft²
Volume: **1862** ft³

Number of Impacted Walls: **2**

Windows Open
Interior Noise Level: **48.1** **CNEL**

Windows Closed
Interior Noise Level: **38.5** **CNEL**

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
62.2	55.7	62.1	62.3	61.5	58.3	: Exterior Wall Noise Exposure
8.6	8.6	8.6	8.6	8.6	8.6	: Transmission Loss
0.0	0.0	0.0	0.0	0.0	0.0	: Noise Reduction
20.5	20.5	20.5	20.5	21.5	21.5	: Absorption
41.7	35.2	41.6	41.8	40.1	36.9	: Noise Level

48.0 **CNEL** WINDOWS OPEN

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
62.2	55.7	62.1	62.3	61.5	58.3	: Exterior Wall Noise Exposure
26.9	25.8	31.1	39.3	44.5	44.1	: Transmission Loss
6.5	5.5	10.7	19.0	24.1	23.8	: Noise Reduction
20.5	20.5	20.5	20.5	21.5	21.5	: Absorption
35.2	29.8	30.9	22.9	16.0	13.1	: Noise Level

37.6 **CNEL** WINDOWS CLOSED

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: E Crowther Avenue Project
Project # : IPQ-23
Room Name: Unit B2-A Master Bedroom (Ground Floor)

Wall 2 of 2

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	**Train**	**66.0**	**CNEL**	59.4	52.9	59.3	59.5	58.7	55.5	: Train Spectrum
Source 2:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**66.0**	**CNEL**	59.4	52.9	59.3	59.5	58.7	55.5	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
STC 46 Typical Exterior Wall	N	13.6	9	1	122.4	29	40	46	46	44	53
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Overall Area: **122.4** ft²

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
59.4	52.9	59.3	59.5	58.7	55.5	: Exterior Wall Noise Exposure
29.0	40.0	46.0	46.0	44.0	53.0	: Transmission Loss
8.1	19.1	25.1	25.1	23.1	32.1	: Noise Reduction
20.5	20.5	20.5	20.5	21.5	21.5	: Absorption
30.8	13.3	13.7	13.9	14.1	1.9	: Noise Level
31.1	**CNEL**	WINDOWS OPEN				

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
59.4	52.9	59.3	59.5	58.7	55.5	: Exterior Wall Noise Exposure
29.0	40.0	46.0	46.0	44.0	53.0	: Transmission Loss
8.1	19.1	25.1	25.1	23.1	32.1	: Noise Reduction
20.5	20.5	20.5	20.5	21.5	21.5	: Absorption
30.8	13.3	13.7	13.9	14.1	1.9	: Noise Level
31.1	**CNEL**	WINDOWS CLOSED				

Appendix C

EXISTING AND FUTURE TRAFFIC NOISE LEVELS

Existing and Future Traffic

Roadway /Segment	Existing				Project				Project + Existing				2035 Buildout + Project				Posted Speed (mph)
	Peak Hour Traffic	Traffic Breakdown			Peak Hour Traffic	Traffic Breakdown			Hour Traffic (PM)	Traffic Breakdown			Hour Traffic (PM)	Traffic Breakdown			
		Cars	MT	HT		Cars	MT	HT		Cars	MT	HT		Cars	MT	HT	
Crowther Avenue		90.0%	10.0%	0.0%		90.0%	10%	0.0%		90.0%	10.0%	0.0%		90.0%	10.0%	0.0%	
Placentia Ave to Melrose Ave	474	427	47	0	28	25	3	0	502	452	50	0	661	595	66	0	45
Melrose Street to Kramer Blvd	509	458	51	0	28	25	3	0	537	483	54	0	1219	1097	122	0	45
Melrose Street																	
Orangethorpe Ave to Crowther Ave	892	803	89	0	28	25	3	0	920	828	92	0	1808	1627	181	0	40
Crowther Ave. to Chapman Ave.	709	638	71	0	28	25	3	0	737	663	74	0	1604	1444	160	0	30

Source: Fehr & Peers 2017, AGA 2016

Existing and Future Traffic Noise									
Roadway/Segment	Existing Conditions				Existing + Project				
	CNEL @ 50 ft. (dBA)	70 CNEL (ft.)	65 CNEL (ft.)	60 CNEL (ft.)	CNEL @ 50 ft. (dBA)	Δ at 50 ft. (dBA)	70 CNEL (ft.)	65 CNEL (ft.)	60 CNEL (ft.)
Crowther Ave									
Plac to Melrose	64.7	15	47	80	65.0	0.3	17	50	82
Melrose to Kraemer	65.1	17	50	83	65.3	0.2	17	52	86
Melrose									
Orange to Crowth	66.1	22	57	95	66.3	0.2	24	58	95
Crowth to Chapman	62.2	n/a	29	63	62.4	0.2	8	30	65

Source: Traffic Noise Model (TNM), version 2.5

Appendix D

CONSTRUCTION NOISE MODELING OUTPUTS

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 5/17/2017
Case Description:

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
1	Residential	40	40	40

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	450	0
Excavator	No	40		80.7	450	0
Front End Loader	No	40		79.1	450	0
Grader	No	40	85		450	0
Scraper	No	40		83.6	450	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	62.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	61.6	57.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	60	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	65.9	61.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	64.5	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.9	66.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Appendix E

GENERALIZED GROUND SURFACE VIBRATION CURVES

The curves in Figure 10-1 are based on measurements of ground-borne vibration at representative North American transit systems. The top curve applies to trains that are powered by diesel or electric locomotives. It includes intercity passenger trains and commuter rail trains. The curve for rapid transit rail cars covers both heavy and light-rail vehicles on at-grade and subway track. It is somewhat surprising that subway and at-grade track can be represented by the same curve since ground-borne vibration created by a train operating in a subway has very different characteristics than vibration from at-grade track. However, in spite of these differences, the overall vibration velocity levels are comparable. Subways tend to have more vibration problems than at-grade track. This is probably due to two factors: (1) subways are usually located in more densely developed areas, and (2) the airborne noise is usually a more serious problem for at-grade systems than the ground-borne vibration. Another difference between subway and at-grade track is that the ground-borne vibration from subways tends to be higher frequency than the vibration from at-grade track, which makes the ground-borne noise more noticeable.

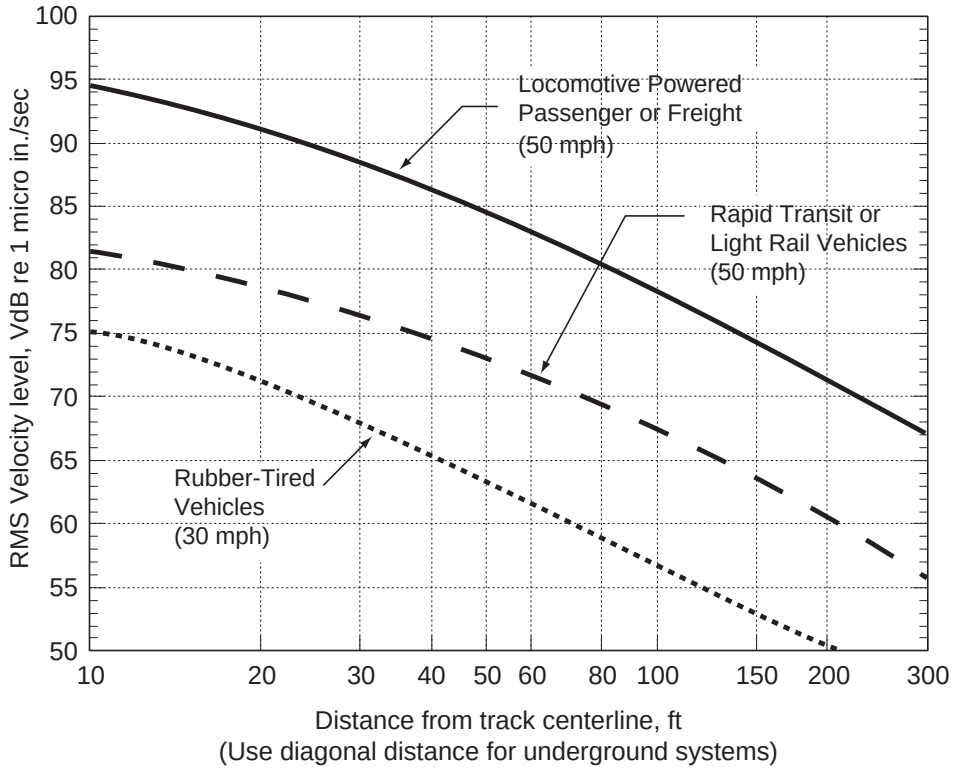


Figure 10-1. Generalized Ground Surface Vibration Curves

The curves in Figure 10-1 were developed from many measurements of ground-borne vibration. Experience with ground-borne vibration data is that, for any specific type of transit mode, a significant variation in vibration levels under apparently similar conditions is not uncommon. The curves in Figure

Attachment G

Traffic Analysis

FEHR PEERS

MEMORANDUM

Date: May 18, 2017

To: Tammy Ching – Helix Environmental

From: Jason D. Pack, P.E.

Subject: Placentia Crowther Avenue Project

OC17-0501

Fehr & Peers has completed our review for the above referenced project. Specifically, we have reviewed both the Integral Communities proposed site plan for the project (dated January 17, 2017) and the *Traffic Impact Study for the Proposed Packing House Area Redevelopment* (Albert Grover & Associates, August 18, 2016) (hereby referred to as the AGA Study). Specifically, we compared trip generation associated with the proposed project to determine if the project is consistent with the assumptions in the AGA Study and to assist with phasing/implementation of the mitigation measures associated with the *Packing House District Transit Oriented Development Project Initial Study* (Tom Dodson & Associates) (hereby referred to as the Initial Study). The purpose of this memorandum is to document the results of our assessment.

The remainder of this memorandum is divided into the following sections:

- Project Background
- Trip Generation Comparison
- Site Access, On-Site Circulation, and Parking Review

Project Background

The Initial Study identifies the following mitigation measures related to transportation and traffic:

XVI-1 Each future TOD project shall pay fair share fees for the intersection improvement costs at the time of entitlement based on the percentage of trips contributed at each intersection. I high level "order of magnitude" cost estimate is also provided in subsequent mitigation identified in the Traffic Impact Study. These are rough estimate costs for engineering and construction and will need to be refined during future preliminary engineering phase. The

mitigation measures should be re-evaluated for any refinement of the Draft General Plan Update and/or additional development of the TOD project over and beyond 5,000 trips. All significantly impacted intersections require mitigation prior to Future Buildout. Mitigation for each intersection and estimated costs are listed below:

- *Placentia/Crowther Avenue: Upgrade left turn signal phasing for all movements from permissive left turns to protected/permissive left turn phasing. Estimated Cost - $100,000;*
- *Orangethorpe Avenue/Placentia Avenue: Provide eastbound/westbound dual left-turn Lanes at Orangethorpe Avenue/Placentia Avenue. Estimated Cost - $450,000;*
- *Orangethorpe Avenue/SR-57 Northbound Ramps: Restripe Northbound Off-Ramp middle lane as shared Left-Turn/Thru/Right-Turn Lane. Estimated Cost - $50,000;*
- *Orangethorpe Avenue/SR-57 Northbound Ramps: The westbound right turn movement is expected to increase from 550 vehicles per hour (vph) to 800 vph during the PM period for year 2035. This movement should be closely monitored and may require additional improvements to reduce congestion and queuing. An additional improvement would be to modify the existing median on Orangethorpe Avenue to add an exclusive Westbound Right- Turn Lane. Estimated Cost - $200,000;*
- *Orangethorpe Avenue/Melrose Street: Provide an exclusive southbound right-turn lane without overlap signal phasing and northbound dual left-turn lanes at Orangethorpe Avenue/Melrose Street. Estimated Cost - $100,000;*
- *Kraemer Boulevard/Orangethorpe Avenue: Restripe Orangethrope Avenue to provide eastbound dual left-turn lanes. Add additional north/south thru lane (three lanes each) by restriping the northbound and southbound right turn lanes to thru lanes. Consider modifying the north/south left-turn movements from protected-only left-turn phasing to protected- permissive left-turn phasing. Restripe the southbound left-turn approach to provide a positive offset for better sight distance between the north/south left turn movements. Estimated Cost - $100,000.*

XVI-2 Truck access for the parcel on the southwest corner of Melrose Street and Crowther Avenue must be maintained to and from this site.

XVI-3 Construction hours should be five days a week, and in accordance with the City of Placentia Municipal Code, limited to the hours of 7 AM and 7 PM on working days (Monday through Friday).

XVI-4 Construction truck and worker automobile traffic will utilize the proposed driveways along Melrose Street and Crowther Avenue for access to and from the project site.

XVI-5 Trucks transporting materials to and from the project site must utilize the designated truck routes along Placentia Avenue, Crowther Avenue, Melrose Street, and Orangethorpe Avenue.

XVI-6 Trucks entering or exiting the construction site will need to yield to public traffic at all times.

XVI-7 It is unlikely that street traffic will be impacted by on-site construction activities; however, should it be necessary for temporary lane closures and/or detour routes for utility work or other such work in the public right-of-way those temporary traffic control activities are to be conducted in compliance with the requirements and guidelines outlined in the California Manual of Uniform Traffic Control Devices (MUTCD)

XVI-8 Construction staging should be conducted on-site and under no circumstances will be allowed on local or residential streets.

XVI-9 Construction work within the public right-of-way needs to be in compliance with City standards and the construction site shall be posted with the name, company and a phone number of a person to call for complaints.

XVI-10 The applicant will be fully responsible for the repair of damages to any public facility due to the hauling or transporting of construction related materials.

XVI-11 Parking for the construction trucks and worker trucks will be on-site, away from the adjacent public roadways and existing active businesses.

XVI-12 The City shall coordinate with OCTA to ensure that one or more bus routes to the future Placentia Metrolink Station will serve the TOD project area.

Tables 2-2a, 2-2b, and 2-2c summarize the trip generation assumptions from the AGA Study; however, the trip generation information summarized in Table 2-2a (which assumed 100%

residential development) was used in the impact assessment as it generated the most peak hour trips (and was considered more conservative from a trip generation perspective). Table 2-2c accounts for the net new trips after accounting for transit trip reductions and existing land uses on the project site. Exhibit 1 and Exhibit 2 present Tables 2-2a and 2-2c from the AGA Study.

Exhibit 1 – AGA Study Trip Generation

Table 2-2a – 100% Residential Use Scenario
Project Trip Generation

Scenario	Quantity	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips	AM Peak Hour Trips		PM Peak Hour Trips	
					In	Out	In	Out
100% Residential: Single-Family (ITE 220) - 752 DU TOD Project, 5,000 Daily Trips								
Northwest Area (35%)		1,750	134	163	27	107	106	57
Southeast Area (35%)		1,750	134	163	27	107	106	57
Northeast Area (30%)		1,500	115	140	23	92	91	49
Total		**5,000**	**383**	**466**	**77**	**306**	**303**	**163**

Exhibit 2 – AGA Study Trip Generation

Table 2-2c – Net Project Trip Generation

Scenario	Quantity	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips	AM Peak Hour Trips		PM Peak Hour Trips	
					In	Out	In	Out
Existing Land Use								
Northwest Area								
Industrial: Warehousing (ITE 150)	87.94 KSF GFA	441	77	55	61	16	14	41
Residential: Single-Family (ITE 210)	13 DU	124	11	13	3	8	8	5
Residential: Apartment (ITE 220)	4 DU	27	2	2	0	2	1	1
Southeast Area								
Industrial: Warehousing (ITE 150)	139.22 KSF GFA	655	99	74	78	21	19	56
Total		1,247	189	144	142	47	42	103
100% Residential: Single-Family (ITE 220) - 752 DU TOD Project, 5,000 Daily Trips								
Northwest Area (35%)		1,750	134	163	27	107	106	57
Southeast Area (35%)		1,750	134	163	27	107	106	57
Northeast Area (30%)		1,500	115	140	23	92	91	49
Total		5,000	383	466	77	306	303	163
Net Trip Generation		**3,753**	**194**	**322**	**-65**	**259**	**261**	**60**

The proposed Integral Communities project is located on the southeast area of the project site. As currently proposed, the project would consist of 215 multifamily dwelling units (DUs) plus a leasing office and a club/fitness area for residents. The project also includes 394 parking spaces on-site.

Trip Generation Comparison

Fehr & Peers utilized the project information to estimate trip generation for the project site using rates from the Institute of Transportation Engineers' *Trip Generation* (9th Edition). The resulting trip generation information is summarized in Table 1.

FEHR PEERS

Table 1 – Project Trip Generation Estimates

Land Use	Units[1]	ITE Code	Quantity	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Apartment (Peak Hour of Adjacent Streets, 7-9 AM, 4-6PM)	Dwelling Units	220[2]	215	1,430	22	88	110	86	47	133
Existing Uses[3]				-655	-78	-21	-99	-19	-56	-74
Transit Reduction (35%)[4]				-501	-8	-31	-39	-30	-16	-47
Net New Project Trips				275	-64	36	-28	37	-25	12

1. DU = dwelling units. KSF = 1000 square feet
2. ITE Trip Generation land use category (220) - Apartment (Adj Streets, 7-9A, 4-6P)
    - Daily: T = 6.65(X)
    - AM Peak Hour: T = 0.51(X) (20% in, 80% out)
    - PM Peak Hour: T = 0.62(X) (65% in, 35% out)
3. From Exhibit 2 above for the Southeast Area from the AGA Study.
4. From AGA Study to reflect mode share to transit due to the TOD nature of the site.
5. Sources:
    - ITE Trip Generation Manual, 9th Edition
    - Fehr and Peers, 2016

As shown in Table 1, the net new trips associated with the proposed project would be 275 daily trips, -28 AM peak hour trips (-64 inbound, 36 outbound), and 12 PM peak hour trips (37 inbound, -25 outbound).

Using information summarized in Table 2, the AGA Study assumed net new trips associated with the Southeast Area to be 1,599 daily trips, 121 AM peak hour trips (24 inbound, 97 outbound) and 148 PM peak hour trips (97 inbound, 51 outbound).

Comparing the proposed project trip generation to the assumptions from the AGA Study, we can conclude the following about the proposed project:

- It will generate 821 ***fewer*** daily trips than what was assumed in the AGA Study for the southeast area
- It will generate 63 ***fewer*** AM peak hour trips than what was assumed in the AGA Study for the southeast area
- It will generate 77 ***fewer*** PM peak hour trips than what was assumed in the AGA Study for the southeast area

Given that the proposed project will generate fewer trips than what was assumed in the AGA Study, the information and conclusions summarized in the AGA Study are relevant and applicable for the proposed project. As noted in the Initial Study Mitigation Measure XVI-1, the project would be responsible for a fair share contribution toward the noted improvements in that mitigation measure.

Site Access, On-Site Circulation, and Parking

Given that the project site will generate traffic volumes consistent (or less than) what was assumed in the AGA Study, the assessment completed in that study is still valid.

The peak hour trip generation after transit reduction indicates that the driveway approach will not exceed 100 peak hour trips, the minimum volume identified in the MUTCD warrant for traffic signal installation. As such, side street stop control should be adequate.

The site plan indicates that pedestrian facilities are provided along the project frontage with Crowther Avenue and from the parking garage to the apartment buildings.

It is recommended that the project sponsor work with the City to investigate the feasibility of enhanced pedestrian crossings from the northwest corner of the project site to the Metrolink Station such as high visibility crosswalk striping and advanced-stop bars.

The project site will provide 388 garaged spaces and six surface spaces; providing a total of 394 parking spaces. Best practice for providing parking in TOD developments is one parking space per unit. The project is proposing 1.83 spaces per unit, exceeding this typical TOD parking requirement. Additionally, based on the unit type breakdown, the required on-site parking (based on site plan information) would be a minimum of 316 spaces and a maximum of 445 spaces; or an average parking requirement of 381 spaces. The proposed 394 spaces exceed the average parking requirement.

Site access is simple, with one major access roadway providing access to the six surface spaces and the 388 garage spaces.

Based on our review, site access, on-site circulation, and parking are adequate for the project site; however, we do recommend that the site plan be reviewed by emergency services personal prior to approval of the site plan.

Should you have any questions or concerns about the above information, please contact Jason Pack at 714-941-8773.

Attachment H

Will Serve Letters

Golden State
Water Company
A Subsidiary of American States Water Company

June 22, 2017

Edward A. Galigher
888 San Clemente Drive, Suite 100
Newport Beach, CA 92660

Re: CAN AND WILL SERVE LETTER
Project: Crowther Avenue Development
Location: 110 & 132 East Crowther Avenue
Applicant: Edward A. Galigher

This letter is to inform you that water service is available to the above referenced Project from Golden State Water Company's (GSWC) Placentia water system. Service to the Project can be provided from GSWC's existing water facilities within Crowther Avenue.

Upon completion and execution of an agreement between GSWC and the Applicant that contains satisfactory financial arrangements and other provisions governing the extension of water service under the Water Service Agreement, GSWC will begin providing water service for the Project once all Applicant obligations have been satisfied. Analysis of more detailed development plans may require the Applicant to participate in the construction of special facilities prior to GSWC providing water service.

GSWC is committed to providing water service to all customers within its service area, consistent with the GSWC's obligations under rules, statutes and regulations of both the Department of Drinking Water and the California Public Utilities Commission.

If construction of the water system improvements has not started within one year from the date of this letter, this Can and Will Serve Letter shall terminate and be of no further force and effect, unless modified or extended by GSWC. Such modification or time extension will be subject to any governmental requirements in place at the time of the request.

If you have any questions concerning issues addressed in this letter, please call Mr. Robert Hanford, New Business Manager, at 714-535-8010 Extension 323.

Sincerely,

Stan Yarbrough,
Operations Engineer
Orange County District

1920 West Corporate Way, Anaheim, CA 92801
Tel: (714) 535-7711 Fax: (714) 535-8616

Attachment I

Tribal Consultation

The People are the City

Mayor
CRAIG S. GREEN

Mayor Pro Tem
CHAD P. WANKE

Councilmembers:
RHONDA SHADER
WARD L. SMITH
JEREMY B. YAMAGUCHI

City Clerk:
PATRICK J. MELIA

City Treasurer
KEVIN A. LARSON

City Administrator
DAMIEN R. ARRULA

401 East Chapman Avenue – Placentia, California 92870

June 29, 2017

Juaneño Band of Mission Indians – Acjachemen Nation
Attn: Joyce Stanfield Perry, Tribal Manager
4955 Paseo Segovia
Irvine, CA 92603

SUBJECT: AB 52 Consultation - Development Plan Review (DPR) 2017-01, Vesting Tentative Map (VTM) 18118 and Development Agreement (DA) 2017-01

Dear Ms. Stanfield Perry:

The City of Placentia (City) received the Acjachemen Nation's request for formal notification of proposed projects within the Tribe's geographic area of traditional and cultural affiliation in accordance with AB 52. The Placentia TOD Project, LLC, will develop a 215-unit multi-family residential development, and a seven-level parking garage and related amenities on the 2.95-acre project site within the Transit Oriented Development Packing House District (TOD) Zone at 130-132 E. Crowther Avenue, Placentia CA 92870. A detailed project description with supporting graphics is included as an attachment to this letter for your review.

In accordance with Section 21080.3.1 (d), please consider this letter the City's formal notification that it intends to implement the referenced project. It is our understanding that the Acjachemen Nation has 30 days to request consultation regarding this project. I am the point of contact for the project and I can be contacted by phone at (714) 993-8124 or by e-mail at jlambert@placentia.org. However, I would appreciate formal notification of a request for consultation by letter, which should be sent to the City addresses provided at the top of this letter. If the City does not receive notification within the 30-day period, we will assume that the Acjachemen Nation has no tribal cultural resource concerns for The Placentia TOD Project, LLC, Project and we will proceed with the public review of a Mitigated Negative Declaration in accordance with California Environmental Quality Act procedures. Should you have any questions, please do not hesitate to contact me immediately.

Sincerely,

Joseph M. Lambert,
Director of Development Services

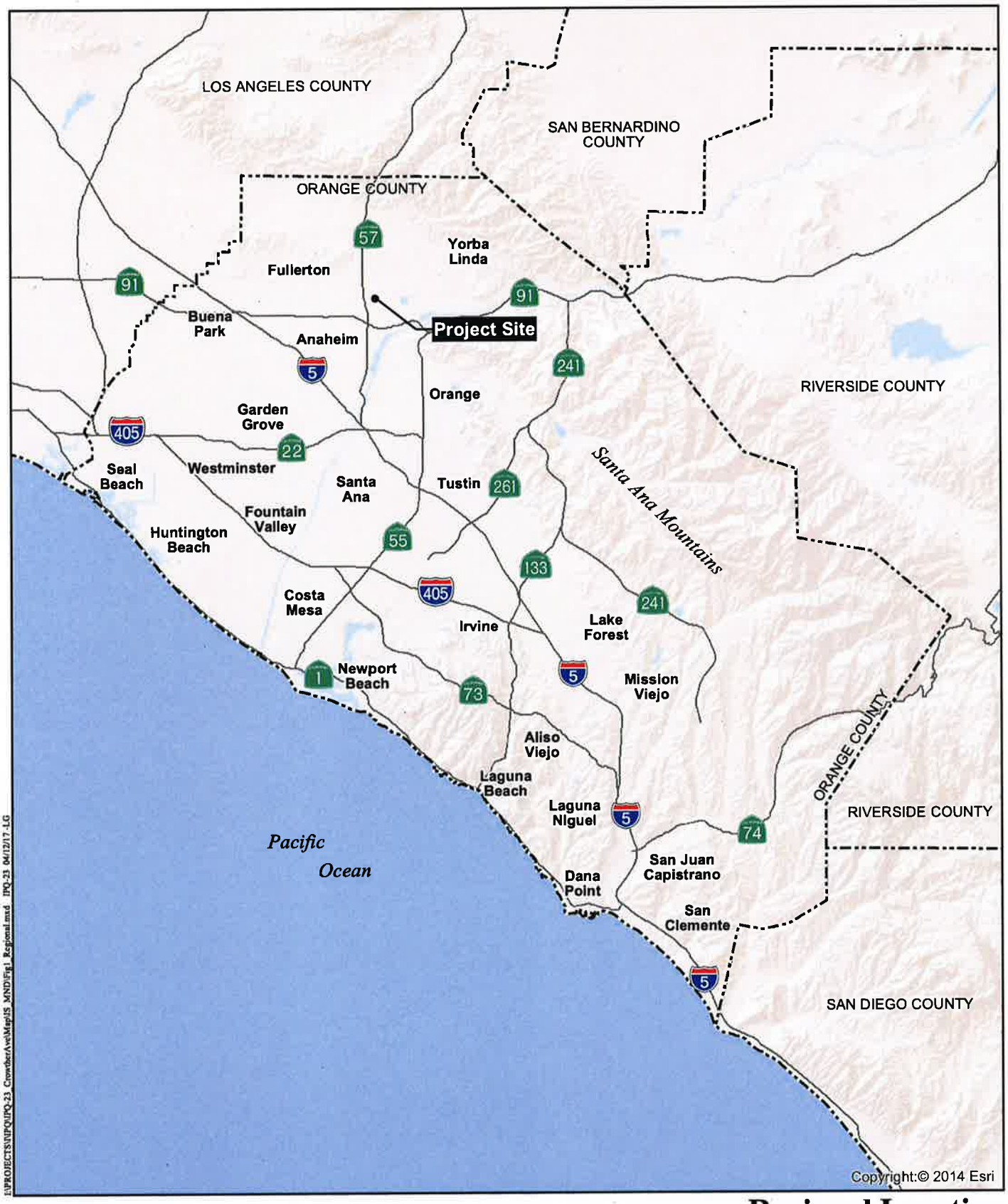
Attachments: Project Description
Site Exhibits

Placentia Crowther Project Description

The proposed project involves the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a 215-unit multi-family residential development and related amenities. The 2.95-acre project site is located in the City of Placentia (City), approximately 0.4 mile east of State Route (SR-) 57 and 1.3 miles north of SR-91 in northern Orange County, California (Figure 1, *Regional Location*). More specifically, the project site is located along the south side of East Crowther Avenue, across the street from a planned Metrolink station (opening in late 2017), and is approximately 0.12 mile east of South Melrose Street and 100 feet west of Cameron Street (Figure 2, *Project Vicinity*), and is within the City's Packing House Transit Oriented Development District.

The proposed residential facilities include 215 one- and two-bedroom units within 5-story structures, with an overall density of 72.9 dwelling units (DU) per acre (which is below the maximum allowable density of 95 DU per acre for the TOD District). The project also includes two landscaped courtyards, a 6-story/7-level parking structure, a pool/club house and fitness center located on the rooftop terrace of the parking structure, a tot lot, a dog run/spa, pedestrian walkways/corridors, and extensive landscaping (Figures 3a, *Project Site Plan*, and 3b, *Rooftop Terrace*). Structure heights, setbacks, common areas, and parking would conform to local requirements. A 2,400-SF leasing office would also be located on the ground floor residential level, near the northeastern corner of the development. While the proposed residential sites would initially be offered as rental units, the project approval would include an option for future conversion/sale as condominiums. Under this scenario, the rental office would also be converted to a residential (condominium) unit.

Access for residents and guests would be provided through the primary site entry located east of the leasing office, and would extend along the eastern site boundary to the proposed parking structure (Figure 3a). This proposed access road includes an automatic gate that would open via entry codes and/or remote control openers to be provided to on-site residents, as well as a fire turn-around/pullout located near the parking structure. An additional fire access corridor would be located along the northwestern site boundary, with associated use to be limited to emergency vehicles (Figure 3a). No other roadways are proposed on site; internal pedestrian walkways and corridors would accommodate resident/guest access to units and recreational amenities. The proposed parking structure would include 179,800 gross SF with 7 levels, including the previously described rooftop terrace and a basement level encompassing a maintenance shop and bicycle storage in addition to vehicle parking. A total of 394 parking spaces (1.8 parking spaces per unit) would be provided, which exceeds the minimum requirement of 316 parking spaces or approximately 1.5 spaces per unit (refer to Figure 3a). Proposed landscaping would include a mix of native and ornamental varieties along much of the site perimeter, the on-site courtyards, and rooftop terrace, as well as an enlarged planting area at the main site entry. The project site would be served by connections to existing local utilities including water, sewer, and gas/electric facilities.



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Regional Location

EAST CROWTHER AVENUE

HELIX Environmental Planning

N 0 6 Miles

Figure 1

Project Vicinity Map

EAST CROWTHER AVENUE

HELIX Environmental Planning

0 600 Feet

Figure 2

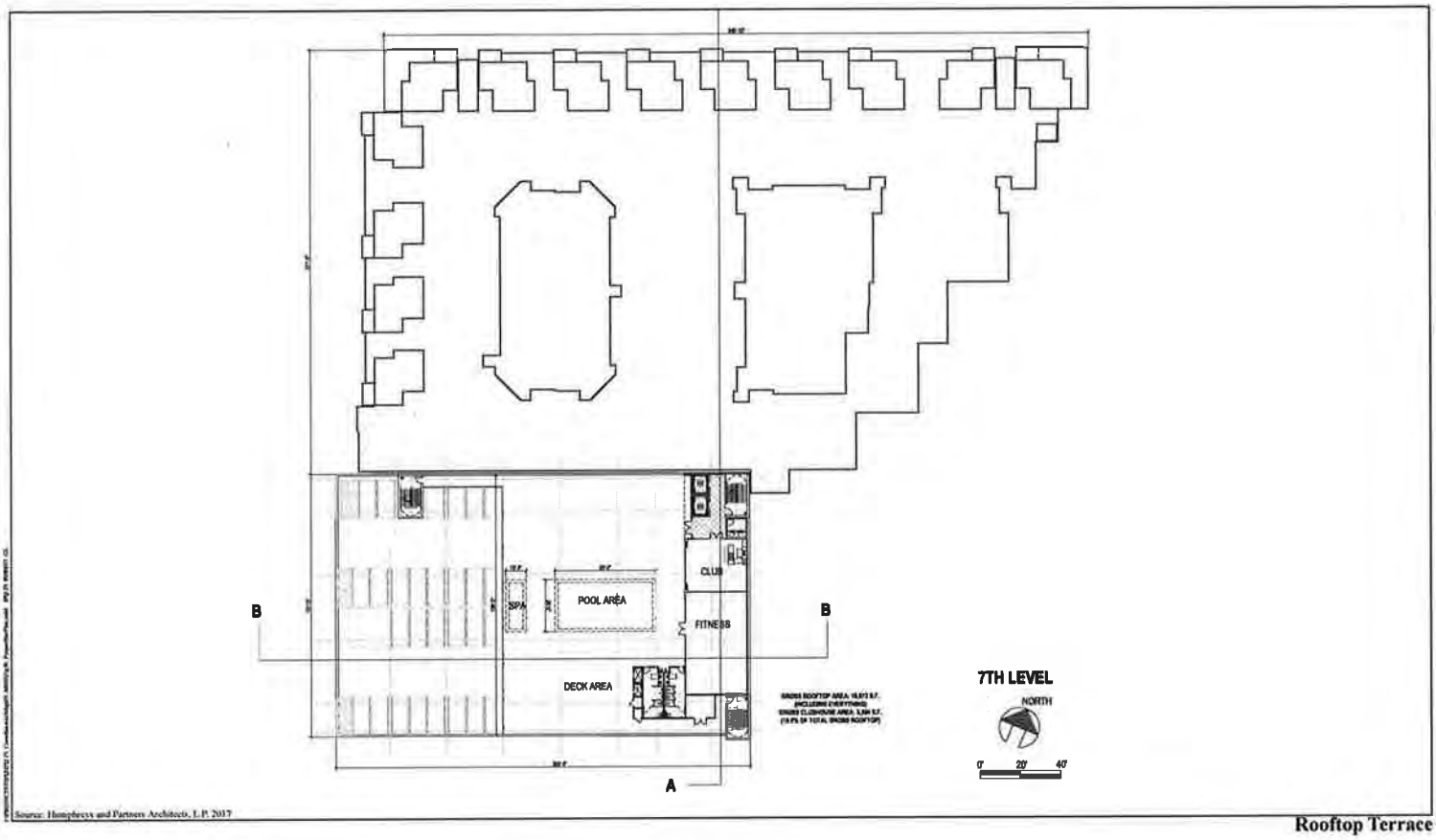
Source: Humphreys and Partners Architects, L.P. 2017

Project Site Plan

EAST CROWTHER AVENUE

HELIX Environmental Planning

Figure 3a



Source: Humphreys and Partners Architects, L.P. 2017

Rooftop Terrace

EAST CROWTHER AVENUE

HELIX Environmental Planning

Figure 3b

The People are the City

Mayor
CRAIG S. GREEN

Mayor Pro Tem
CHAD P. WANKE

Councilmembers:
RHONDA SHADER
WARD L. SMITH
JEREMY B. YAMAGUCHI

City Clerk:
PATRICK J. MELIA

City Treasurer
KEVIN A. LARSON

City Administrator
DAMIEN R. ARRULA

401 East Chapman Avenue – Placentia, California 92870

June 29, 2017

Gabrieleño Band of Mission Indians – Kizh Nation
Attn: Andrew Salas, Chairman
P.O. Box 393
Covina, CA 91723

SUBJECT: AB 52 Consultation - Development Plan Review (DPR) 2017-01, Vesting Tentative Map (VTM) 18118 and Development Agreement (DA) 2017-01

Dear Mr. Salas:

The City of Placentia (City) received the Kizh Nation's request for formal notification of proposed projects within the Tribe's geographic area of traditional and cultural affiliation in accordance with AB 52. The Placentia TOD Project, LLC, will develop a 215-unit multi-family residential development, and a seven-level parking garage and related amenities on the 2.95-acre project site within the Transit Oriented Development Packing House District (TOD) Zone at 130-132 E. Crowther Avenue, Placentia CA 92870. A detailed project description with supporting graphics is included as an attachment to this letter for your review.

In accordance with Section 21080.3.1 (d), please consider this letter the City's formal notification that it intends to implement the referenced project. It is our understanding that the Kizh Nation has 30 days to request consultation regarding this project. I am the point of contact for the project and I can be contacted by phone at (714) 993-8234 or by e-mail at jlambert@placentia.org. However, I would appreciate formal notification of a request for consultation by letter, which should be sent to the City addresses provided at the top of this letter. If the City does not receive notification within the 30-day period, we will assume that the Kizh Nation has no tribal cultural resource concerns for The Placentia TOD Project, LLC, Project and we will proceed with the public review of a Mitigated Negative Declaration in accordance with California Environmental Quality Act procedures. Should you have any questions, please do not hesitate to contact me immediately.

Sincerely,

Joseph M. Lambert,
Director of Development Services

Attachments: Project Description
Site Exhibits (Fig. 1, 2, 3a and 3b)

Placentia Crowther Project Description

The proposed project involves the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a 215-unit multi-family residential development and related amenities. The 2.95-acre project site is located in the City of Placentia (City), approximately 0.4 mile east of State Route (SR-) 57 and 1.3 miles north of SR-91 in northern Orange County, California (Figure 1, *Regional Location*). More specifically, the project site is located along the south side of East Crowther Avenue, across the street from a planned Metrolink station (opening in late 2017), and is approximately 0.12 mile east of South Melrose Street and 100 feet west of Cameron Street (Figure 2, *Project Vicinity*), and is within the City's Packing House Transit Oriented Development District.

The proposed residential facilities include 215 one- and two-bedroom units within 5-story structures, with an overall density of 72.9 dwelling units (DU) per acre (which is below the maximum allowable density of 95 DU per acre for the TOD District). The project also includes two landscaped courtyards, a 6-story/7-level parking structure, a pool/club house and fitness center located on the rooftop terrace of the parking structure, a tot lot, a dog run/spa, pedestrian walkways/corridors, and extensive landscaping (Figures 3a, *Project Site Plan*, and 3b, *Rooftop Terrace*). Structure heights, setbacks, common areas, and parking would conform to local requirements. A 2,400-SF leasing office would also be located on the ground floor residential level, near the northeastern corner of the development. While the proposed residential sites would initially be offered as rental units, the project approval would include an option for future conversion/sale as condominiums. Under this scenario, the rental office would also be converted to a residential (condominium) unit.

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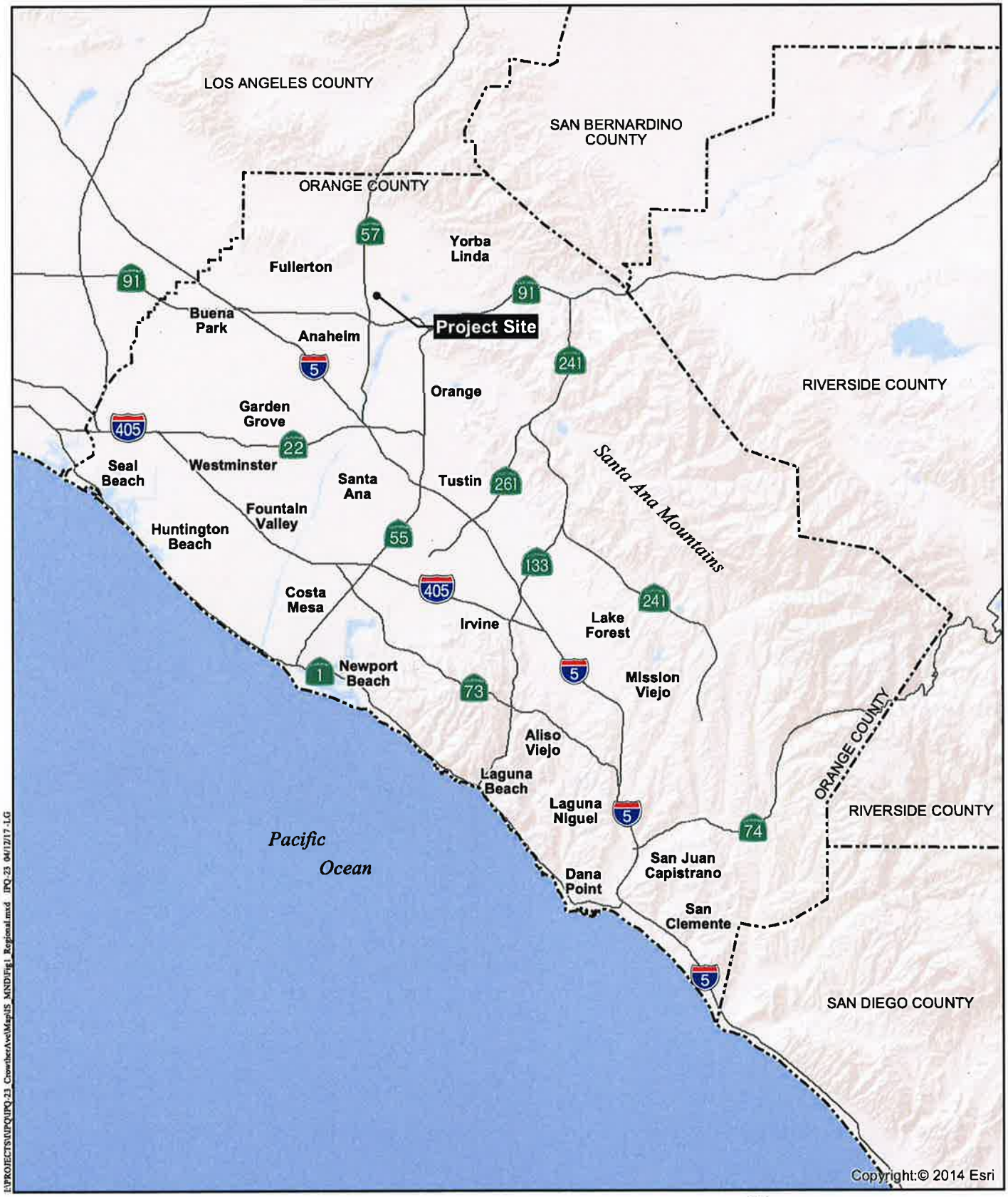

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Regional Location

EAST CROWTHER AVENUE

HELIX Environmental Planning

N 0 6 Miles

Figure 1

Project Vicinity Map

EAST CROWTHER AVENUE

HELIX Environmental Planning

0 600 Feet

Figure 2

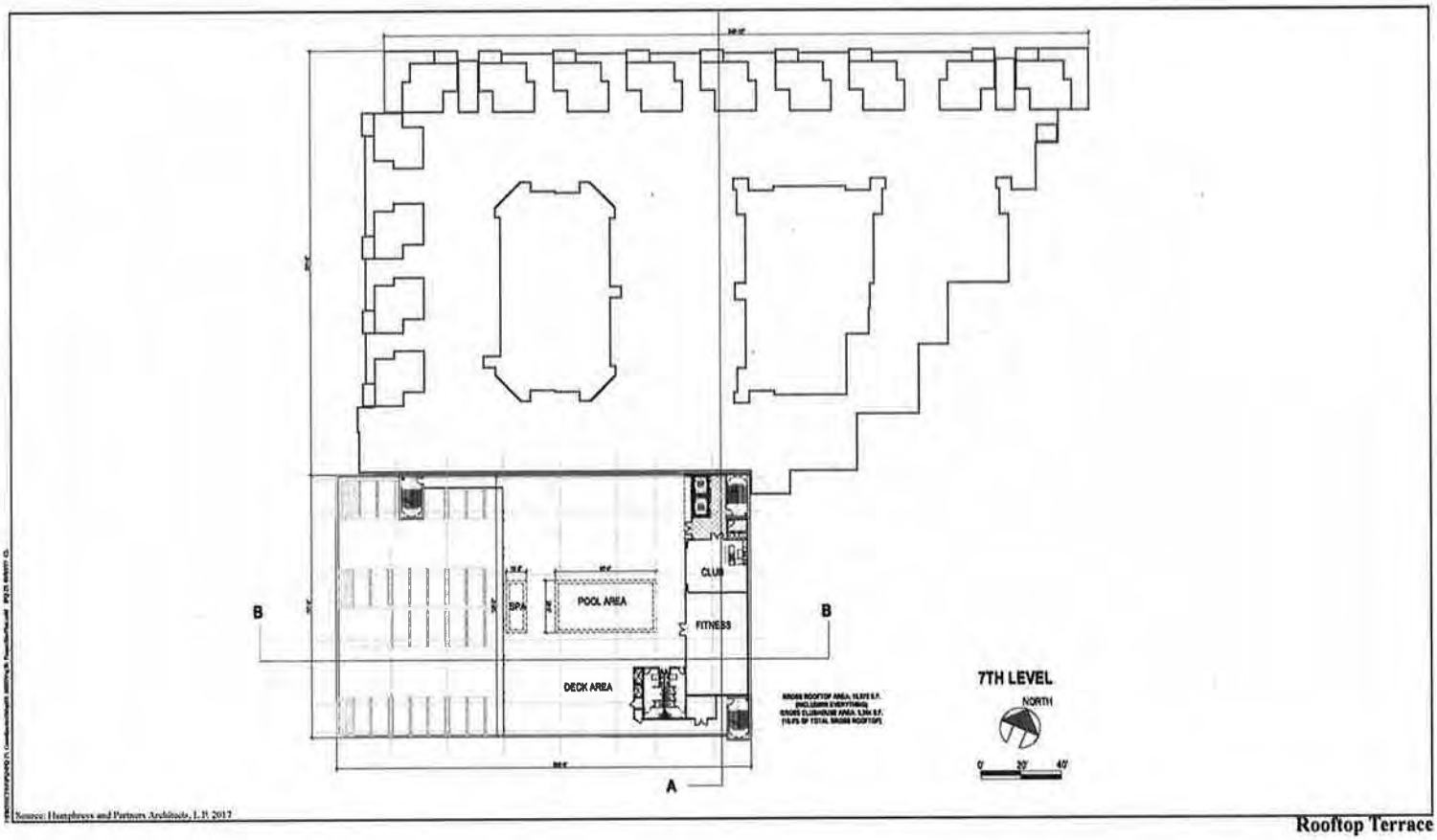
Source: Humphreys and Partners Architects, L.P. 2017

Project Site Plan

EAST CROWTHER AVENUE

HELIX Environmental Planning

Figure 3a



Source: Humphreys and Partners Architects, L.P. 2017

Rooftop Terrace

EAST CROWTHER AVENUE

HELIX Environmental Planning

Figure 3b

From:	Lambert, Joseph
To:	Tammy Ching
Subject:	FW: AB 52 Consultation for DPR 2017-01 VTM 18118 DA 2017-01 TOD Project LLC
Date:	Wednesday, July 05, 2017 8:40:51 AM
Attachments:	image001.jpg

From: Joyce Perry [mailto:kaamalam@gmail.com]
Sent: Wednesday, July 5, 2017 8:34 AM
To: Lambert, Joseph <jlambert@placentia.org>
Subject: Re: AB 52 Consultation for DPR 2017-01 VTM 18118 DA 2017-01 TOD Project LLC

Good Morning Joseph,

We have no comments regarding the proposed General Plan Amendment. Thank You.

