INITIAL STUDY

FOR THE

GENERAL PLAN AMENDMENT (GPA) 2017-01 AND ZONE CHANGE (ZC) 2017-01 TO ESTABLISH THE PACKING HOUSE DISTRICT TRANSIT-ORIENTED DEVELOPMENT PROJECT

Prepared for:

City of Placentia
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1. Project Title: General Plan Amendment (GPA) 2017-01 and Zone Change (ZC) 2017-01 to Establish the Packing House District Transit-Oriented Development (TOD) Project

2. Lead Agency Name: City of Placentia
   Address: 401 E. Chapman Avenue
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3. Contact Person: Joe Lambert, Director of Development Services
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4. Project Location: See below

5. Project Sponsor's
   Name and Address: City of Placentia

6. General Plan Designation: Industrial (IND)

7. Zoning: Manufacturing (M)

8. Project Description:

Introduction

In conjunction with the County of Orange, Orange County Transit Authority (OCTA), the City of Placentia (City) will install a new train station to accommodate access for City residents to the regional passenger train (Metrolink and Surfliner) system. The City proposes to support this new regional system connection by creating a Transit-Oriented Development (TOD) zone classification and land use designation in the Packing House District of the City, which is located immediately adjacent to the proposed train platform. The objective of these new land use designations/classifications is to allow high-density transit-oriented development in the immediate vicinity of the train platform to facilitate use of the regional system and redevelopment of the area surrounding the new station. To accomplish this, the City is proposing to adopt a TOD land use designation (General Plan Amendment (GPA 2017-01)); Zone Classification (Municipal Code, ZC 2017-01); and Development Standards to establish the Packing House District Transient-Oriented Development Project. This document evaluates the potential impacts on the environment of the City's proposed modifications to the General Plan land use designation and Municipal Code zone classification to accomplish this objective.

Project Location

The proposed project consists of the adoption of TOD designations and related development standards to establish a new land use district on approximately 28.2 acres located in the City of Placentia, south of and adjacent to the existing BNSF Railway east-west mainline rail corridor.

Figures 1 and 2 show the regional and area locations of this 28.2-acre area. The approximate 28.2-acre area where the TOD land use designation will be established is located north and south of Crowther Avenue, east of the State Highway 57 Freeway, south of the BNSF railroad tracks, and west of the extension of Bradford Avenue in the City of Placentia. East and west boundaries are defined by property parcel boundaries. Figure 3 consists of an aerial photo of the area that will be encompassed by the new TOD designation/classification.

Project Characteristics

The approximate 28.2-acre site is located in the southwestern portion of the City of Placentia. It encompasses approximately 30 parcels of land that support a mix of existing land uses which includes: single-family residential; multi-family residential; commercial-light industrial; industrial; and one vacant lot. The current General Plan Land Use Designation of the TOD area is Industrial (IND) and the current zone classification (zoning) is Manufacturing (M). This is an old area of the City that contains older structures, some dating back to 1910. Because of this, many of the existing uses are "non-conforming" with the existing General Plan and zoning. Thus, most future development within the area will require removal of existing uses and redevelopment of the properties with new uses that must conform to the General Plan Land Use Designations in place at the time of a development proposal, including the proposed TOD land use designations and development standards. Included in this project area is the 73,000 SF former Placentia Orange Growers Association packing warehouse. This building dates to 1935 and it is proposed to be re-used for mixed commercial uses.

The proposed location of the new Metrolink passenger platform is shown on Figure 4. To facilitate TOD development in the area adjacent to the platform, the City is proposing to adopt a new TOD land use district designation (which will support multiple uses) as part of the General Plan and Municipal Development Code. If the Zoning Code Amendment (ZCA) and General Plan Amendment (GPA) are approved, it will be accompanied by adoption of specific development standards in a new TOD zone classification. A copy of the proposed development standards for the TOD district is provided in Appendix 1 of this document.