Joyce Stanfield Perry
Payomkawichum Kaamalam - President
Juaneño Band of Mission Indians, Acjachemen Nation
Tribal Manager, Cultural Resource Director

On Thu, Jun 29, 2017 at 9:58 AM, Lambert, Joseph <jlambert@placentia.org> wrote:

> Good morning,
> Please find the attached AB52 Consultation letter. A hard copy has been mailed to Joyce Stanfield Perry, Tribal Manager. If I can answer any questions for you, please do not hesitate to contact me at your earliest convenience.
> Thank You
>
> **Joseph M. Lambert** | Director of Development Services
> City of Placentia | 401 E. Chapman Ave. Placentia, CA 92870
> ☎ (714) 993-8124 | 🖷 (714) 528-4640 | ✉ jlambert@placentia.org
> cid:image002.jpg@01D11BE6.CF725660
>
> **CONFIDENTIALITY NOTICE**
> This e-mail transmission, and any documents, files or previous e-mail messages attached to it may contain information that is confidential. If you are not the intended recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that you must not read this transmission and that any disclosure, copying, printing, distribution or use of any of the information contained in or attached to this transmission is STRICTLY PROHIBITED. If you have received this transmission in error, please immediately notify the sender by telephone at (714) 993-8118 or return e-mail and delete the original transmission and its attachments without reading or saving in any manner. Thank you.

GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

City of Placentia
401 East Chapman Ave
Placentia, CA 92870

July 11, 2017

Re: AB52 Consultation request for Vesting Tentative Map 18118 and Development Agreement 130-132 E. Crowther Ave Placentia CA 92870

Dear Joseph M. Lambert,

Please find this letter as a written request for consultation regarding the above-mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning descending from, or a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission, ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the Native American Heritage Commission (NAHC) will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our tribal cultural resources, we would like to consult with you and your staff to provide you with a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources.

Consultation appointments are available on Wednesdays and Thursdays at our offices at 901 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email gabrielenoindians@yahoo.com to schedule an appointment.

** Prior to the first consultation with our Tribe, we ask all those individuals participating in the consultation to view a video produced and provided by CalEPA and the NAHC for sensitivity and understanding of AB52. You can view the video at: http://nahc.ca.gov/2015/12/ab-52-tribal-training/

With Respect,

Andrew Salas, Chairman

Andrew Salas, Chairman | Nadine Salas, Vice-Chairman | Christina Swindall Martinez, secretary
Albert Perez, treasurer I | Martha Gonzalez Lemos, treasurer II | Richard Gradias, Chairman of the Council of Elders
PO Box 393, Covina, CA 91723 | www.gabrielenoindians.org | gabrielenoindians@yahoo.com

Attachment J

Notice of Intent

Hugh Nguyen

Orange County Clerk - Recorder

P.O. Box 238 Santa Ana, CA 92702
12 Civic Center Plaza, Room 106 Santa Ana, CA 92701
Phone: (714) 834-2500
www.ocrecorder.com

CITY OF PLACENTIA
401 E CHAPMAN AVE
PLACENTIA, CA 92870

Office of the Orange County Clerk-Recorder
Memorandum

SUBJECT: NOTICE OF INTENT

The attached notice was received, filed and a copy was posted on 07/06/2017

It remained posted for 30 (thirty) days.

Hugh Nguyen
Clerk - Recorder
In and for the County of Orange

By: Eve Lee Deputy

Public Resource Code 21092.3

The notice required pursuant to Sections 21080.4 and 21092 for an environmental impact report shall be posted in the office of the County Clerk of each county *** in which the project will be located and shall remain posted for a period of 30 days. The notice required pursuant to Section 21092 for a negative declaration shall be so posted for a period of 20 days, unless otherwise required by law to be posted for 30 days. The County Clerk shall post notices within 24 hors of receipt.

Public Resource Code 21152

All notices filed pursuant to this section shall be available for public inspection, and shall be posted *** **within 24 hours of receipt** in the office of the County Clerk. Each notice shall remain posted for a period of 30 days.
*** Thereafter, the clerk shall return the notice to the local **lead** agency *** within a notation of the period it was posted. The local **lead** agency shall retain the notice for not less than nine months.

Additions or changes by underline; deletions by ***

POSTED

JUL 06 2017

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

To: Orange County Clerk-Recorder
12 Civic Center Plaza, Room 101
Santa Ana, CA 92701

From: City of Placentia
401 E. Chapman Avenue
Placentia, CA 92870

Subject: Filing of Notice of Intent to Adopt a Mitigated Negative Declaration in compliance with Section 21092.3 of the Public Resources Code.

Development Plan Review (DPR) 2017-01, Vesting Tentative Map (VTM) 18118 and Development Agreement (DA) 2017-01 for the construction of a 215 unit five-story residential development and a seven-level parking garage on the 2.95 acre site.
Project Title

CITY OF PLACENTIA

N/A	Joseph M. Lambert, Director of Development Services	(714) 993-8234
State Clearinghouse Number	**Lead Agency Contact Person**	**Telephone Number**

Project Location
130-132 E. Crowther Avenue, Placentia CA 92870; APNs: 339-091-08, 09.

Project Description
The proposed project involves the demolition/removal of existing vacant industrial/warehouse buildings and associated facilities, and the construction of a 215-unit multi-family residential development, and a seven-level parking garage and related amenities on the 2.95-acre project site within the Transit Oriented Development Packing House District (TOD) Zone. The project involves a Vesting Tentative Tract Map for lot consolidation and condominium purposes and consideration of a Development Agreement between the City of Placentia and The Placentia TOD Project, LLC for the subject project pursuant to the procedures described in California Government Code § 65867. This project area is not included on lists of hazardous waste facilities identified by Section 65962.5 of the Government Code.

Public Review and Comment Process
The entitlements involved with the proposed project (Development Plan Review (DPR) 2017-01, Vesting Tentative Map (VTM) 18118 and Development Agreement (DA) 2017-01) are a discretionary decision or "project" that requires evaluation under the California Environmental Quality Act (CEQA). A Mitigated Negative Declaration is the proposed CEQA determination for this project. The City of Placentia acting as the CEQA lead agency for this project will consider adoption of this Mitigated Negative Declaration at a future scheduled public meeting. After public review of the Initial Study is completed, the City of Placentia proposes to adopt a Mitigated Negative Declaration in accordance with CEQA and the State CEQA Guidelines. Any parties that comment on this proposed Mitigated Negative Declaration will be notified of the meeting date where adoption of the Mitigated Negative Declaration will be considered. Copies of the Mitigated Negative Declaration/Initial Study are available for review at the City's office located at 401 E. Chapman Avenue, Placentia, CA 92870. The proposed Mitigated Negative Declaration and supporting documents will be available for public review and comment from July 10, 2017 to July 31, 2017. Any comments you have must be submitted in writing no later than 6:00 p.m. on July 31, 2017.

Signature-Joseph M. Lambert	Director of Development Services, City of Placentia	July 6, 2017
	Title	Date

Attachment K

Mitigation Monitoring and Reporting Program

CITY OF PLACENTIA
PLACENTIA CROWTHER PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Aesthetics Aes-1 Nighttime construction or security lighting, if required, shall be shielded, selectively placed, and directed toward the project site, so that light will not spill beyond the boundary of the project site onto off-site sensitive receptors, such as drivers, residents, or train operators.	This measure shall be included as a condition of approval and implemented by the Developer and Construction Contractor during construction.	The placement and direction of nighttime construction or security lighting shall be verified by City inspectors.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Aesthetics Aes-2 Building design and/or lighting features shall be incorporated into the final project design to minimize glare, in conformance with the TOD District, such as: (1) overhangs and recessed windows to reduce potential glare from reflective windows; (2) landscaping near the buildings, such as trees along the street frontage, which would shade the building and reduce the potential for drivers to be affected by glare from reflective windows; and/or (3) non-reflective building materials.	This measure shall be included as a condition of approval and will be incorporated into the final project design by the Developer for City review prior to issuance of a building permit. The Developer/Construction Contractor will implement the approved anti-glare features during construction.	Anti-glare features within the project plans shall be approved by the City Planning Director or their designee and documentation of the approved features shall be retained in the project file and at the construction site. Verification of implementation of the approved anti-glare features shall be conducted by City inspectors during and upon completion of construction.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

CITY OF PLACENTIA
PLACENTIA CROWTHER PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Aesthetics Aes-3 Permanent lighting associated with the proposed development shall conform to the TOD District development standards and applicable City Municipal Code requirements. Examples of standard requirements include: (1) lighting along walkways, on exterior signage, within landscaped areas and in parking areas must be appropriately directed and shielded to reflect light away from the public right-of-way and from any adjoining residential premises; (2) lighting is not to blink, flash, flutter, or change light intensity, brightness, or color; and (3) neither direct nor reflected light from primary light sources shall create hazards for pedestrians or operators of motor vehicles. The developer shall submit a detailed lighting plan to the City for approval, prior to issuance of a building permit.	This measure shall be included as a condition of approval and will be incorporated into the final project design by the Developer for City review prior to issuance of a building permit. The Developer/Construction Contractor will implement the approved lighting plan during construction.	Lighting plan shall be approved by the City Planning Director or their designee and copies of the approved plans shall be retained in the project file and at the construction site. Verification of implementation of the approved lighting plan to reduce light and glare impacts shall be conducted by the assigned Building Inspector during and upon completion of construction.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Cultural Resources Cul-1 Construction monitoring and reporting shall be conducted by a qualified Archaeologist and a Native American monitor in all areas proposed for excavation/disturbance. At the monitors' discretion, monitoring may be reduced or eliminated if there is no indication that cultural resources are present. In the event that an unanticipated discovery of cultural material is made during project construction, all earth-disturbing work within the vicinity of the find must be temporarily suspended or redirected until the monitor has evaluated the nature and significance of the find. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of archaeological materials that might be discovered during site development shall be in accordance with all applicable laws and regulations.	This measure shall be included as a condition of approval and implemented during by the Developer and Construction Contractor during all ground-disturbing activities during demolition, grading and construction.	The presence of a monitor during excavation/disturbance shall be verified by City inspectors.

Source	Responsible Party	Status / Date / Initials

CITY OF PLACENTIA
PLACENTIA CROWTHER PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Schedule/Responsibility	Verification
	Initial Study / City of Placentia	

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Hazards and Hazardous Materials Haz-1 If hazardous substances are encountered during project grading, work shall cease and an immediate evaluation shall be conducted and appropriate remediation actions undertaken. The associated assessment and remediation/removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the OCHCA. If additional contamination is identified, an application would be submitted to OCHCA for review and comment under the OCHCA's Voluntary Industrial Cleanup Program (VICP). A mitigation plan would be prepared detailing the mitigation of on-site soils impacted by PCE and/or other contaminants, as applicable. The plan would be submitted to the OCHCA with the VICP application. Once approved, the mitigation plan would be implemented to the satisfaction of the OCHCA. Potential feasible measures could include, but are not limited to, on-site treatment or stabilization or removal of contaminated soil and disposal at an approved off-site location.	This measure shall be included as a condition of approval and implemented during construction by the Developer and the Construction Contractor.	Verification of implementation shall be based on field inspections by City inspectors during construction. Field notes documenting verification shall be retained in the project file.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Hazards and Hazardous Materials Haz-2 Prior to renovating and/or demolishing the on-site structures, the developer shall conduct a survey at the site to evaluate the extent of LBP and ACM within those structures. All associated remediation and removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under	This measure shall be included as a condition of approval. A copy of the LBP and ACM surveys shall be submitted to the City by the Developer prior to authorization of demolition permits. If LBP and/or ACM is present, proof of remediation per local, state, and federal regulatory guidelines	A copy of the survey shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify that any recognized environmental conditions have been remediated as required in this measure. Field notes

Mitigation Measure	Implementation Schedule/Responsibility	Verification
the oversight of the appropriate regulatory agency.	shall be submitted to the City by the Developer prior to occupancy.	documenting verification shall be retained in the project file.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Noise Noi-1 Interior noise levels shall not exceed the Title 24 interior noise standard of 45 CNEL for residences. The following building materials shall be used in the construction of all units facing East Crowther Avenue and the railway to reduce interior noise to acceptable levels: • Exterior walls shall have a Sound Transmission Class (STC) 46 rating • Windows shall have an STC 31 rating • Exterior doors shall have an STC 28 rating • Glass doors shall be at least 0.5 inch thick	This measure shall be included as a condition of approval and reflected by the Developer on final project plans for City Engineer approval prior to issuance of a building permit. The approved interior noise control features on the plans shall be implemented by the Developer and Construction Contractor during construction.	Interior noise control features within the project plans shall be approved by the City Engineer or their designee and documentation of the approved features shall be retained in the project file and at the construction site. City inspectors shall verify and document that construction noise measures are implemented during construction.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Noise Noi-2 The following measures shall be implemented during construction: • Contractor shall establish a noise complaint response program and shall respond to my noise complaints received for future specific project by measuring noise levels at the affected receptor site. If the noise level exceeds an CNEL of 60 dBA exterior or a CNEL of 45 dBA interior at the sensitive receptor, the applicant will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence	This measure shall be included as a condition of approval and implemented by the Developer and Construction Contractor during construction.	City inspectors shall verify and document that construction noise measures are implemented during construction.

Mitigation Measure	Implementation Schedule/Responsibility	Verification
of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible. • All construction equipment shall be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities. Equipment not in use for five minutes shall be shut off. • Equipment shall be maintained and operated such that loads are secured from rattling or banging. • Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power. • Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment. • No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor. • Public notice shall be given 10 days prior to initiating construction. This notice shall be provided to all property owners and residents within 300 feet of the project site and shall be provided to property owners/residents at least one week prior to initiating construction. The notice shall identify the dates of construction and the name and phone number of a construction supervisor (contact person) in case of complaints. One contact person shall be assigned to the project. The public notice shall encourage the adjacent residents to contact the supervisor in the case of a complaint. Residents would be informed if there is a change in the construction schedule. The supervisor shall be available 24/7 throughout construction by mobile phone. If a complaint is received, the contact person shall take all feasible steps to remove or attenuate the sound source causing the complaint.		

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

CITY OF PLACENTIA
PLACENTIA CROWTHER PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Transportation / Traffic Tra-1 The project contractor would be required to prepare and implement a construction traffic control plan to the satisfaction of the City Traffic Engineer and in compliance with the Manual of Uniform Traffic Control Devices (MUTCD) guidelines. The traffic control plan should include ingress and egress to and from the project site, as well as designated haul routes and construction staging areas, and must address the applicable construction traffic control measures listed in the adopted IS/MND for the approved TOD District, as listed below: • Construction hours will be in accordance with the City Municipal Code. • Construction traffic will utilize designated driveways along Crowther Avenue and will yield to public traffic when entering and exiting the project site. • Parking for construction equipment and vehicles will be on the project site or within an approved nearby temporary use site. Such equipment and vehicles will utilize approved driveways to enter the site(s). Construction staging will also be on the site or another approved property, and not within the public streets. • Trucks transporting equipment and materials to and from the site will use the designated truck routes along Placentia Avenue, Crowther Avenue, Melrose Street, and Orangethorpe Avenue, and will yield to public traffic at all times. • All construction work within the public right-of-way, will be conducted in compliance with City standards and the construction site shall be posted with the name, company, and a phone number of a person to call for complaints. • The developer will be responsible for repair of damages to public facilities caused by the hauling or transporting of construction related materials.	This measure shall be included as a condition of approval. The Developer shall submit the proposed traffic control plan to the City Engineer or their designee for approval prior to authorization of demolition permits. The plan will be implemented by the Developer and Construction Contractor during construction.	The City Engineer or their designee shall review/approve the traffic control plan prior to authorization of demolition permits. The plan shall be kept on file at the City and at the construction site. City inspectors shall verify and document that construction traffic control measures are implemented during construction.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

CITY OF PLACENTIA
PLACENTIA CROWTHER PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Schedule/Responsibility	Verification
Utilities and Service Systems Uti-1 The project shall incorporate relatively small areas of low water use landscaping, as well as water-conserving features/measures to meet or exceed the current building code requirements. The project applicant shall also consult with the City and local water purveyor to determine project design measures that would provide an adequate level of water conservation. Specifically, these may include the following types of standard industry efforts: (1) use of low-flow/water efficient fixtures and appliances; (2) use of native/drought-tolerant landscaping varieties and/or artificial turf, wherever feasible, and using mulch in landscaped areas; (3) use of drip, micro-spray and/or other water-efficient irrigation systems, as well as capture/reuse systems and devices such as rain barrels; (4) use of "smart irrigation" technology where appropriate, such as pertinent watering schedules to reflect local plant/soil/climate conditions, moisture/precipitation and leak/pressure sensors, and automatic shut-off valves for applicable associated events/conditions such as precipitation and leaks; (5) use of recycling/closed water systems for features such as fountains and pools, and regular inspection/maintenance for all water-related features such as irrigation systems and water lines; and (6) provision of educational materials to residents/employees regarding reduction of water use for household and other applications (e.g., limiting washing machine use to full loads, reducing shower time, turning off water while brushing teeth, and using dry methods [sweeping] rather than a hose to clean paved areas).	Water-conserving features shall be incorporated into the final project plans by the Developer and submitted to the City Engineer or their designee for approval prior to the issuance of a building permit. The approved features shall also be implemented during construction by the Developer and Construction Contractor.	Water-conserving features shall be approved by the City Engineer or their designee, prior to the issuance of a building permit. A copy of the approved project plans/documentation showing the approved water conserving features shall be retained in the project file. City inspectors shall verify and document that the approved features are installed and operational.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

CITY OF PLACENTIA
PLACENTIA CROWTHER PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Design Measure	Implementation Schedule/Responsibility	Verification
Air Quality DM-1 Compliance with Rule 403 would be required during active operations capable of generating fugitive dust emissions. Rule 403 would require best available control measures (BACMs) such as the following: • Water or a stabilizing agent shall be applied to exposed surfaces to prevent generation of dust plumes. • The construction contractor shall utilize at least one of the following measures at each vehicle egress from the project site to a paved public road: - Install a pad consisting of washed gravel maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long; - Pave the surface extending at least 100 feet and at least 20 feet wide; - Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; and/or - Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. • All trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions). • Construction activity on unpaved surfaces shall be suspended when wind speed exceeds 25 miles per hour (mph; such as instantaneous gusts). • Heavy-duty equipment operations shall be suspended during first and second stage smog alerts. • Ground cover in disturbed areas shall be replaced as quickly as possible).	This required design measure shall be implemented by the Developer and Construction Contractor during construction.	City inspectors shall verify and document that air pollution control measures are implemented during construction.

Source	Responsible Party	Status / Date / Initials
Initial Study	City of Placentia	

Placentia Planning Commission

AGENDA STAFF REPORT

TO: PLANNING COMMISSION

VIA: DIRECTOR OF DEVELOPMENT SERVICES

FROM: ANDREW GONZALES, SENIOR PLANNER

DATE: AUGUST 8, 2017

SUBJECT: **GENERAL PLAN AMENDMENT 2017-03, ZONE CHANGE 2017-03, ZONING CODE AMENDMENT 2017-04 TO ESTABLISH THE NORTHEAST CORNER OF PLACENTIA AVENUE AND CROWTHER AVENUE AS A COMMERCIAL DISTRICT**

RECOMMENDATION:

It is recommended that the Planning Commission take the following actions:

1. Open the Public Hearing, concerning General Plan Amendment (GPA) 2017-03, Zone Change (ZC) 2017-03, and Zoning Code Amendment (ZCA) 2017-04;

2. Receive the staff report and consider all public testimony; and

3. Close the public hearing; and

4. Adopt Resolution PC-2017-15, A Resolution of the Planning Commission of the City of Placentia, recommending that City Council approve General Plan Amendment 2017-03 to change the current land use designation from Industrial to Commercial for the project area; and, to approve Zone Change 2017-03, changing the existing zoning from Commercial Manufacturing (C-M) and Manufacturing (M) to Community Commercial (C-2), including establishment of a new Height Overlay District (H); and, to approve Zoning Code Amendment 2017-04 for the establishment of a new Height Overlay Districts zone with development standards for the project area; and, recommending the adoption of Mitigated Negative Declaration 2017-03 pursuant to the California Environmental Quality Act Guidelines (CEQA) set forth in Title 14 CCR § 15074 and the City of Placentia Environmental Guidelines.

REQUEST:

The City proposes a GPA to change the existing land use designation of the project area from Industrial to Commercial. The City also proposes a ZC to change the zoning district of the project area from Commercial Manufacturing (C-M) and Manufacturing (M) to a Community Commercial (C-2) zoning district with a newly established Height Overlay Districts (H). Additionally, the City proposes a ZCA for the establishment of the H overlay district that will permit a 65-foot height maximum for the project area in the anticipation to attract a hotel operator to develop the site with a maximum of 150 rooms. The ZCA will establish development standards for the H overlay district.

BACKGROUND AND EXISTING CONDITIONS

The project site is currently located within a highly urbanized and developed area of the City, surrounded by existing commercial and industrial land uses. The project site is comprised of eight parcels measuring approximately 7.3 acres located at the northeast corner of Placentia Avenue and Crowther Avenue. The triangular site is boarded by the Orange Freeway/State Route 57 (SR 57) on the east, Crowther Avenue on the south, Placentia Avenue on the west. The Burlington Northern and Santa Fe Railway (BNSF) bifurcates the two northerly most parcels at 350 and 380 S. Placentia Avenue (Assessor Parcel Numbers 339-443-01/02) from the remaining six, which was acquired by the City resulting from the Orange County Transit Authority (OCTA) OC Bridges Project at Placentia Avenue. Vehicular access is restricted for southbound Placentia Avenue. Vehicular access is restricted from southbound Placentia Avenue traffic by a raised landscaped median. The six southerly parcels maintain vehicular access along Crowther Avenue or Industrial Way.

According to the City of Placentia General Plan, Crowther Avenue and Placentia Avenue are designated as "Second Arterial" streets design with a 4-lane, 80-foot wide right-of-way. Industrial Way is a two-lane cul-de-sac street, designed with a 56-foot wide right-of-way providing direct access to Crowther Avenue.

SURROUNDING LAND USES

To the east of the project area is the newly established TOD Packing House District that consists of 30 parcels totaling approximately 28 acres of Placentia's 6.6 square miles. It is located south of the BNSF rail line and west of SR 57, on both sides of Crowther Avenue. Melrose Street bisects the District in a north/south direction. The TOD Packing House District is anticipated to revitalize the area by encouraging economic investment and redevelopment with the allowance of mixed-use developments at higher than average densities ranging from a minimum 65 dwelling units per acre (du/ac) to a maximum of 95 du/ac, greater building height (up to 68'), refined list of land uses: active commercial and multi-family (commercial uses that would complement residential areas), public art and plazas, and improved signage.

North of the TOD Packing Housing District is another newly adopted plan identified as the Old Town Revitalization Plan which seeks to promote an active Old Town and to create a central gathering space inclusive of all population groups in the City and the region: a place where residents can walk to the corner store, go to dinner, congregate, shop, and relax in one place without parking more than once. The Plan strives to guide improvements in the built environment of the Old Town while also enhancing the human environment, creating more opportunities for people to interact. It is not prescriptive but rather seeks to provide guidance and recommendations with the goal of activating and revitalizing the Old Town area. The plan area is about 32 acres in size and consists of 147 parcels made up of a diverse mix of commercial land uses, surrounded by residential neighborhoods to the west, east, and north. Overall, the revitalization projects within the two project areas is attributed to the new Metrolink station that will be located near Melrose Street and Crowther Avenue.

ZONE CHANGE AND DEVELOPMENT STANDARDS

Zone Change

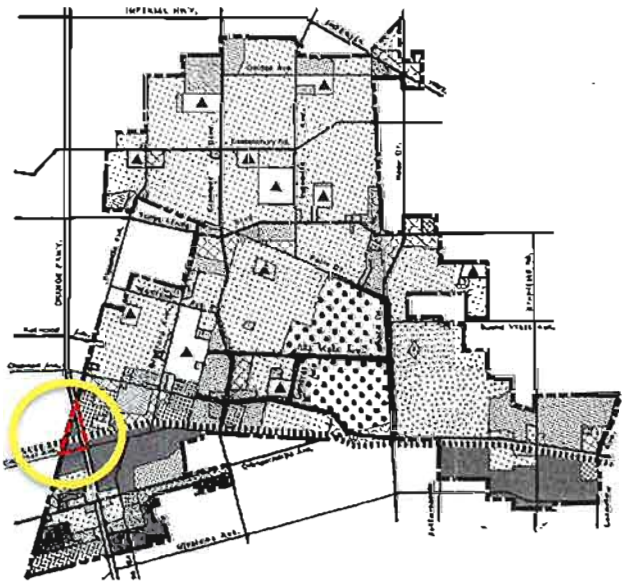
The current zoning of the project area encompasses two different districts zoned M (two northerly parcels) and C-M (southerly parcels). The proposed C-2-H65 zoning designation will place all parcels under a single zoning district (see Proposed Zoning Map). The H overlay will widen the development potential of the project area and assist in attracting a wide array of commercial uses, including a viable hotel developer to this location.

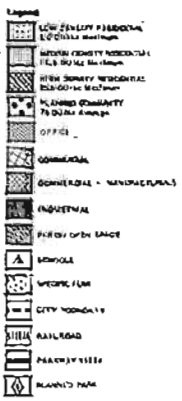
Development Standards

The proposed development standards for the new Height Overlay Districts (H) zone are attached in their entirety to this report. The proposed overlay establishes building height standards project area that is an acre or greater. Establishment of the Height Overlay Districts zone requires that no building or structure be constructed on property higher than the number of feet specified after the H on the Zoning Map of the City, and said number of feet shall take precedence over the height requirement permitted by the underlying zone. For example, C-2-H65 indicates that the base zone of the property is C-2 and the maximum number of feet permitted is 65 feet. Variances to the established height limit within a Height Overlay Districts is prohibited.

GENERAL PLAN MAP AMENDMENT

This project requires the General Plan Map to be revised to change the current land use designation from Industrial to Commercial.





Land Use Map
Land Use Element
City of Placentia

COMMUNITY INPUT

The proposed GPA and ZC has been presented to the public at various meetings and through various media outlets. The table below outlines the community outreach to date:

Date	Meeting	Location	Type of Presentation
January 26, 2016	Economic Development Committee	City Hall	Presentation
February 23, 2016	Economic Development Committee	City Hall	Presentation
January 24, 2017	Economic Development Committee	City Hall	Presentation
April 25, 2017	Economic Development Committee	City Hall	Update
May 16, 2017	City Council	City Hall	Presentation

NON-CONFORMING USES

Approximately half of the overall project area is vacant with many existing uses permitted in compliance with the current zoning. The potential adoption of the GPA and ZC will render most of the existing business/uses as legal non-conforming. However, in accordance with Placentia Municipal Code (PMC) Chapter 23.84 – Nonconforming Uses and Buildings, legally established businesses/uses can continue to operate provided that the businesses/uses are not enlarged or expanded to occupy a greater area than what was previously established prior to the adoption of the GPA and ZC. Therefore, all legally established uses may continue to operate and will not be adversely impacted by the proposed GPA and ZC.

CEQA:

An initial study was conducted by CASC Engineering and Consulting, a professional environmental firm. This document evaluated all CEQA issues contained in the latest Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated within all environmental categories, excluding Transportation/Traffic. Transportation/Traffic require the implementation of mitigation measures to reduce impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact. These mitigation measures will be adopted by the City Council.

Based on the findings in this Initial Study, the City of Placentia proposes to adopt a Mitigated Negative Declaration (MND) for the GPA, ZC, and ZCA. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) was issued for this project by the City of Placentia. The Initial Study and Notice of Intent to Adopt a Mitigated Negative Declaration was circulated for 20 days of public comment because this project is not considered a project of regional significant. This 20-day review period ran from July 7, 2017 to July 26, 2017. Comments received during this comment

period have been responded to and will be available for Planning Commission review and a final IS/MND package will be prepared for adoption at a future City Council meeting on the project.

CONCLUSION:

Greater opportunities to revitalize the project area have been afforded through the future construction of the new Metrolink station right near the City's town center in Old Town Placentia, including the recent approvals of the TOD Packing House District and Old Town Revitalization Plan. The positive effect of Metrolink and passage of the two plans is that it provides a foundation for revitalization of the City's downtown area. Leveraging this significant asset to transform this area into economically vibrant, multimodal area. The purpose of land use reclassification is to provide for businesses which, through characteristics of their operation, including types of good marketed and/or services offered, cater to residents of the entire city rather than to a neighborhood area. This project area will allow for various commercial retail including, hotel, supermarkets, and restaurants within the project area. It is Staff's opinion that the project area will have a symbiotic relationship with TOD Packing House District and Old Town Revitalization Plan project areas, thereby ensuring the economic vitality of all districts and contribute to the fiscal stability of the City of Placentia.

RECOMMENDATION:

The Planning Division recommends that the Planning Commission of the City of Placentia adopt Resolution PC-2017-15, recommending that City Council approve General Plan Amendment 2017-03, Zone Change 2017-03, Zoning Code Amendment 2017-04, and Mitigated Negative Declaration 2017-03 pursuant to the California Environmental Quality Act Guidelines (CEQA) set forth in Title 14 CCR § 15074 and the City of Placentia Environmental Guidelines.

Prepared and submitted by:

Andrew Gonzales
Senior Planner

Review and approved by:

Joseph M. Lambert
Director of Development Services

Attachments:

1. Resolution No. PC-2017-15
   Exhibit A: Map of Project Area
   Exhibit B: Amendment to the City of Placentia General Plan Land Use Element Map – Exhibit 5
   Exhibit C: Amendment to the City of Placentia Zoning District Map
   Exhibit D: Height Overlay Districts adding Chapter 23.61 to the Placentia Municipal Code
2. Initial Study, Draft Mitigated Negative Declaration and Initial Study Appendices
3. Mitigation Monitoring and Reporting Program (MMRP)

RESOLUTION NO. PC-2017-15

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PLACENTIA, CALIFORNIA RECOMMENDING TO THE CITY COUNCIL 1.) AN AMENDMENT TO THE a.) CITY OF PLACENTIA GENERAL PLAN LAND USE MAP, b.) OFFICIAL ZONING MAP OF THE CITY OF PLACENTIA, c.) CITY OF PLACENTIA MUNICIPAL CODE THAT ADDS CHAPTER 23.61 ENTITLED "HEIGHT OVERLAY DISTRICTS", AND 2.) ADOPTING A MITIGATED NEGATIVE DECLARATION FOR THE PROPOSED PROJECT

A. Recitals.

(i). On August 8th, 2017, the Planning Commission of the City of Placentia conducted, and concluded, a duly noticed public hearing, as required by law, to (a) amend the General Plan Land Use Map, (b) amend the Official Zoning Map of the City of Placentia, and (c) add Chapter 23.61 entitled "Height Overlay Districts" to the City of Placentia Municipal Code (PMC) creating development standards for properties within the "Height Overlay Districts".

(ii). An Initial Study was prepared to review and consider the environmental impacts of the General Plan Land Use Map amendment, Zoning Map amendment, and adoption of Chapter 23.61 entitled "Height Overlay Districts" to the PMC in accordance with the California Environmental Quality Act and the City of Placentia Environmental Guidelines as codified in Title 14 of the California Code of Regulations ("CCR") Section 15000 et. seq., Public Resources Code Section 21000 et. seq. and the City of Placentia Environmental Guidelines.

(iii). On or about July 6, 2017, based upon the Initial Study, the City of Placentia, as lead agency, published a Notice of Intent to Adopt a Mitigated Negative Declaration ("MND") in accordance with CCR Section 15072. Thereafter, on or about July 7, 2017, the City of Placentia published the MND which found that the project may have a potentially significant effect on the environment with respect to Transportation/Traffic; and, mitigation measures included in the Negative Declaration reduce those potentially significant impacts to a level less than significant in accordance with CCR Section 15070.

(iv.) On or about July 7, 2017, the City published the draft MND for a period of 20 days for public comment in accordance with CCR Section 15073. After completion of the public review period, the City prepared written responses to all comment letters received on the Mitigated Negative Declaration during the public review period.

(v.) The City of Placentia provided notice of public hearing in accordance with California Government Code Section 65090 and the City of Placentia Municipal Code Section 23.96.030 by publication in a local newspaper at least 10 days prior to the public

hearing and by direct U.S. mail to all property owners within 300-feet of the proposes project boundaries.

(vi.) All other legal prerequisites to the adoption of this Ordinance have occurred.

B. Resolution.

NOW, THEREFORE, the Planning Commission of the City of Placentia makings the following findings and recommendations to the City Council:

SECTION 1. The recitals set forth above are true and correct and adopts those recitals as though fully set forth herein.

SECTION 2. Find that the Mitigated Negative Declaration circulated for public review contains all contents as required in CCR Section 15071. Moreover, the City has complied with all requirements of the California Environmental Quality Act and the City of Placentia Environmental Guidelines as codified in Title 14 of the California Code of Regulations ("CCR") Section 15000 et. seq., Public Resources Code Section 21000 et. seq. and the City of Placentia Environmental Guidelines.

SECTION 3. Certify the Mitigated Negative Declaration for the "project" including the General Plan Land Use Map amendment, Zoning Map amendment, and Zoning Map Amendment and find that while the project may have a potentially significant effect on the environment with respect to Transportation/Traffic; and, mitigation measures included in the Negative Declaration reduce those potentially significant impacts to a level less than significant in accordance with CCR Section 15070.

SECTION 4. Approve an amendment to the City of Placentia General Plan Land Use Map to change the existing land use designation of the project area from "Industrial" to "Commercial" as set forth in Exhibit "B."

SECTION 5. Amend the Official Zoning Map of the City of Placentia, maintained in accordance with the provisions of § 23.08.020 of the Placentia Municipal Code, as set forth in Exhibit "C" attached hereto and by this reference made a part hereof.

SECTION 6. Approve an amendment to the City of Placentia Municipal Code by adding Chapter 23.61 entitled "Height Overlay Districts" as set forth in Exhibit "D" and find, in accordance with Chapter 23.96 ("Amendments") of the City of Placentia Municipal Code that said amendment to the municipal code will not be detrimental to the health, safety or general welfare of the persons residing or working within the neighborhood of the proposed amendment or within the city; injurious to property or improvements within the neighborhood or within the city; nor inconsistent with the latest adopted General Plan.

SECTION 7. Prior to taking this action, the Planning Commission reviewed, considered and has exercised its independent judgment based on substantial evidence on the Mitigated Negative Declaration and all of the information and data in the administrative record, all oral and written testimony received and finds that the Mitigated

Negative Declaration was prepared in full compliance with the California Environmental Quality Act.

SECTION 9. If any section, subsection, sentence, clause, or phrase of this resolution and/or the documents in support of this resolution is/are for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this resolution.

Section 10. The Secretary to the Planning Commission shall certify to the adoption of this Resolution.

PASSED and ADOPTED this 8th day of August, 2017.

_____
CHRISTINE SCHAEFER, CHAIR

I, Joseph M. Lambert, Secretary to the Planning Commission of the City of Placentia, do hereby certify that the foregoing Resolution was introduced at a regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2017, and was passed at this regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2017, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAINED:

ATTEST:

_____
Joseph M. Lambert,
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
YOLANDA M. SUMMERHILL
ASSISTANT CITY ATTORNEY

Exhibit A: Map of Project Area
Exhibit B: Amendment to the City of Placentia General Plan Land Use Element's Land Use Map – Exhibit 5
Exhibit C: Amendment to the City of Placentia Zoning District Map
Exhibit D: Height Overlay Districts adding Chapter 23.61 to the Placentia Municipal Code

EXHIBIT A
MAP OF PROJECT AREA

EXHIBIT B
AMENDED LAND USE ELEMENT LAND USE MAP

COMMERCIAL

EXHIBIT C
AMENDED ZONING DISTRICT MAP

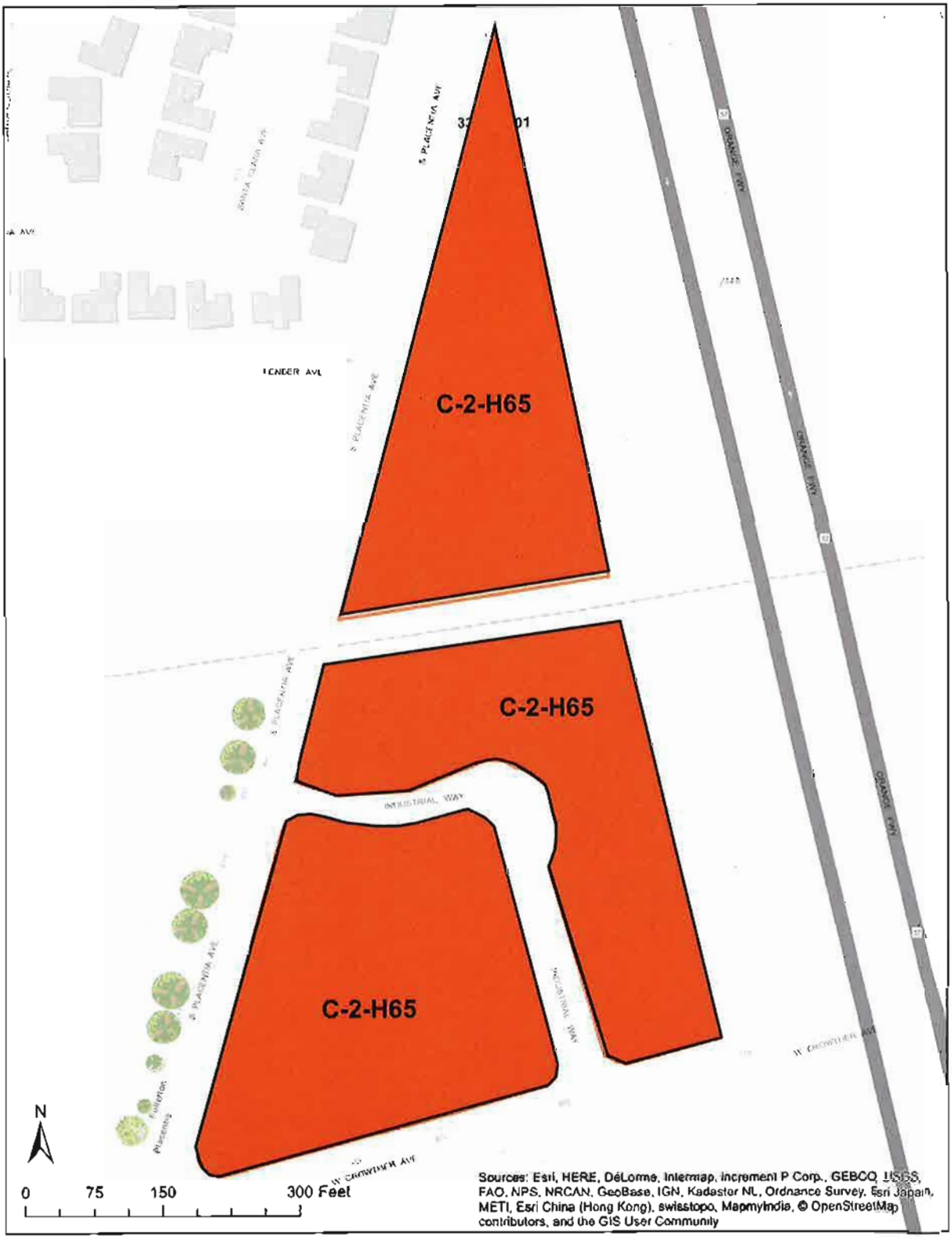


EXHIBIT D

Placentia Municipal Code

Chapter 23.61 Height Overlay Districts

23.61.010 Purpose.
The Height Overlay Districts (H) zone is established to preserve and promote the health, safety, and general welfare of the community, and to promote quality design consistent with General Plan policies by allowing for modifications to the building height standards established in a base zone. A building height standard may be reduced for the purpose of achieving design or public safety goals, or for avoiding possible detrimental impacts of building height or mass on neighboring properties or public right-of-way. Building height standards may also be increased to provide an incentive for mixed-use projects or to facilitate a more efficient and desirable use of land. The Height Overlay Districts zone may be applied to any zone and may be applied in conjunction with other overlay zones.

23.61.020 Application of Height Overlay Zone.
Whenever the Height Overlay Districts is established on any property, no building or structure shall be constructed on said property higher than the number of feet specified after the H on the official Zoning Map of the City, and said number of feet shall take precedence over the height requirement permitted by the underlying zone. For example, C-2-H65 indicates that the base zone of the property is C-2 (Community Commercial) and the maximum number of feet permitted for a building is 65 feet.

23.61.030 Building Height Limit.
The maximum overall building height limit in the Height Overlay Districts shall be measured between the average level of the highest and lowest elevations of the land covered by the structure and the highest point of the roof or parapet wall covering that structure.

23.61.040 Eligibility.
The contiguous boundaries of Height Overlay Districts shall consist of a minimum of one gross acre or more.

23.61.050 Height Variance Prohibited
Additional building height may not be approved subject to the granting of a variance in the manner prescribed by this Title.

Hugh Nguyen

Orange County Clerk - Recorder

P.O. Box 238 Santa Ana, CA 92702
12 Civic Center Plaza, Room 106 Santa Ana, CA 92701
Phone: (714) 834-2500
www.ocrecorder.com

CITY OF PLACENTIA
401 E CHAPMAN AVE
PLACENTIA, CA 92870

Office of the Orange County Clerk-Recorder
Memorandum

SUBJECT: NOTICE OF INTENT

The attached notice was received, filed and a copy was posted on 07/06/2017

It remained posted for 30 (thirty) days.

Hugh Nguyen
Clerk - Recorder
In and for the County of Orange

By: Eve Lee Deputy

Public Resource Code 21092.3

The notice required pursuant to Sections 21080.4 and 21092 for an environmental impact report shall be posted in the office of the County Clerk of each county *** in which the project will be located and shall remain posted for a period of 30 days. The notice required pursuant to Section 21092 for a negative declaration shall be so posted for a period of 20 days, unless otherwise required by law to be posted for 30 days. The County Clerk shall post notices within 24 hors of receipt.

Public Resource Code 21152

All notices filed pursuant to this section shall be available for public inspection, and shall be posted ***** within 24 hours of receipt** in the office of the County Clerk. Each notice shall remain posted for a period of 30 days.
*** Thereafter, the clerk shall return the notice to the local lead agency *** within a notation of the period it was posted. The local lead agency shall retain the notice for not less than nine months.

Additions or changes by underline; deletions by ***

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

POSTED

JUL 06 2017

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY

To: Orange County Clerk-Recorder
12 Civic Center Plaza, Room 101
Santa Ana, CA 92701

From: City of Placentia
401 E. Chapman Avenue
Placentia, CA 92870

Subject: **Filing of Notice of Intent to Adopt a Mitigated Negative Declaration in compliance with Section 21092.3 of the Public Resources Code.**

General Plan Amendment (GPA) 2017-03, Zone Change (ZC) 2017-03, and Zoning Code Amendment (ZCA) 2017-04 to Establish the Northeast Corner of Placentia Avenue and Crowther Avenue as a Commercial District.

Project Title

	CITY OF PLACENTIA	
Not Applicable	Andrew A. Gonzales, Senior Planner	(714) 993-8124
State Clearinghouse Number	**Lead Agency Contact Person**	**Telephone Number**

Project Location

The project proposes to change the zoning and amend the land use designation on an approximately 7.3-acre (gross) project area located within the City of Placentia. The project area is comprised of eight (8) parcels, which is bifurcated by the Burlington Northern Santa Fe (BNSF) railroad tracks that separate two (2) parcels to the north and six (6) parcels to the south of the track. The 7.3-acre project area is triangular in shape, bound by Crowther Avenue on the south, Placentia Avenue on the west, and State Route 57 (SR 57)/Orange Freeway on the east/north.

Project Description

The City of Placentia proposes a General Plan Amendment to change the existing land use designation of the project area from "Industrial" to "Commercial". The City also proposes a Change of Zone to alter the zoning for the project area from "Commercial Manufacturing" (C-M) and "Manufacturing" (M) to "Community Commercial" (C-2), including establishment of a Height Overlay with a 65-foot height maximum. Additionally, the City proposes a Zoning Code Amendment for the establishment of the Height Overlay. The Height Overlay would permit an increase in overall height limit from 35 feet to 65 feet to accommodate a proposed 150-room hotel. To accomplish this, the City is proposing to adopt a "Commercial" General Plan land use designation (General Plan Amendment (GPA 2017-03)); Zone Change to establish a "C-2" zoning district and 65-foot Height Overlay (Municipal Code, ZC 2017-03); and establish development standards for the Height Overlay (Zoning Code Amendment (ZCA 2017-04)).

Proposed Review Process

A change in land use designation and zoning district, including establishment of a new Height Overlay, for the proposed project is a discretionary decision or "project" that requires evaluation under the California Environmental Quality Act (CEQA). A Mitigated Negative Declaration is the proposed CEQA determination for this project. The City of Placentia acting as the CEQA lead agency for this project will consider adoption of this Mitigated Negative Declaration at a future scheduled public meeting.

After public review of the Initial Study is completed, the City of Placentia proposes to adopt a Mitigated Negative Declaration in accordance with CEQA and the State CEQA Guidelines. Any parties that comment on this proposed Mitigated Negative Declaration will be notified of the meeting date where adoption of the Mitigated Negative Declaration will be considered. Copies of the Mitigated Negative Declaration/Initial Study are available for review at the City's office located at 401 E. Chapman Avenue, Placentia, CA 92870. The proposed Mitigated Negative Declaration will be available for public review and comment from July 7, 2017 to July 26, 2017. Any comments you have must be submitted in writing no later than 6:00 p.m. on July 26, 2017.

Signature	Title	Date
	Senior Planner, City of Placentia	7/6/2017

City of Placentia

Placentia Avenue/Crowther Avenue
GPA 2017-03; ZC 2017-03; ZCA 2017-04; MND 2017-03

Initial Study/Mitigated Negative Declaration

August 2017

Lead Agency:
City of Placentia
401 E Chapman Avenue
Placentia, CA 92870
Planning Department

Contact: Joe Lambert
Director of Development Services

Prepared by:
CASC Engineering and Consulting
1470 E. Cooley Drive
Colton, CA 92324

Contact: Adam Rush, AICP
Director of Planning

CITY OF PLACENTIA
CEQA Initial Study/Environmental Checklist Form

1.0 INTRODUCTION

The City has determined that the Project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects associated with the Project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000-21177 and Section 15063 of Title 14 of the California Code of Regulations (CCR), the City of Placentia, acting in the capacity of Lead Agency, is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant impact on the environment. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the proposed project may result in a significant environmental impact, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze said project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant impact on the environment, the Lead Agency shall find that the proposed Project would not have a significant impact on the environment and shall prepare a Negative Declaration for the Project. Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (Section 21080©, Public Resources Code).

The environmental documentation, has been independently reviewed by the City of Placentia in accordance with CEQA, is intended as an informational document prepared to provide an environmental basis for subsequent discretionary actions on the Project. It should be noted that the resulting documentation is not a policy document and its adoption and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

This environmental documentation and supporting analyses are subject to a public review period. The proposed Project is not a project of "statewide, regional or area wide significance" as prescribed in Section 15206 of the CEQA Guidelines because it does not meet the criteria for such projects. Furthermore, project implementation does not require any action by a State Agency (i.e., "responsible" or "trustee" agency). Therefore, this document will not be submitted to the State Clearinghouse for review and the review period is determined to be twenty days in accordance with Section 15073 of the CEQA Guidelines. Following review of any comments received, the City of Placentia will consider said comments as part of the Project's environmental review and include them with the Initial Study documentation for consideration by the City in accordance with Section 15074(b) of the CEQA Guidelines.

1.2 PURPOSE

The purposes of the Initial Study/Environmental Checklist are as follows:

a. Identify environmental impacts;
b. Provide the Lead Agency with information to use as the basis for determining whether to prepare an EIR or

Negative Declaration;

c. Enable an applicant or Lead Agency to modify a project so as to mitigate adverse impacts before an EIR is required to be prepared;
d. Facilitate the assessment of environmental impacts early in the design of the project;
e. Provide documentation of the factual basis for the finding in a Negative Declaration that a project would not have a significant environmental effect;
f. Eliminate needless EIRs;
g. Determine whether a previously prepared EIR could be used for the project; and
h. Assist in the preparation of and EIR, if required, by focusing the EIR on the impacts determined to be significant, identifying the impacts determined not to be significant, and explaining the reasons for determining that potentially significant impacts would not be significant.

Section 15063 of the CEQA Guidelines identifies specific disclosure requirements for inclusion in the Initial Study. Pursuant to those requirements, an Initial Study shall include the following:

a. A description of the project, including the location of the project;
b. An identification of the environmental setting;
c. An identification of the environmental effects by use of a checklist, matrix or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
d. A discussion of ways to mitigate significant impacts identified, if any;
e. An examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
f. The name of the person or persons who prepared or participated in the preparation of the Initial Study.

2.0 Project Description and Information

1. **Project title:** Placentia Avenue/Crowther Avenue GPA 2017-03; ZC 2017-03; ZCA 2017-04; &MND 2017-03

2. **Lead agency name and address:** City of Placentia – Development Services Department
401 East Chapman Avenue
Placentia, CA 92870

3. **Contact person and phone number:** Andrew Gonzales, Senior Planner, City of Placentia

4. **Project location:** Northeast corner of Placentia Avenue and W Crowther Avenue

   A. Total Project Area: 7.3 gross acres and 6.1 net acres.

Residential Acres: 0	Lots: 0	Units: 0	Projected No. of Residents: 0
Commercial Acres: 5.0	Lots: 0	Sq. Ft. of Bldg. Area: 0	Est. No. of Employees: 0
Industrial Acres: 0	Lots: 8	Sq. Ft. of Bldg. Area: 163,780	Est. No. of Employees: 0
Other:			

   B. Assessor's Parcel No: 339-441-01,02; 339-442-01, 02, 03; 339-443-03, 05, 06

   C. Map: Thomas Brothers Orange County Street Guide 2013 Pages , grids

   D. Section Township T and Range R of the San Bernardino Base and Meridian.

   E. Longitude: 33 52' 01.64"N Latitude: 117 52' 48.80"W

5. **Project Applicant/Owners**

   Representative: Andrew Gonzales, Senior Planner, City of Placentia

6. **General Plan Designation**: The City's General Plan Land Use Element, Land Use Map identifies the existing land use designation as Industrial.

7. **Zoning:** The City's Zoning Map identifies the existing zoning designation for the project site as Commercial Manufacturing, (C-M), and Manufacturing (M).

8. **Description of Project:**
   The project site is approximately 7.3 acres located at the northeast corner of Placentia Avenue and West Crowther Avenue. The triangular site is bordered by the Orange Freeway/Route 57 on the east, West Crowther Avenue on the south, Placentia Avenue on the west. Currently, industrial land uses exist on the project site.

   The City proposes a General Plan Amendment to change the existing land use designation of Industrial to Commercial. The City also proposes a Change of Zone to change the zoning for the project site from the existing Commercial Manufacturing (C-M) and Manufacturing (M) zoning classifications to the Community Commercial (C-2) zoning classification. Additionally, the City proposes a text amendment for the establishment of a Height Overlay for a maximum height of 65 feet. The Height Overlay over the project site would permit an increased height limit from 35 feet to 65 feet in order to accommodate an anticipated 150-room hotel. In addition, the City

proposes to provide a Zoning Code Amendment (ZCA 2017-04), which will prepare, provide and ultimately codify the Development Standards of the proposed Height Overlay, which is associated with the proposed 150-room hotel.

The intended commercial development consists of a combination of retail uses and a 150-room hotel with on-site parking.

The following public services are available to the Project:

- Fire Protection Services Orange County Fire Authority
- Police Protection Services Placentia Police Department
- Public Schools Placentia-Yorba Linda Unified School District
- Library Services Placentia Library District
- City Administrative Services City of Placentia

The following utilities/infrastructure systems and services are available to the Project:

- Water/Sewer Golden State Water
- Electricity Southern California Edison
- Natural Gas The Gas Company
- Telephone/Communications Verizon, or other contract services

9. **Surrounding Land Uses and Environmental Setting:**

The adjacent General Plan Area Plan(s), Land Use Designation(s), and Zoning(s), if any:

Surrounding Land Uses

Direction	General Plan Designation	Zoning District (C-M)	Existing Land Use
Project Site	Industrial	Commercial Manufacturing	Industrial, vacant
North**	Single-Family Residential & R-O-W	Single-Family Residential & R-O-W	Single-Family Residences & State Route 57 (SR-57)/Orange County
South	Industrial	Manufacturing	Commercial
East	R-O-W and Transit-Oriented Development (TOD)	R-O-W and TOD	SR-57 & Industrial
West**	Industrial	M-P-200	Commercial

** City of Fullerton

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

Based on the current Project design concept, other permits necessary to realize the proposal will likely include, but are not limited to, the following:

- Stormwater management and associated permitting will be required consistent with the provisions of the Clean Water Act Section 401 and the Santa Ana Regional Water Quality Control Board (SARWQCB) pursuant to requirements of the National Pollutant Discharge Elimination System (NPDES) Permit;

- Permitting may be required by/through the South Coast Air Quality Management District (SCAQMD) for certain of the Project operations and its associated equipment.

Figure 1: Project Location

Figure 2: Project Site

Figure 3 Aerial Photograph

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Population and Housing
☐ Agriculture Resources	☐ Hazards & Hazardous Materials	☐ Public Services
☐ Air Quality	☐ Hydrology/Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use/Planning	☐ Transportation/Traffic
☐ Cultural Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Geology/Soils	☐ Noise	☐ Mandatory Findings of Significance

The environmental factors checked below (x) would be potentially affected by this project, involving at least one impact that is a "**Less than Significant with Mitigation Incorporated**" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Population and Housing
☐ Agriculture Resources	☐ Hazards & Hazardous Materials	☐ Public Services
☐ Air Quality	☐ Hydrology/Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use/Planning	☒ Transportation/Traffic
☐ Cultural Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Geology/Soils	☐ Noise	☐ Mandatory Findings of Significance

The environmental factors checked below (x) would be potentially affected by this project, involving at least one impact that is a "**Less than Significant**" as indicated by the checklist on the following pages.

☐ Aesthetics	☒ Greenhouse Gas Emissions	☐ Population and Housing
☐ Agriculture Resources	☐ Hazards & Hazardous Materials	☒ Public Services
☒ Air Quality	☒ Hydrology/Water Quality	☐ Recreation
☐ Biological Resources	☒ Land Use/Planning	☐ Transportation/Traffic
☐ Cultural Resources	☐ Mineral Resources	☒ Utilities and Service Systems
☒ Geology/Soils	☒ Noise	☒ Mandatory Findings of Significance

The environmental factors checked below (x) would have "**No Impact**" by this project as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Greenhouse Gas Emissions	☒ Population and Housing
☒ Agriculture Resources	☒ Hazards & Hazardous Materials	☐ Public Services
☐ Air Quality	☐ Hydrology/Water Quality	☒ Recreation
☒ Biological Resources	☐ Land Use/Planning	☐ Transportation/Traffic
☒ Cultural Resources	☒ Mineral Resources	☐ Utilities and Service Systems
☐ Geology/Soils	☐ Noise	☐ Mandatory Findings of Significance

4.0 DETERMINATION:

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- **X** I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Andrew A. Gonzales — 7/6/17

Signature — Date

ANDREW A. GONZALES

Printed Name

5.0 ENVIRONMENTAL ISSUES ASSESSMENT

I. AESTHETICS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	●	☐

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and does not propose actual development or site disturbance. The project also proposes a Height Overly with a 65-foot maximum over that portion of the project site that may include the anticipated 150-room hotel. Upon submittal of specific-use development applications to the City, a subsequent environmental analysis will be prepared which will fully identify and address impacts as well as propose appropriate mitigation measures.

Impact I.a): The proposed Project is in a highly urbanized and fully developed area of the City surrounded by existing residential, commercial, and industrial land uses. There are no scenic vistas into or from the project site. The proposed project will not have an adverse effect on a scenic vista.

Impact I.b): The proposed project site does not contain any scenic resources, including trees, rock outcroppings or historic buildings. Thus, the proposed Project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Impact I.c): As noted above, the project is located in a highly urbanized and fully developed area of the City, surrounded by existing residential, commercial and industrial land uses, as well as the 57 Freeway. The proposed Height Overlay will be implemented only on that portion of the project site where the anticipated 150-room hotel is developed. The northern portion of the project site is constrained by its irregular shape. It is anticipated that the hotel would be located south, adjacent to the railroad tracks and existing industrial uses or on the parcels south of the railroad track. This would increase the distance from the existing residences across Placentia Avenue to a minimum of approximately 200 feet, reducing the impact to the visual character of the area. Thus, the proposed Project will not substantially degrade the existing visual character or quality of the site or its surroundings.

Impact I.d): The proposed Project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. If realized, the anticipated 150-room hotel will create a new source of substantial light. In accordance with Placentia Municipal Code (PMC) Section 23.78.080 – Lights, all lighting within the parking lot or building lights are required to direct light away from the public

right-of-way and any adjoining residential uses. Site specific design details for the hotel, in compliance with City requirements, will be submitted for review and approval so as to reduce the potential impact to a less than significant level.

Mitigation Measures: No mitigation measures are necessary.

II. 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	●
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	●
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	●

Sources: State of California, Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring

Analysis of Project Effect and Determination of Significance:

Impacts II.a-b): The proposed project involves land which is not designated as having prime, unique or farmland of statewide importance, nor is the land under a Williamson Act contract. The project is located in a highly urbanized and fully developed area of the City, surrounded by existing commercial and industrial land uses.

Impacts II.c): The proposed project does not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

Impact II.d): The proposed project will not result in the loss of forest land or conversion of forest land to non-forest use.

Impact II.e): The proposed project does not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Mitigation Measures: No mitigation measures are necessary.

III. 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:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	●
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	●	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	●	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	●	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	●	☐

Sources: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay of 65-foot maximum and does not propose actual development or site disturbance. Upon submittal of specific-use development applications to the City, a detailed environmental analysis will be prepared for that use which will, determine consistency with this assessment, fully identify impacts and propose appropriate mitigation measures.

The proposed project is intended to facilitate the redevelopment of the existing industrial use to commercial uses, it is not anticipated that the implementing projects will result in a significant increase in vehicle trips over existing conditions. The Traffic Impact Analysis (TIA) was prepared in June 2017 and is fully discussed in Section XVI, Traffic/Transportation, of this document regarding impacts to traffic and circulation.

The proposed project will not impede the implementation of those design standards, compliance with existing regulations or implementation of mitigation measures as noted above.

Impact III.a): The proposed project will not conflict with or obstruct implementation of the applicable air quality plan.

Impacts III.b): The proposed project will induce the redevelopment of the project site. It can be expected that the future redevelopment would generate short-term and long-term emissions that could contribute to a violation of ambient air quality standards. No significant impacts are anticipated.

Impact III-c): The project is within a state or federally designated non-attainment area for ozone, CO and PM10. Short-term emissions of NOx, ROC and PM10 during the future redevelopment construction phases and long-term emissions of NOx, CO and ROC would be above the SCAQMD thresholds for these criteria pollutants.

Impact III-d): As noted above, the project under consideration does not propose specific uses or construction activities. Thus, the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Impact III.e): The proposed project would not create objectionable odors affecting a substantial number of people.

Mitigation Measures: No mitigation measures are proposed.

IV. BIOLOGICAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	●
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	●
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	●

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	●
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	●
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay of 65-foot height maximum and does not propose actual development or site disturbance. Upon submittal of specific-use development applications to the City, a detailed environmental analysis will be prepared which will fully identify and address impacts as well as propose appropriate mitigation measures.

Impact IV.a): In that the project site is located in a highly urbanized, fully developed area of the City, the proposed project will not 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 Wildlife or U.S. Fish and Wildlife Service.

Impact IV.b): The proposed project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

Impact IV-c): The proposed project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact IV.d): Given the physical location and existing urbanized conditions of the project site and the surround ding area, the proposed project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact IV.e): The proposed project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact IV-f): The project site is not within any conservation plan area. As such, the proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures: No mitigation measures are necessary or proposed.

V. CULTURAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	●

A Letter dated July 12, 2017 was received by the City from the Gabrieleno Band of Mission Indians – Kizh Nation. Tribal representative and City consultant discussed the details of the project more fully on August 1, 2017. It became clear to the tribe that no physical development is being proposed at this time with this entitlement application. The tribal representative is comfortable with the understanding that future development applications may well trigger the need to comply with AB 52 consultation requirements and that the Gabrieleno tribe will be fully involved at that time.

Analysis of Project Effect and Determination of Significance:

Impact V.a): The existing structures on the project site do not possess historic value or of historic significance. As such, redevelopment of the project site, induced by the proposed project, will not cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5 of the CEQA Guidelines.

Impact V.b): The project site does not contain any archeological resources. Thus, the proposed project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5 of the CEQA Guidelines.

Impact V.c): The proposed project site does not contain any paleontological resources and thus will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact V.d): The proposed project will not disturb any human remains, including those interred outside of formal cemeteries.

Mitigation Measures: No mitigation measures are necessary or proposed.

VI. GEOLOGY AND SOILS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	●	☐
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?	☐	☐	☐	●
f) Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The proposed project will induce the redevelopment of the project site with commercial uses.

Implementation of and compliance with various City design standards and applicable ordinances will reduce the impacts to geotechnical and soils resources to a less-than-significant level and no additional mitigation measures were proposed.

Impact VI.a.i): The project site, located in the seismically active region of Southern California, is susceptible to earthquakes and seismic ground motion. The proposed project involves a General Plan Amendment and Change of Zone only and does not propose actual development or site disturbance.

It can be anticipated that, through compliance with existing City and State grading and construction standards, the proposed project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.

Impact VI.a.ii): As noted above, the project site is located in seismically active Southern California and in proximity to several active faults. This is a programmatic level CEQA analysis in that the proposed project involves a General Plan Amendment and Change of Zone only and does not propose actual development or site disturbance. Upon submittal of development applications to the City, a detailed environmental analysis will be prepared which will fully identify and address impacts as well as propose appropriate mitigation measures.

It can be anticipated that, through compliance with existing City and State grading and construction standards, the proposed project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

Impact VI.a.iii): Through compliance with the City's existing grading standards, the proposed project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

Impact VI.a.iv): Through compliance with the City's existing grading standards, the proposed project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Impact VI.b): The project site is fully developed with all necessary improvements in place, including streets, curbs, gutters, water and sewer lines, and electrical service lines. The proposed project will not result in substantial soil erosion or the loss of topsoil.

Impact VI.c): The proposed project is not 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.

Impact VI.d): The proposed project is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact VI.e): The proposed project will not 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.

Impact VI.f): The proposed project will not be impacted by or result in an increase in wind erosion and blowsand, either on or off site.

Mitigation Measures: No mitigation measures are required.

VII. GREENHOUSE GAS EMISSIONS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	●	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	●	☐

Source: OPR's Technical Advisory.

Applicable General Plan Goals and Policies:

Existing Setting:
Global Warming and Greenhouse Gases
Global climate change refers to changes in average climatic conditions on earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in average temperature of the earth's surface and atmosphere. The six major greenhouse gases (GHGs) identified by the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_20), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). GHGs absorb longwave radiant energy reflected by the earth, which warms the atmosphere. GHGs also radiate long wave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation absorbed by the atmosphere is known as the "greenhouse effect." The potential effects of global climate change may include rising surface temperatures, loss in snow pack, sea level rise, more extreme heat days per year, and more drought years.

CO_2 is an odorless, colorless natural GHG. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO_2 are from burning coal, oil, natural gas, wood, butane, propane, etc. CH_4 is a flammable gas and is the main component of natural gas. N_20, also known as laughing gas, is a colorless GHG. Some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of GHGs. HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (whose production was stopped as required by the Montreal Protocol) for automobile air conditioners and refrigerants. The two main sources of PFCs are primary aluminum production and semiconductor manufacture. SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHGs. An air quality analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants significance thresholds are based on daily emissions because attainment or non-attainment is based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health, e.g., one-hour and eight-hour. Since the half-life of CO_2 in the atmosphere is approximately 100 years, for example, the effects of GHGs are longer-term, affecting global climate over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate GHG effects over a longer timeframe than a single day.

In its CEQA & Climate Change document (January 2008), the California Air Pollution Control Officers Association (CAPCOA) identifies many potential GHG significance threshold options. The CAPCOA document indicates that establishing quantitative thresholds is a balance between setting the level low enough to capture a substantial portion of future residential and non-residential development, while also setting a threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions. Two potential significance thresholds were 10,000 metric tons per year and 25,000 metric tons per year.

Finally, another approach to determining significance is to estimate what percentage of the total inventory of GHG emissions are represented by emissions from a single project. If emissions are a relatively small percentage of the total inventory, it is possible that the project will have little or no effect on global climate change.

According to available information, the statewide inventory of CO_2 equivalent emissions is as follows: 1990 GHG emissions were estimated to equal 427 million metric tons of CO_2 equivalent, and 2020 GHG emissions are projected to equal 600 million metric tons of CO_2 equivalent, under a business as usual scenario. Interpolating an inventory for the year 2011 results in an estimated inventory of approximately 121 million metric tons of CO_2 equivalent. Interpolating an inventory for the year 2012 results in an estimated inventory of approximately 127 million metric tons of CO_2 equivalent. These amounts assume that between 1990 and 2020 there is an average increase of 5.76 million tons per year of GHG.

Analysis of Project Effect and Determination of Significance:

This is a programmatic level CEQA analysis in that the proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with 65-foot height maximum and does not propose actual development or site disturbance. Upon submittal of specific-use development applications to the City, a detailed environmental analysis will be prepared which will fully identify and address impacts as well as propose appropriate mitigation measures.

Impacts VII.a) For purposes of this Initial Study, it will be assumed that the proposed project will not result in potentially significant impacts and will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impacts VII.b): The proposed project will not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation Measures: No mitigation measures are required at this point in time.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

Impact VIII.a): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Upon submittal of specific-use development applications to the City, a detailed analysis of the specific use will fully identify and address impacts as well as propose City-approved measures to further minimize the potential for significant impacts.

As such, the proposed project will create a less than significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact VIII.b): As noted above, the proposed project does not propose disturbance of the project site at this time and thus will not 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.

Impact VIII.c): As noted above, the proposed project does not propose construction or disturbance of the project site at this time and thus will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Impact VIII.d): The proposed project is not 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 not create a significant hazard to the public or the environment.

Impact VIII.e-f): The proposed project, including the 65-foot Height Overlay, is not 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, and thus would not result in a safety hazard for people residing or working in the project area. The proposed project is not within the vicinity of a private airstrip, and thus the project would not result in a safety hazard for people residing or working in the project area.

Impact VIII.g): The proposed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact VIII.h): As noted above, the project site is located in a heavily urbanized, fully developed area of the City with little natural open space in the vicinity. The proposed project is not located in an area that is considered to be subject to wildland fire hazards and thus would not 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.

Mitigation Measures: No mitigation measures are required.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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 which would result in flooding on- or off-site?	☐	☐	☐	●
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	●	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	●
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	●
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	●
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	●
j) Inundation by seiche or mudflow?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

Impact IX.a): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Upon submittal of specific-use development applications to the City, a detailed analysis will fully identify and address water quality and waste discharge aspects of the particular uses proposed. Appropriate design features and improvements will then be formulated to mitigate any potential impacts. The proposed project will not violate any water quality standards or waste discharge requirements.

Impact IX.b): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The existing commercial/industrial businesses within the project site are served by local water agencies

and do not affect groundwater supplies or groundwater recharge efforts. Upon submittal of specific-use development applications to the City, an analysis specific to the proposed land use will fully identify and address impacts as well as propose appropriate mitigation measures.

The proposed project will not 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).

Impact IX.c): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The drainage facilities that exist on the project site and in the vicinity will accommodate the future redevelopment of the project site.

The proposed project will not 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.

Impact IX.d): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future specific-use development applications to the City will fully identify and address drainage, surface runoff and potential flooding impacts and propose appropriate improvements to mitigate all impacts as appropriate.

The proposed project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

Impact IX.e): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future specific-use development applications to the City will identify grading, drainage, stormwater pollution prevention measures and flood control design features that are in compliance with master drainage plans and stay within existing and planned stormwater system capacities, including the existing storm water facility adjacent to the eastern boundary of the project site.

The proposed project will not 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.

Impact IX.f): The proposed project will not otherwise substantially degrade water quality.

Impact IX.g): The proposed project will not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

Impact IX.h): The proposed project will not place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Impact IX.i): The proposed project will not 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.

Impact IX.j): The proposed project will not cause inundation by seiche or mudflow.

Mitigation Measures: No mitigation measures are required.

X. LAND USE AND PLANNING - Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	●

Applicable General Plan Goals and Policies:

General Plan Land Use Element Consistency Assessment

Goal 1: A suburban community atmosphere should be maintained as the City experiences future growth		
Policy No.	Land Use Element Policy	Consistency Assessment
1-1	Large, vacant or underutilized parcels should be comprehensively planned for development to minimize effects on the City's suburban atmosphere.	The project site is located in a highly urbanized and fully developed area of the City, surrounded by existing commercial and industrial land uses. The project will not affect the City's suburban atmosphere.
1-2	Reinvestment should occur in targeted areas to maintain the suburban image	Not applicable
1-3	Preserve neighborhood integrity by routing extraneous traffic around neighborhoods	Not applicable.
1-4	Minimize traffic generated during peak hours by future developments to ensure that existing traffic level of service is not decreased	A Traffic Impact Analysis (TIA) was prepared in June 2017 and is fully discussed in Section XVI of this Initial Study. Future, site specific development applications will demonstrate consistency with the TIA and address traffic impacts as well as propose appropriate mitigation measures.
Goal 2: Provide and maintain an adequate level of service for all community public services and facilities		

2-1	The distribution of land uses within the general plan shall be such as to achieve an economical community which will not require added public expenditures per household, per commercial establishment, or per employee to finance new development or to update existing development	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Site specific development applications will fully identify necessary improvements, if any, to be borne by the developer.
2-2	Increase the tax base of the City through land use planning while maintaining the City's suburban atmosphere	It is anticipated that the redevelopment of the project site will increase the tax base for the City
2-3	Develop commercial centers to provide employment and a strong fiscal base for the City	The General Plan Amendment and Change of Zone to Commercial uses will result in employment and a strong fiscal base to the City
2-4	Work closely with developers and other interested parties to develop means by which needed capital facilities can be provided on a long-term basis at little or no capital costs to the City. This could include the use of special assessment districts, developer reimbursement techniques, private-public joint ventures, tax increment financing	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The project site is fully developed with all necessary improvements and facilities installed. Future site specific development applications will identify necessary capital facilities and address financial mechanisms available to fund the improvements.
2-5	Ensure new developments provide adequate improvements, dedications, and fees to the City to fully cover the project's demand costs on City services	New developments within the project site will be subject to all applicable fees, dedications and improvements.
Goal 3: Promote future development which is compatible with existing and future surrounding land uses		
3-1	Orient land uses that create employment opportunities toward major and primary arterial streets so that activities associated with these uses will have a minimal effect upon adjacent residential neighborhoods	Placentia Avenue is a primary north/south oriented street.
3-2	Plan for phasing which provides incremental development that is coordinated with the existing adjacent development, infrastructure and market opportunities	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot maximum and does not propose actual development or site disturbance. While the individual parcels will be developed independently, The City will ensure that infrastructure improvements, as necessary, will be coordinated between parcels and property owners.
3-3	Ensure new development provides an appropriate buffer to adjacent existing uses of less intensity	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future specific-use development applications will identify buffering issues, address impacts as well as propose appropriate mitigation measures.
3-4	Protect those areas planned for residential development from the encroachment of incompatible or unrelated land uses.	Not applicable

3-5	Ensure new developments provide sufficient noise barriers to adjacent existing use of less intensity.	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot maximum and does not propose actual development or site disturbance. Future, site specific development applications will identify and address noise generation and noise attenuation measures to be approved by the City.
3-6	Limit noise sensitive land uses within noise impacted areas.	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future, site specific development applications will identify and address noise generation and propose appropriate mitigation measures.
3-7	Promote exterior signage and lighting to be subdued in character and non-intrusive upon neighboring uses.	That the proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future specific-use development applications to the City will propose site specific signage and lighting plans that will comply with City requirements.
3-8	Repeat or complement in new developments, a strong design theme that has been established in a particular neighborhood.	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future, site specific development applications will include an architectural design package that will comply with City requirements.
3-9	Protect the privacy of adjacent uses with building mass that reflects lot size.	The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Future specific-use development applications will include site plans, building elevations and information that addresses privacy issues.
3-10	Actively pursue to change legal non-conforming uses and buildings into conformance with the City of Placentia General Plan Land Use Element.	Not applicable
Goal 4: Promote the development of activity centers to be conveniently located for residents within the City		
4-1	Encourage neighborhood shopping centers that are conveniently accessible to neighborhoods.	The proposed project will promote the development of retail commercial uses, including neighborhood shopping establishments.
4-2	Promote the redevelopment and revitalization of older commercial areas to serve the needs of the community as a whole, as well as adjacent residential neighborhoods.	The proposed General Plan Amendment and Change of Zone will promote the redevelopment and revitalization of the existing industrial area to commercial land uses.
4-3	Reduce the number of existing isolated commercial outlets through consolidation, where appropriate, and discourage strip commercial development.	Not applicable
4-4	Establish and maintain recreational open space areas in close proximity to residential areas.	Not applicable.

4-5	Ensure adequate school space is provided for City schools.	Not applicable.

Analysis of Project Effect and Determination of Significance:

Impact X.a): The proposed project will not physically divide an established community

Impact X.b): The proposed project will amend the existing land use designation of the Land Use Element of the General Plan to Commercial. It will also change the existing zoning district to Community Commercial (C-2) and create a Height Overlay. The existing land use designation was not adopted for the purpose of avoiding or mitigating and environmental effect. The same finding applies to the existing zoning district. The impacts of the proposed project are less than significant.

Impact X.c): The proposed project will not conflict with any applicable habitat conservation plan or natural community conservation plan.

Mitigation Measures: No mitigation measures are proposed.

XI. MINERAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

Impact XI.a): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The project site is in an urbanized area of the City and is fully developed. No known mineral resources exist of the project site.

The proposed project will not 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.

Impact XI.b): The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot maximum and does not propose actual development or site disturbance. The project site is in an urbanized area of the City and is fully developed. No known mineral resources exist of the project site.

The proposed project will not 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.

Mitigation Measures: No mitigation measures are required.

XII. NOISE -- Would the project result in:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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 ground borne vibration or ground borne noise levels?	☐	☐	●	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	●
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	●
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?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot maximum and does not propose actual development or site disturbance. Future, site specific development applications will identify and address noise generation and noise attenuation issues.

Impact XII.a): The proposed project will not expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact XII.b): The proposed project will not expose persons to or generate excessive ground borne vibration or ground borne noise levels.

Impact XII.c): The proposed project will not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact XII.d): The proposed project will not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact XII.e): The proposed project is not 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, and thus would not expose people residing or working in the project area to excessive noise levels.

Impact XII.f): The proposed project is not located within the vicinity of a private airstrip, and thus would not expose people residing or working in the project area to excessive noise levels.

Mitigation Measures: No mitigation measures are proposed.

XIII. POPULATION AND HOUSING -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

Impact XIII.a): The proposed project will not induce substantial population growth in an area beyond that which has already been planned for, either directly or indirectly.

Impact XIII.b): The proposed project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact XIII.c): The proposed project will not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Mitigation Measures: No mitigation measures are required.

XIV. PUBLIC SERVICES	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	●	☐
b) Police protection?	☐	☐	●	☐
c) Schools?	☐	☐	●	☐
d) Parks?	☐	☐	●	☐
e) Other public facilities?	☐	☐	●	☐

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. It is anticipated that the change from commercial/industrial land uses to commercial land uses will not result in significant increases to the public services now being provided.

Impacts XIV.a): The payment of applicable development impact fees, the implementation of fire suppression measures in compliance with City Fire codes, and proximity to existing Fire Station #35 (located at 120 South Bradford Avenue, less than 0.75 mile from the project site) will ensure that impacts to fire safety service will be less than significant.

Impact XIV.b): The payment of applicable development impacts fees, implementation of safety, lighting and defensible space measures as well as proximity to the Police Station (located at Civic Center less than 1.5 miles from the project site, will ensure that impacts to police protection services will be less than significant.

Impacts XIV.c): No residential uses are permitted under the proposed land use designation and zoning, therefore, no students will be generated by the project. No significant impacts are anticipated.

Impacts XIVd): While future employees and visitors may utilize existing nearby parks and recreational facilities, no significant impacts are anticipated.

Impact XIV.e): Payment of applicable development impact fees as well as the provision and/or extension of public facilities to the project site will ensure that no significant impacts will result from the project.

Mitigation Measures: No mitigation measures are required.

XV. RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	●
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The proposed project will result in the redevelopment of the project site with commercial land uses. The existing uses include commercial and commercial/industrial land uses. The change will not result in a significant increase in demand for and use of recreational facilities.

Impact XV.a): The proposed project will not result in an increase in population and thus will not 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.

Impact XV.b): The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Mitigation Measures: No mitigation measures are required.

XVI. TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	●	☐	☐

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	●	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	●
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?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The proposed project will induce the redevelopment of the project site, potentially replacing the existing commercial/industrial land uses with commercial land uses.

The City's General Plan Update, currently in process, proposes a Metrolink train station be constructed at the intersection of Melrose Avenue and Crowther Avenue, just east of the project site. In support of the future Metrolink station and consistent with Transit-Oriented Policies, the Land Use Element envisions an intensification of commercial and mixed-use/commercial in the immediate area of the project area. The Traffic Study prepared for the Transit Oriented Development (TOD) – Mitigated Negative Declaration (MND) (GPA 2017-01 & ZC 2017-01 to "Establish the Packing House District TOD Project" (dated January 19, 2017) analyzed the LOS of 15 intersections under six scenarios for both morning and afternoon peak hours. This study is hereby incorporated by reference, as it included the intersection of Placentia Avenue/Crowther Avenue (PM) in its analysis. This TIA, for the Packing House TOD MND, found that the intersection of Placentia/Crowther Avenue will be required to upgrade the left turn signal phasing for all movements from permissive left turns to protected/permissive left turn phasing.

A Traffic Impact Analysis (TIA) was prepared by DKS Associates (prepared on May 19, 2017 and incorporated herein by reference) under the direction of the City of Placentia to assess the traffic impacts of the proposed project. The TIA concludes that the change in traffic generation between commercial/industrial land uses and commercial land uses may have an impact at the intersection of Placentia and Crowther, unless mitigated further. Secondly, the proposed project-generated trips, would only cause an impact at the intersection of Placentia Avenue and Crowther Avenue at the time frame identified for the City of Placentia General Plan Buildout, which is the year 2035. Thirdly, the possible impacts are only related to the PM peak hour trips, as referenced in Section 5 (page 30 of 82) of the TIA referenced herein. However, since the proposed project will likely occur prior to the General Plan Buildout scenario, in 2035, it is recognized that Mitigation Measure (MM) CIR-1 will need to be implemented prior

to General Plan Buildout in 2035. It is also understood that the proposed project will be implemented with a number of independent commercial business establishments.

In that the timing of entitlement and development of each of the future commercial business establishments in not known, the City shall set forth the following process for all future projects within the project boundary:

- Upon submittal of specific development applications to the City for each commercial establishment within the proposed project, an updated traffic assessment will be prepared which will demonstrate consistency with the current analysis, include existing traffic generated from within the project and determine what the resulting LOS will be at the affected intersections;

- Each implementing project will be conditioned and required to pay a fair-share fee to the City for the cost of the future improvements as specified in CIR-1. Said fees shall be paid prior to the issuance of building permits, retained by the City and released when the improvements of CIR-1 are undertaken;

- The City shall establish a fair-share fee based on the percentage of trips contributed to the intersection of Crowther Avenue and Placentia Avenue. The fair-share fee shall include the percentage of trips contributed to the subject intersection and participation in mitigation from the developments within the Packing House District Transit-Oriented Development Project as referenced herein;

- When the updated traffic analysis for each implementing project indicates that the LOS at the Crowther/Placentia intersection will reach an unacceptable level, the improvements to the intersection as identified in CIR-1 will be required, with completion of said improvements prior to the issuance of certificates of use and occupancy. Said improvements will be the responsibility of the developer whose project triggers the need for the improvements, as identified in the updated traffic analysis;

- Each implementing project of both the proposed project as well as the Packing House District Transit-Oriented Development Project will continue to pay the fair-share fee to the City for reimbursement of costs for completed improvements.

As such, MM CIR-1 is proposed to reduce the impact to a less than significant level.

Impact XVI.a): A Traffic Impact Analysis (TIA) was prepared in June, 2017 by DKS Associates under the direction of the City of Placentia to assess the traffic impacts of the proposed project. The TIA concludes that the change in traffic generation between commercial/industrial land uses and commercial land uses would have a significant impact at the intersection of Placentia and Crowther and mitigation measure CIR-1 is proposed to reduce the impact to less than significant. With implementation of mitigation measure CIR-1, the proposed project will not 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.

Impact XVI.b): The TIA prepared for the project, as discussed above, indicates that the project will contribute to adverse impacts to level of service (LOS) in the immediate area. The TIA recommends Mitigation Measure CIR-1, below, that will reduce said impacts to a less-than-significant level. With the implementation of Mitigation Measure CIR-1, the proposed project will not 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.