The City has determined to limit the maximum number of residential units and commercial activities within the TOD area to the generation of a maximum of 5,000 daily vehicle trips, which is conceptually consistent with the 28.2-acre TOD designation. Appendix 1 provides the "Transit-Oriented Development Packing House District Development Standards." The stated purpose and intent of the new TOD land use designation *"is to encourage an appropriate mixture and density of activity around the Metrolink station to increase ridership and promote alternative modes of transportation to the automobile. The consequent intent is to decrease auto-dependency, and mitigate the effects of congestion and pollution. The development standards seek to achieve this by providing a pedestrian-, bicycle-, and transit-supportive environment configured in a compact pattern and a complementary mix of land uses all within a comfortable walking distance of the station."*

The specific objectives of the TOD land use district include:

- *Encourage mixed-use and transit-oriented development;*
- *Encourage people to walk, ride a bicycle or use transit;*
- *Promote public art and creative public spaces;*

- *Allow for a complementary mix of land uses to create an environment that engages people at the pedestrian level;*
- *Achieve a compact pattern of development that is more conducive to walking and bicycling;*
- *Provide sufficient density of employees, residents and recreational users to support transit;*
- *Provide a high level of amenities that create a comfortable environment for pedestrians, bicyclists, and other users;*
- *Create a physical connection with Old Town Placentia by activating the station area with a plaza and ground floor shops and restaurants in the TOD Packing House District;*
- *Promote affordable housing and provide housing for all economic segments of the community consistent with the City's housing goals;*
- *Maintain an adequate level of parking and access for automobiles;*
- *Create fine-grained detail in architectural and urban form that provides interest and complexity at the level of the pedestrian and bicyclist;*
- *Generate a relatively high percentage of trips serviceable by transit;*
- *Encourage integrated development, including the consolidation of parcels; and*
- *Encourage lot and building orientation on Crowther Avenue and parcels extending from Crowther to the Railroad right-of-way, to create an active streetscape...*

The following text summarizes the content of the TOD Development Standards that are provided in Appendix 1. Where more detailed information is needed, please refer to Appendix 1.

A. All new development fronting Crowther Avenue within the TOD district must be mixed use development, except for the "catalyst site" which is defined in the definitions section of Appendix 1.
B. Allowable Land Uses: The allowable land uses are listed in Table 1 of Appendix 1. Uses are identified as "permitted," "use permit" required, or "not permitted." Mixed Use development is required for all developments fronting Crowther Avenue within the TOD zone, except for the catalyst site, which can be developed as all residential and is defined in the definitions section of the Zoning Code. The City Development Services Director can approve an unlisted use if such use is determined to be similar in character and impacts to any allowable uses identified in Table 1.
C. Certain uses, such as libraries, live work, or museums are only permitted in the historic Packing House Building.
D. Park and Playground uses are permitted only when integrated into the overall development of a site.
E. Certain uses, such as studios (art, dance, etc.), are permitted only above the ground floor within a mixed use development.
F. Mixed use residential can have a maximum of 3 bedrooms per unit and ground floors must have exhaust and grease traps installed for future restaurant possibilities.
G. Density: 65 du/ac min. and 95 du/ac max.; maximum building length without breaks in building massing is 350 feet; Setbacks: front yard 5 feet min/15 feet max; side yard: 5 feet min; 10 feet required where façade contains windows for residential; rear yard: 10 feet; 10' setback recommended from the railroad ROW.
H. Building Height: 3 stories minimum and five stories maximum; and minimum 15 foot ground floor, floor to ceiling height required. Rooftop Amenities are allowed 12 feet

above maximum height limit if integrated into the overall design of the project and maximum rooftop building coverage is limited to 30% of rooftop floor area.

I. Open Space: 50/64 square feet for each residential unit and Live Work Units. Rooftop amenities do not count for square footage requirements for private or common open space.
J. Parking: Parking requirements vary from three spaces minimum per 1,000 square feet of retail to 1.5 spaces minimum for a two bedroom unit. Refer to Section 8, Parking, in Appendix 1 for details. This section also includes bicycle parking requirements, electric vehicle charging station requirements, and includes requirements for surface and parking structure requirements.
K. Sign regulations are outlined section 23.110.050 of Appendix 1.
L. All properties in the TOD district shall be legally nonconforming buildings, structures, uses, or signs for a period of five years from the effective date of this chapter's approval.
M. Affordable Housing (only with a development agreement): Minimum 10% of total dwellings for sale must be designed to low-moderate income levels; and density bonuses may be granted in accordance with existing Municipal Code.
N. Public art/plaza: encouraged and may be required as part of development agreements.
O. TOD development impact fees will be adopted to support public sector infrastructure improvements and a community facilities district may be established to fund infrastructure improvements.