Impact XVI.c): The proposed project is not associated with nor impacts any local or regional airport facilities and will not 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.

Impact XVI.d): Mitigation Measure CIR-1, identified below and discussed above, requires improvements for left turn movements at the intersection of Crowther Avenue and Placentia Avenue. Design plans for said improvements will be reviewed and approved by the City of Placentia, consistent with City standards. Therefore, the proposed project will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact XVI.e): The improvements associated with Mitigation Measure CIR-1 will ensure that traffic flow operates at acceptable service levels and thus will not result in inadequate emergency access.

Impact XVI.f): The improvements associated with Mitigation Measure CIR-1 will ensure that traffic flow operates at acceptable service levels and thus the proposed project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Mitigation Measures: CIR-1 At the intersection of Placentia and Crowther, upgrade existing left turn phasing from permitted left-turns to protected/permitted left-turns for the northbound, southbound and eastbound approaches.

Mitigation Monitoring: CIR-1. The City of Placentia Development Services Department will condition the implementing project to prepare and submit both street improvement and traffic signal plans, associated with MM CIR-1. The Development Services Department – City Traffic Engineer and Public Works will review and approve such plans. The traffic upgrades, namely, upgrading of the existing left turn phasing and left turn lanes, will be completed prior to the issuance of certificate of use and occupancy.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	●
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	●
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	●
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	●	☐

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	●	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	●	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	●

Analysis of Project Effect and Determination of Significance:

The proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. The proposed project will induce the redevelopment of the project site, potentially replacing the existing commercial/industrial land uses with commercial land uses. The change in demand and use of utilities and service systems between commercial/industrial land uses and commercial land uses is negligible and it is anticipated that the impacts would be less than significant. Should the anticipate 150-room hotel come to fruition and submit development application to the City, a detailed specific-use analysis will be prepared to fully identify and address the potential impacts of the hotel on utilities and service systems, including other potential commercial establishments that may develop one or multiple parcels within the project site.

Impact XVII.a): Future implementing projects will identify precise wastewater quantities that will be generated, demonstrate compliance with wastewater treatment requirements, including the payment of all applicable development impact and/or connection fees. Therefore, it is anticipated that the proposed project will not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact XVII.b): The proposed project will not 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.

Impact XVII.c): The proposed project will not 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.

Impact XVII.d): The proposed project will have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact XVII.e): The future development anticipated by this proposed project will precisely address the amount of wastewater generated as well as the treatment facilities required, resulting 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.

Impact XVII.f): Presently, the City of Placentia, including the project site, is serviced by Republic Services/Placentia Disposal. The Olinda Alpha Landfill in Brea, the facility that accepts solid waste from the City of Placentia, estimates that the landfill has sufficient capacity through the year 2030. Therefore,

the Olinda Landfill will serve the proposed project with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Impact XVII.g): Solid waste collection and disposal services will be provided by Republic Services/Placentia Disposal. The proposed project will comply with federal, state, and local statutes and regulations related to solid waste.

Mitigation Measures: No mitigation measures are proposed.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?	☐	☐	●	☐
Findings of Fact:				
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)?	☐	☐	●	☐
Findings of Fact:				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	●	☐

Findings of Fact:

This is a programmatic level CEQA analysis in that the proposed project involves a General Plan Amendment, Change of Zone and Height Overlay with a 65-foot height maximum and does not propose actual development or site disturbance. Upon submittal of specific-use development applications to the City, a detailed environmental analysis will be prepared which will fully identify and address impacts as well as propose appropriate mitigation measures.

a) The proposed project will not 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) The proposed project will facilitate the redevelopment of the project site from the existing industrial land uses to commercial uses. As such, it is anticipated that the change from existing impacts on traffic, vehicle mile traveled, air quality and greenhouse gas emissions will be negligible. Thus, it is anticipated that the cumulative effects of the proposed project will be less than significant. As noted earlier, upon submittal of development applications to the City, a detailed environmental analysis will be prepared which will fully identify and address impacts specific to the proposed land use and as propose appropriate mitigation measures.

c) The proposed project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

XVIII. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration as per California Code of Regulations, Section 15063 (c) (3) (D).

XIX. REFERENCES

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Olinda Alpha Landfill, Julie Chay

Technical Appendices

A. Traffic Impact Analysis, DKS & Associates, June 2017

Appendix A

Crowther Avenue & Placentia Avenue Traffic Impact Analysis

Prepared for the
City of Placentia

Prepared by:
DKS Associates

Prepared On:
May 19th, 2017

Traffic Impact Analysis

GENERAL PLAN AMENDEMENT & ZONE CHANGE – CROWTHER & PLACENTIA

CITY OF PLACENTIA, CA

Prepared by

DKS

Project No. 17067-000
Submitted May 19, 2017

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DKS

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Appendix E – Cumulative Project Information
Appendix F – General Plan Buildout Year (2035) Without Project Intersection Level of Service Worksheets
Appendix G – General Plan Buildout Year (2035) With Project Intersection Level of Service Worksheets

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1.0 INTRODUCTION

The following presents the Traffic Impact Analysis (TIA) prepared by DKS Associates (DKS) for the proposed General Plan Amendment and Zone Change in the City of Placentia, CA (City). The City proposes to change the existing zoning district and General Plan land use designation from "Industrial" to "Commercial" use for the project site. The project site is comprised of eight (8) parcels located in the triangular area bound by Placentia Avenue to the west, Crowther Avenue to the south, and the State Route 57 (SR-57) Freeway to the east. The site consists of approximately 318,000 square feet. This TIA has been prepared consistent with the policies of the City of Placentia Circulation Element guidelines, discussions with the City staff, and methodologies from the Orange County Congestion Management Program (CMP).

Purpose and Objectives of the TIA

Based on discussions with the City, the purpose of this TIA is to evaluate the traffic and circulation impacts of the proposed zoning change. The study objectives of this TIA include:

- Documentation of existing traffic conditions and future traffic conditions corresponding to the "future year" (existing plus ambient growth) of the General Plan build-out year. The General Plan build-out year is 2035.
- Determination of additional mitigation measures needed to achieve City Level-Of-Service (LOS) requirements with implementation of the proposed project (if required).

Analysis Scenarios

Based on discussions with the City, the analysis was conducted at the study intersections for the following scenarios as part of the TIA:

1) Existing (2017) Conditions
2) Existing (2017) Plus Project Conditions
3) General Plan Buildout Year (2035) Without Project Conditions
4) General Plan Buildout Year (2035) With Project Conditions

Site Location and Study Area

The project is bound by Placentia Avenue to the west, Crowther Avenue to the south, and the SR-57 Freeway to the east. Regional access is provided by the SR-57 Freeway.

Based on discussions with City staff, the project's traffic related impacts will be evaluated at following four (4) intersections:

1) Placentia Avenue/Chapman Avenue
2) Placentia Avenue/Crowther Avenue
3) Placentia Avenue/Orangethrope Avenue
4) Melrose Street/Crowther Avenue

Figure 1 illustrates the project site location and study intersections.

Methodology

City of Placentia Circulation Element guidelines and the Orange County Congestion Management Program (CMP) require that the analysis of signalized intersections be performed using the Intersection Capacity Utilization (ICU) methodology. The assessment of intersection conditions addresses LOS, in terms of volume-to-capacity (V/C) ratio under the ICU analysis for signalized intersections.

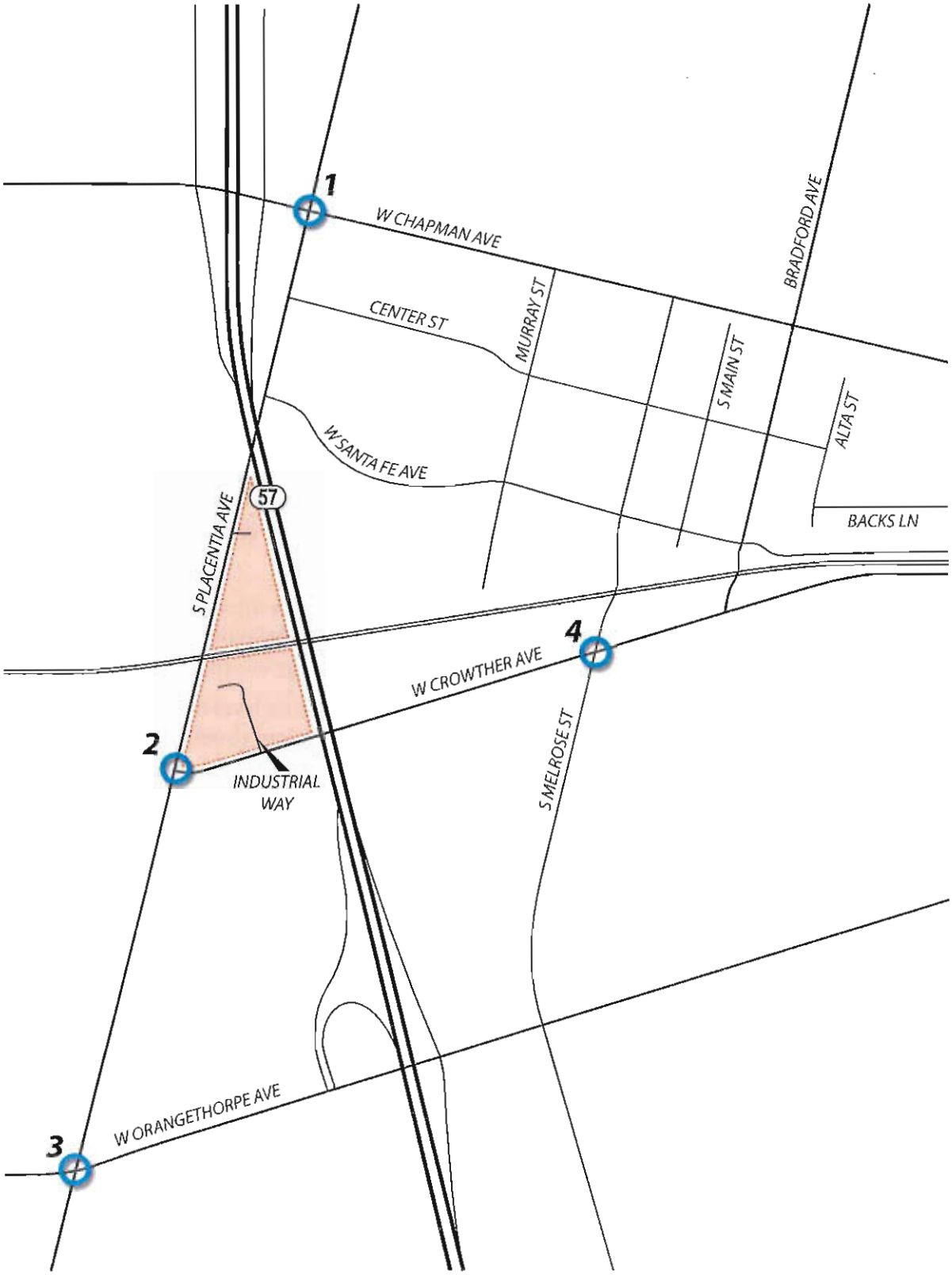
The Traffix Version 8.0 software package was used to determine intersection LOS based on the ICU methodology for the study intersections. Brief LOS definitions along with the corresponding volume to capacity ratio for the ICU methodology are shown in Table A.

The degree of congestion at an intersection is described by the level-of-service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. Table B provides a description of each specific LOS grade (LOS A through LOS F).

Table A – Level-of-Service Definitions for Signalized Intersections Based on ICU V/C

Level-of-Service	V/C Ratio
A	0.00-0.60
B	0.61-0.70
C	0.71-0.80
D	0.81-0.90
E	0.91-1.00
F	1.01 or greater

SOURCE: Orange County Congestion Management Plan, 2015



LEGEND

- Study Intersection

- Project Site

DKS

No Scale

Figure **1**

Location Map

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Table B – Level-of-Service Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Significance Criteria

Based on the City of Placentia's Circulation Element, the acceptable level-of-service for all study intersections is LOS D or better. Therefore, any intersection operating at a LOS E or F will be considered deficient. An intersection is considered to be significantly impacted if the project related increase in the v/c ratio equals or exceeds 0.01, if it is already operating at LOS E or LOS F.

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2.0 EXISTING CONDITIONS

Key roadways in the study area are summarized in Table C along with their existing characteristics. As shown, all surrounding roadways within the study area network are under the jurisdiction of City of Placentia.

Table C – Existing Roadway Network Characteristics

Roadway	Roadway Classification	Cross-Section	Posted Speed	Pedestrian Facilities	Bicycle Facilities	Transit Facilities	On-Street Parking
Chapman Avenue	Primary Arterial	4 Lanes	35/40 mph	Sidewalks	None	OCTA	None
Placentia Avenue	Secondary Arterial	4 Lanes	40 mph	Sidewalks	None	OCTA	None
Melrose Street	Secondary Arterial	2 Lanes	25 mph	Sidewalks	None	None	None
Crowther Avenue	Secondary Arterial	2/3 Lanes	40 mph	Sidewalks	None	None	None
Orangethrope Avenue	Major Arterial	4/6 Lanes	40 mph	Sidewalks	None	OCTA	None
Industrial Way	Secondary Arterial	2/3 Lanes	40 mph	Sidewalks	None	None	Yes

Figure 2 illustrates the existing roadway conditions for the study area roadways. The number of through traffic lanes and the existing intersection controls are identified.

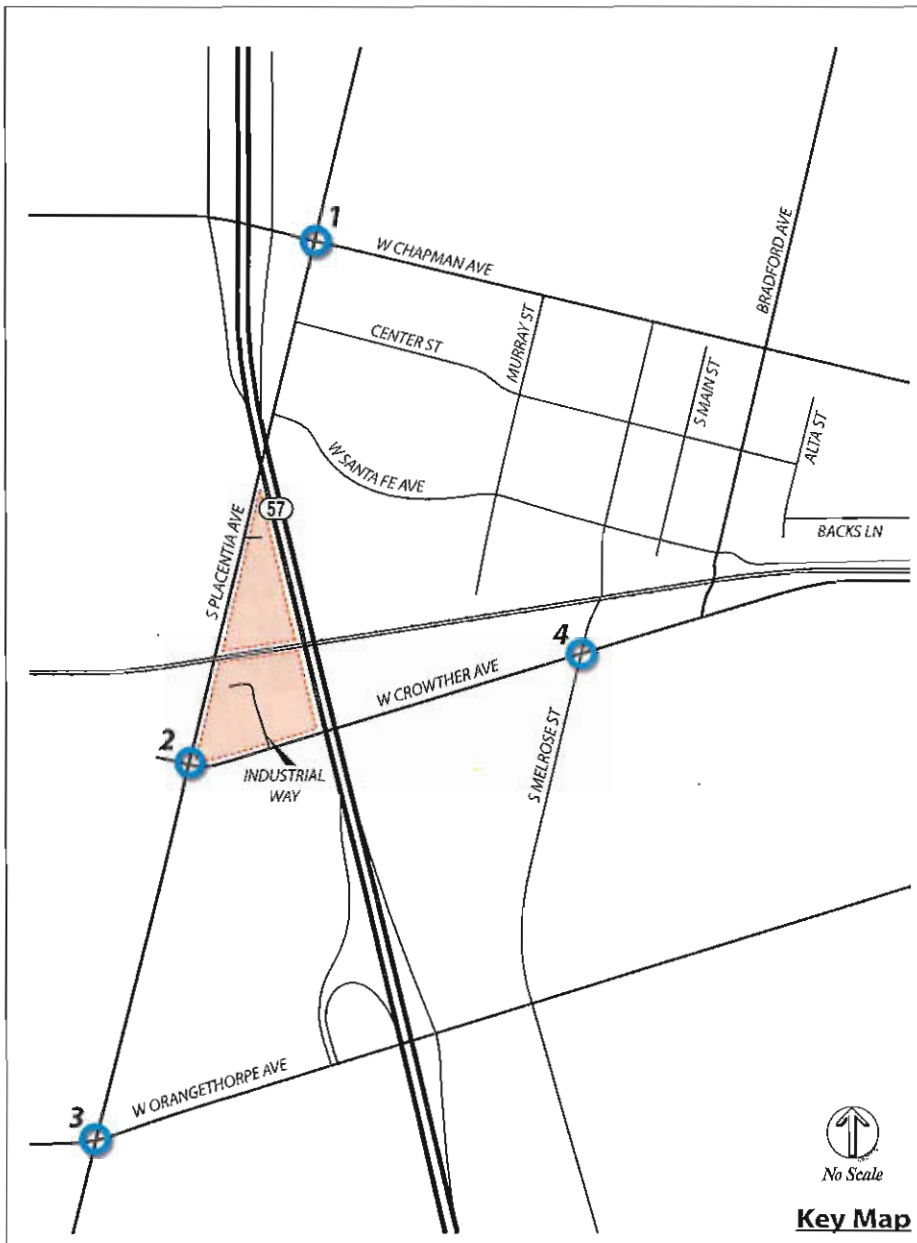
Existing (2017)

Traffic Volumes

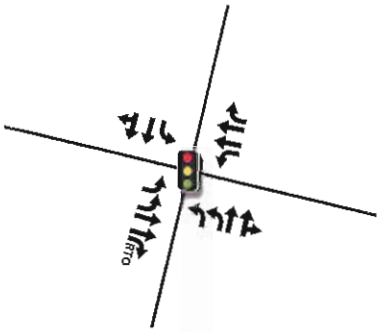
Existing (2017) traffic volumes for all study intersections were developed based on the 2016 AM (7:00 to 9:00) and PM (4:00 to 6:00) peak hour turning movement counts from the *Packing House Area Redevelopment Project Traffic Impact Study*, August 18, 2016. Based on discussions with the City, a 1% annual growth was added to the 2016 vehicular traffic volumes for a period of one (1) year to estimate the existing 2017 traffic volumes at the study intersections. Figure 3 illustrates the existing AM and PM peak hour traffic volumes at the study intersections. Traffic count information is provided in Appendix A.

Existing Level-of-Service

The existing level-of-service has been evaluated at the study intersections based on the ICU methodology for both the AM and PM peak periods. The LOS summary is shown in Table D. As shown, all intersections operate at LOS B or better. LOS calculation sheets are provided in Appendix B.



1. *E Chapman Ave. @ Placentia Ave.*

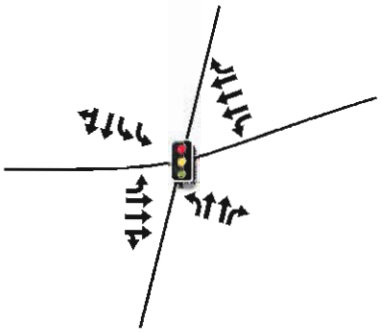


N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*

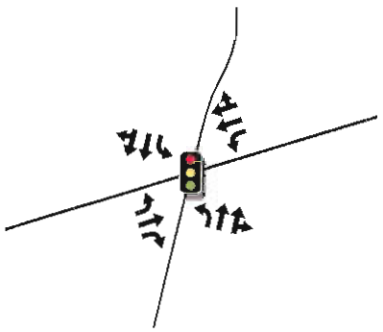
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- ← - Lane Configuration

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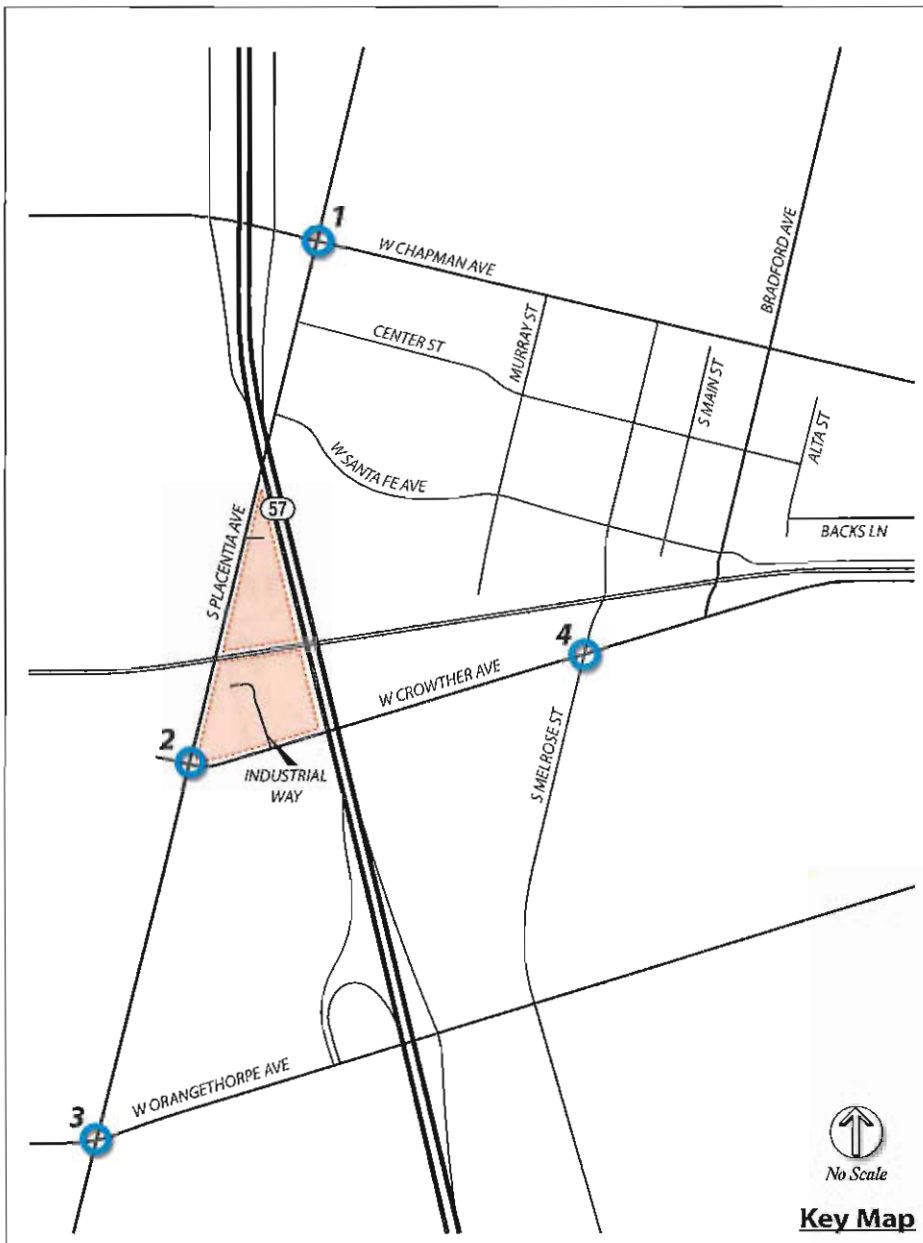
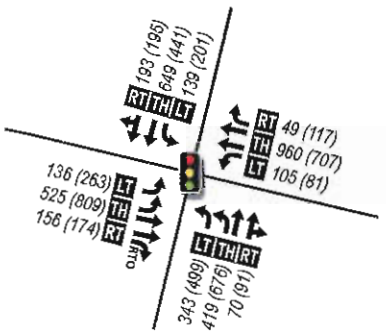
Figure **2**

Existing Lane Configurations

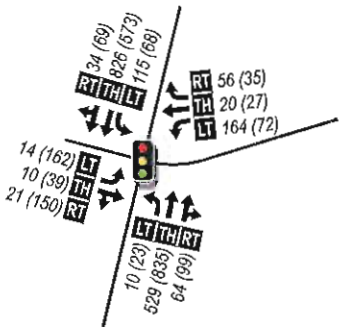


1. *E Chapman Ave. @ Placentia Ave.*



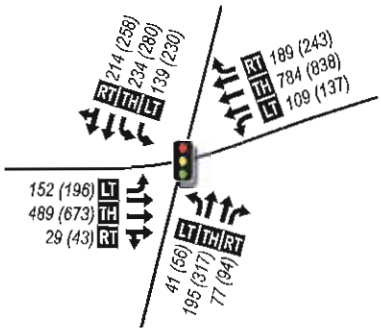
N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*



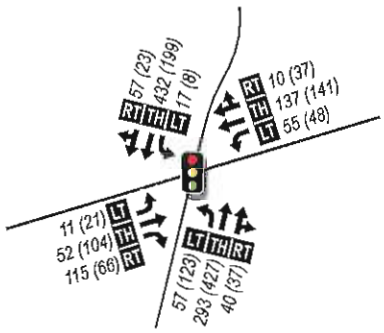
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT - Volume Turn Movement (Left•Thru•Right)

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Figure **3**

Existing (2017) AM/PM Peak Hour Traffic Volumes

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Table D: Existing (2017) Intersection Level-of-Service Summary[1]

Intersection	AM Peak Hour		PM Peak Hour	
	V/C	LOS	V/C	LOS
City of Placentia - Signalized				
Placentia Avenue/Chapman Avenue	0.721	C	0.679	B
Placentia Avenue/Crowther Avenue	0.414	A	0.518	A
Placentia Avenue/Orangethrope Avenue	0.449	A	0.558	A
Melrose Street/Crowther Avenue	0.327	A	0.277	A

[1]Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.

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3.0 PROJECT DESCRIPTION

Project Size and Description

Figure 4 illustrates the project site parcel location map. The City proposes to change the existing zoning district and General Plan land use designation from "Industrial" to "Commercial" use for the project site. Existing project site characteristics are summarized in Table E. As shown, the site is comprised of four (4) vacant parcels, four (4) occupied parcels, and additional site coverage totaling approximately 318,000 sf. Currently, 63,780 sf of operational industrial use is occupied on four (4) of the eight (8) parcels. The site currently has approximately 119,000 sf of vacant land.

Table E: Project Site Characteristics

Lot Address	Lot Size (sf)	Building Size (sf)	Building Coverage
350 S. Placentia Ave. *(Vacant)*	6,000	-	-
380 S. Placentia Ave. *(Vacant)*	78,000	-	-
450 S. Placentia Ave. *(Vacant)*	18,000	-	-
480 S. Placentia Ave. *(Vacant)*	17,000	-	-
Vacant Lot Total	**119,000**	-	-
824 W. Crowther Ave. 467 Industrial Way	79,400	30,000	38%
466 Industrial Way	40,000	21,780	55%
460 Industrial Way	26,400	12,000	40%
Occupied Lot Total	**145,800**	**63,780**	-
Additional Lot Coverage Total	**53,200**	-	-
Grand Total	**318,000**	**63,780**	-

Project Traffic

Project Trip Generation

Based on a methodology used in previous traffic studies in the City of Placentia, DKS estimated the net difference of trips as a result of the zoning change. In order to estimate the number of trips generated by the site under existing zoning, assuming 100% industrial occupancy, DKS calculated the building coverage percentage of the existing four (4) occupied lots, as shown in Table E. Based on land use information provided by the City and an estimation of individual parcel square footage, DKS calculated that 46% of operational lot coverage is occupied by building space and the remaining 54% is occupied by parking lots, landscaping, etc. As shown in Table F, the vacant lots are assumed to occupy 52,164 sf of industrial use. Therefore, 108,580 sf of industrial use is estimated with the assumption of 100% occupancy.

LEGEND

- A - 350 S. Placentia Avenue - Vacant Lot (6,000 s.f.)
- B - 380 S. Placentia Avenue - Vacant Lot (78,000 s.f.)
- C - 450 S. Placentia Avenue - Vacant Lot (18,000 s.f.)
- D - 460 Industrial Way (26,400 s.f.)
- E - 466 Industrial Way (40,000 s.f.)
- F - 824 Crowther Avenue/ 467 Industrial Way (79,400 s.f.)
- G - 480 S. Placentia Avenue - Vacant Lot (17,000 s.f.)

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Figure **4**

Placentia Ave. & Crowther Ave.
Parcel Location Map and Lot Sizes

No Scale

DKS

Table F: General Plan Zoning Change – 100% Industrial Use Estimates

Vacant Lot Address	Lot Size (sf)[1]	Average Building Coverage	Estimated Building Size (sf)
350 S. Placentia Ave.	6,000	46%	2,760
380 S. Placentia Ave.	78,000	46%	35,880
450 S. Placentia Ave.	18,000	46%	8,280
480 S. Placentia Ave.	17,000	46%	7,820
Projected Vacant Lot Occupancy			54,740
Total Existing Operational Occupancy			63,780
Total Industrial Land Use			**118,520**

[1]Lot size estimations were based on Google Earth software aerials.

Similarly, DKS estimated the total square footage for 100% commercial use by surveying four (4) commercial centers within a one (1) mile radius of the site. DKS selected these commercial centers due to the variety of on-site land uses and due to their vicinity to the project. Based the existing commercial center configurations, DKS calculated that on average 29% of local commercial centers are occupied by building space. As shown in Table G, DKS assumed 92,220 sf of commercial use under the proposed "Commercial" zoning designation for the project site.

Table G: Commercial Use Building Coverage Estimates

Retail Center	Lot Size (sf)[1]	Building Coverage
Placentia Plaza (616 Chapman Avenue)	204,000	32%
Meadowbrook Plaza (629 Placentia Avenue)	97,000	29%
501 State College Boulevard Retail Center	83,700	25%
516 State College Boulevard Retail Center	367,000	30%
Average Building Coverage	-	29%
Project Site - 100% Commercial Use	**318,000 sf**	**92,220 sf (29%)**

[1]Lot size estimations were based on Google Earth software aerials.

Trip generation estimates for the existing "Industrial" zoning and the proposed "Commercial" zoning were developed using the trip rates established in the ITE Trip Generation Manual, 9th Edition. A summary of the trip generation rates and the resulting net vehicle trips from the combination of the existing zoning and the proposed zoning are shown in Table H. As shown, the proposed zoning change is projected to generate approximately 3,261 net new trip-ends per day, with 21 (-41 inbound, 20 outbound) less trips during the AM peak hour and 135 (96 inbound, 39 outbound) net new trips during the PM peak hour.

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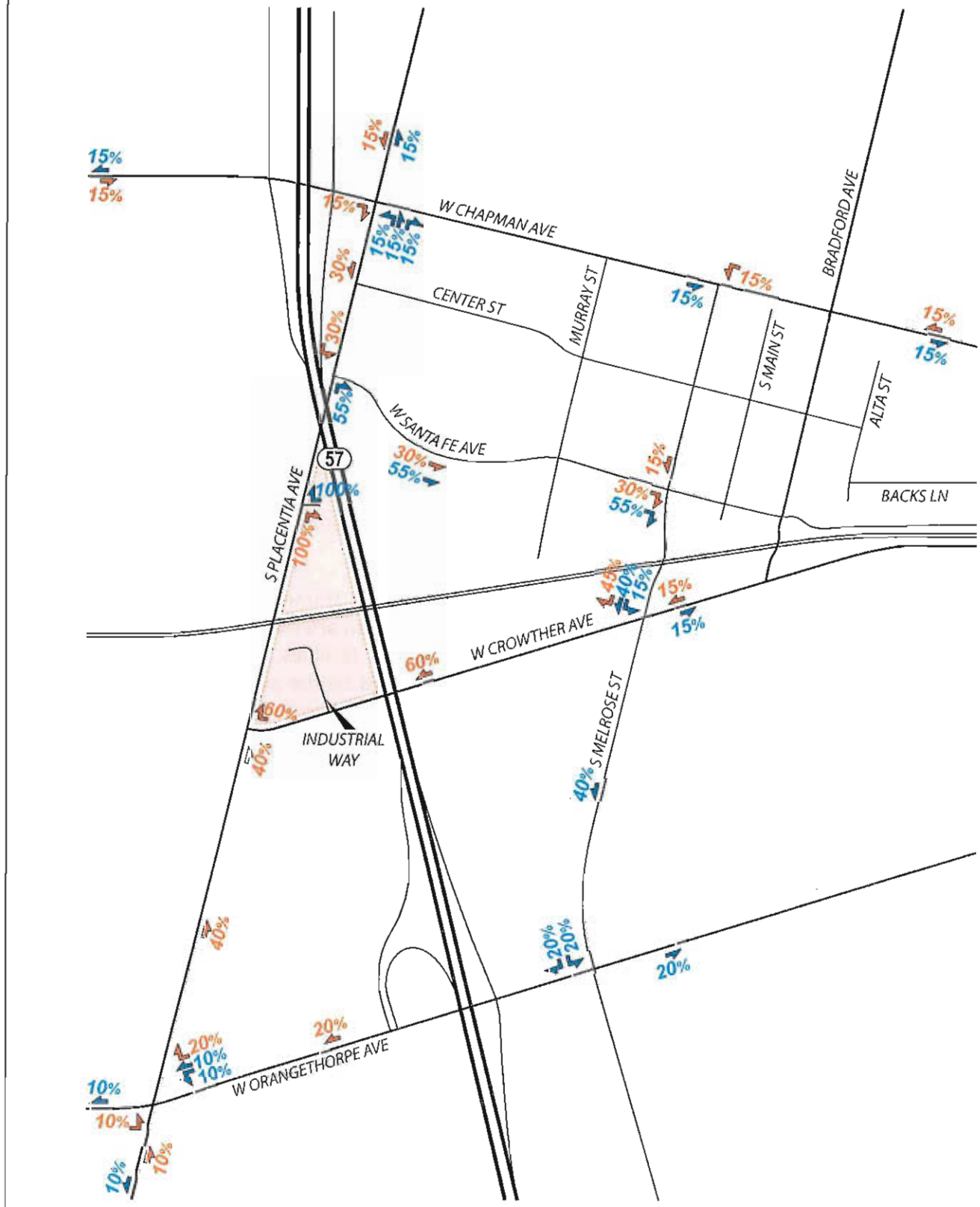
Table H: Project Trip Generation Summary

Land Use	ITE[1] Code	Size[2]		Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Rates										
Specialty Retail	826	per	TSF	6.97	0.81	0.11	0.92	0.12	0.85	0.97
General Light Industrial	110	per	TSF	44.32	0.60	0.36	0.96	1.19	1.52	2.71
Trip Generation										
Trips										
Commercial (Proposed Zoning Designation)		92.220[3]	TSF	4,087	55	34	89	110	140	250
Industrial (Existing Zoning Designation)		(118.520)[4]	TSF	(826)	(96)	(13)	(109)	(14)	(101)	(115)
Net Project Trip Generation				**3,261**	**(41)**	**20**	**(21)**	**96**	**39**	**135**

[1] ITE – Institute of Transportation Engineers
[2] TSF = Thousand Square Feet
[3] Land use square footage was estimated based on average building lot coverage of local retails centers.
[4] Estimated total existing building square footage on project site.

Project trip distribution patterns were based on factors such as: 1) transportation facility characteristics that impact travel demand (i.e. location of urban arterials, freeways, and interchanges); 2) location of employment and commercial facilities; and 3) existing traffic patterns. In addition, distribution patterns were based on the existing vehicular access points to the project site. The project site is separated into two (2) site areas, north and south, where access to the north is provided via a right-in/right-out driveway and full-access to the south is provided via Industrial Way.

Figures 5a and 5b illustrate trip distribution percentages for the project site under the "Commercial" zoning designation. Trip distribution percentages were applied to the project's trip generation to calculate the traffic volumes which the project would generate at study intersections (i.e. trip assignment). The resulting AM and PM peak hour trip assignments used for the LOS analysis are shown in Figure 6. The trip distribution percentages were reviewed and approved by City staff.



LEGEND

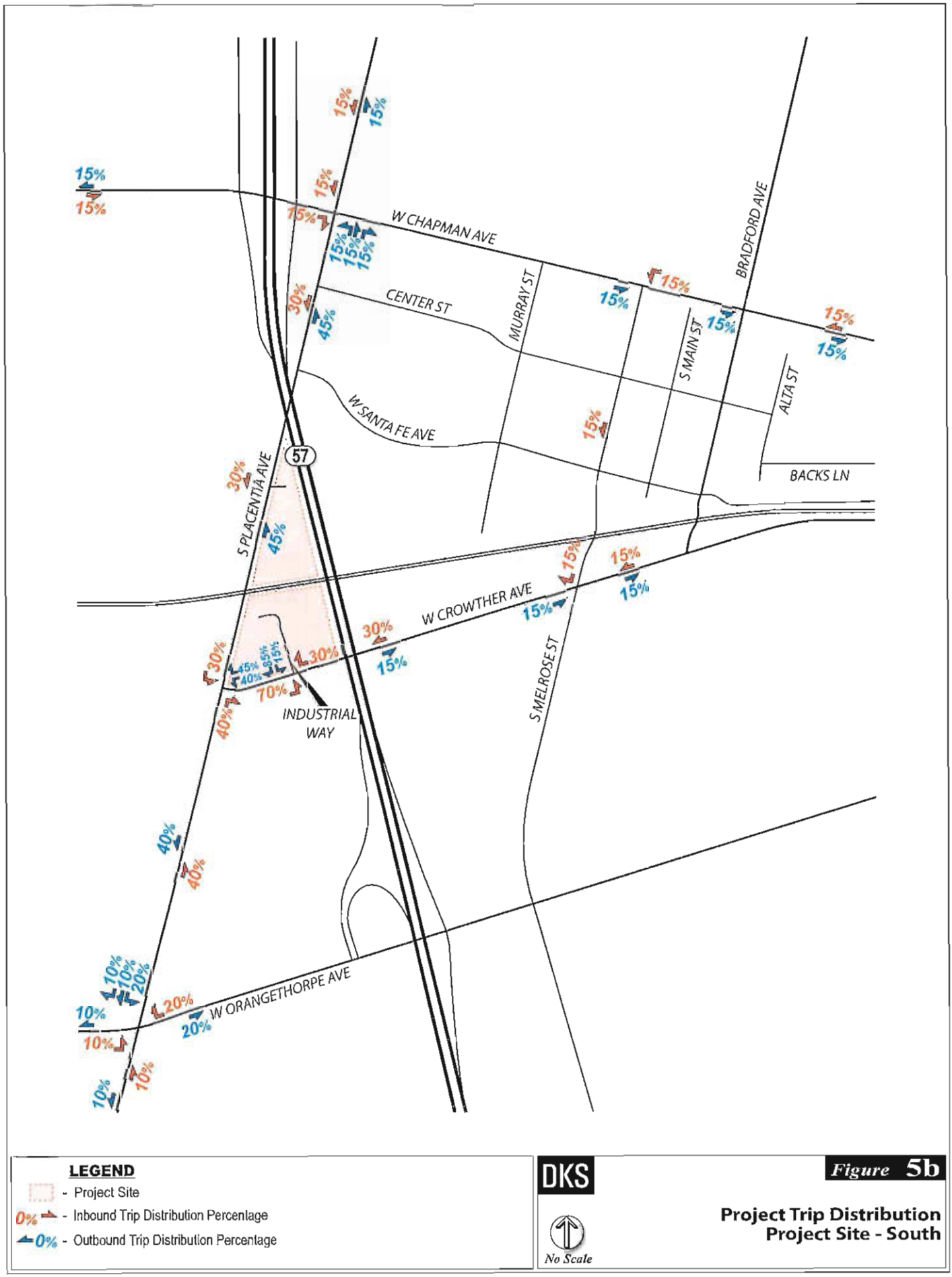
- Project Site
- 0% - Inbound Trip Distribution Percentage
- 0% - Outbound Trip Distribution Percentage

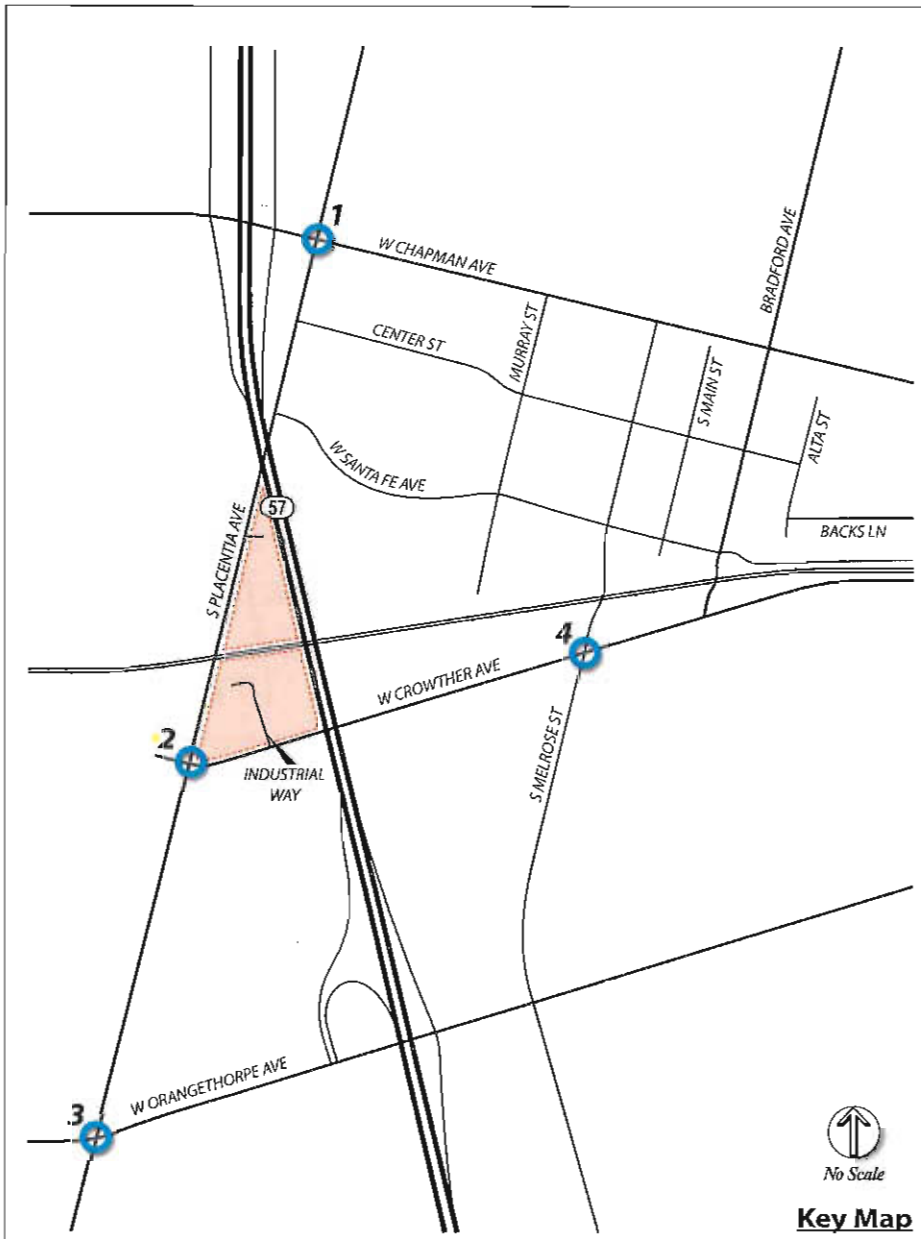
DKS

No Scale

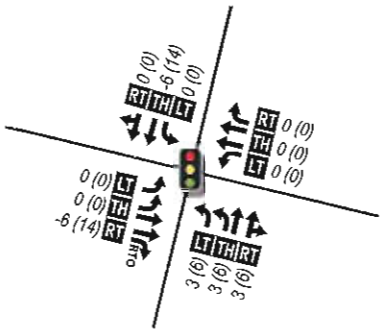
Figure **5a**

Project Trip Distribution
Project Site - North


W CHAPMAN AVE
CENTER ST
MURRAY ST
BRADFORD AVE
S MAIN ST
ALTA ST
BACKS LN
W SANTA FE AVE
S PLACENTIA AVE
57
W CROWTHER AVE
INDUSTRIAL WAY
S MELROSE ST
W ORANGETHORPE AVE
LEGEND
- Project Site
- Inbound Trip Distribution Percentage
- Outbound Trip Distribution Percentage
DKS
No Scale
Figure 5b
Project Trip Distribution
Project Site - South

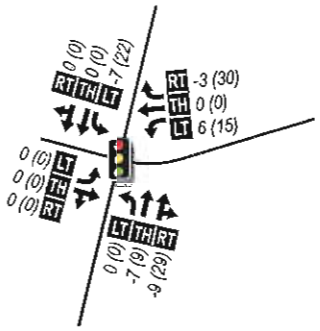


1. *E Chapman Ave. @ Placentia Ave.*



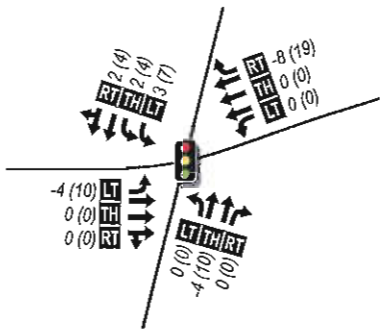
N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*



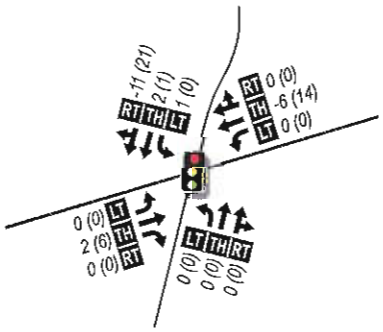
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- ← - Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT - Volume Turn Movement (Left • Thru • Right)

DKS

Figure **6**

Project Trip Assignment

Existing (2017) Plus Project

Traffic Volumes

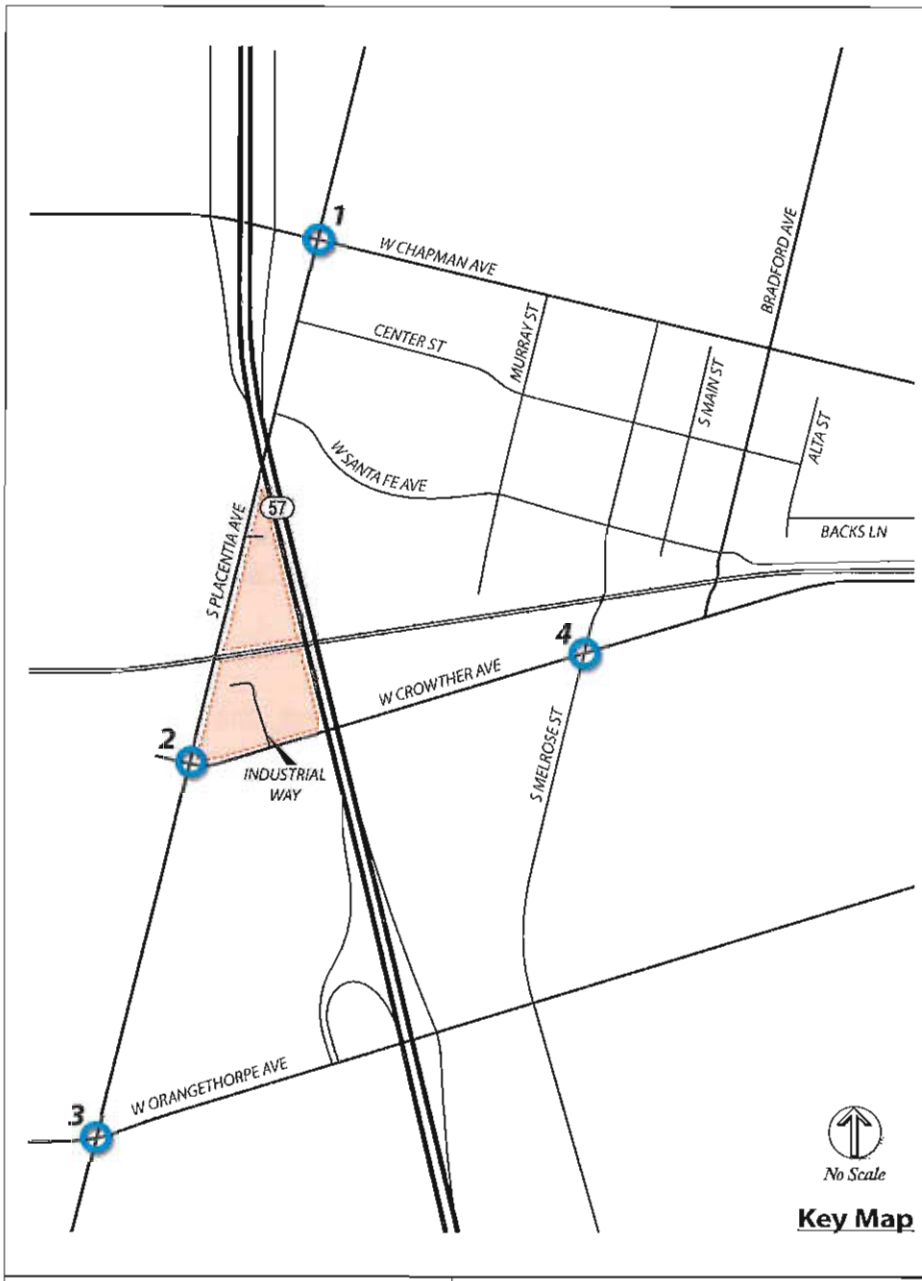
The trips generated from the zoning change, as shown in Figure 6, were added to the existing traffic volumes shown in Figure 3 which result in the existing plus project traffic scenario. Figure 7 illustrates the Existing Year (2017) Plus Project traffic volumes.

Levels-of-Service

The Existing (2017) Plus Project level-of-service has been evaluated at the study intersections based on the ICU methodology for both the AM and PM peak hours. The LOS summary is shown in Table I. As shown, all intersections operate at LOS C or better. LOS calculation sheets are provided in Appendix C.

Significant Impact

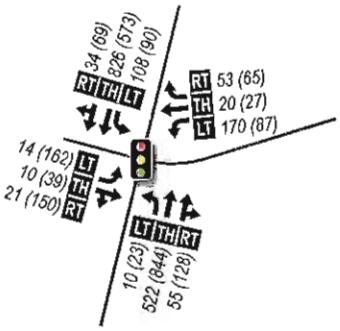
Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections under Existing (2017) Plus Project traffic conditions for both the AM and PM peak hours. Therefore, no mitigation measures are required on any of the study intersections as part of the project.



1. *E Chapman Ave. @ Placentia Ave.*

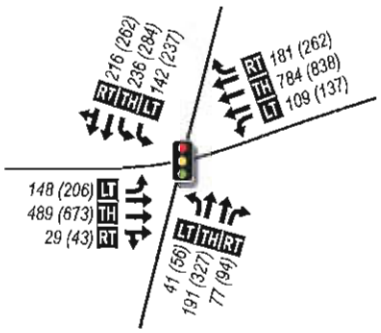
N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*



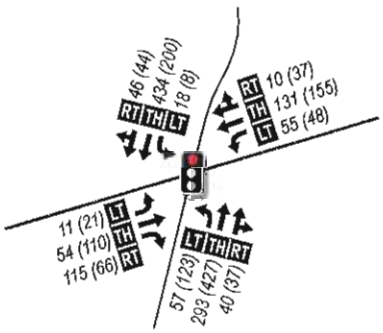
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT (Left•Thru•Right) - Volume Turn Movement

DKS

Figure 7

Existing (2017) Plus Project AM/PM Peak Hour Traffic Volumes

DKS

Table I: Existing (2017) Plus Project Intersection Level-of-Service Summary[1]

Intersection	Existing				Existing Plus Project				Difference[2]		Project Impact
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	V/C	
City of Placentia - Signalized											
Placentia Ave/ Chapman Ave	0.721	C	0.679	B	0.720	C	0.683	B	-0.001	0.004	NO
Placentia Ave/ Crowther Ave	0.414	A	0.518	A	0.417	A	0.551	A	0.003	0.033	NO
Placentia Ave/ Orangethrope Ave	0.449	A	0.558	A	0.448	A	0.571	A	-0.001	0.013	NO
Melrose St/ Crowther Ave	0.327	A	0.277	A	0.325	A	0.298	A	-0.002	0.021	NO

[1]Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.
[2]A reduction in the V/C ratio is due to the overall decrease in volumes at the study intersection.

4.0 GENERAL PLAN BUILDOUT YEAR (2035) CONDITIONS

General Plan Buildout Year (2035) Without Project

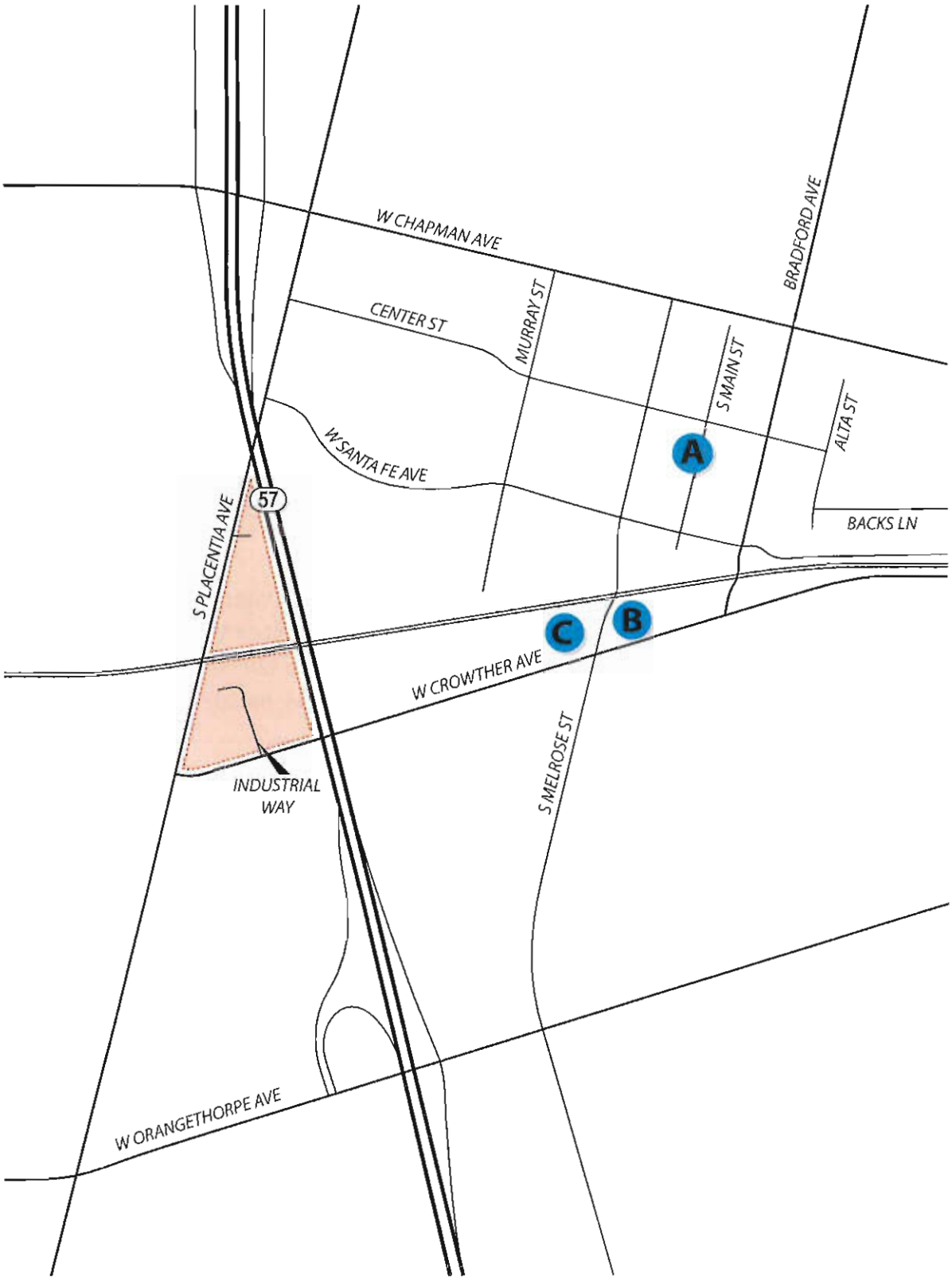
Traffic Volumes

Future General Plan Buildout Year (2035) traffic forecasts were based on the projected volumes from the *Draft General Plan Update*, June 26, 2014. General Plan Buildout Year (2035) traffic count information is provided in Appendix D. In addition, the City of Placentia provided a list and locations of cumulative projects to be used for the future 2035 analysis. Figure 8 illustrates the general location of these cumulative projects. The list of cumulative projects is presented in Table J.

Table J: List of Cumulative Projects

Cumulative Project	Description	Location
Placentia Metrolink Station	New Train Station	NEC of Melrose St/Crowther Ave
Transit Oriented Development (TOD)	752 Single-Family Residential Units	Melrose St/Crowther Ave Vicinity
Old Town Revitalization Project	New residential, commercial, and hotel use.	Old Town Placentia

Cumulative volumes were developed and distributed to the roadway network. Trip generation estimates for the Placentia Metrolink Station and the TOD project were obtained from the *Proposed Packing House Area Redevelopment Traffic Impact Study* developed by Albert Grover & Associates (August 2016). Trip generation estimates for the Old Town Revitalization project were obtained from the *Old Town Revitalization Project Traffic Impact Analysis* developed by DKS Associates (May 2017).



LEGEND

- Project Site
- A - Old Town Revitalization Project
- B - Placentia Metrolink Station
- C - Transit Oriented Development

DKS

Figure **8**

Cumulative Project Location Map

No Scale

As shown in Table K, the cumulative developments are projected to generate approximately 12,294 trip-ends per day, with 742 (261 inbound, 481 outbound) trips during the AM peak hour and 1,073 (573 inbound, 500 outbound) trips during the PM peak hour. Trip distribution details for the cumulative projects are included in Appendix E.

Table K: Cumulative Projects Trip Generation Summary

Cumulative Project	ITE Code	Size	Units[1]	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Placentia Metrolink Station	-	-	-	1,180	211	31	242	31	211	242
Transit Oriented Development (TOD)	220	7S2	DU	3,753	-65	259	194	261	60	321
Old Town Revitalization Project	-	-	-	7,361	115	191	306	281	229	510
Total Trips				**12,294**	**261**	**481**	**742**	**573**	**500**	**1,073**

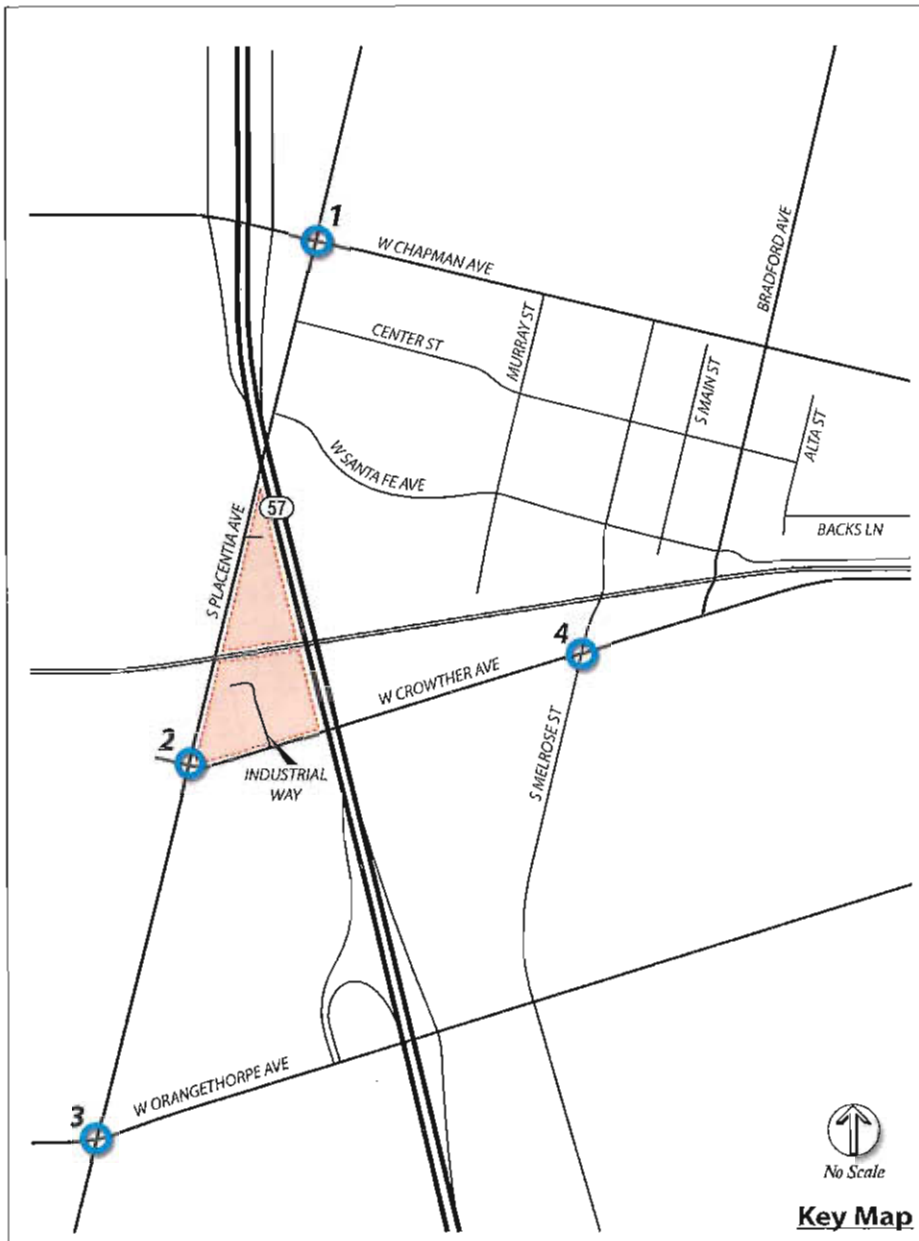
ITE – Institute of Transportation Engineers
[1] DU = Dwelling Unit

Figure 9 shows the cumulative project volumes at the study intersections. Figure 10 illustrates the General Plan Buildout Year (2035) Without Project AM and PM peak hour traffic volumes in the study area. General Plan Buildout Year (2035) traffic conditions include the projected volumes from the *Draft General Plan Update* and cumulative traffic volumes.

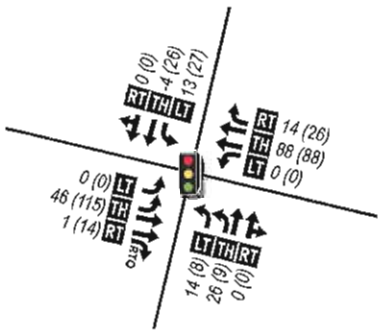
Level-of-Service

The General Plan Buildout Year (2035) Without Project level-of-service has been evaluated at the study intersections based on the ICU methodology for both the AM and PM peak hours. The LOS summary for intersections is shown in Table L. As shown, the intersections of Placentia Avenue/Chapman Avenue and Placentia Avenue/ Orangethrope Avenue do not meet acceptable LOS standards during the PM peak hour.

LOS calculation sheets are provided in Appendix F.

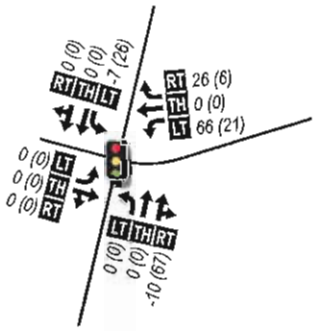


1. *E Chapman Ave. @ Placentia Ave.*



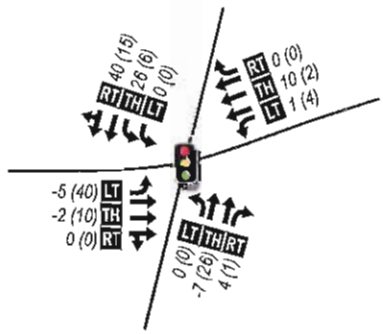
N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*



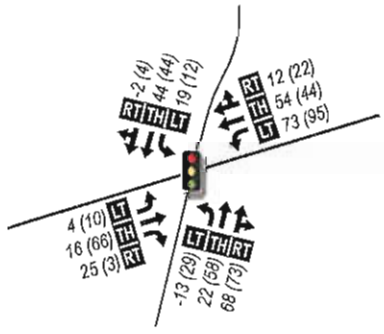
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT - Volume Turn Movement (Left-Thru-Right)

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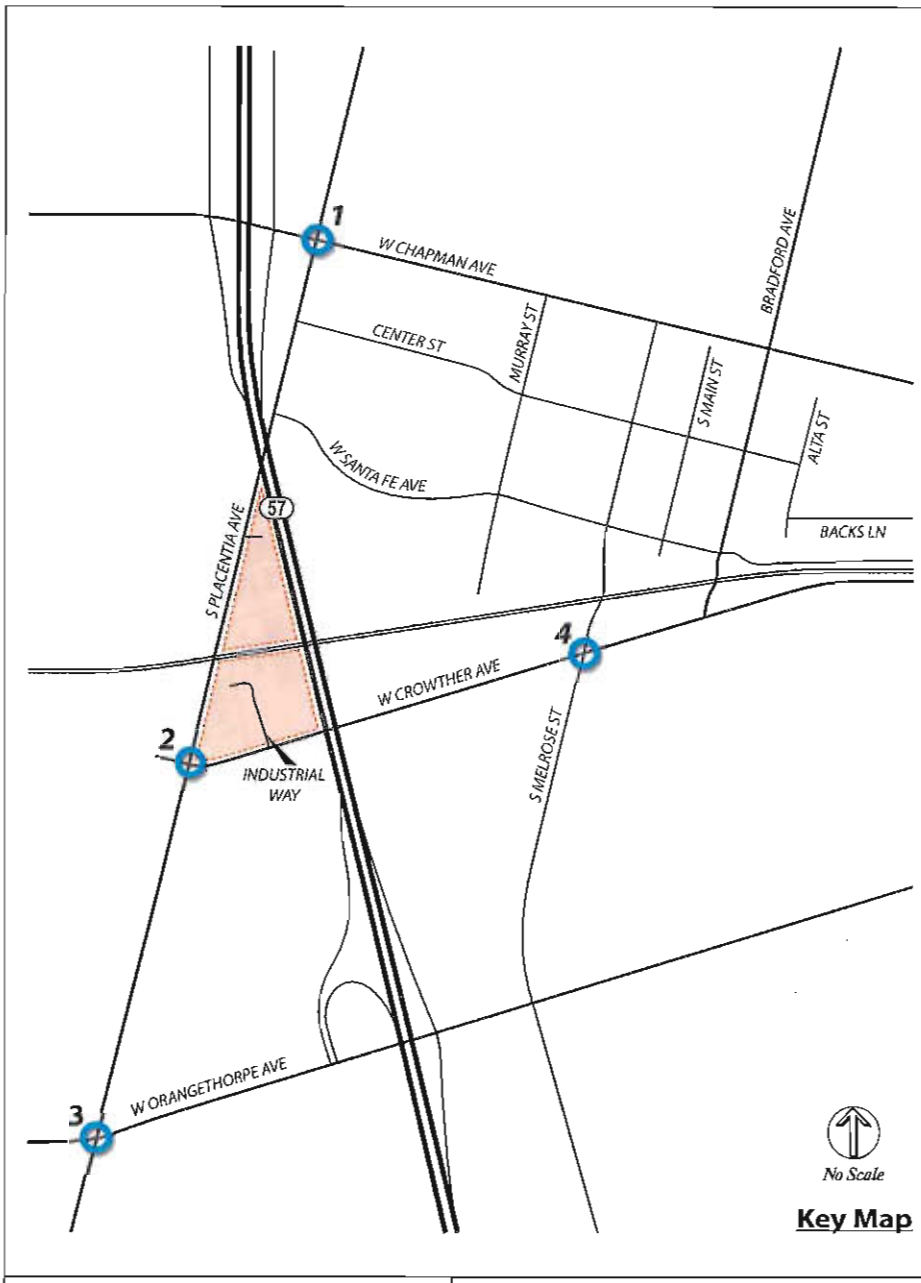
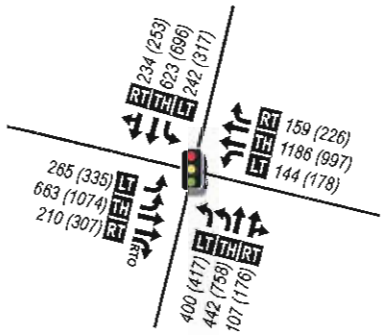
Figure **9**

Cumulative Project Volumes

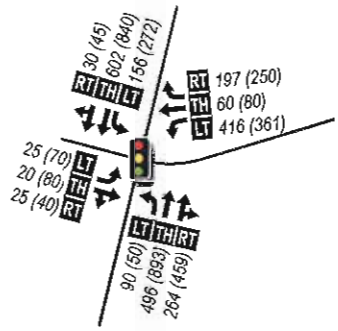


1. *E Chapman Ave. @ Placentia Ave.*



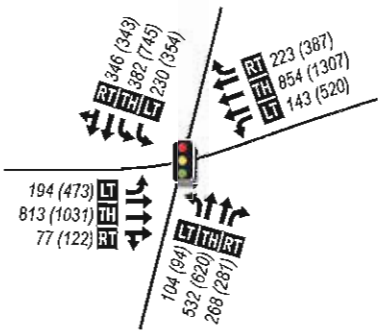
N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*



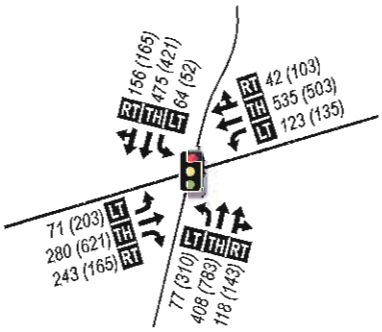
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT - Volume Turn Movement (Left • Thru • Right)

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Figure **10**

General Plan Buildout Year (2035) AM/PM Peak Hour Traffic Volumes

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Table L: General Plan Buildout Year (2035) Without Project Intersection Level-of-Service Summary

Intersection	AM Peak Hour		PM Peak Hour	
	V/C	LOS	V/C	LOS
City of Placentia - Signalized				
Placentia Avenue/Chapman Avenue	0.846	C	0.932	E
Placentia Avenue/Crowther Avenue	0.636	B	0.891	D
Placentia Avenue/Orangethrope Avenue	0.623	B	0.973	E
Melrose Street/Crowther Avenue	0.637	B	0.849	D

[1]Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.

General Plan Buildout Year (2035) With Project

Traffic Volumes

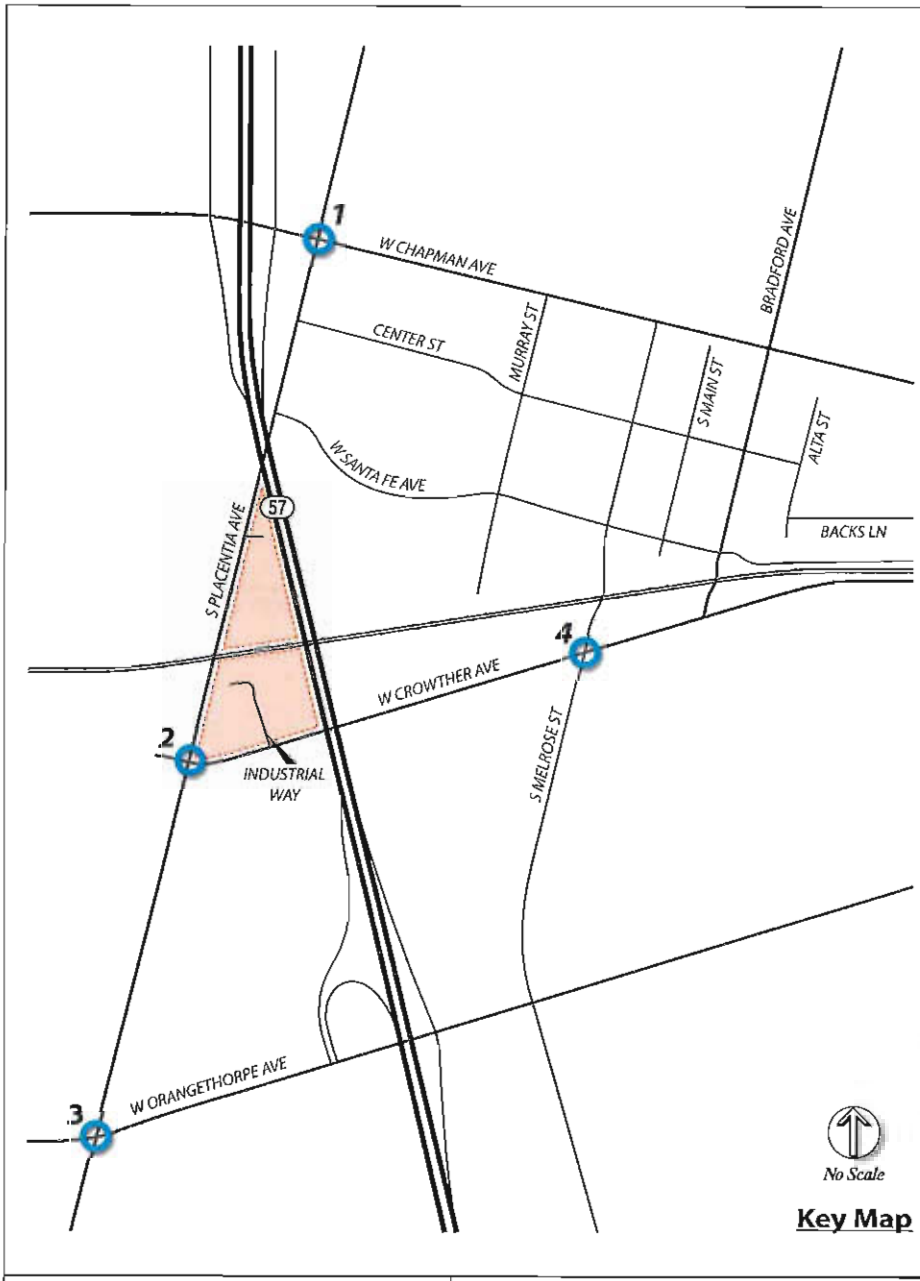
The trips generated from the project, as shown in Figure 6, were added to the General Plan Buildout Year (2035) Without Project traffic volumes shown in Figure 10, which results in the General Plan Buildout Year (2035) With Project traffic scenario. Figure 11 illustrates the General Plan Buildout Year (2035) With Project traffic volumes.

Level-of-Service

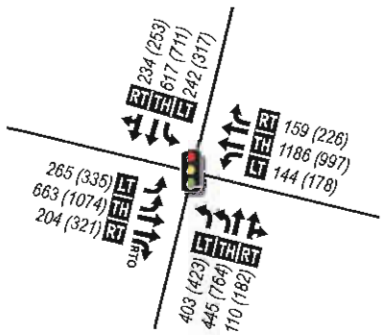
The General Plan Buildout Year (2035) With Project level-of-service has been evaluated at the study intersections based on the ICU methodology for both the AM and PM peak hours. The LOS summary for intersections is shown in Table M. As shown, all intersections operate at an acceptable level-of-service, with the exception of the following three (3) intersections:

- Placentia Avenue/Chapman Avenue (PM Peak Hour Only)
- Placentia Avenue/Crowther Avenue (PM Peak Hour Only)
- Placentia Avenue/Orangethrope Avenue (PM Peak Hour Only)

LOS calculation sheets are provided in Appendix G.

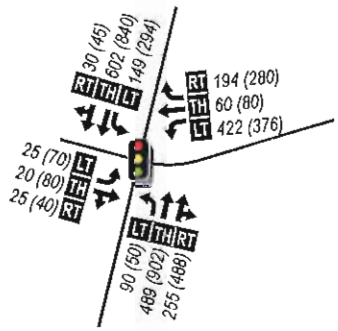


1. *E Chapman Ave. @ Placentia Ave.*



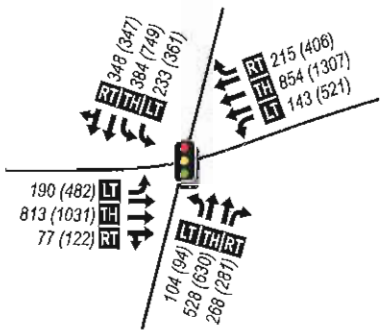
N/S - Protected Left Turns
E/W - Protected Left Turns

2. *S Placentia Ave. @ W Crowther Ave.*



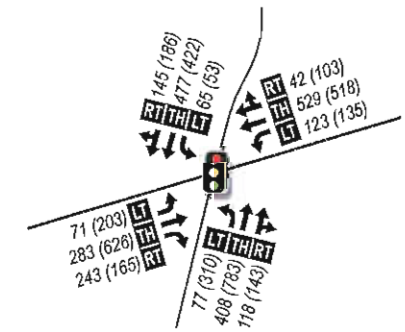
N/S - Permitted Left Turns
E/W - Permitted Left Turns

3. *S Placentia Ave. @ W Orangethorpe Ave.*



N/S - Protected Left Turns
E/W - Protected Left Turns

4. *W Crowther Ave. @ S Melrose St.*



N/S - Protected Left Turns
E/W - Protected Left Turns

LEGEND

- # - Study Intersection
- Traffic Signal
- Project Site
- RTO - Right Turn Overlap
- Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT - Volume Turn Movement (Left-Thru-Right)

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Figure **11**

General Plan Buildout Year (2035) Plus Project AM/PM Peak Hour Traffic Volumes

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Table M: General Plan Buildout Year (2035) With Project Intersection Level-of-Service Summary

Intersection	Year 2035 Without Project				Year 2035 With Project				Difference[2]		Project Impact
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	V/C	
City of Placentia - Signalized											
Placentia Ave/ Chapman Ave	0.846	C	0.932	E	0.846	C	0.935	E	0.000	0.004	NO
Placentia Ave/ Crowther Ave	0.636	B	0.891	D	0.631	B	0.924	E	-0.005	0.033	**YES**
Placentia Ave/ Orangethrope Ave	0.623	B	0.973	E	0.622	B	0.980	E	-0.001	0.007	NO
Melrose St/ Crowther Ave	0.637	B	0.849	D	0.631	B	0.859	D	-0.006	0.010	NO

[1]Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.
[2]A reduction in the V/C ratio is due to the overall decrease in volumes at the study intersection as result of the zoning change.

Significant Impact

Based on the threshold for significant impacts of the proposed project, the trips generated would cause significant impact at the intersection of Placentia Avenue/Crowther Avenue during the PM Peak Hour.

Due to the increase in traffic associated with the project, the PM peak hour level-of-service transitions from LOS D to LOS E at the intersection of Placentia Avenue/Crowther Avenue. While the intersections of Placentia Avenue/Chapman Avenue and Placentia Avenue/Orangethrope Avenue continue to operate at LOS E during the PM peak hour under the General Plan Buildout Year (2035) Plus Project traffic conditions, the V/C ratio increase does not exceed the 0.01 threshold.

Project Mitigations

The V/C analysis suggests that the intersection experiences high volumes of traffic in all directions resulting in the high V/C ratio. Therefore, DKS recommends upgrading the existing left turn phasing from permitted left-turns to protected/permitted left-turns for the northbound, southbound, and eastbound approaches. As shown in Table N, the LOS is expected to improve from LOS E to LOS D during the PM peak hour as a result of the proposed improvements. These improvements are consistent with the mitigations measures proposed in the *Proposed Packing House Area Redevelopment Traffic Impact Study.* Intersection operations with these improvements in place are shown in Table N and detailed calculation worksheets are included in Appendix G.

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Table N: General Plan Buildout Year (2035) With Project Intersection Level-of-Service Summary

Intersection	Year 2035 With Project				Year 2035 With Project Plus Mitigations				Difference[2]		Project Impact
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	V/C	
City of Placentia - Signalized											
Placentia Ave/ Crowther Ave	0.631	B	0.924	E	0.619	B	0.894	D	-0.012	-0.030	NO

[1]Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume to capacity ratios and levels of service are shown for intersections controlled by traffic signals.

5.0 CONCLUSION

Based on the results of the analysis, the proposed project generated trips would only cause a significant impact at the intersection of Placentia Avenue/Crowther Avenue for the General Plan Buildout Year (2035) With Project traffic conditions during the PM peak hour. Therefore, mitigation measures are recommended for the proposed project as a result of the traffic impacts. With the implementation of those mitigation measures, all the study intersections would operate within the City of Placentia's acceptable LOS standards.