The potential uses permitted under the proposed TOD district range from retail commercial through service uses and residential uses to office uses, some allowed only with a use permit. Maximum residential density within the project area would be 95 units per acre with a 65 unit per acre minimum. Maximum number of units within the new TOD district area will be 752 units, unless supplemental environmental evaluation is completed. For all but residential uses the floor area ratios established in the existing zone classification, such as commercial use or office use, would control the maximum square footage of development within the TOD area.

This Initial Study will examine the potential impacts of future development under the TOD district Development Standards (Appendix 1) compared to the existing environmental setting and the existing land use designation/zoning classification, Industrial (GPA) and Manufacturing Zone (M). At this time there is one specific project being considered by the City under the TOD district, which consists of an approximate 200 unit residential project, being considered as the "catalyst site". The catalyst site is being considered as the initial project to seed the transition to TOD uses within the 28.2-acre project area. The City anticipates additional potential uses and development within the TOD district may be considered in the near future as the Metrolink platform is implemented over the next 2 years. The potential environmental effects of adopting and implementing the TOD district as a General Plan designation and a zone classification will be evaluated at a general plan/zoning level of review, without examining detailed site specific issues at this time.

9. Surrounding land uses and setting: The project area is one of the older developer areas within the City of Placentia. Although designated for industrial use due to historic proximity to the BNSF Railway, the project area consists of a mix of land uses, including: commercial; single-family residential; light industrial; industrial; and warehouse.

10. Other agencies whose approval is required: None known

The City has identified the following agencies or parties that may have interest in the City's consideration and addition of a TOD district to its General Plan and Municipal Code. These are: Orange County, Metrolink and BNSF Railway.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below 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.

X	Aesthetics		Agriculture and Forestry Resources	***X***	Air Quality
	Biological Resources	***X***	Cultural Resources	***X***	Geology / Soils
X	Greenhouse Gas Emissions	***X***	Hazards & Hazardous Materials	***X***	Hydrology & Water Quality
	Land Use / Planning		Mineral Resources	***X***	Noise
	Population / Housing	***X***	Public Services		Recreation
X	Transportation / Traffic	***X***	Utilities / Service Systems	***X***	Mandatory Findings of Significance

Note that all potentially significant impacts can be reduced to a less than significant impact level with implementation of identified mitigation measures.

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	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.
	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	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.
	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.

Tom Dodson & Associates
Prepared by

January 2017
Date

Signature

1/31/2017
Date

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?			**X**	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?		**X**		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		**X**		

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a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact – Adverse impact to scenic vistas can occur in one of two ways. First, an area itself may contain an existing scenic vista that could be altered by new development. A field review of the project area determined that there are no scenic vistas located internally within the approximate 28.2-acre TOD project area. The TOD area visual setting consists of older structures, minimal landscaping, and no identifiable components of a scenic vista. Therefore, development in compliance with the new TOD development standards is not forecast to alter any important scenic vistas within the project area. A second scenic vista impact can occur when a scenic vista occurs from the project area or immediate vicinity and a proposed development may interfere with the view to the scenic vista in the middle ground or background views from or across the project area. Based on the level of development within the project area and the City as a whole, there are few scenic vistas and any such views are aligned with north-south roads which provide limited views to the higher topography of the Puente Hills. Field investigations of potential scenic vistas from the surrounding freeways (State Highway (SH) 91 and SH 57) resulted in the following findings. SH 91 is not elevated through the City of Placentia and there are no scenic vistas visible to the north into or over the City of Placentia. Although there are views to the east-northeast from overpasses and connecting bridge structures along SH 57, these views of Placentia are very fleeting and do not contain high value scenic resource values, essentially an urban visual setting with no distinctive scenic features. New structures of up to six stories integrated into the existing fully developed City will provide visual variety and will not interfere with any significant scenic vistas. Given these limited potential scenic views and the location of new structures outside of north/south roadway alignments (that provide limited views), approval of the proposed TOD designation is not forecast to cause any substantial adverse effects on any scenic vistas. This potential impact is considered a less than significant adverse aesthetic impact. No mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant With Mitigation Incorporated – The project area encompassed by the proposed Packing House District Transit-Oriented Development (TOD) is an older developed area of the City with a mix of land uses as described in the project description. There are no state scenic highways located