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APPENDIX

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APPENDIX A

Existing (2017) Turning Movement Counts

2016													2017 (1% Growth)											
	AM Peak Hour												AM Peak Hour											
		N			S			E			W			N			S			E			W	
Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Placentia/Orangethrope	41	193	76	138	232	212	150	484	29	108	776	187	41	195	77	139	234	214	152	489	29	109	784	189
Placentia/Crowther	10	524	63	114	818	34	14	10	21	162	20	55	10	529	64	115	826	34	14	10	21	164	20	56
Melrose/Crowther	56	290	40	17	428	56	11	51	114	54	136	10	57	293	40	17	432	57	11	52	115	55	137	10
Placentia/Chapman	340	415	69	138	643	191	135	520	154	104	950	49	343	419	70	139	649	193	136	525	156	105	960	49
	PM Peak Hour												PM Peak Hour											
		N			S			E			W			N			S			E			W	
Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Placentia/Orangethrope	55	314	93	228	277	255	194	666	43	136	830	241	56	317	94	230	280	258	196	673	43	137	838	243
Placentia/Crowther	23	827	98	67	567	68	160	39	149	71	27	35	23	835	99	68	573	69	162	39	150	72	27	35
Melrose/Crowther	122	423	37	8	197	23	21	103	65	48	140	37	123	427	37	8	199	23	21	104	66	48	141	37
Placentia/Chapman	494	669	90	199	437	193	260	801	172	80	700	116	499	676	91	201	441	195	263	809	174	81	707	117

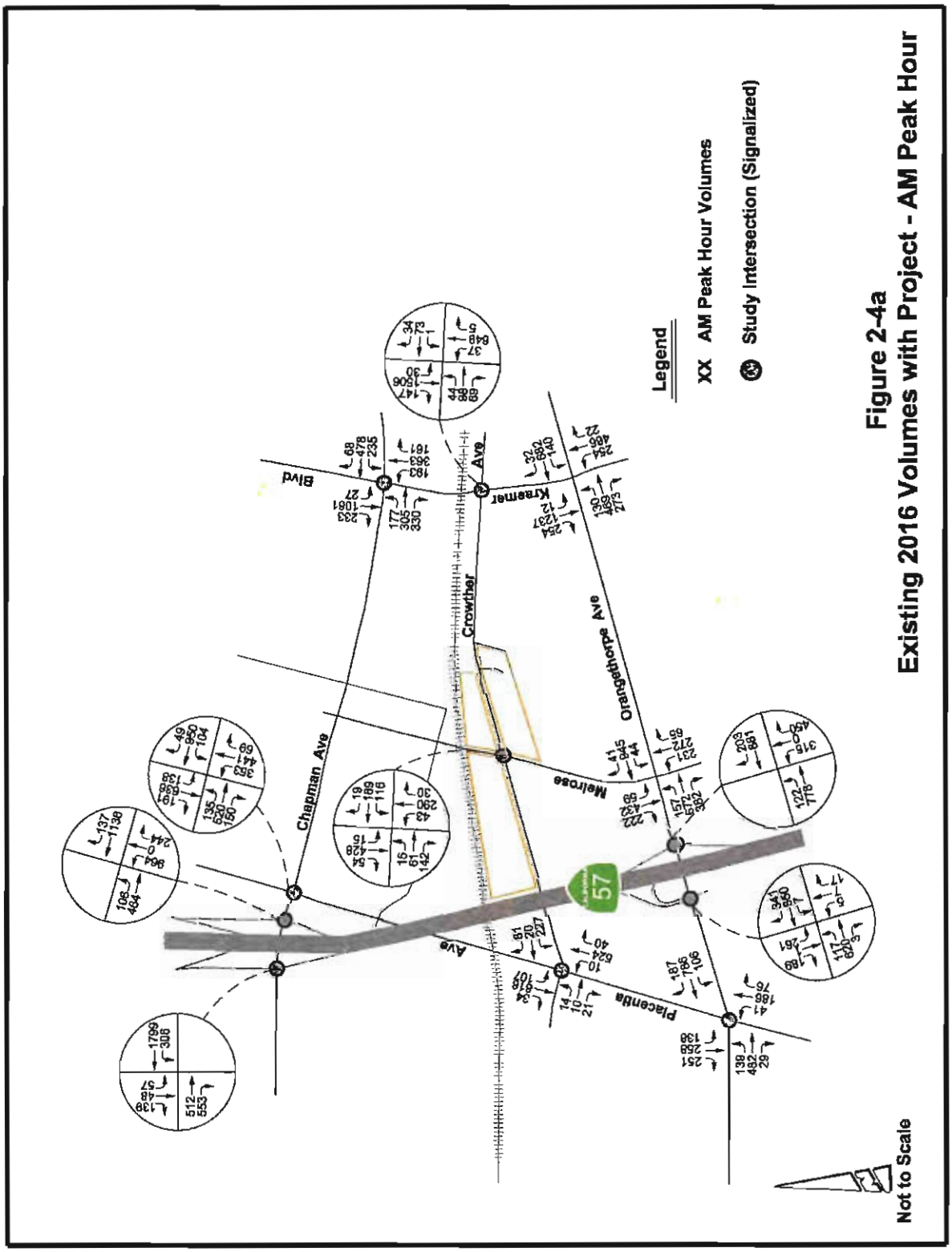
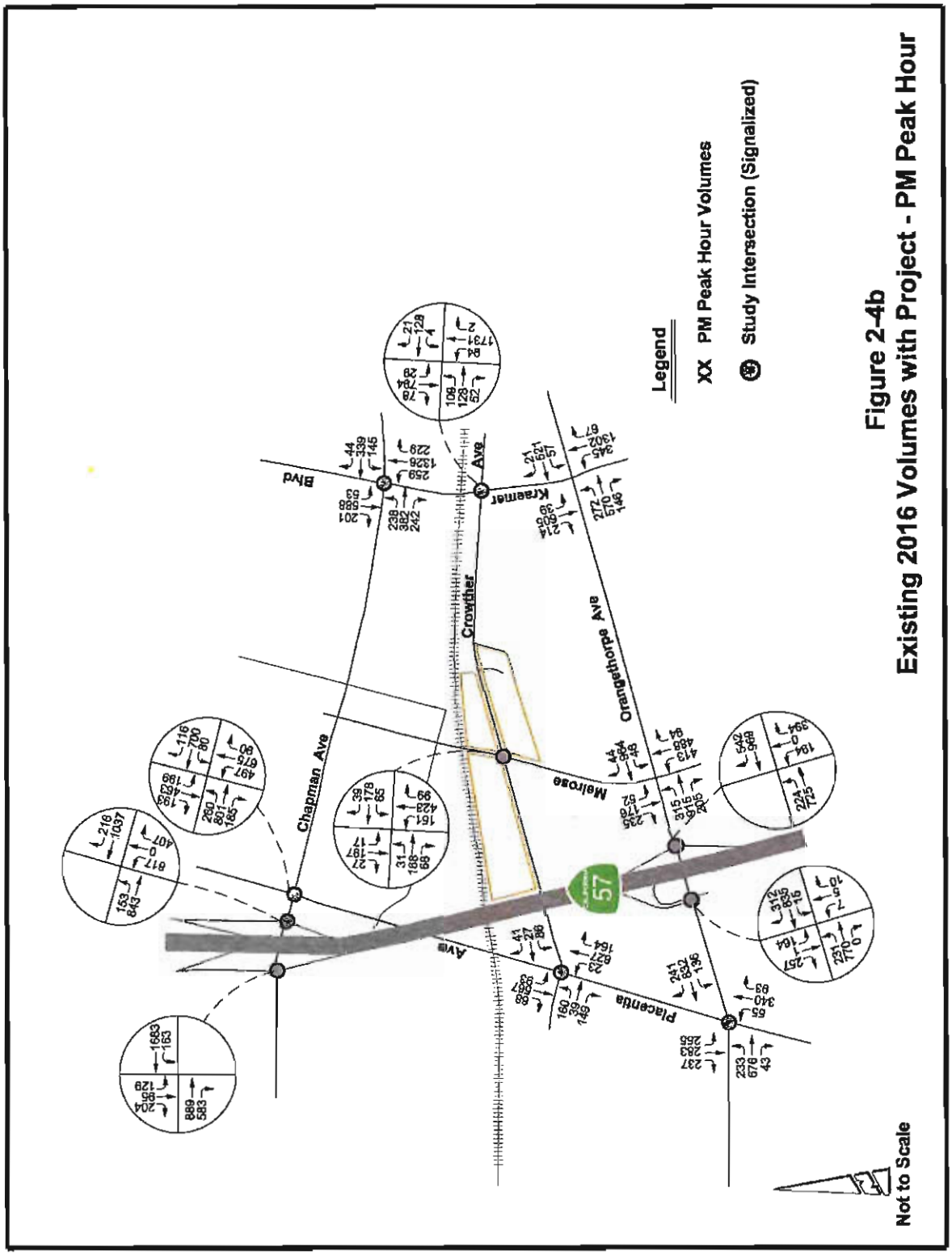


Figure 2-4a
Existing 2016 Volumes with Project - AM Peak Hour


Legend
XX PM Peak Hour Volumes
Study Intersection (Signalized)
Figure 2-4b
Existing 2016 Volumes with Project - PM Peak Hour
Not to Scale
Chapman Ave
Crowther
Kraemer
Blvd
Ave
Orangethorpe Ave
Melrose
Placentia
57

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APPENDIX B

Existing (2017) Intersection Level of Service Worksheets

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.721
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 1	1 0	2	0 2	0 1	1	0 2	0 1
Volume Module:												
Base Vol:	343	419	70	139	649	193	136	525	156	105	960	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	343	419	70	139	649	193	136	525	156	105	960	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	343	419	70	139	649	193	136	525	156	105	960	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	343	419	70	139	649	193	136	525	156	105	960	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	343	419	70	139	649	193	136	525	156	105	960	49
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.71	0.29	1.00	1.54	0.46	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2913	487	1700	2621	779	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.14	0.08	0.25	0.25	0.04	0.15	0.09	0.06	0.28	0.03
OvlAdjV/S:									0.00			
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	10	529	64	115	826	34	14	10	21	164	20	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	529	64	115	826	34	14	10	21	164	20	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	529	64	115	826	34	14	10	21	164	20	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	529	64	115	826	34	14	10	21	164	20	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	529	64	115	826	34	14	10	21	164	20	56
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	2.00	1.00	1.00	0.32	0.68	1.00	1.00	1.00
Final Sat.:	1700	3033	367	1700	3400	1700	1700	548	1152	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.17	0.07	0.24	0.02	0.01	0.02	0.02	0.10	0.01	0.03
Crit Moves:	****				****			****			****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	41	195	77	139	234	214	152	489	29	109	784	189
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	195	77	139	234	214	152	489	29	109	784	189
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	195	77	139	234	214	152	489	29	109	784	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	195	77	139	234	214	152	489	29	109	784	189
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	195	77	139	234	214	152	489	29	109	784	189
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.04	0.96	1.00	2.83	0.17	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	1776	1624	1700	4814	286	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.05	0.08	0.13	0.13	0.09	0.10	0.10	0.06	0.15	0.11
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.327
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	1	0 1	0 1
Volume Module:												
Base Vol:	57	293	40	17	432	57	11	52	115	55	137	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	293	40	17	432	57	11	52	115	55	137	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	293	40	17	432	57	11	52	115	55	137	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	293	40	17	432	57	11	52	115	55	137	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	293	40	17	432	57	11	52	115	55	137	10
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	1.77	0.23	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2992	408	1700	3004	396	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.10	0.10	0.01	0.14	0.14	0.01	0.03	0.07	0.03	0.08	0.01
Crit Moves:	****				****				****	****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.679
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	499	676	91	201	441	195	263	809	174	81	707	117
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	499	676	91	201	441	195	263	809	174	81	707	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	499	676	91	201	441	195	263	809	174	81	707	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	499	676	91	201	441	195	263	809	174	81	707	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	499	676	91	201	441	195	263	809	174	81	707	117
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.76	0.24	1.00	1.39	0.61	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2997	403	1700	2358	1042	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.15	0.23	0.23	0.12	0.19	0.19	0.08	0.24	0.10	0.05	0.21	0.07
OvlAdjV/S:									0.00			
Crit Moves:		****			****			****			****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.518
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	23	835	99	68	573	69	162	39	150	72	27	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	835	99	68	573	69	162	39	150	72	27	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	835	99	68	573	69	162	39	150	72	27	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	835	99	68	573	69	162	39	150	72	27	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	835	99	68	573	69	162	39	150	72	27	35
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.79	0.21	1.00	2.00	1.00	1.00	0.21	0.79	1.00	1.00	1.00
Final Sat.:	1700	3040	360	1700	3400	1700	1700	351	1349	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.01	0.27	0.27	0.04	0.17	0.04	0.10	0.11	0.11	0.04	0.02	0.02
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.558
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	56	317	97	230	280	258	196	673	43	137	838	243
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	317	97	230	280	258	196	673	43	137	838	243
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	317	97	230	280	258	196	673	43	137	838	243
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	317	97	230	280	258	196	673	43	137	838	243
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	317	97	230	280	258	196	673	43	137	838	243
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.04	0.96	1.00	2.82	0.18	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	1770	1630	1700	4794	306	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.09	0.06	0.14	0.16	0.16	0.12	0.14	0.14	0.08	0.16	0.14
Crit Moves:		****		****			****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.277
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1	1 0	1	0 1
Volume Module:												
Base Vol:	123	427	37	8	199	23	21	104	66	48	141	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	123	427	37	8	199	23	21	104	66	48	141	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	123	427	37	8	199	23	21	104	66	48	141	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	427	37	8	199	23	21	104	66	48	141	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	427	37	8	199	23	21	104	66	48	141	37
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.84	0.16	1.00	1.79	0.21	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3129	271	1700	3048	352	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.14	0.00	0.07	0.07	0.01	0.06	0.04	0.03	0.08	0.02
Crit Moves:	****				****			****		****		

DKS

APPENDIX C

Existing (2017) Plus Project Intersection Level of Service Worksheets

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	343	419	70	139	649	193	136	525	156	105	960	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	343	419	70	139	649	193	136	525	156	105	960	49
Added Vol:	3	3	3	0	-6	0	0	0	-6	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	346	422	73	139	643	193	136	525	150	105	960	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	346	422	73	139	643	193	136	525	150	105	960	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	346	422	73	139	643	193	136	525	150	105	960	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	346	422	73	139	643	193	136	525	150	105	960	49
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.71	0.29	1.00	1.54	0.46	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2899	501	1700	2615	785	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.10	0.15	0.15	0.08	0.25	0.25	0.04	0.15	0.09	0.06	0.28	0.03
OvlAdjV/S:									0.00			
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.417
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	10	529	64	115	826	34	14	10	21	164	20	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	529	64	115	826	34	14	10	21	164	20	56
Added Vol:	0	-7	-9	-7	0	0	0	0	0	6	0	-3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	522	55	108	826	34	14	10	21	170	20	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	522	55	108	826	34	14	10	21	170	20	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	522	55	108	826	34	14	10	21	170	20	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	522	55	108	826	34	14	10	21	170	20	53
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	1.00	0.32	0.68	1.00	1.00	1.00
Final Sat.:	1700	3076	324	1700	3400	1700	1700	548	1152	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.17	0.06	0.24	0.02	0.01	0.02	0.02	0.10	0.01	0.03
Crit Moves:	****				****			****			****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.448
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	41	195	77	139	234	214	152	489	29	109	784	189
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	195	77	139	234	214	152	489	29	109	784	189
Added Vol:	0	-4	0	3	2	2	-4	0	0	0	0	-8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	191	77	142	236	216	148	489	29	109	784	181
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	191	77	142	236	216	148	489	29	109	784	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	191	77	142	236	216	148	489	29	109	784	181
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	191	77	142	236	216	148	489	29	109	784	181
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.04	0.96	1.00	2.83	0.17	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	1775	1625	1700	4814	286	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.05	0.08	0.13	0.13	0.09	0.10	0.10	0.06	0.15	0.11
Crit Moves:	****				****		****				****	

****

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.325
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1	1 0	1	0 1
Volume Module:												
Base Vol:	57	293	40	17	432	57	11	52	115	55	137	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	293	40	17	432	57	11	52	115	55	137	10
Added Vol:	0	0	0	1	2	-11	0	2	0	0	-6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	293	40	18	434	46	11	54	115	55	131	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	293	40	18	434	46	11	54	115	55	131	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	293	40	18	434	46	11	54	115	55	131	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	293	40	18	434	46	11	54	115	55	131	10
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	1.81	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2992	408	1700	3074	326	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.10	0.10	0.01	0.14	0.14	0.01	0.03	0.07	0.03	0.08	0.01
Crit Moves:	****				****				****	****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.683
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	499	676	91	201	441	195	263	809	174	81	707	117
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	499	676	91	201	441	195	263	809	174	81	707	117
Added Vol:	6	6	6	0	14	0	0	0	14	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	505	682	97	201	455	195	263	809	188	81	707	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	505	682	97	201	455	195	263	809	188	81	707	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	505	682	97	201	455	195	263	809	188	81	707	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	505	682	97	201	455	195	263	809	188	81	707	117
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.75	0.25	1.00	1.40	0.60	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2977	423	1700	2380	1020	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.15	0.23	0.23	0.12	0.19	0.19	0.08	0.24	0.11	0.05	0.21	0.07
OvlAdjV/S:									0.00			
Crit Moves:		****			****			****			****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.551
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	23	835	99	68	573	69	162	39	150	72	27	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	835	99	68	573	69	162	39	150	72	27	35
Added Vol:	0	9	29	22	0	0	0	0	0	15	0	30
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	844	128	90	573	69	162	39	150	87	27	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	844	128	90	573	69	162	39	150	87	27	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	844	128	90	573	69	162	39	150	87	27	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	844	128	90	573	69	162	39	150	87	27	65
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	2.00	1.00	1.00	0.21	0.79	1.00	1.00	1.00
Final Sat.:	1700	2952	448	1700	3400	1700	1700	351	1349	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.01	0.29	0.29	0.05	0.17	0.04	0.10	0.11	0.11	0.05	0.02	0.04
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.571
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	56	317	97	230	280	258	196	673	43	137	838	243
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	317	97	230	280	258	196	673	43	137	838	243
Added Vol:	0	10	0	7	4	4	10	0	0	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	327	97	237	284	262	206	673	43	137	838	262
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	327	97	237	284	262	206	673	43	137	838	262
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	327	97	237	284	262	206	673	43	137	838	262
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	327	97	237	284	262	206	673	43	137	838	262
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.04	0.96	1.00	2.82	0.18	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	1768	1632	1700	4794	306	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.10	0.06	0.14	0.16	0.16	0.12	0.14	0.14	0.08	0.16	0.15
Crit Moves:		****		****			****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
Existing (2017) Plus Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

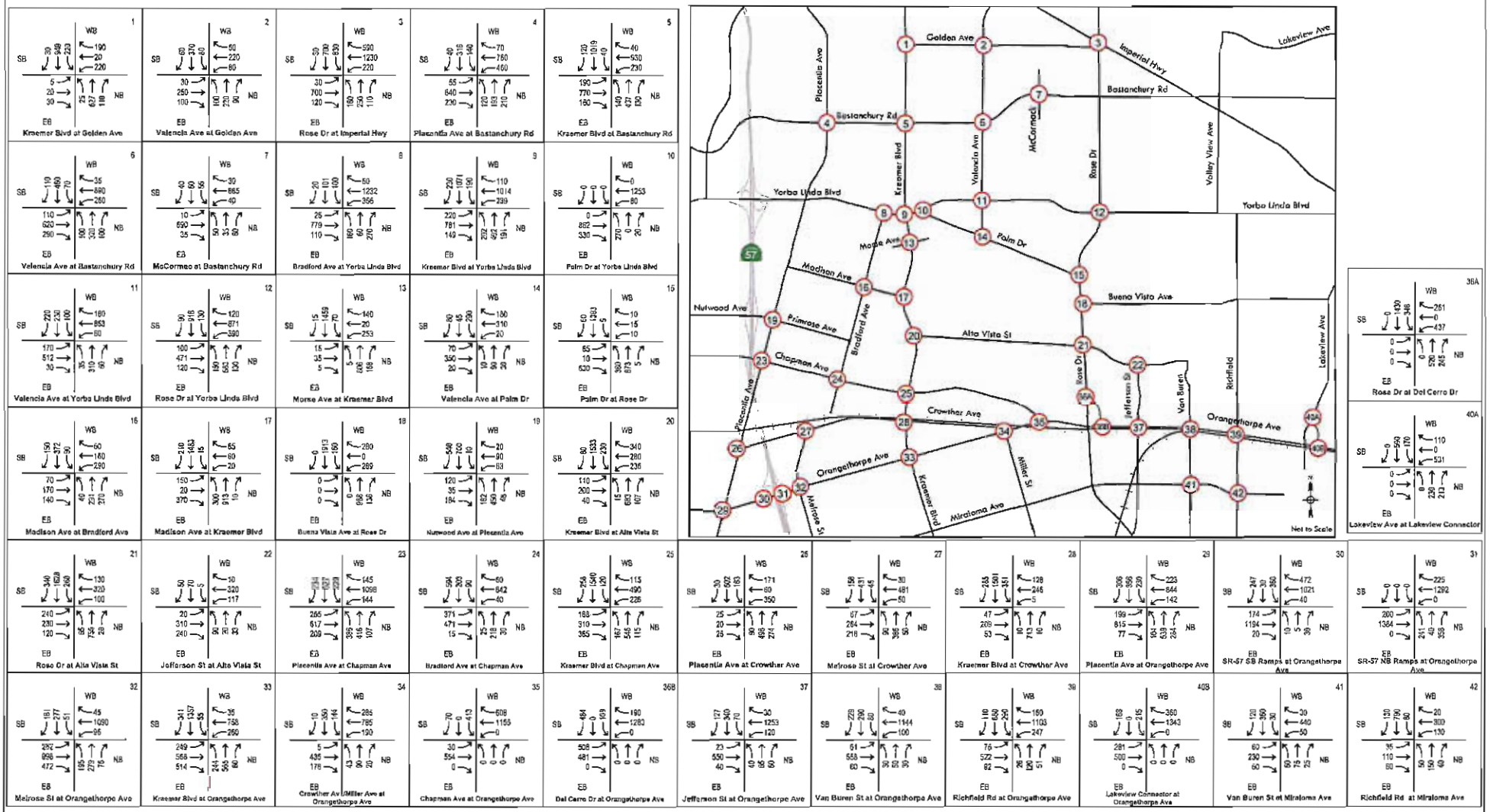
Cycle (sec):	100	Critical Vol./Cap.(X):	0.298
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	1	0 1	0 1
Volume Module:												
Base Vol:	123	427	37	8	199	23	21	104	66	48	141	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	123	427	37	8	199	23	21	104	66	48	141	37
Added Vol:	0	0	0	0	1	21	0	6	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	427	37	8	200	44	21	110	66	48	155	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	123	427	37	8	200	44	21	110	66	48	155	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	427	37	8	200	44	21	110	66	48	155	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	427	37	8	200	44	21	110	66	48	155	37
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.84	0.16	1.00	1.64	0.36	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3129	271	1700	2787	613	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.14	0.00	0.07	0.07	0.01	0.06	0.04	0.03	0.09	0.02
Crit Moves:	****				****		****				****	

DKS

APPENDIX D

Draft General Plan Update Traffic Volumes



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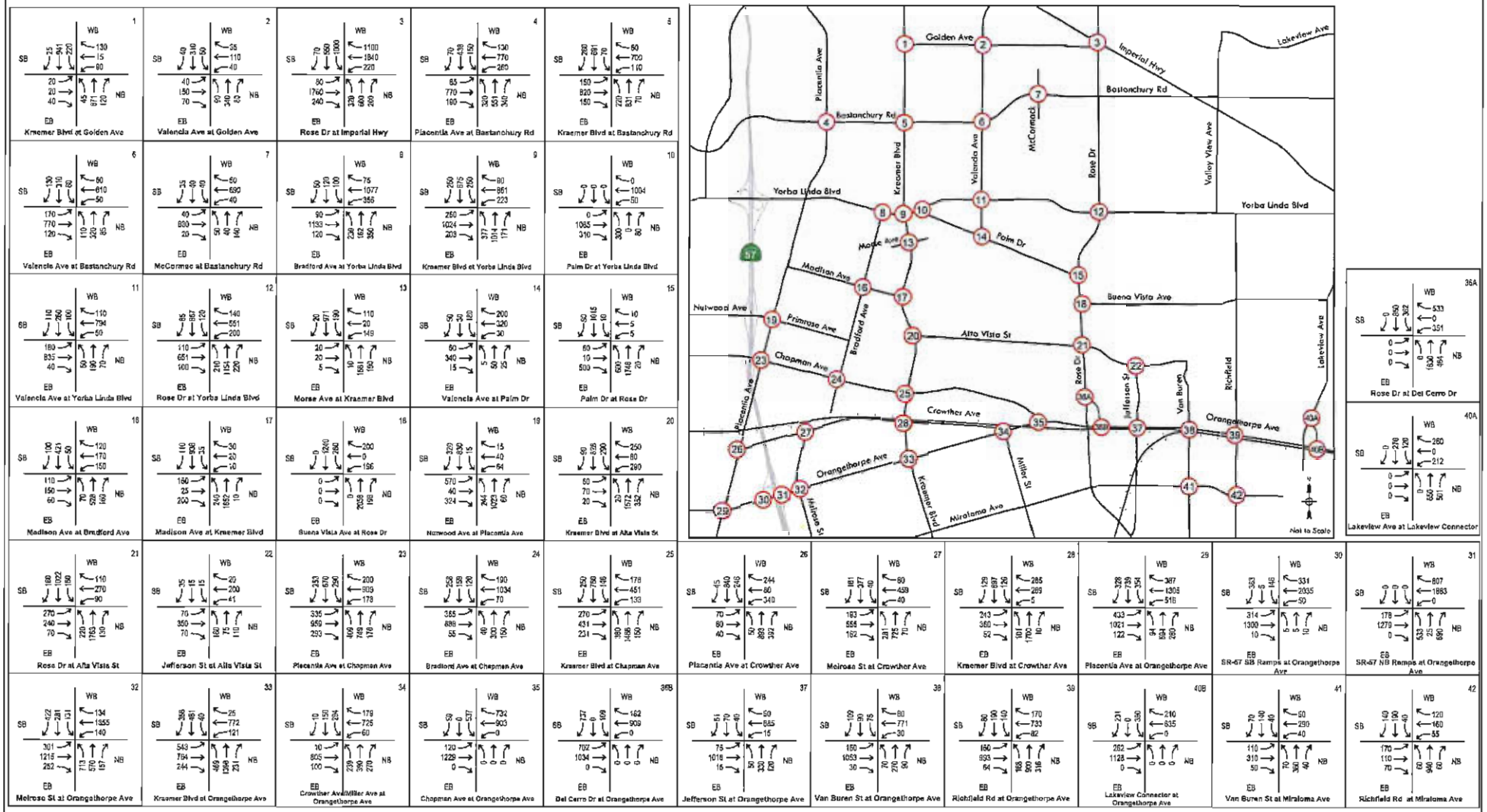
KOA CORPORATION
PLANNING & ENGINEERING

City of Placentia

General Plan Update

Figure 5-5

Proposed General Plan AM Peak Hour Volumes



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City of Placentia

General Plan Update

Figure 5-6

Proposed General Plan PM Peak Hour Volumes

DKS

APPENDIX E

Cumulative Project Information

Table 2-2c – Net Project Trip Generation

Scenario	Quantity	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips	AM Peak Hour Trips		PM Peak Hour Trips	
					In	Out	In	Out
Existing Land Use								
Northwest Area								
Industrial: Warehousing (ITE 150)	87.94 KSF GFA	441	77	55	61	16	14	41
Southeast Area								
Residential: Single-Family (ITE 210)	13 DU	124	11	13	3	8	8	5
Residential: Apartment (ITE 220)	4 DU	27	2	2	0	2	1	1
Northeast Area								
Industrial: Warehousing (ITE 150)	139.22 KSF GFA	655	99	74	78	21	19	56
Total		1,247	189	144	142	47	42	103
100% Residential: Single-Family (ITE 220) - 752 DU TOD Project, 5,000 Daily Trips								
Northwest Area (35%)		1,750	134	163	27	107	106	57
Southeast Area (35%)		1,750	134	163	27	107	106	57
Northeast Area (30%)		1,500	115	140	23	92	91	49
Total		5,000	383	466	77	306	303	163
Net Trip Generation		**3,753**	**194**	**322**	**-65**	**259**	**261**	**60**

Trip Distribution and Assignment

After the net proposed project trips are evaluated, the next step is to distribute those trips over the roadway network. A graphical summary of trip distribution by percentage is illustrated in **Figure 2-2**. Based on the trip distribution percentages new trips were then assigned to the network. **Figure 2-3** illustrate the morning (AM) and afternoon (PM) peak-hour net project trips (i.e., the net difference after subtracting existing land-use trips from gross project trips) as assigned to various streets and intersections.

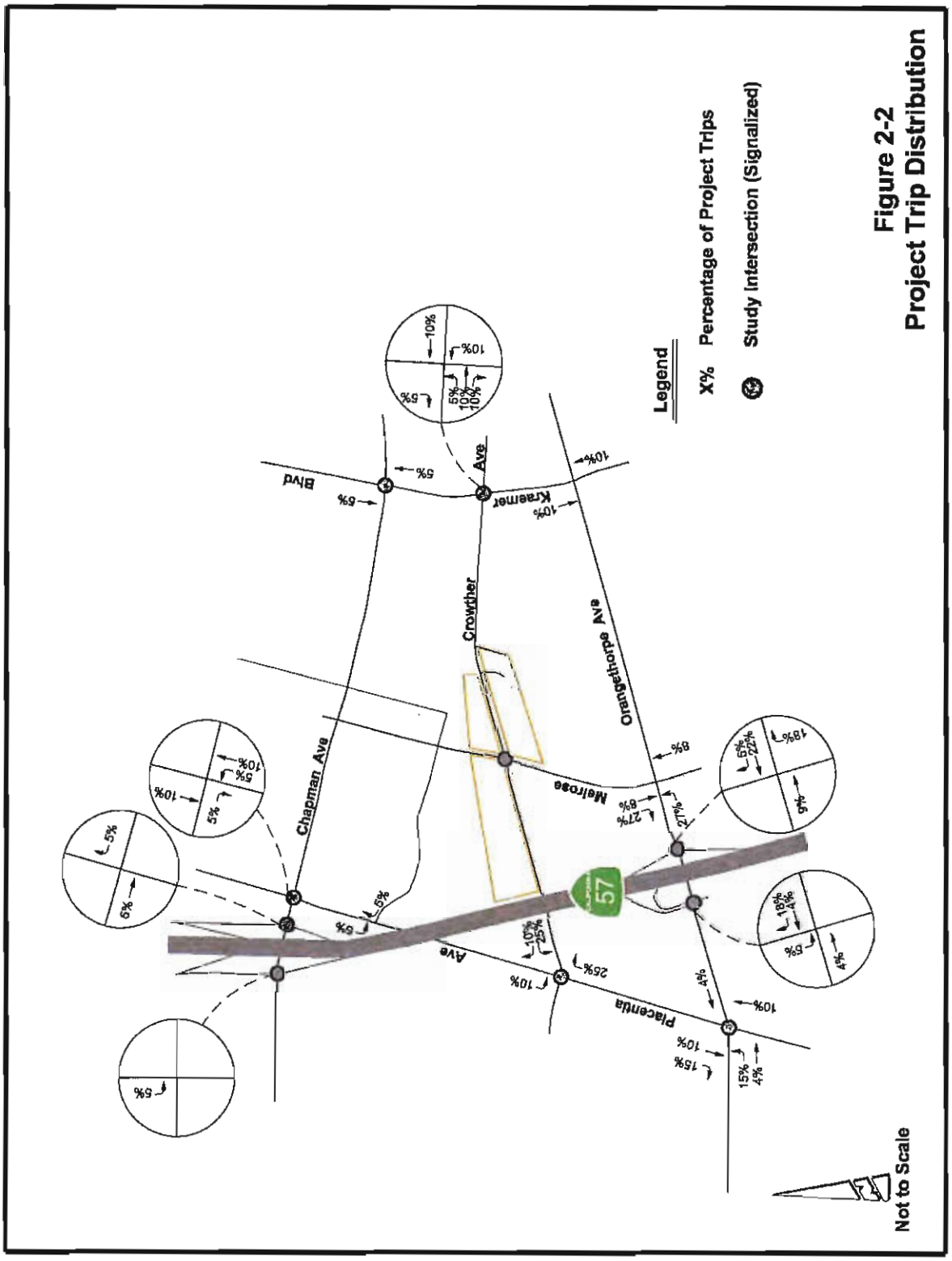
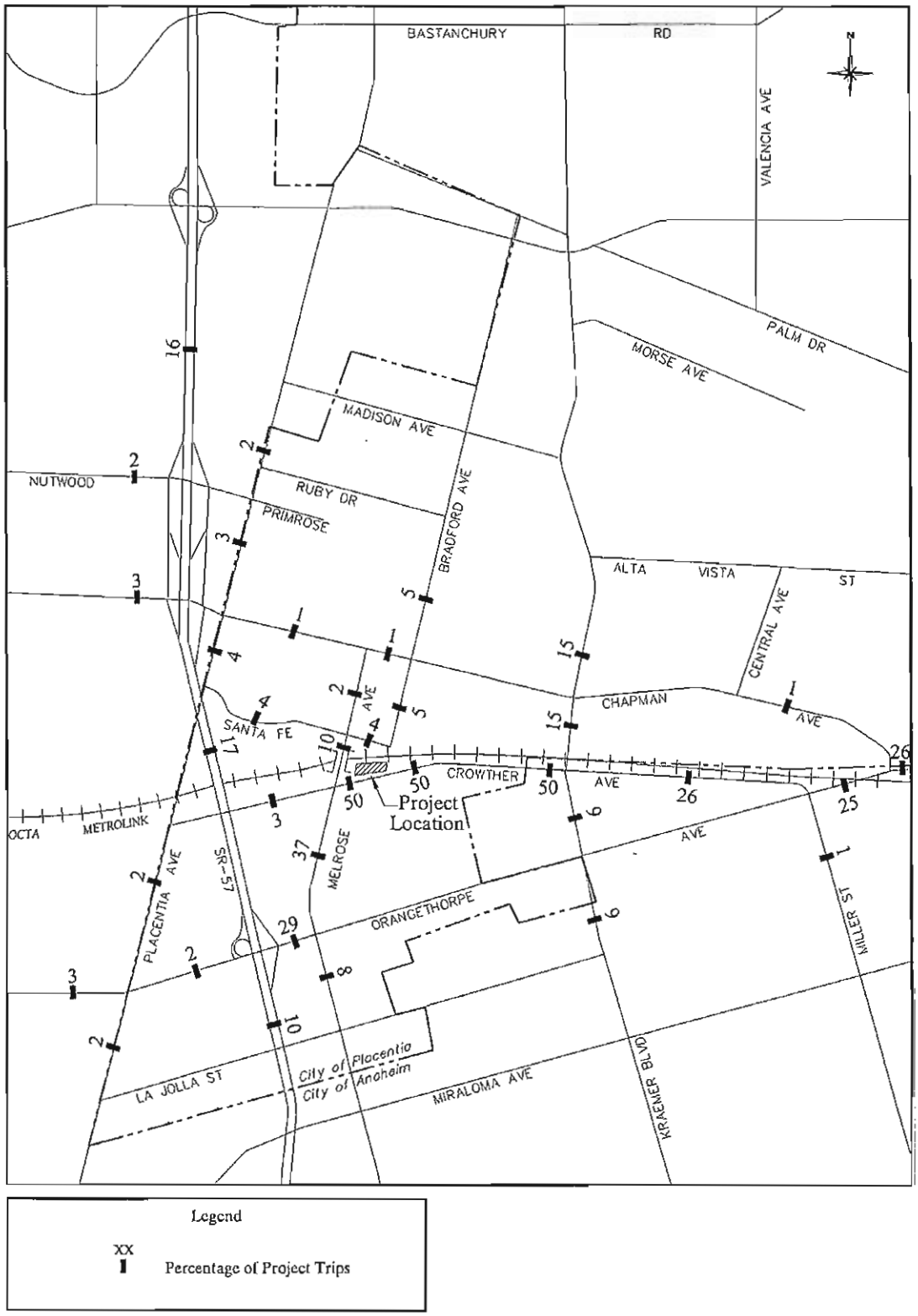

Legend
X% Percentage of Project Trips
Study Intersection (Signalized)
Figure 2-2
Project Trip Distribution
Not to Scale
Chapman Ave
Crowther
Orangethorpe Ave
Melrose
Placentia
Kramer
Blvd
Ave
57

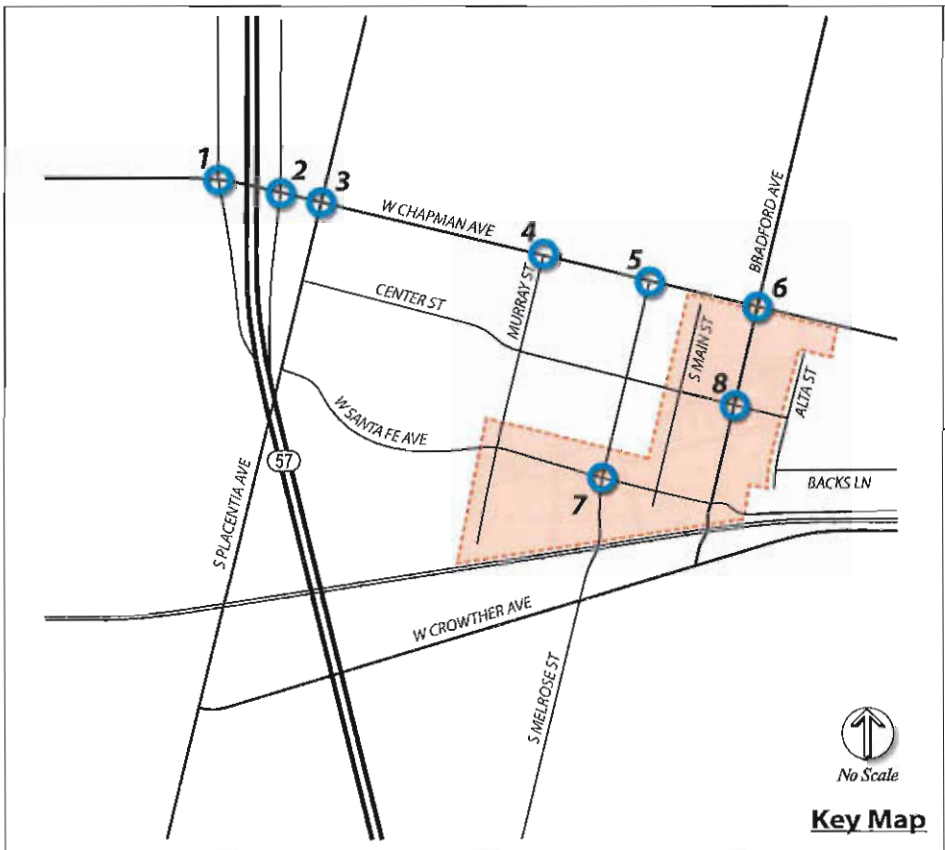
Table 5.1-6

WESTGATE METROLINK STATION TRIP GENERATION

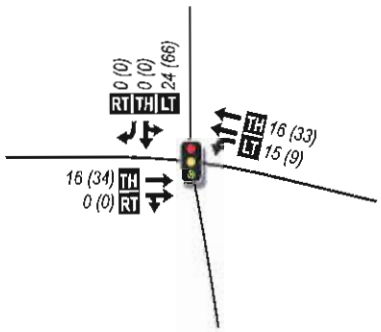
	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	ADT
PASSENGERS BOARDING							
Persons							
Park	170	0	170	0	10	10	440
Drop-Off/Shuttle	30	0	30	0	5	5	80
Walk	10	0	10	0	0	0	10
Total	210	0	210	0	15	15	530
Vehicles							
Park	170	0	170	0	10	10	440
Drop-Off/Shuttle	30	30	60	1	1	2	150
Total	200	30	230	1	11	12	590
PASSENGERS ALIGHTING							
Persons							
Park	10	0	10	0	170	170	440
Drop-Off/Shuttle	5	0	5	0	30	30	80
Walk	0	0	0	0	10	10	10
Total	15	0	15	0	210	210	530
Vehicles							
Park	10	0	10	0	170	170	440
Drop-Off/Shuttle	1	1	2	30	30	60	150
Total	11	1	12	30	200	230	590
TOTAL VEHICLES	**211**	**31**	**242**	**31**	**211**	**242**	**1,180**

Figure 5.1-6 - Project Trip Distribution



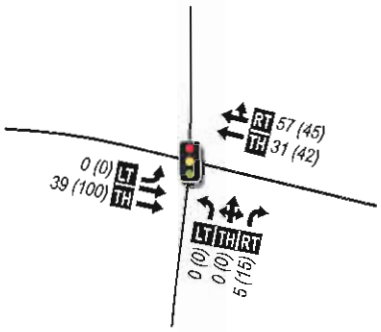


1. *E Chapman Ave. @ SR-57 SB Ramp*



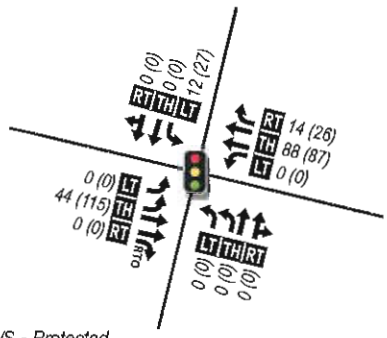
N/S - Permitted
E/W - Protected

2. *E Chapman Ave. @ SR-57 NB Ramp*



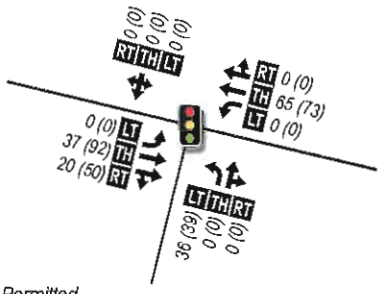
N/S - Permitted
E/W - Protected

3. *E Chapman Ave. @ Placentia Ave.*



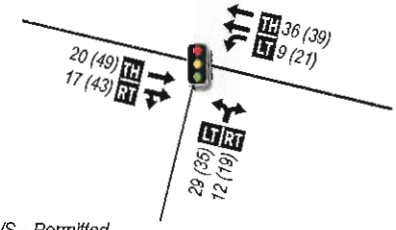
N/S - Protected
E/W - Protected

4. *W Chapman Ave. @ Murray St.*



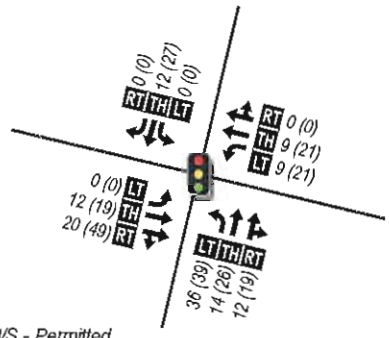
N/S - Permitted
E/W - Permitted

5. *W Chapman Ave. @ S Melrose St.*



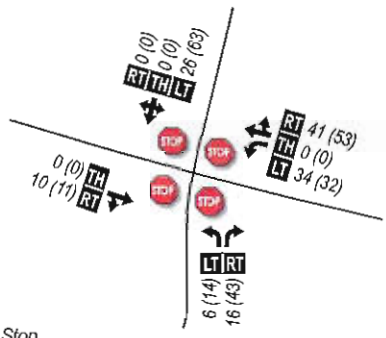
N/S - Permitted
E/W - Permitted

6. *E Chapman Ave. @ S Bradford Ave.*



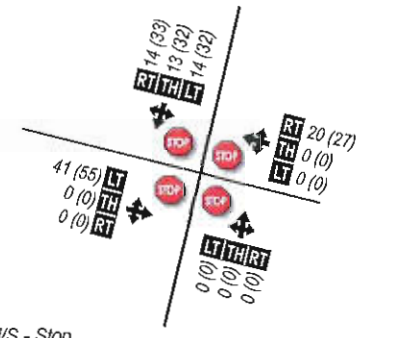
N/S - Permitted
E/W - Protected

7. *W Santa Fe Ave. @ S Melrose St.*



N/S - Stop
E/W - Stop

8. *Center St. @ S Bradford Ave.*



N/S - Stop
E/W - Stop

LEGEND

- # - Study Intersection
- Traffic Signal
- STOP - Stop Sign
- Old Town Project Boundary
- RTO - Right Turn Overlap
- Lane Configuration
- *AM (PM)* - Peak Hour Traffic Volumes
- LT TH RT (Left-Thru-Right) - Volume Turn Movement

DKS

Figure **6**

Project Trip Assignment

DKS

APPENDIX F

General Plan Buildout Year (2035) Without Project Intersection Level of Service Worksheets

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.846
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	386	416	107	229	627	234	265	617	209	144	1098	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	386	416	107	229	627	234	265	617	209	144	1098	145
Added Vol:	1	0	0	13	3	0	0	46	5	0	88	14
PasserByVol:	13	26	0	0	-7	0	0	0	-4	0	0	0
Initial Fut:	400	442	107	242	623	234	265	663	210	144	1186	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	400	442	107	242	623	234	265	663	210	144	1186	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	442	107	242	623	234	265	663	210	144	1186	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	400	442	107	242	623	234	265	663	210	144	1186	159
OvlAdjVol:									10			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.61	0.39	1.00	1.45	0.55	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2737	663	1700	2472	928	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.16	0.14	0.25	0.25	0.08	0.20	0.12	0.08	0.35	0.09
OvlAdjV/S:									0.01			
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.636
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 2	0 1	1	0 0	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	90	496	274	163	602	30	25	20	25	350	60	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	496	274	163	602	30	25	20	25	350	60	171
Added Vol:	0	0	6	0	0	0	0	0	0	1	0	0
PasserByVol:	0	0	-16	-7	0	0	0	0	0	65	0	26
Initial Fut:	90	496	264	156	602	30	25	20	25	416	60	197
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	496	264	156	602	30	25	20	25	416	60	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	496	264	156	602	30	25	20	25	416	60	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	496	264	156	602	30	25	20	25	416	60	197
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.31	0.69	1.00	2.00	1.00	1.00	0.44	0.56	1.00	1.00	1.00
Final Sat.:	1700	2219	1181	1700	3400	1700	1700	756	944	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.22	0.09	0.18	0.02	0.01	0.03	0.03	0.24	0.04	0.12
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.623
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	104	539	264	230	356	306	199	815	77	142	844	223
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	539	264	230	356	306	199	815	77	142	844	223
Added Vol:	0	0	4	0	0	1	6	0	0	1	0	0
PasserByVol:	0	-7	0	0	26	39	-11	-2	0	0	10	0
Initial Fut:	104	532	268	230	382	346	194	813	77	143	854	223
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	104	532	268	230	382	346	194	813	77	143	854	223
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	532	268	230	382	346	194	813	77	143	854	223
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	104	532	268	230	382	346	194	813	77	143	854	223
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.05	0.95	1.00	2.74	0.26	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	1784	1616	1700	4659	441	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.16	0.14	0.21	0.21	0.11	0.17	0.17	0.08	0.17	0.13
Crit Moves:		****		****			****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.637
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	1	0 1	0 1
Volume Module:												
Base Vol:	90	386	50	45	431	158	67	264	218	50	481	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	386	50	45	431	158	67	264	218	50	481	30
Added Vol:	0	22	78	21	44	0	0	6	0	11	1	3
PasserByVol:	-13	0	-10	-2	0	-2	4	10	25	62	53	9
Initial Fut:	77	408	118	64	475	156	71	280	243	123	535	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	408	118	64	475	156	71	280	243	123	535	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	408	118	64	475	156	71	280	243	123	535	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	408	118	64	475	156	71	280	243	123	535	42
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.55	0.45	1.00	1.51	0.49	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2637	763	1700	2559	841	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.15	0.04	0.19	0.19	0.04	0.16	0.14	0.07	0.31	0.02
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.932
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	110	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	409	749	176	290	670	253	335	959	293	178	909	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	409	749	176	290	670	253	335	959	293	178	909	200
Added Vol:	5	3	0	27	0	0	0	115	1	0	88	26
PasserByVol:	3	6	0	0	26	0	0	0	13	0	0	0
Initial Fut:	417	758	176	317	696	253	335	1074	307	178	997	226
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	417	758	176	317	696	253	335	1074	307	178	997	226
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	417	758	176	317	696	253	335	1074	307	178	997	226
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	417	758	176	317	696	253	335	1074	307	178	997	226
OvlAdjVol:									99			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.62	0.38	1.00	1.47	0.53	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2759	641	1700	2494	906	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.12	0.27	0.27	0.19	0.28	0.28	0.10	0.32	0.18	0.10	0.29	0.13
OvlAdjV/S:									0.06			
Crit Moves:		****			****			****			****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	50	893	392	246	840	45	70	80	40	340	80	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	893	392	246	840	45	70	80	40	340	80	244
Added Vol:	0	0	1	0	0	0	0	0	0	6	0	0
PasserByVol:	0	0	66	26	0	0	0	0	0	15	0	6
Initial Fut:	50	893	459	272	840	45	70	80	40	361	80	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	893	459	272	840	45	70	80	40	361	80	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	893	459	272	840	45	70	80	40	361	80	250
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	893	459	272	840	45	70	80	40	361	80	250
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.32	0.68	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1700	2246	1154	1700	3400	1700	1700	1133	567	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.40	0.40	0.16	0.25	0.03	0.04	0.07	0.07	0.21	0.05	0.15
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.973
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	168	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	94	594	280	354	739	328	433	1021	122	516	1305	387
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	594	280	354	739	328	433	1021	122	516	1305	387
Added Vol:	0	0	1	0	0	6	1	0	0	4	0	0
PasserByVol:	0	26	0	0	6	9	39	10	0	0	2	0
Initial Fut:	94	620	281	354	745	343	473	1031	122	520	1307	387
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	620	281	354	745	343	473	1031	122	520	1307	387
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	620	281	354	745	343	473	1031	122	520	1307	387
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	620	281	354	745	343	473	1031	122	520	1307	387
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.37	0.63	1.00	2.68	0.32	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	2328	1072	1700	4560	540	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.17	0.21	0.32	0.32	0.28	0.23	0.23	0.31	0.26	0.23
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) Without Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.849
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1	1 0	1	0 1
Volume Module:												
Base Vol:	281	725	70	40	377	161	193	555	162	40	459	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	281	725	70	40	377	161	193	555	162	40	459	80
Added Vol:	0	58	11	3	44	0	0	1	0	78	6	21
PasserByVol:	29	0	62	9	0	4	10	65	3	17	38	2
Initial Fut:	310	783	143	52	421	165	203	621	165	135	503	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	310	783	143	52	421	165	203	621	165	135	503	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	783	143	52	421	165	203	621	165	135	503	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	310	783	143	52	421	165	203	621	165	135	503	103
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.44	0.56	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2875	525	1700	2443	957	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.18	0.27	0.27	0.03	0.17	0.17	0.12	0.37	0.10	0.08	0.30	0.06
Crit Moves:	****				****			****			****	

DKS

APPENDIX G

General Plan Buildout Year (2035) With Project Intersection Level of Service Worksheets

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.846
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	386	416	107	229	627	234	265	617	209	144	1098	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	386	416	107	229	627	234	265	617	209	144	1098	145
Added Vol:	4	3	3	13	-3	0	0	46	-1	0	88	14
PasserByVol:	13	26	0	0	-7	0	0	0	-4	0	0	0
Initial Fut:	403	445	110	242	617	234	265	663	204	144	1186	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	403	445	110	242	617	234	265	663	204	144	1186	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	403	445	110	242	617	234	265	663	204	144	1186	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	403	445	110	242	617	234	265	663	204	144	1186	159
OvlAdjVol:									2			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.60	0.40	1.00	1.45	0.55	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2726	674	1700	2465	935	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.16	0.14	0.25	0.25	0.08	0.20	0.12	0.08	0.35	0.09
OvlAdjV/S:									0.00			
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	90	496	274	163	602	30	25	20	25	350	60	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	496	274	163	602	30	25	20	25	350	60	171
Added Vol:	0	-7	-3	-7	0	0	0	0	0	7	0	-3
PasserByVol:	0	0	-16	-7	0	0	0	0	0	65	0	26
Initial Fut:	90	489	255	149	602	30	25	20	25	422	60	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	489	255	149	602	30	25	20	25	422	60	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	489	255	149	602	30	25	20	25	422	60	194
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	489	255	149	602	30	25	20	25	422	60	194
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.31	0.69	1.00	2.00	1.00	1.00	0.44	0.56	1.00	1.00	1.00
Final Sat.:	1700	2235	1165	1700	3400	1700	1700	756	944	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.22	0.09	0.18	0.02	0.01	0.03	0.03	0.25	0.04	0.11
Crit Moves:		****		****				****		****		

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Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.619
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	90	496	274	163	602	30	25	20	25	350	60	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	496	274	163	602	30	25	20	25	350	60	171
Added Vol:	0	-7	-3	-7	0	0	0	0	0	7	0	-3
PasserByVol:	0	0	-16	-7	0	0	0	0	0	65	0	26
Initial Fut:	90	489	255	149	602	30	25	20	25	422	60	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	489	255	149	602	30	25	20	25	422	60	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	489	255	149	602	30	25	20	25	422	60	194
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	489	255	149	602	30	25	20	25	422	60	194
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.31	0.69	1.00	2.00	1.00	1.00	0.44	0.56	1.00	1.00	1.00
Final Sat.:	1700	2235	1165	1700	3400	1700	1700	756	944	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.22	0.09	0.18	0.02	0.01	0.03	0.03	0.25	0.04	0.11
Crit Moves:		****		****			****			****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.622
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	104	539	264	230	356	306	199	815	77	142	844	223
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	539	264	230	356	306	199	815	77	142	844	223
Added Vol:	0	-4	4	3	2	3	2	0	0	1	0	-8
PasserByVol:	0	-7	0	0	26	39	-11	-2	0	0	10	0
Initial Fut:	104	528	268	233	384	348	190	813	77	143	854	215
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	104	528	268	233	384	348	190	813	77	143	854	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	528	268	233	384	348	190	813	77	143	854	215
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	104	528	268	233	384	348	190	813	77	143	854	215
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.05	0.95	1.00	2.74	0.26	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	1784	1616	1700	4659	441	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.16	0.14	0.22	0.22	0.11	0.17	0.17	0.08	0.17	0.13
Crit Moves:		****		****			****				****	

****

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1	1 0	1	0 1
Volume Module:												
Base Vol:	90	386	50	45	431	158	67	264	218	50	481	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	386	50	45	431	158	67	264	218	50	481	30
Added Vol:	0	22	78	22	46	-11	0	9	0	11	-5	3
PasserByVol:	-13	0	-10	-2	0	-2	4	10	25	62	53	9
Initial Fut:	77	408	118	65	477	145	71	283	243	123	529	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	408	118	65	477	145	71	283	243	123	529	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	408	118	65	477	145	71	283	243	123	529	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	408	118	65	477	145	71	283	243	123	529	42
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.55	0.45	1.00	1.53	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2637	763	1700	2607	793	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.15	0.04	0.18	0.18	0.04	0.17	0.14	0.07	0.31	0.02
Crit Moves:	****				****		****				****	

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Placentia Avenue (NS) at Chapman Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.935
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	113	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	1	1 0	2 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	409	749	176	290	670	253	335	959	293	178	909	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	409	749	176	290	670	253	335	959	293	178	909	200
Added Vol:	11	9	6	27	15	0	0	115	15	0	88	26
PasserByVol:	3	6	0	0	26	0	0	0	13	0	0	0
Initial Fut:	423	764	182	317	711	253	335	1074	321	178	997	226
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	423	764	182	317	711	253	335	1074	321	178	997	226
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	423	764	182	317	711	253	335	1074	321	178	997	226
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	423	764	182	317	711	253	335	1074	321	178	997	226
OvlAdjVol:									109			
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.62	0.38	1.00	1.48	0.52	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	2746	654	1700	2508	892	3400	3400	1700	1700	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.12	0.28	0.28	0.19	0.28	0.28	0.10	0.32	0.19	0.10	0.29	0.13
OvlAdjV/S:									0.06			
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.924
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	103	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	50	893	392	246	840	45	70	80	40	340	80	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	893	392	246	840	45	70	80	40	340	80	244
Added Vol:	0	9	30	22	0	0	0	0	0	21	0	30
PasserByVol:	0	0	66	26	0	0	0	0	0	15	0	6
Initial Fut:	50	902	488	294	840	45	70	80	40	376	80	280
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	902	488	294	840	45	70	80	40	376	80	280
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	902	488	294	840	45	70	80	40	376	80	280
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	902	488	294	840	45	70	80	40	376	80	280
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.30	0.70	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1700	2206	1194	1700	3400	1700	1700	1133	567	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.41	0.41	0.17	0.25	0.03	0.04	0.07	0.07	0.22	0.05	0.16
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Placentia Avenue (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.894
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	50	893	392	246	840	45	70	80	40	340	80	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	893	392	246	840	45	70	80	40	340	80	244
Added Vol:	0	9	30	22	0	0	0	0	0	21	0	30
PasserByVol:	0	0	66	26	0	0	0	0	0	15	0	6
Initial Fut:	50	902	488	294	840	45	70	80	40	376	80	280
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	902	488	294	840	45	70	80	40	376	80	280
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	902	488	294	840	45	70	80	40	376	80	280
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	902	488	294	840	45	70	80	40	376	80	280
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.30	0.70	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1700	2206	1194	1700	3400	1700	1700	1133	567	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.41	0.41	0.17	0.25	0.03	0.04	0.07	0.07	0.22	0.05	0.16
Crit Moves:		****		****			****			****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Placentia Avenue (NS) at Orangethrope Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.980
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	94	594	280	354	739	328	433	1021	122	516	1305	387
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	594	280	354	739	328	433	1021	122	516	1305	387
Added Vol:	0	10	1	7	4	10	10	0	0	5	0	19
PasserByVol:	0	26	0	0	6	9	39	10	0	0	2	0
Initial Fut:	94	630	281	361	749	347	482	1031	122	521	1307	406
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	630	281	361	749	347	482	1031	122	521	1307	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	630	281	361	749	347	482	1031	122	521	1307	406
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	630	281	361	749	347	482	1031	122	521	1307	406
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.37	0.63	1.00	2.68	0.32	1.00	3.00	1.00
Final Sat.:	1700	3400	1700	1700	2324	1076	1700	4560	540	1700	5100	1700
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.17	0.21	0.32	0.32	0.28	0.23	0.23	0.31	0.26	0.24
Crit Moves:		****		****				****		****		

Crowther Ave Zoning Change Project TIA
City of Placentia, CA
General Plan Buildout Year (2035) With Project Conditions

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #112 Melrose St (NS) at Crowther Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.859
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1	1 0	1	0 1
Volume Module:												
Base Vol:	281	725	70	40	377	161	193	555	162	40	459	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	281	725	70	40	377	161	193	555	162	40	459	80
Added Vol:	0	58	11	4	45	21	0	6	0	78	21	21
PasserByVol:	29	0	62	9	0	4	10	65	3	17	38	2
Initial Fut:	310	783	143	53	422	186	203	626	165	135	518	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	310	783	143	53	422	186	203	626	165	135	518	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	783	143	53	422	186	203	626	165	135	518	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	310	783	143	53	422	186	203	626	165	135	518	103
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.39	0.61	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2875	525	1700	2360	1040	1700	1700	1700	1700	1700	1700
Capacity Analysis Module:												
Vol/Sat:	0.18	0.27	0.27	0.03	0.18	0.18	0.12	0.37	0.10	0.08	0.30	0.06
Crit Moves:	****				****			****			****	

City of Placentia
Placentia Avenue/Crowther Avenue
GPA 2017-03; ZC 2017-03; ZCA 2017-04; MND 2017-03
Mitigation Monitoring Matrix

Issue/Environmental Impacts Before Mitigation	Mitigation Proposed	Impact After Mitigation	Entity Responsible for Implementation	Entity Responsible for Implementation Oversight	Timing of Mitigation Implementation
The Traffic Impact Analysis (TIA) prepared for the project indicates that the project will contribute to adverse impacts to level of service (LOS) at the intersection of Placentia Avenue and Crowther Avenue.	CIR-1 At the intersection of Placentia and Crowther, upgrade existing left turn phasing from permitted left-turns to protected/permitted left-turns for the northbound, southbound and eastbound approaches.	Less than significant	Developer whose project triggers the need for the improvements, as identified in the updated traffic analysis.	City of Placentia	Prior to issuance of Certificates of Use and Occupancy for project that triggers need for mitigation improvements

Placentia Planning Commission

AGENDA STAFF REPORT

TO: PLANNING COMMISSION

FROM: JOSEPH M. LAMBERT, DIRECTOR OF DEVELOPMENT SERVICES

DATE: AUGUST 8, 2017

SUBJECT: **ZONE CODE AMENDMENT 2017-05**

RECOMMENDATION

It is recommended that the Planning Commission take the following actions:

1. Open the Public Hearing, Concerning Zone Code Amendment (ZCA) 2017-05, Receive the Staff Report and Consider All Public Testimony, and Close the Public Hearing; and

2. Adopt Resolution PC-2017-17, A Resolution of the Planning Commission of the City of Placentia, Recommending to the City Council Approval Of Zoning Code Amendment No. 2017-05, whereby Chapter 23.83 would be added to Title 23 (Zoning) of the Municipal Code to regulate wireless telecommunications facilities within the public Right-of-Way; and

3. Recommend that the City Council find that adoption of Zoning Code Amendment No. 2017-05 is exempt from environmental review pursuant to the provisions of the California Environmental Quality Act (CEQA), Section 15061(b) (3) in that the proposed Code Amendments are not expected to create a negative impact on the physical environment and it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

BACKGROUND

Technology

Small cells are the most recent evolution of wireless radio technology and are becoming standard infrastructure for Wireless Service Providers (WSPs) as part of their heterogeneous network (HetNet) strategy. Small cells are compact and low powered base stations used to compliment mobile phone service from larger macro cell towers and facilities. The term, "small cells" is an umbrella term used for a wide range of Wireless Communication Facilities (WCFs) that include femto cells, pico cells, micro cells, and metro cells. These low-powered radio access nodes typically have a coverage range from about 30 feet to several hundred feet and have become a high valuable solution to alleviate network congestion by providing for the densification needs of the WSPs. Network densification requirements for WSPs have led to the need for small cells, as coverage and capacity needs have become critical problems.

Outdoor small cell nodes are typically placed on existing infrastructure such as utility/telephone poles, street lamps or traffic signal poles which provide a high density of potential sites where these location sensitive deployments can occur. To support high speed service, small cell technology provides WSPs the ability to integrate an approach to allow for 3G, 4G LTE, and Wi-Fi

service from a single deployment, including the future deployment of 5G devices. These small cell nodes are operated and controlled by a single mobile phone company. The purpose of installing small cells is to increase range and capacity in densely populated urban areas that cannot be sustained by macro cells. The growth of small cells is a response to increasing global data traffic, which is continuing to increase at a rapid pace.

SB 649

Senate Bill (SB) 649), which is rapidly moving through the State Legislature, aims to address and answer the increase in data traffic. As currently proposed, it would remove the requirement for WSPs to obtain discretionary approval prior to installing a small cell device on public right-of-ways (PROWs), including City-owned facilities and light poles. This bill could require the City to provide access to vertical infrastructure in PROWs and would limit the amount of rent that could be charged for access. The only place where a small cell tower could not be installed is on fire department facilities. The bill would not only remove the ability to take into consideration any aesthetic, design or nuisance impacts, but would also remove a jurisdiction's ability to consider these facilities as a "project" pursuant to CEQA. In accordance with SB 649, the largest allowable device is limited to 35 cubic feet in size similar to the dimensions of a small refrigerator, but the size limitation does not take into account all of the space the supplemental equipment will utilize. The bill specifically excludes the supporting equipment necessary, including but not limited to, electric meters, demarcation box, pedestals, grounding equipment and other necessary devices for the device to run. Such ancillary equipment is not included in the bill's 35 cubic foot restriction. Given that this is an emerging technology and there are relatively few examples of micro cell sites in varying capacities, it is difficult to determine the amount of space each device would require.

SB 649 will eliminate public involvement, full local environmental and design review, and the ability for local governments to negotiate leases or any public benefit for the installation of small cell equipment. Small cells would be required to be allowed on public property in any zone in a city or county and would be subject to a vague permitting process. The bill eliminates the full discretion a local jurisdiction currently maintains to require that such equipment blends into the community they are entering and that WCPs adequately maintain their equipment. SB 649 eliminates the ability to negotiate any public benefit such as proving network access for a library. Additionally, the bill makes local governments responsible to adopt a complicated set of ordinances, thereby increasing costs to local jurisdictions, at the same time the bill caps the flexible revenue cities and counties can generate for public services. SB 649 forces local government to rent space for small cells on public property at rates far below fair market value and requires that every jurisdiction, in order to use its own public property, provide substantial evidence that the space is needed by that community. Rents from the use of public property, which every other for-profit business pays, help cover the cost of essential public services. The bill now sets an arbitrary cap on the annual fee, rather than allowing each jurisdiction to determine fees based upon fair market rates.

DISCUSSION

City Council Study Session and Direction

In light of SB 649 rapidly progressing through the State Legislature, the City Council conducted a policy discussion and review of a draft ordinance to regulate PROW WCFs citywide. The City Council also evaluated the two options to address the potential implementation of SB 649, which are:

1. To enter into a public-private partnership with a telecommunications firm to provide the service of drafting a new telecommunications ordinance for PROW small cells, processing permits for proposed small cell deployments, contract negotiations, and providing consulting services, as opposed to these activities being directly administered by Staff ("in-house"). As part of a public-private partnership with a third party, as would be the case with a firm such as "5 Bars", a "cooperative piggyback agreement" would likely be instituted with a revenue share system. As an example, in a revenue share system the City would receive 65% and "5 Bars" would receive 35% of all revenue derived from any lease agreements. However, given the $250 restriction on annual rental rate per site, 70 streetlights/traffic signal poles would yield total revenue of $17,500. Applying a revenue sharing agreement would afford the City with a revenue source of $11,375. The mutual revenue source for both parties would be nominal and would not be an effective or profitable strategy to combating WSP within the PROW; or

2. Manage PROW small cell deployments "in house", using City staff, without the need of a third party.

After conducting the Study Session, the City Council took the following actions:

1. Directed staff to prepare a final draft ordinance regarding Wireless Communication Facilities in the Public Right-of-Way to be considered by City Council at a future meeting; and

2. Provided direction to staff to enter into an agreement with 5 Bars for the administration and oversight of all WCFs within the PROW to be managed by 5 Bars; and

3. Directed staff to prepare an update to PMC Chapter 23.82 (regarding non-PROW WCFs) to be considered by City Council at a future meeting.

Draft Ordinance adding Chapter 23.83
The draft ordinance as prepared would establish uniform processing requirements for the orderly, managed, and efficient development of WCFs within the PROW. It would create uniform standards for small cell deployments within the PROW and hold WSPs accountable for submitting substantiating evidence as to the basis of the deployment and require technical verification as to the existing gap in service coverage, including establishing a standard permitting process. The draft ordinance would create Chapter 23.83 with the intent to address PROW installation only. Given the abbreviated timeline of the possible passage of SB 649, City Council directed staff to update Chapter 23.82 be addressed and updated at a later date, which will focus on all WCFs, including macro cell sites.

CEQA:

The proposed zoning code amendment was reviewed by staff in accordance with the requirements of the California Environmental Quality Act ("CEQA"). Based on that review, staff recommends that the City Council find that adoption of ZCA 2017-05 is exempt from environmental review pursuant to the provisions of the California Environmental Quality Act (CEQA), Section 15061(b)(3) in that the proposed Code Amendments are not expected to create a negative impact on the

physical environment and it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

CONCLUSION:

The City Council directed staff to prepare an Ordinance whereby Chapter 23.83 would be added to Title 23 (Zoning) of the Municipal Code to regulate wireless telecommunications facilities within the PROW. As this Ordinance would be codified into the Zoning Code, the Planning Commission must conduct a Public Hearing and forward a recommendation to the City Council. The attached Resolution as prepared by staff would recommend City Council Approval of ZCA 2017-05 whereby Chapter 23.83 of Title 23 (Zoning) of the Municipal Code shall be amended to regulate wireless telecommunications facilities within the public Right-of-Way.

Prepared, Submitted and Approved By:

Joseph M. Lambert
Director of Development Services

Attachment:

1. Resolution No. PC-2017-17 and Exhibit A thereto (Draft Ordinance O-2017-XX)

RESOLUTION NO. PC-2017-17

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PLACENTIA CALIFORNIA, RECOMMENDING TO THE CITY COUNCIL APPROVAL OF ZONING CODE AMENDMENT NO. 2017-05 WHEREBY CHAPTER 23.83 WOULD BE ADDED TO TITLE 23 (ZONING) OF THE MUNICIPAL CODE TO REGULATE WIRELESS TELECOMMUNICATIONS FACILITIES WITHIN THE PUBLIC RIGHT-OF-WAY

A. Recitals.

WHEREAS, the City, pursuant to its police power granted by Cal. Const. art. XI, § 7 and Cal. Govt. Code § 37100, may adopt regulations to protect the health, safety and welfare of the public, and thereby is authorized to declare what use and condition constitutes a public nuisance; and

WHEREAS, pursuant to Article XI, § 5 of the California Constitution and the City Charter, the City of Placentia may make and enforce all regulations and ordinances in respect to municipal affairs; and

WHEREAS, A duly noticed public hearing was conducted, and concluded, with respect to the Ordinance hereby recommended for adoption; and

WHEREAS, All legal prerequisites to the adoption of this Resolution have occurred; and

B. Resolution.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Placentia as follows:

SECTION NO. 1: Based on the evidence presented and the findings set forth, Zoning Code Amendment No. ZCA 2017-05 is hereby found to be consistent with the Placentia General Plan and the implementation thereof.

SECTION NO. 2: This Commission hereby specifically finds that all the facts as set forth in the Recitals, Part A, of this Resolution are true and correct.

SECTION NO. 3: The City has recently received inquiries regarding the placement of Wireless Communication Facilities (WCFs) in the public right-of-way (PROW). In the absence of specific standards and zoning regulations pertaining to WCFs in the PROW, it is difficult to regulate such uses.

SECTION NO. 4: The City of Placentia has a substantial interest in promoting the public health, safety, and welfare of the community.

SECTION NO. 5: The Planning Commission of the City of Placentia recommends that the City Council approve the Ordinance, attached hereto as Exhibit "A" (Zoning Code Amendment 2017-05) and incorporated herein by this reference, pertaining to Wireless Communication Facilities (WCFs) in the public right-of-way (PROW).

SECTION NO. 6: The Planning Commission hereby recommends that the City Council find and certify, that the amendments set forth in Zoning Code Amendment No. 2017-05 have been reviewed and considered in accordance with the provisions of the California Environmental Quality Act of 1970, as amended, the Guidelines promulgated thereunder and City Guidelines and, further, that it can be seen with certainty that there is no possibility that the amendments set forth below may have a significant effect on the environment because the number of wireless telecommunications facilities would be limited and because the regulations established within this ordinance ensure that the existing appearance of the community remains largely the same. The Commission further recommends the City Council find that said amendments are therefore not subject to the requirements of the California Environmental Quality Act pursuant to the provisions of § 15061(b)(3) of Division 6 of Title 14 of the California Code of Regulations and further recommends that a Notice of Exemption be filed with the Orange County Clerk/Recorder, in the manner as required by law.

SECTION NO. 7: The Secretary is instructed to forward a copy of this Resolution to the City Council for their attention in the manner as prescribed by law.

[signatures on next page]

ADOPTED AND APPROVED this 8th day of August, 2017.

_____
CHRISTINE J. SCHAEFER, CHAIR

I, Joseph M. Lambert, Secretary to the Planning Commission of the City of Placentia, do hereby certify that the foregoing Resolution was introduced at a regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2017, and was passed at this regular meeting of the Planning Commission of the City of Placentia held on the 8th day of August, 2017, by the following vote:

AYES:	COMMISSION MEMBERS:
NOES:	COMMISSION MEMBERS:
ABSENT:	COMMISSION MEMBERS:
ABSTAINED:	COMMISSION MEMBERS:

ATTEST:

_____
JOSEPH M. LAMBERT,
SECRETARY TO THE PLANNING COMMISSION

APPROVED AS TO FORM

_____
YOLANDA M. SUMMERHILL,
ASSISTANT CITY ATTORNEY

EXHIBIT “A”

DRAFT ORDINANCE NO. O-2017-XX

CITY OF PLACENTIA

WIRELESS IN RIGHT OF WAY

Chapter 23.83 - WIRELESS TELECOMMUNICATIONS FACILITIES WITHIN THE PUBLIC RIGHT-OF-WAY

23.83.010 - Purpose.

The purpose and intent of this chapter is to provide a uniform and comprehensive set of regulations and standards for the permitting, development, siting, installation, design, operation and maintenance of wireless telecommunications facilities in the City's public right-of-way and on city-owned property. These regulations are intended to prescribe clear and reasonable criteria to assess and process applications in a consistent and expeditious manner, while reducing the impacts associated with wireless telecommunications facilities. This chapter provides standards necessary (1) for the preservation of the public right-of-way in the city for the maximum benefit and use of the public, (2) to promote and protect public health and safety, community welfare, visual resources and the aesthetic quality of the city consistent with the goals, objectives and policies of the general plan, and (3) to provide for the orderly, managed and efficient development of wireless telecommunications facilities in accordance with the state and federal laws, rules and regulations.

23.83.020 - Definitions.

"Accessory equipment" means any equipment associated with the installation of a communication facility, including but not limited to cabling, generators, fans, air conditioning units, electrical panels, equipment shelters, equipment cabinets, equipment buildings, pedestals, meters, vaults, splice boxes, and surface location markers.

"Antenna" means that part of a communication facility designed to radiate or receive radio frequency signals and/or electromagnetic waves.

"Cellular" means an analog or digital wireless telecommunications technology that is based on a system of interconnected neighboring cell sites.

"Code" means the Placentia Municipal Code.

"Collocation" means the mounting or installation of transmission equipment on an eligible support structure for the purpose of transmitting and/or receiving radio frequency signal or electromagnetic waves for communication purposes.

"Communication facility," "facility" or "facilities" or “wireless telecommunications facilities” mean any facility or facilities that transmits and/or receives electromagnetic waves. It includes, but is not limited to, antennas and/or other types of equipment for the transmission or receipt of such signals, telecommunications towers or similar structures supporting such equipment, related accessory equipment, equipment buildings, parking areas, and other accessory development.

Exceptions: The term "communication facility" does not apply to the following:

1. Government owned and operated telecommunications facilities.
2. Emergency medical care provider-owned and operated telecommunications facilities.

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3. Mobile services providing public information coverage of news events of a temporary nature.
4. Any wireless telecommunications facilities exempted from this code by federal law or state law.

"COW" means a "cell on wheels," which is a communication facility temporarily rolled in or temporarily installed.

"Director" means the Director of the Department of Development Services, or his or her designee, unless the entire application is for a purely ministerial approval, in which case "Director" means the Director of Public Works or his or her designee.

"Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

"Ground-mounted" means mounted to a telecommunications tower.

"Located within the public right-of-way" includes any facility which in whole or in part, itself or as part of another structure, rests upon, in, over or under the public right-of-way.

"Modification" means a change to an existing communication facility that involves any of the following: collocation, expansion, alteration, enlargement, intensification, reduction, or augmentation, including, but not limited to, changes in size, shape, color, visual design, or exterior material. "Modification" does not include repair, replacement or maintenance if those actions do not involve a change to the existing facility involving any of the following: collocation, expansion, alteration, enlargement, intensification, reduction, or augmentation.

"Monopole" means a structure composed of a pole or tower used to support antennas or related equipment. A monopole also includes a monopine, monopalm, monoeucalyptus, monocactus, and similar monopoles camouflaged to resemble faux trees or other faux objects attached on a monopole (e.g. water tower).

"Mounted" means attached or supported.

"Pole" means a single shaft of wood, steel, concrete or other material capable of supporting the equipment mounted thereon in a safe and adequate manner and as required by provisions of this code.

"Public right-of-way" means a strip of land acquired by reservation, dedication, forced dedication, prescription or condemnation and intended to be or is presently occupied by a road, sidewalk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary storm sewer, bikeway, pedestrian walkway, or other public use."

"Sensitive uses" means any residential use, public or private school, day care, playground, and retirement facility.

"Small cell" shall have the same meaning as provided in Government Code 65964.2 as it may be amended from time to time. As of the date this ordinance came into effect, "small cell" is defined as follows:

> A wireless telecommunications line facility, as defined in paragraph (2) of subdivision (d) of Section 65850.6 [of the government code], or a wireless facility that uses licensed or unlicensed line spectrum and that meets the following qualifications:

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(i) The small cell antennas on the structure, excluding the line associated equipment, total no more than six cubic feet in volume, whether an array or separate.

(ii) Any individual piece of associated equipment on pole structures does not exceed nine cubic feet.

(iii) The cumulative total of associated equipment on pole structures does not exceed 21 cubic feet.

(iv) The cumulative total of any ground-mounted equipment along with the associated equipment on any pole or nonpole structure does not exceed 35 cubic feet.

(v) The following types of associated ancillary equipment are not included in the calculation of equipment volume:

(I) Electric meters and any required pedestal.

(II) Concealment elements.

(III) Any telecommunications demarcation box.

(IV) Grounding equipment.

(V) Power transfer switch.

(VI) Cutoff switch

(VII) Vertical cable runs for the connection of power and other services.

(VIII) Equipment concealed within an existing building or structure.

(B) “Small cell” includes a micro wireless facility.

(C) “Small cell” does not include the following:

(i) Wireline backhaul facility, which is defined to mean a facility used for the transport of communications data by wire from wireless facilities to a network.

(ii) Coaxial or fiber optic cables that are not immediately adjacent to or directly associated with a particular antenna or collocation.

(iii) Wireless facilities placed in any historic district listed in the National Park Service Certified State or Local Historic Districts or in any historical district listed on the California Register of Historical Resources or placed in coastal zones subject to the jurisdiction of the California Coastal Commission.

(iv) The underlying vertical infrastructure.

"Telecommunications tower" means a freestanding mast, pole, monopole, guyed tower, lattice tower, free standing tower or other structure designed and primarily used to support communication facility antennas.

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"Utility pole" means any pole or tower owned by any utility company that is primarily used to support wires or cables necessary to the provision of electrical or other utility services regulated by the California Public Utilities Commission.

"Wireless telecommunications services" means the provision of services using a communication facility or a wireless telecommunications collocation facility, and shall include, but not limited to, the following services: personal wireless services as defined in the federal Telecommunications Act of 1996 at 47 U.S.C. § 332(c)(7)(C) or its successor statute, cellular service, personal communication service, and/or data radio telecommunications.

23.83.030 - Applicability.

A. Applicability. This chapter applies to the siting, construction or modification of any and all wireless telecommunications facilities proposed to be located in the public right-of-way and city-owned property as follows:

1. All facilities for which applications were not approved prior to _____, 2017 shall be subject to and comply with all provisions of this chapter.

2. All facilities for which applications were approved by the city prior to _____, 2017 shall not be required to obtain a new or amended permit until such time as a provision of this code so requires. Any communication facility that was lawfully constructed prior to _____, 2017 that does not comply with the standards, regulations and/or requirements of this division, shall be deemed a nonconforming use.

3. All facilities, notwithstanding the date approved, shall be subject immediately to the provisions of this chapter governing the operation and maintenance (Section 23.83.130 (Operation and Maintenance Standards)), cessation of use and abandonment (Section 23.83.170 (Cessation of Use or Abandonment)), removal and restoration (Section 23.83.180 (Removal and Restoration—Permit Expiration, Revocation or Abandonment)) of wireless telecommunications facilities and the prohibition of dangerous conditions or obstructions by such facilities (Section 23.83.150 (No Dangerous Condition or Obstructions Allowed)); provided, however, that if a condition of approval conflicts with a provision of this chapter, the condition of approval shall control until the permit is amended or revoked.

B. Exclusions. This chapter does not apply to the following:

1. Amateur radio facilities;

2. Over the air reception devices ("OTARD") antennas;

3. Facilities owned and operated by the city for its use;

4. Any entity legally entitled to an exemption pursuant to state or federal law or city-issued franchise agreement.

23.83.040 - Communication facility permit requirements (Discretionary and Ministerial).

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A. General Rule - Major Wireless Communication Facilities Permit Required. All new wireless facilities or collocations or modifications to existing wireless facilities shall require a use permit subject to Planning Commission approval unless otherwise provided for in this chapter.

B. Minor Wireless Communication Facilities Permit.

1. Discretionary Permit. The Director may issue a special use permit for new facilities or collocations or modifications to existing facilities that meet all the following criteria:

a. Consists of a small cell;

b. The proposal is not located in any location identified in Section 23.83.200 (Location Restrictions); and

b. The proposal complies with all applicable provisions in this chapter without need for an exception pursuant to Section 23.83.190 (Exceptions).

2. Referral to Commission. The Director may, in the Director's discretion, refer any application for a special use permit to the Planning Commission for approval, which approval shall be granted if the commission makes the findings required in Section 23.83.090.

C. Ministerial Wireless Telecommunications Facilities Permit. Notwithstanding Section 23.83.220 (State or Federal Law – Ministerial Requirements), the Director shall approve a ministerial wireless telecommunications permit if, all of the following apply:

1. The facility will comply with all applicable laws including, but not limited to:
    a. the Americans with Disabilities Act;
    b. all building and safety requirements, including those within the California Building Standards Code, as amended by the City of Placentia;
    c. all requirements of the Federal Communications Commission (FCC), including requirements relating to radio-frequency (RF) emissions and limits on interference.
2. The proposed facility will be installed on either:
    a. an existing pole that meets all of the following requirements:
        i. The pole does not support a traffic control device (examples include stop signs and traffic signals). If, however, the city has not passed a resolution declaring that the capacity on the traffic control device is needed for projected city uses, and the facility is a small cell, such use of such a pole is not automatically prohibited;
        ii. The facility will match the design of the pole; and
        iii. To the maximum extent feasible, all equipment installed on the pole will be the same color as the pole; or
    b. a new light pole that meets all of the following requirements:
        i. the pole meets the City's design requirements for its own light poles; (See Figure 23.83-1 and City's adopted pole standards).
        ii. the pole is at least 90 feet away from any existing light pole; and
        iii. Unless requested otherwise by the city in writing, the light on the pole will be illuminated, operated, and maintained consistent with the operation of

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the other light poles in the city, and the full costs of illumination shall be fully borne by the applicant.

3. The applicant has provided technical data clearly demonstrating that there is a significant gap in the applicant's coverage and the facilities proposed are needed to fill that gap.
4. The city has issued all required wireless telecommunications encroachment permit(s) and entered into any required master license agreement.
5. All accessory equipment is housed in a container which is either (a) attached to the pole such that it does not protrude from the pole by more than four inches; is attached more than 10 feet above the ground; and is camouflaged to the extent feasible; or (b) installed underground.
6. The facility is a "small cell" facility which has antennas (or antenna sheathing) that is all of the following
    a. Mounted symmetrically at the top of the pole;
    b. The same color and as the pole; and
    c. The same shape as the pole (which shape is typically cylindrical).

D. Master Deployment Plan Permit.

1. Notwithstanding any other provision of the Code to the contrary, any applicant that seeks approval for five or more wireless telecommunications facilities in the right of way and/or public property (including new facilities and collocations to existing facilities) may elect to submit an application for a master deployment plan permit subject to Planning Commission approval. Any master deployment plan shall expire 36 months after the effective date of the approval unless the Planning Commission establishes a shorter time period. The proposed facilities in a master deployment plan shall be reviewed together at the same time and shall be otherwise subject to the same requirements and procedures applicable to a major wireless communication facility permit. Only facilities in the right of way and/or public property may be covered by a master deployment plan. Any master deployment plan shall be required to enter into a master license agreement.

2. A master deployment plan permit shall be deemed an approval for all wireless telecommunications facilities within the plan; provided, however, that an individual encroachment permit shall be required for each communication facility built pursuant to the plan.

3. Each facility proposed to be constructed pursuant to a master deployment plan permit, shall be built in strict compliance with the approved plan. Any deviations or alterations from the approved master deployment plan for an individual communication facility shall be considered as through no master deployment plan permit had been issued and shall require either a major, minor, or ministerial wireless communication facilities permit, as applicable.

4. An applicant that proposes to amend a master deployment plan permit shall apply to the city and follow the same procedures as would otherwise be required to obtain a new master deployment plan permit.

E. Other Permits Required. In addition to any permit that may be required under this chapter, the applicant must obtain all other required prior permits or other approvals from other city departments, or state or federal agencies. Any permit granted under this chapter is subject to the conditions and/or

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requirements of other required prior permits or other approvals from other city departments, state or federal agencies.

F. Eligible Applicants. Only applicants who have been granted the right to enter the public right-of-way pursuant to state or federal law, or who have entered into a franchise agreement or master license agreement with the city permitting them to use the public right-of-way, shall be eligible for a permit to install or modify a communication facility or a communication collocation facility in the public right-of-way.

G. Speculative Equipment Prohibited. The city finds that the practice of "pre-approving" wireless equipment or other improvements that the applicant does not presently intend to install but may wish to install at some undetermined future time does not serve the public's best interest. The city shall not approve any equipment or other improvements in connection with a communication facility permit when the applicant does not actually and presently intend to install such equipment or construct such improvements. All improvements must be installed at the same time.

23.83.050 - Application for communication facility permit.

A. Application.

1. In addition to the information required of an applicant for a wireless communication facility encroachment permit or any other permit required by this code, each applicant requesting approval of the installation or modification of a communication facility in the public right-of-way and city property shall fully and completely submit to the city a written application on a form prepared by the Director.

2. No applicant seeking to install wireless antennas shall seek an encroachment permit for fiber or coaxial cable only. Applicants shall simultaneously request fiber installation or other cable installation when seeking to install antennas in the right-of-way.

B. Application Contents – All Permits. The Director shall develop an application form and make it available to applicants upon request. The supplemental application form for any new communication facility installation in the public right-of-way (regardless of whether it is ministerial or discretionary) shall require the following information, in addition to any information required by 23.83.050.C (for discretionary permits) and all other information determined necessary by the Director:

1. Contact information. The name, address, email address, and telephone number of the applicant, owner and the operator of the proposed facility, and the date the application was received by the City.

2. Written authorization. If the facility will be located on or in the property of someone other than the owner of the facility (such as a street light pole, utility pole, utility cabinet, vault, or cable conduit), the applicant shall provide a duly executed written authorization from the property owner(s) authorizing the placement of the facility on or in the property owner's property, including written authorization from the Southern California Joint Pole Committee.

3. Engineering Plans. Detailed engineered improvement plans of the proposed facility and related report prepared by a professional engineer registered in the State of California documenting the following:

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a. Height, diameter and design of the facility, including technical engineering specifications, economic and other pertinent factors governing selection of the proposed design, together with evidence that demonstrates that the proposed facility has been designed to be the least visible equipment within the particular technology the carrier chooses to deploy. A layout plan, section and elevation of the tower structure shall be included.

b. A photograph and model name and number of each piece of equipment included.

c. Power output and operating frequency for the proposed antenna.

d. Total anticipated capacity of the structure, indicating the number and types of antennas and power and frequency ranges, which can be accommodated.

e. Sufficient evidence of the structural integrity of the pole or other supporting structure as required by the city.

4. Justification for Facility. A justification study which includes the rationale for selecting the proposed use; if applicable, a detailed explanation of the coverage gap that the proposed use would serve; and how the proposed use is the least intrusive means for the applicant to provide wireless service. Said study shall include all existing structures and/or alternative sites evaluated for potential installation of the proposed facility and why said alternatives are not a viable option.

5. Environmental. A completed environmental assessment.

6. Request for Exception. If the applicant requests an exception to the requirements of this chapter (in accordance with Section 95.05.190 (Exceptions)), the applicant shall provide all information and studies necessary for the city to evaluate that request.

7. Proof of RF Emission Compliance. For a facility that is not categorically excluded under the FCC regulations for RF emissions, the applicant shall submit an RF exposure compliance report prepared and certified by an RF engineer acceptable to the city that certifies that the proposed facility, as well as any facilities that contribute to the cumulative exposure in the subject area, will comply with applicable federal RF exposure standards and exposure limits. The RF report must include the actual frequency and power levels (in watts effective radio power "ERP") for all existing and proposed antennas at the site and exhibits that show the location and orientation of all transmitting antennas and the boundaries of areas with RF exposures in excess of the uncontrolled/general population limit (as that term is defined by the FCC) and also the boundaries of areas with RF exposures in excess of the controlled/occupational limit (as that term is defined by the FCC). Each such boundary shall be clearly marked and identified for every transmitting antenna at the project site.

8. FAA Documents. Copies of any documents that the applicant is required to file pursuant to Federal Aviation Administration regulations for the facility.

9. Fee. An application fee, and a deposit for a consultant's review as set forth in paragraph E of this section 23.83.050 in an amount set by resolution by the city council and in accordance with applicable law (e.g. California Government Code Section 50030).

10. RF Exposure Checklist. Completion of the radio frequency (RF) emissions exposure guidelines checklist contained in Appendix A to the Federal Communications Commission's (FCC) "Local

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Government Official's Guide to Transmitting Antenna RF Emission Safety", as it may be amended from time to time, to determine whether the facility will be "categorically excluded" as that term is used by the FCC.

11. Site Plans. Site plan(s) to scale, specifying and depicting the exact proposed location of the pole, pole diameter, antennas, accessory equipment, access or utility easements, landscaped areas, existing utilities, adjacent land uses, and showing compliance with Section 23.83.080 (Requirements for Facilities within the Public Right-of-Way).

12. Traffic Control. If an encroachment permit is required, then the encroachment permit procedures shall control whether (or not) a traffic control plan is required. If no encroachment permit is required, then a traffic control plan is required if either (a) the proposed installation is on any street in a non-residential zone or (b) the applicant seeks to use large equipment (e.g. crane) and the Director decides to require a traffic control plan.

13. Other Information. Any other information and/or studies determined necessary by the Director may be required.

C. Additional Application Contents – Discretionary Permits. In addition to providing all materials required in subsection B of this section 95.05.050, applications for discretionary permits shall also provide the following:

1. Owner Authorization. If the applicant is an agent, the applicant shall provide a duly executed letter of authorization from the owner of the facility. If the owner will not directly provide wireless telecommunications services, the applicant shall provide a duly executed letter of authorization from the person(s) or entity(ies) that will provide those services.

2. Written Description. A full written description of the proposed facility and its purpose.

3. Mock Up and Sign. Proof that a temporary mock-up of the facility and sign has been installed at the proposed location for a period of at least 30 calendar days which facility roughly replicates for the public the proposed height and bulk of the proposed structure. If the Director finds the applicant's cost of complying with this requirement would greatly outweigh the value of such compliance, then the Director may waive the requirement that the applicant install the mock up (but not the installation of the sign, which still requires an encroachment permit).

a. Applicant shall obtain an encroachment permit before installing a temporary mock-up and a sign, and must remove the temporary mock-up and sign within five calendar days of receiving a written notice to remove from the Director.

b. The mock-up and sign shall demonstrate the height and mass of the facility, including all interconnecting cables. The applicant shall not be entitled to install the facility it intends to install permanently. The mock-up may consist of story poles or the like.

c. The mock-up be accompanied by a sign that displays photo simulations depicting before and after images, including any accessory equipment cabinet, and the telephone number of the Public Works Department.

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d. The applicant shall be required to follow any other city practices or processes relevant to the installation of a mock-up and sign as may be provided in a publicly accessible form or document.

e. After installation of the mock-up, the applicant shall certify that the mock-up accurately represents the height and width of the proposed installation and has been installed consistent with this code.

4. Elevations. Scaled elevation plans of proposed poles, antennas, accessory equipment, and related landscaping and screening.

5. Noise Study. A noise study prepared by a qualified acoustic engineer documenting that the level of noise to be emitted by the proposed communication facility will comply with this code including section 95.05.080(A)(16)(b). The Director may waive the requirement for a noise study if the Director finds the cost of creating the study would greatly outweigh the value of receipt of such study.

6. Propagation Maps. A written description identifying the geographic service area for the subject installation including geographic and propagation maps, that identifies the location of the proposed facility in relation to all existing and planned facilities maintained within the city by each of the applicant, operator, and owner, if different entities, as well as the estimated number of potentially affected uses in the geographic service area. Regardless of whether a master deployment plan permit is sought, the applicant shall depict all locations anticipated for new construction and/or modifications to existing facilities, including collocation, within two years of submittal of the application. Longer range conceptual plans for a period of five years shall also be provided, if available.

a. In the event the applicant seeks to install a communication facility to address service coverage concerns, full-color signal propagation maps with objective units of signal strength measurement that show the applicant's current service coverage levels from all adjacent sites without the proposed site, predicted service coverage levels from all adjacent sites with the proposed site, and predicted service coverage levels from the proposed site without all adjacent sites;

b. If applicant seeks to address service capacity concerns, a written explanation identifying the existing facilities with service capacity issues together with competent evidence to demonstrate the inability of those facilities to meet capacity demands.

7. CPCN. Certification that applicant is a telephone corporation or a statement providing the basis for its claimed right to enter the right-of-way. If the applicant has a certificate of public convenience and necessity (CPCN) issued by the California Public Utilities Commission, it shall provide a copy of its CPCN.

8. Visual Depiction. Accurate visual impact analysis showing the maximum silhouette, color and finish palette and proposed screening for the facility, including scaled photo simulations from at least three different angles.

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9. Landscape Plan. A scaled conceptual landscape plan showing existing trees and vegetation and all proposed landscaping, concealment, screening and proposed irrigation with a discussion of how the chosen material at maturity will screen the site.

D. Application Contents. Modification of Existing Facility. The content of the application form for a modification to an existing facility shall be determined by the Director, and shall include but not be limited to the requirements listed in Section 23.83.050(B) and (C) unless prohibited by state or federal law.

E. Effect of State or Federal Law Change. If a subsequent state or federal law prohibits the collection of any information required by Section 23.83.050(B) or (C), the Director is authorized to omit, modify or add to that request from the City's application form with the written approval of the city attorney, which approval shall be a public record.

F. Independent Expert. The Director is authorized to retain on behalf of the city an independent, qualified consultant to review any application for a permit for a communication facility. The review is intended to be a review of technical aspects of the proposed communication facility and shall address any or all of the following:

1. Compliance with applicable radio frequency emission standards;

2. Whether any requested exception is necessary to close a significant gap in coverage and is the least intrusive means of doing so;

3. The accuracy and completeness of submissions;

4. Technical demonstration of the unavailability of alternative sites or configurations and/or coverage analysis;

5. The applicability of analysis techniques and methodologies;

6. The validity of conclusions reached or claims made by applicant;

7. The viability of alternative sites and alternative designs; and

8. Any other specific technical issues identified by the consultant or designated by the city.

The cost of this review shall be paid by the applicant through a deposit pursuant to an adopted fee schedule resolution. No permit shall be issued to any applicant which has not fully reimbursed the city for the consultant's cost.

23.83.060 - Review procedure.

A. Pre-submittal Conference. Prior to application submittal, the city strongly encourages all applicants to schedule and attend a pre-submittal conference with Public Works Department staff to receive informal feedback on the proposed location, design and application materials. The pre-submittal conference is intended to identify potential concerns and streamline the formal application review process after submittal. Public Works Department staff will endeavor to provide applicants with an appointment within approximately five business days after receipt of a written request.

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B. Application Submittal Appointment. All applications must be submitted to the city at a pre-scheduled appointment. Applicants may submit one application per appointment but may schedule successive appointments for multiple applications whenever feasible as determined by the city. City staff will endeavor to provide applicants with an appointment within five business days after receipt of a written request.

C. Notice and Decisions. The provisions in this section describe the procedures for approval and any required notice and public hearings for an application.

1. When Hearings Required.

a. Discretionary Decisions. Any permit application under this chapter subject to Planning Commission or the Director's discretionary approval requires notice and a public hearing in accordance with code Section 23.87.030 (Public Hearings and Public Notices).

b. Ministerial Decisions. The Director may approve or conditionally approve an application for a ministerial application without a public hearing and without issuing prior notice of the decision. For denials see subsection 3, below.

2. Notice of decisions

a. Planning Commission Decision of Approval. The Planning Commission may approve, or conditionally approve, an application only after the commission makes the findings required in Section 23.83.090 (Findings).

b. Administrative Approvals. The Director may approve, or conditionally approve, an application only after it makes the findings required in Section 23.83.090 (Findings). Within five days after the Director approves an application under this chapter, the Director is directed to place notice of the decision in the U.S. mail.

3. Denials.

a. All final decisions made pursuant to this chapter shall be in writing and based on substantial evidence in the written administrative record. The written decision shall include the reasons for the decision.

b. Administrative Denials. If the Director determines that any application submitted for a ministerial or discretionary wireless communication facilities permit does not meet code requirements, the Director shall notify the applicant of said finding in writing, and the application shall be denied effective on the date of issuance of said notice, unless, within 10 days of the issuance of the written notice, the applicant requests the application be converted to an application for a major wireless facilities permit application. The Planning Commission shall thereafter hear the application only after a complete application for the major wireless communication facilities permit has been submitted.

4. Notice of Shot Clock Expiration.

a. Notification by Applicant. The city acknowledges there are federal and state shot clocks which may be applicable to a proposed communication facility. That is, federal and state law provide time periods in which the city must approve or deny a proposed communication facility. As such, the

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applicant is required to provide the city written notice of the expiration of any shot clock, which the applicant shall ensure is received by the city (e.g. overnight mail) no later than 20 days prior to the expiration, and until the applicant has provided such notice, the city shall be entitled to conclude that the applicant has consented to the delay, and that the delay is reasonable.

b. Tolling Agreements. The Director is authorized to enter into an agreement to toll the relevant shot clock requirements, if the form of the agreement meets the approval of the City Attorney.

D. Appeals. Any aggrieved person or entity may appeal a decision by the Director or the Planning Commission.

23.83.070. (Reserved)

23.83.080 - Requirements for facilities within the public right-of-way.

A. Design and Development Standards. All wireless telecommunications facilities that are located within the public right-of-way shall be designed and maintained as to minimize visual, noise and other impacts on the surrounding community and shall be planned, designed, located, and erected in accordance with the following:

1. General Guidelines.

a. The applicant shall employ screening, undergrounding and camouflage design techniques in the design and placement of wireless telecommunications facilities to ensure that the facility is as visually screened as feasible, to prevent the facility from dominating the surroundings.

b. Screening shall be designed to be architecturally compatible with surrounding structures using appropriate techniques to camouflage, disguise, and/or blend into the environment, including landscaping, color, and other techniques to minimize the facility's visual impact as well as be compatible with the architectural character of the surrounding buildings or structures in terms of color, size, proportion, style, and quality.

c. To the extent feasible, facilities shall be located such that views from a residential structure are not significantly impaired.

2. [Reserved.]

3. Traffic Safety. All facilities shall be designed and located in such a manner to avoid adverse impacts on traffic safety. Among other things, when determining traffic safety impacts, the City will consider the views of the Manual for Uniform Traffic Control Devices (MUTCD) and whether the proposed installation location is high enough and far enough away from the street to minimize the risk of high profile vehicles colliding with the installation.

4. Blending Methods. All facilities shall have subdued colors and non-reflective materials that blend with the materials and colors of the surrounding area and structures.

5. Equipment. The applicant shall use the least visible equipment possible. Antenna elements shall be flush mounted, to the extent feasible. All antenna mounts shall be designed so as not to preclude

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possible future collocation by the same or other operators or carriers. Unless otherwise provided in this section, antennas shall be situated as close to the ground as possible.

6. Poles.

a. Facilities shall be located consistent with Section 23.83.200 (Location Restrictions) unless an exception pursuant to Section 23.83.190 (Exceptions) is granted.

b. Only pole-mounted antennas shall be permitted in the right-of-way. All other telecommunications towers are prohibited. (For exceptions see subparagraph (6)(h) below and sections 23.83.190 (Exceptions) and 23.83.220 (State or Federal Law).)

c. Utility Poles. The maximum height of any antenna shall not exceed 48 inches above the height of an existing utility pole, nor shall any portion of the antenna or equipment mounted on a pole be less than 20 feet above any drivable road surface. All installations on utility poles shall fully comply with the California Public Utilities Commission general orders, including, but not limited to, General Order 95, as may be revised or superseded.

d. Light Poles. The maximum height of any antenna shall not exceed four feet above the existing height of a light pole. Any portion of the antenna or equipment mounted on a pole shall be on the pole, and not on any mast arm.

e. Replacement Poles. If an applicant proposes to replace a pole in order to accommodate a proposed facility, the pole shall be designed to resemble the appearance and dimensions of existing poles near the proposed location, including size, height, color, materials and style to the maximum extent feasible.

f. Pole mounted equipment, exclusive of antennas, shall be restricted to the smallest possible dimensions and shall not exceed nine cubic feet in dimension.

g. [Reserved.]

h. An exception shall be required to place a new pole in the public right-of-way. If an exception is granted for placement of new poles in the right-of-way:

i. Appearance. Such new poles shall be designed to resemble existing poles in the right-of-way near that location, including size, height, color, materials and style, with the exception of any existing pole designs that are scheduled to be removed and not replaced.

ii. Minimum Distance Between Poles. Such new poles that are not replacement poles shall be located at least 90 linear feet from any existing pole to the extent feasible.

iii. Analysis. A new pole justification analysis shall be submitted to demonstrate why existing infrastructure cannot be utilized and demonstrating the new pole is the least intrusive means possible including a demonstration that the new pole is designed to be the minimum functional height and width required to support the proposed facility.

i. All cables, including, but not limited to, electrical and utility cables, shall be run within the interior of the pole and shall be camouflaged or hidden to the fullest extent feasible. For all

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wooden poles wherein interior installation is infeasible, conduit and cables attached to the exterior of poles shall be mounted flush thereto and painted to match the pole.

7. Space. Each facility shall be designed to occupy the least amount of space in the right-of-way that is technically feasible.

8. Wind Loads. Each facility shall be properly engineered to withstand wind loads as required by this code or any duly adopted or incorporated code. An evaluation of high wind load capacity shall include the impact of modification of an existing facility.

9. Obstructions. Each component part of a facility shall be located so as not to cause any physical or visual obstruction to pedestrian or vehicular traffic, incommode the public's use of the right-of-way, or safety hazards to pedestrians and motorists so as not to obstruct the intersection sight distance.

10. Public Facilities. A facility shall not be located within any portion of the public right-of-way interfering with access to a fire hydrant, fire station, fire escape, water valve, underground vault, valve housing structure, or any other public health or safety facility.

11. Screening. All ground-mounted facility, pole-mounted equipment, or walls, fences, landscaping or other screening methods shall be installed at least 18 inches from the curb and gutter flow line.

12. Accessory Equipment. Not including the electric meter, all accessory equipment shall be located underground, except as provided below:

a. Unless city staff determines that there is no room in the public right-of-way for undergrounding, or that undergrounding is not feasible, an exception shall be required to place accessory equipment above-ground and concealed with natural or manmade features to the maximum extent possible. (See section 23.83.040.C, authorizing certain above ground installations on existing poles).

b. When above-ground is the only feasible location for a particular type of accessory equipment and will be ground-mounted, such accessory equipment shall be enclosed within a structure, and shall not exceed a height of five feet and a total footprint of 15 square feet, and shall be fully screened and/or camouflaged, including the use of landscaping, architectural treatment, or acceptable alternate screening. Required electrical meter cabinets shall be screened and/or camouflaged. Also, while pole-mounted equipment is generally the least favored installation, should pole-mounted equipment be sought, it shall be installed as required in this chapter.

c. In locations where homes are only along one side of a street, above-ground accessory equipment shall not be installed directly in front of a residence. Such above-ground accessory equipment shall be installed along the side of the street with no homes facing it.

13. Landscaping. Where appropriate, each facility shall be installed so as to maintain and enhance existing landscaping on the site, including trees, foliage and shrubs. Additional landscaping shall be planted, irrigated and maintained by applicant where such landscaping is deemed necessary by the city to provide screening or to conceal the facility.

14. Signage. No facility shall bear any signs or advertising devices other than certification, warning or other signage required by law or permitted by the city.

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15. Lighting.

a. No facility may be illuminated unless specifically required by the Federal Aviation Administration or other government agency. Beacon lights are not permitted unless required by the Federal Aviation Administration or other government agency.

b. Legally required lightning arresters and beacons shall be included when calculating the height of facilities such as towers, lattice towers and monopoles.

c. Any required lighting shall be shielded to eliminate, to the maximum extent possible, impacts on the surrounding neighborhoods.

d. Unless otherwise required under FAA or FCC regulations, applicants may install only timed or motion-sensitive light controllers and lights, and must install such lights so as to avoid illumination impacts to adjacent properties to the maximum extent feasible. The city may, in its discretion, exempt an applicant from the foregoing requirement when the applicant demonstrates a substantial public safety need.

e. The applicant shall submit a lighting study which shall be prepared by a qualified lighting professional to evaluate potential impacts to adjacent properties. Should no lighting be proposed, no lighting study shall be required.

f. Nothing in this subsection 15 is intended to prevent the installation of wireless facilities camouflaged on or within light poles if the light pole meet the City's design requirements for its own light poles.

16. Noise.

a. Backup generators shall only be operated during periods of power outages, and shall be tested only between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 6:00 p.m. on Saturday, and shall be prohibited at any time on Sunday and on all federal holidays, unless other hours are approved by the Director upon receipt of evidence that an emergency exists which would constitute a hazard to persons or property.

b. At no time shall equipment noise from any facility exceed an exterior noise level of 55 dBA three feet from the source of the noise if the facility is located in the public right-of-way adjacent to a business, commercial, manufacturing, utility or school zone; provided, however, that for any such facility located within 500 feet of any property zoned residential or improved with a residential use, such equipment noise shall not exceed 45 dBA three feet from the sources of the noise.

17. Security. Each facility shall be designed to be resistant to, and minimize opportunities for, unauthorized access, climbing, vandalism, graffiti and other conditions that would result in hazardous situations, visual blight or attractive nuisances. The Director may require the provision of warning signs, fencing, anti-climbing devices, or other techniques to prevent unauthorized access and vandalism when, because of their location and/or accessibility, a facility has the potential to become an attractive nuisance. Additionally, no lethal devices or elements shall be installed as a security device.

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18. Modification. Consistent with current state and federal laws and if permissible under the same, at the time of modification of a communication facility, existing equipment shall, to the extent feasible, be replaced with equipment that reduces visual, noise and other impacts, including, but not limited to, undergrounding the equipment and replacing larger, more visually intrusive facilities with smaller, less visually intrusive facilities.

19. The installation and construction approved by a communication facility permit shall begin within one year after its approval or it will expire without further action by the city.

B. Conditions of Approval. In addition to compliance with the design and development standards outlined in this section, all facilities shall be subject to the following conditions of approval (approval may be by operation of law), as well as any modification of these conditions or additional conditions of approval deemed necessary by the approving party:

1. As Built Drawings. The permittee shall submit an as built drawing within 90 days after installation of the facility. As-builts shall be in an electronic format acceptable to the city which can be linked to the City's GIS.

2. Contact Information. The permittee shall submit and maintain current at all times basic contact and site information on a form to be supplied by the city. The permittee shall notify the city of any changes to the information submitted within 30 days of any change, including change of the name or legal status of the owner or operator. This information shall include, but is not limited to, the following:

a. Identity, including the name, address and 24-hour local or toll free contact phone number of the permittee, the owner, the operator, and the agent or person responsible for the maintenance of the facility.

b. The legal status of the owner of the communication facility.

3. Assignment. The permittee shall notify the city in writing at least 90 days prior to any transfer or assignment of the permit. The written notice required in this section must include: (1) the transferee's legal name; (2) the transferee's full contact information, including a primary contact person, mailing address, telephone number and email address; and (3) a statement signed by the transferee that the transferee shall accept all permit terms and conditions. The Director may require the transferor and/or the transferee to submit any materials or documentation necessary to determine that the proposed transfer complies with the existing permit and all its conditions of approval, if any. Such materials or documentation may include, but shall not be limited to: federal, state and/or local approvals, licenses, certificates or franchise agreements; statements; photographs; site plans and/or as-built drawings; and/or an analysis by a qualified radio frequency engineer demonstrating compliance with all applicable regulations and standards of the Federal Communications Commission. Noncompliance with the permit and all its conditions of approval, if any, or failure to submit the materials required by the Director shall be a cause for the city to revoke the applicable permits pursuant to and following the procedure set on in Section 95.05.180 (Removal and Restoration—Permit Expiration, Revocation or Abandonment).

4. Signs. At all times, all required notices and/or signs shall be posted on the site as required by the Federal Communications Commission, California Public Utilities Commission, any applicable licenses

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or laws, and as approved by the city. The location and dimensions of a sign bearing the emergency contact name and telephone number shall be posted pursuant to the approved plans.

5. Security. Permittee shall pay for and provide a performance bond or other form of security approved by the city attorney's office, which shall be in effect until the facilities are fully and completely removed and the site reasonably returned to its original condition, to cover permittee's obligations under these conditions of approval and this code. The security instrument coverage shall include, but not be limited to, removal of the facility. (The amount of the security instrument shall be calculated by the applicant in its submittal documents in an amount rationally related to the obligations covered by the bond and shall be specified in the conditions of approval.) Before issuance of any building permit, permittee must submit said security instrument.

6. Noise Complaints. If a nearby property owner or occupant registers a noise complaint and city forwards the same to the permittee (personally identifiable information may be redacted), the permittee shall have ten business days to file a written response regarding the complaint which includes any applicable remedial measures. If the city determines the complaint is valid and the applicant has not taken any steps to minimize the noise, the city may hire a consultant to study, examine and evaluate the noise complaint and the permittee shall pay the fee for the consultant if the site is found in violation of this chapter. The matter shall be reviewed by the Director. If the Director determines sound proofing or other sound attenuation measures should be required to bring the project into compliance with the Code, the Director may impose conditions on the project to achieve said objective.

7. Permit Expiration. A condition setting forth the permit expiration date in accordance with Section 23.83.160 (Permit Expiration) shall be included in the conditions of approval.

8. Additional conditions. The communication facility shall be subject to such conditions, changes or limitations as are from time to time deemed necessary by the Director for the purpose of: (a) protecting the public health, safety, and welfare; (b) preventing interference with pedestrian and vehicular traffic; and/or (c) preventing damage to the public right-of-way or any adjacent property. The city may modify the permit to reflect such conditions, changes or limitations by following the same notice and public hearing procedures as are applicable to the underlying permit for similarly located facilities, except the permittee shall be given notice by personal service or by registered or certified mail at the last address provided to the city by the permittee.

9. No Permit Transfer. The permittee shall not transfer the permit to any person prior to the completion of the construction of the facility covered by the permit, unless and until the transferee of the permit has submitted the security instrument required by Section 95.05.080(B)(5) (Security).

10. Property Rights. The permittee shall not move, alter, temporarily relocate, change, or interfere with any existing structure, improvement or property without the prior consent of the owner of that structure, improvement or property. No structure, improvement or property owned by the city shall be moved to accommodate a communication facility unless the city determines that such movement will not adversely affect the city or any surrounding businesses or residents, and the permittee pays all costs and expenses related to the relocation of the City's structure, improvement or property. Prior to commencement of any work pursuant to an encroachment permit issued for any facility within the public right-of-way, the permittee shall provide the city with documentation

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establishing to the City's satisfaction that the permittee has the legal right to use or interfere with any other structure, improvement or property within the public right-of-way to be affected by applicant's facilities.

11. Liability. The permittee shall assume full liability for damage or injury caused to any property or person by the facility.

12. Repair Obligations. The permittee shall repair, at its sole cost and expense, any damage including, but not limited to subsidence, cracking, erosion, collapse, weakening, or loss of lateral support to city streets, sidewalks, walks, curbs, gutters, trees, parkways, street lights, traffic signals, improvements of any kind or nature, or utility lines and systems, underground utility line and systems, or sewer systems and sewer lines that result from any activities performed in connection with the installation, use, and/or maintenance of a communication facility in the public right-of-way. The permittee shall restore such areas, structures and systems to the condition in which they existed prior to the installation or maintenance that necessitated the repairs. If the permittee fails to complete such repair within the number of days stated on a written notice by the City Engineer. Such time period for correction shall be based on the facts and circumstances, danger to the community and severity of the disrepair. Should the permittee not make said correction within the time period allotted the City Engineer shall cause such repair to be completed at permittee's sole cost and expense.

13. Drip Line. No facility shall be permitted to be installed in the drip line of any tree in the right-of-way.

14. Insurance. The permittee shall obtain, pay for and maintain, in full force and effect until the facility approved by the permit is removed in its entirety from the public right-of-way, an insurance policy or policies of public liability insurance, with minimum limits of $2,000,000 for each occurrence and $5,000,000 in the aggregate, that fully protects the city from claims and suits for bodily injury and property damage. The insurance must name the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers as additional named insureds, be issued by an insurer admitted in the State of California with a rating of at least a A:VII in the latest edition of A.M. Best's Insurance Guide, and include an endorsement providing that the policies cannot be canceled or reduced except with thirty (30) days prior written notice to the city, except for cancellation due to nonpayment of premium. The insurance provided by permittee shall be primary to any coverage available to the city, and any insurance or self-insurance maintained by the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers shall be excess of permittee's insurance and shall not contribute with it. The policies of insurance required by this permit shall include provisions for waiver of subrogation. In accepting the benefits of this permit, permittee hereby waives all rights of subrogation against the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers. The insurance must afford coverage for the permittee's and the wireless provider's use, operation and activity, vehicles, equipment, facility, representatives, agents and employees, as determined by the City's Risk Manager. Before issuance of any building permit for the facility, the permittee shall furnish the city risk manager certificates of insurance and endorsements, in the form satisfactory to the city attorney or the risk manager, evidencing the coverage required by the city.

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15. Indemnification. To the fullest extent permitted by law, permittee and any contractors or subcontractors working on its behalf agree to indemnify the City of Placentia, its officers, employees, agents and elected and appointed boards (hereinafter "City Indemnitees") for any loss, claim, demand, cause of action, cost, expense, damage, obligation or liability which arises out of or is in any way connected with the installation, use, and maintenance of the communication facility, including any acts or omissions, willful misconduct or negligent conduct, whether active or passive, on the part of permittee, its contractors or subcontractors, and regardless of any acts, omissions or negligence (whether active or passive) of any person or entity indemnified hereunder. At their own expense, permittee and, as applicable, any contractors or subcontractors working on its behalf, shall defend any suit, claim or action against the City Indemnitees founded upon such loss, claim, demand, cause of action, cost, expense, damage, obligation or liability. Permittee shall ensure that the contract of any contractor or subcontractor working under this permit contain an indemnity agreement, requiring the contractor or subcontractor to indemnify and defend the City Indemnitees pursuant the terms set forth above. Permittee shall indemnify the City Indemnitees, and save them harmless from any and all loss, damage, costs, expenses and attorney's fees suffered or incurred on account of any breach of the aforesaid obligations and covenants, and any other provision or covenant of this section.

16. Hold Harmless. Additionally, to the fullest extent permitted by law, the permittee, and every permittee and person in a shared permit, jointly and severally, shall defend, indemnify, protect and hold the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers harmless from and against all claims, suits, demands, actions, losses, liabilities, judgments, settlements, costs (including, but not limited to, attorney's fees, interest and expert witness fees), or damages claimed by third parties against the city for any injury claim, and for property damage sustained by any person, arising out of, resulting from, or are in any way related to the communication facility, or to any work done by or use of the public right-of-way by the permittee, owner or operator of the communication facility, or their agents, excepting only liability arising out of the sole negligence or willful misconduct of the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers.

17. Cabinet Removal. Should the utility company servicing the facility with electrical service not require the use of an above ground meter cabinet, the permittee shall at its sole cost and expense remove the meter cabinet and any related foundation within 90 days of such service being offered and reasonably restore the area to its prior condition. An extension may be granted if circumstances arise outside of the control of the permittee.

18. Relocation. The permittee shall modify, remove, or relocate its facility, or portion thereof, without cost or expense to city, if and when made necessary by (i) any public improvement project, including, but not limited to, the construction, maintenance, or operation of any underground or above ground facilities including but not limited to sewers, storm drains, conduits, gas, water, electric or other utility systems, or pipes owned by city or any other public agency, (ii) any abandonment of any street, sidewalk or other public facility, (iii) any change of grade, alignment or width of any street, sidewalk or other public facility, or (iv) a determination by the Director that the communication facility has become incompatible with public health, safety or welfare or the public's use of the public right-of-way. Such modification, removal, or relocation of the facility shall be

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completed within 90 days of notification by city unless exigencies dictate a shorter period for removal or relocation. Modification or relocation of the facility shall require submittal, review and approval of a modified permit pursuant to the Code including applicable notice and hearing procedures. The permittee shall be entitled, on permittee's election, to either a pro-rata refund of fees paid for the original permit or to a new permit, without additional fee, at a location as close to the original location as the standards set forth in the Code allow. If the facility is not modified, removed, or relocated within said period of time, city may cause the same to be done at the sole cost and expense of permittee. Further, due to exigent circumstances including those of immediate or imminent threat to the public's health and safety, the city may modify, remove, or relocate wireless telecommunications facilities without prior notice to permittee provided permittee is notified within a reasonable period thereafter.

19. Written Approval of Conditions. Permittee shall agree in writing that the permittee is aware of, and agrees to abide by, all conditions of approval imposed by the communication facility permit within 30 days of permit issuance. The permit shall be void and of no force or effect unless such written consent is received by the city within said 30-day period.

20. Right of Way Agreement. Prior to the issuance of any encroachment permit, permittee may be required to enter into a right-of-way agreement with the city in accordance with the City's past practice.

21. "Permittee" shall include the applicant and all successors in interest to this permit.

23.83.090 – Findings for Discretionary Permits.

No discretionary permit shall be granted for a communication facility unless the approving party makes all of the following findings:

A. The proposed facility has been designed and located in compliance with all applicable provisions of the Code, including Chapter 23.83.

B. Either (1) the design and location for the proposed installation is least intrusive on the purposes of this chapter; or (2) there is no feasible alternative design or location that would be less intrusive on the purposes of this chapter.

23.83.100 - Reserved.

23.83.110 - Nonexclusive grant.

No permit or approval granted under this chapter shall confer any exclusive right, privilege, license or franchise to occupy or use the public right-of-way of the city for any purpose whatsoever. Further, no approval shall be construed as any warranty of title.

23.83.120 - Emergency deployment.

A COW shall be permitted for the duration of an emergency declared by the city or at the discretion of the Director.

23.83.130 - Operation and maintenance standards.

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All wireless telecommunications facilities must comply at all times with the following operation and maintenance standards:

A. Repairs. Unless otherwise provided herein, all necessary repairs and restoration shall be completed by the permittee, owner, operator or any designated maintenance agent within 48 hours:
   1. After discovery of the need by the permittee, owner, operator or any designated maintenance agent; or
   2. After permittee, owner, operator or any designated maintenance agent receives notification from the city.
B. Contact Information. Each permittee of a communication facility shall provide the Director with the name, address and 24-hour local or toll free contact phone number of the permittee, the owner, the operator and the agent responsible for the maintenance of the facility ("contact information"). Contact information shall be updated within seven days of any change.
C. Good Condition. All facilities, including, but not limited to, telecommunication towers, poles, accessory equipment, lighting, fences, walls, shields, cabinets, artificial foliage or camouflage, and the facility site shall be maintained in good condition, including ensuring the facilities are reasonably free of:
   1. General dirt and grease;
   2. Chipped, faded, peeling, and cracked paint;
   3. Rust and corrosion;
   4. Cracks, dents, and discoloration;
   5. Missing, discolored or damaged artificial foliage or other camouflage;
   6. Graffiti, bills, stickers, advertisements, litter and debris;
   7. Broken and misshapen structural parts; and
   8. Any damage from any cause.
D. Landscaping. All trees, foliage or other landscaping elements approved as part of the facility shall be maintained in good condition at all times, and the permittee, owner and operator of the facility shall be responsible for replacing any damaged, dead or decayed landscaping. No amendment to any approved landscaping plan may be made until it is submitted to and approved by the Director.
E. Replacement. The permittee shall replace its facilities, after obtaining all required permits, if maintenance or repair is not sufficient to return the facility to the condition it was in at the time of installation.
F. Routine Inspections. Each facility shall be operated and maintained to comply at all conditions of approval. Each owner or operator of a facility shall routinely inspect each site to ensure compliance with the same and the standards set forth in this chapter.

23.83.140 - Reserved.

23.83.150 - No dangerous condition or obstructions allowed.

No person shall install, use or maintain any facility which in whole or in part rests upon, in or over any public right-of-way, when such installation, use or maintenance endangers or is reasonably likely to endanger the safety of persons or property, or when such site or location is used for public utility purposes, public transportation purposes or other governmental use, or when such facility unreasonably

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interferes with or unreasonably impedes the flow of pedestrian or vehicular traffic including any legally parked or stopped vehicle, the ingress into or egress from any residence or place of business, the use of poles, posts, traffic signs or signals, hydrants, mailboxes, permitted sidewalk dining, permitted street furniture or other objects permitted at or near said location.

23.83.160 - Permit expiration.

A. 10 Year Expiration. Unless Government Code Section 65964, as it may be amended, authorizes the city to issue a permit with a shorter term, a permit for any communication facility shall be valid for a period of ten years, unless pursuant to another provision of this code it lapses sooner or is revoked. At the end of ten years from the date of issuance, such permit shall automatically expire.

B. Renewal. A permittee may apply for a new permit within 180 days prior to expiration. Said application and proposal shall comply with the City's current code requirements for wireless telecommunications facilities.

23.83.170 - Cessation of use or abandonment.

A. Abandonment. A communication facility is considered abandoned and shall be promptly removed as provided herein if it ceases to provide wireless telecommunications services for 90 or more consecutive days unless the permittee has obtained prior written approval from the Director which shall not be unreasonably denied. If there are two or more users of a single facility, then this provision shall not become effective until all users cease using the facility.

B. Notice of Abandonment. The operator of a facility shall notify the city in writing of its intent to abandon or cease use of a permitted site or a nonconforming site (including unpermitted sites) within ten days of ceasing or abandoning use. Notwithstanding any other provision herein, the operator of the facility shall provide written notice to the Director of any discontinuation of operations of 30 days or more.

C. Remedies. Failure to inform the Director of cessation or discontinuation of operations of any existing facility as required by this section shall constitute a violation of any approvals and be grounds for:

1. Litigation;

2. Revocation or modification of the permit;

3. Acting on any bond or other assurance required by this article or conditions of approval of the permit;

4. Removal of the facilities by the city in accordance with the procedures established under this code for abatement of a public nuisance at the owner's expense; and/or

5. Any other remedies permitted under this code.

23.83.180 - Removal and restoration—Permit expiration, revocation or abandonment.

A. Removal at Permit Termination. Upon the expiration date of the permit, including any extensions, earlier termination or revocation of the permit or abandonment of the facility, the permittee, owner or operator shall remove its communication facility and restore the site to its natural condition except for retaining the landscaping improvements and any other improvements at the discretion of the city.

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Removal shall be in accordance with proper health and safety requirements and all ordinances, rules, and regulations of the city. The facility shall be removed from the property, at no cost or expense to the city.

B. Failure to Remove. Failure of the permittee, owner or operator to promptly remove its facility and restore the property within 90 days after expiration, earlier termination or revocation of the permit, or abandonment of the facility, shall be a violation of this code. Upon a showing of good cause, an extension may be granted by the Director where circumstances are beyond the control of the permittee after expiration. Further failure to abide by the timeline provided in this section shall be grounds for:

1. Prosecution;

2. Acting on any security instrument required by this chapter or conditions of approval of permit;

3. Removal of the facilities by the city in accordance with the procedures established under this code for abatement of a public nuisance at the owner's expense; and/or

4. Any other remedies permitted under this code.

C. Summary Removal. If the Director or City Engineer determines that the condition or placement of a communication facility located in the public right-of-way constitutes a dangerous condition, obstruction of the public right-of-way, or an imminent threat to public safety, or determines other exigent circumstances require immediate corrective action (collectively, "exigent circumstances"), the Director or City Engineer may cause the facility to be removed summarily and immediately without advance notice or a hearing. Written notice of the removal shall include the basis for the removal and shall be served upon the permittee and person who owns the facility within five business days of removal and all property removed shall be preserved for the owner's pick-up as feasible. If the owner cannot be identified following reasonable effort or if the owner fails to pick-up the property within 60 days, the facility shall be treated as abandoned property.

D. Removal of Facilities by City. If the city removes a facility in accordance with nuisance abatement procedures or summary removal, any such removal shall be without any liability to the city for any damage to such facility that may result from reasonable efforts of removal. In addition to the procedures for recovering costs of nuisance abatement, the city may collect such costs from any performance bond posted and to the extent such costs exceed the amount of the performance bond, collect those excess costs in accordance with this code. Unless otherwise provided herein, the city has no obligation to store such facility. Neither the permittee, owner nor operator shall have any claim if the city destroys any such facility not timely removed by the permittee, owner or operator after notice, or removed by the city due to exigent circumstances.

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23.83.190 - Exceptions.

A. Federal Law – Planning Commission Exception. The City Council recognizes that federal law prohibits a permit denial when it would effectively prohibit the provision of personal wireless services and the applicant proposes the least intrusive means to provide such services. The City Council finds that, due to wide variation among wireless facilities, technical service objectives and changed circumstances over time, a limited exemption for proposals in which strict compliance with this chapter would effectively prohibit personal wireless services serves the public interest. The City Council further finds that circumstances in which an effective prohibition may occur are extremely difficult to discern, and that specified findings to guide the analysis promotes clarity and the City's legitimate interest in well-planned wireless facilities deployment. Therefore, if any applicant demonstrates that strict compliance with any provision in this chapter, as applied to a specific proposed personal wireless services facility, would effectively prohibit the provision of personal wireless services, the Planning Commission may grant a limited, one-time exemption from strict compliance with the requirements of this Code subject to the provisions in this section.

B. Required Findings. The Planning Commission shall not grant any exception unless the applicant demonstrates by a preponderance of the evidence all the following:

1. The proposed wireless facility qualifies as a "personal wireless services facility" as defined in United States Code, Title 47, section 332(c)(7)(C)(ii);

2. The applicant has provided the City with a clearly defined technical service objective and a clearly defined potential site search area;

3. The applicant has provided the City with a meaningful comparative analysis that includes the factual reasons why any alternative location(s) or design(s) suggested by the City or otherwise identified in the administrative record, including but not limited to potential alternatives identified at any public meeting or hearing, are not technically feasible or potentially available; and

4. The applicant has provided the City with a meaningful comparative analysis that includes the factual reasons why the proposed location and design deviates is the least noncompliant location and design necessary to reasonably achieve the applicant's reasonable technical service objectives.

C. Scope. The Planning Commission shall limit its exemption to the extent to which the applicant demonstrates such exemption is necessary to reasonably achieve its reasonable technical service objectives. The Planning Commission may adopt conditions of approval as reasonably necessary to promote the purposes in this chapter and protect the public health, safety and welfare.

D. Independent Consultant. The City shall have the right to hire, at the applicant's expense, an independent consultant to evaluate issues raised by the exception and to submit recommendations and evidence in response to the application.

23.83.200 - Location restrictions.

Wireless telecommunications facilities are strongly disfavored in certain areas. Therefore, the following locations are permitted when an exception has been granted pursuant to Section 23.83.190 (Exceptions):

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A. Public right-of-way of local streets as identified in Section 22.08.030 if within the residential zones.
B. Public right-of-way if mounted to a new pole that is not replacing an existing pole in an otherwise permitted location.

23.83.210 - Effect on other ordinances.

Compliance with the provisions of this chapter shall not relieve a person from complying with any other applicable provision of this code. In the event of a conflict between any provision of this chapter and other sections of this code, this chapter shall control.

23.83.220 - State or Federal Law – Ministerial Requirements.

A. Ministerial permitting.

1. If it is determined by the City Attorney that state or federal law prohibits discretionary permitting requirements for certain wireless telecommunications facilities, such requirement shall be deemed severable and all remaining regulations shall remain in full force and effect. Such a determination by the City Attorney shall be in writing with citations to legal authority and shall be a public record. For those facilities, in lieu of a use permit or a special use permit, a ministerial administrative permit shall be required prior to installation or modification of a communication facility, and all provisions of this chapter that would otherwise apply to the discretionary permit shall be applicable to any such facility with the exception that the required permit shall be reviewed and administered as a ministerial permit by the Director rather than as a discretionary permit. Any conditions of approval set forth in this provision or deemed necessary by the Director shall be imposed and administered as reasonable time, place and manner rules.

2. Notwithstanding the foregoing subsection (1) of this subsection (A), the determination that would otherwise be made by the City Attorney may be made by the Director if the Director's determination is made upon a form approved by the City Attorney which form is designed to ensure compliance with the requirements of subsection (1).

B. Changed law. If subsequent to the issuance of the written determination pursuant to subsection A above, and before the issuance of a wireless telecommunications permit, the city attorney determines that the law has changed and that discretionary permitting is permissible, the City Attorney shall issue such determination in writing with citations to legal authority and all discretionary permitting requirements shall be reinstated. The city attorney's written determination shall be a public record.

C. Enforceable Laws. All installations permitted pursuant to this chapter shall comply with all federal and state laws including but not limited to the American with Disabilities Act, and the California Building Standards Code.

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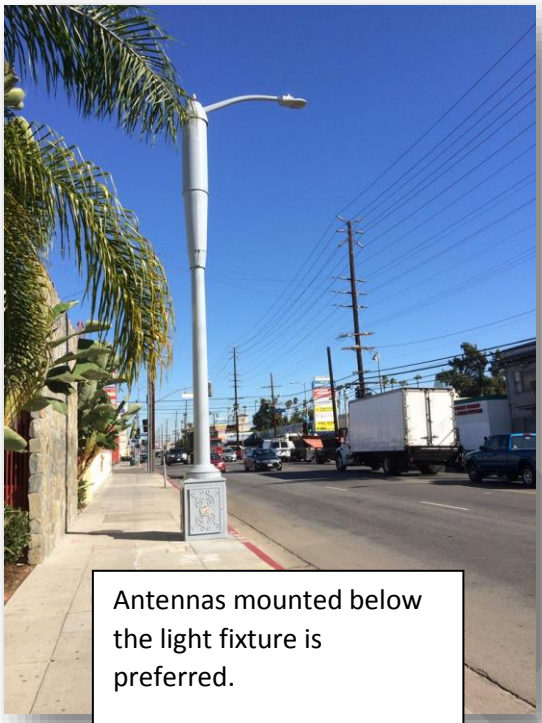
Figure 23.83 - 1 DESIGN STANDARDS AND GUIDELINES

Acceptable Examples of Design Integration



Antennas mounted below the light fixture is preferred.

Sheathed antennas can be mounted above the light fixture if it furthers the design standards set forth in Ch. 23.83.

Unsheathed antennas must be mounted below the light fixture.

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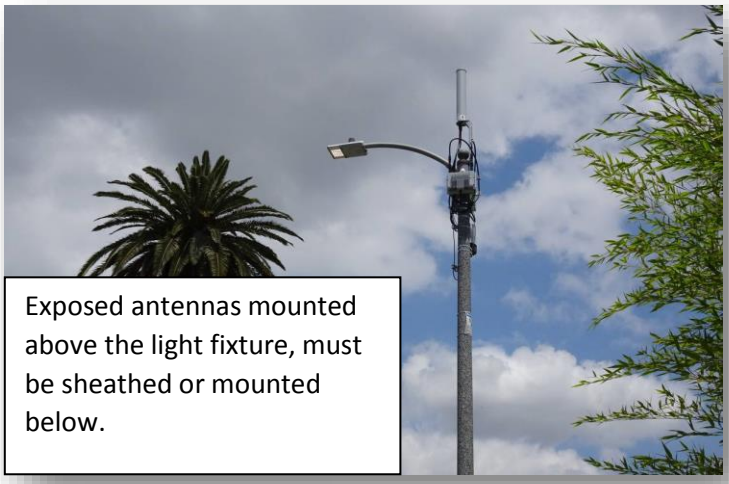
Non-Acceptable Examples of Design Integration



Exposed antennas mounted above the light fixture, must be sheathed or mounted below.

Equipment must be underground or pole mounted. Total volume of equipment cannot exceed municipal code standards.

Exposed cables and equipment are prohibited.

Siting Guidelines for Right of Way and Public Property Installations

1. Minimum Clearance. Minimum height clearance regulations shall be observed by all components of the installation.
2. Alley is Preferred Location. When utility poles are used for these installations and there is a choice of using a pole in the street or in an alley, the alley shall be used.
3. No exposed Cables. All cables shall be concealed within a sleeve between the bottom of the antenna and the mounting bracket. No exposed cables.
4. Design. Utility pole installations must utilize minimize visual impacts by utilizing City standards for new poles.
5. Blending. The new or replacement poles shall match height, color and material of the original or adjacent poles.
6. Panel Antennas. Exterior panel antennas that are not covered by a decorative sheath shall not exceed the height of the pole.
7. Distance from Pole. Antennas must be mounted no more than 4" from the pole.
8. Landscaping. All disturbed landscape shall be replaced in-kind and areas of bare or disturbed soil must be revegetated in accordance with the City's Landscape Regulations.
9. Hidden Equipment. Equipment should be minimally visible through the use of an underground vault. If this is not feasible, above-ground cabinets must be designed and located in an area with minimal visual impact.

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