within the project area according to the City's General Plan. As a result of this eclectic mix of land uses, the project area does not contain any substantial scenic resources, including structures, trees, and/or rock outcroppings. However, many of the buildings are more than 50 years in age and some of these structures may be considered to have scenic value. Therefore, the following mitigation measure will be implemented to ensure that buildings within the TOD area that contain scenic resource value are not replaced by future high density residential uses without offsetting the loss of such resources, such as recordation or incorporation of scenic elements into the new project design. The following mitigation measure shall be implemented.

I-1 ***Prior to approval of any new TOD facilities within the project area, the applicant shall submit an evaluation of the scenic value of structures that will be replaced by the new TOD facility. Based on the findings, the following actions may be required: no further action if no resource; recordation of the scenic values of a structure if merited; and integration of existing building scenic elements into the new building design. Implementation of these measures will avoid loss of any scenic resource values due to future TOD-related development within the project area.***

With implementation of this measure the potential for significant adverse impact to scenic resource values within the TOD project area can be controlled to a less than significant impact level.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact – A field review of the project area determined that there are no areas within the approximately 28.2 acre TOD project area that contain areas with substantial visual character or quality. New structures constructed within the project area will be reviewed by the City, which will evaluate the visual character of the new structures for consistency with the City's design guidelines, including the new TOD design guidelines, and through such mandatory reviews any potential degradation of existing visual quality characteristics can be reduced to an acceptable level. The purpose of the TOD designation is to bring in new, high quality, high-density development that can enhance the visual character of the TOD area. With this as a principle objective of the proposed project, the potential for adverse impact to visual quality within the existing area is considered a less than significant adverse aesthetic impact.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant With Mitigation Incorporated – The proposed TOD designations will introduce new structures into the project area, some of which may be five stories, which would equate to approximately 50-75 feet in height if a 10-15 foot per story average height is assumed. Potential new structures will require lighting, both exterior and interior. This will introduce a new source of lighting and glare into the project area. During design review of new structures, lighting would be evaluated by the City as part of the approval process. However, to ensure that light or glare (particularly off of structures with glass exteriors) does not result in intrusive lighting or glare to existing structures or persons in the project area, the following mitigation measures will be implemented.

I-2 ***Future developers shall submit an analysis of potential glare from lighting or sunlight that may impact vehicles on adjacent roadways or structures. This analysis shall demonstrate that due to building orientation or exterior treatment of windows, no significant light or glare impacts may be caused that could adversely impact driver safety on the adjacent roadways or occupied structures in the vicinity of the new development. This analysis shall be***

submitted to the City for review and approval prior to issuance of the final building permit(s) for new structures within the TOD area.

I-3 Future developers shall submit an analysis that potential lighting from new structures does not create an adverse light impact on adjacent structures. This analysis shall demonstrate that based on an approved lighting plan for new structures, adjacent structures or areas are not exposed to intrusive or harmful amounts of light. This analysis shall be submitted to the City for review and approval prior to issuance of the final building permit(s) for new structures within the TOD area.

With implementation of these two measures in conjunction with existing City development code (requirements, the City can control potential adverse light and glare impacts due to the new TOD designation to a less than significant impact level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				**X**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
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?				**X**

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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?

No Impact – The TOD project area is 100% urbanized with no open land, except for a small parcel being reclaimed for use. There are no current agricultural land use designations within the City; no farmland being used for agriculture; and no potential for impact to any agricultural uses or values. Refer to Figure 3 the aerial photo of the TOD project area. No adverse impact to any agricultural resources can occur from implementing the proposed project. No mitigation is required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact – The project area is designated for Industrial uses and zoned for Manufacturing. No potential exists for a conflict between the proposed project and agricultural zoning or Williamson Act contracts within the project area as none exist. No mitigation is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact – Please refer to issues a) and b) above and Figure 3. The project site is 100% urbanized and the land use designation/classification (IND/M) does no support forest land or timberland uses or designations. No potential exists for a conflict between the proposed project and forest/timberland zoning. No mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact – There are no forest lands within the project area as it is 100% urbanized. No potential for loss of forest land can occur if the project is implemented. No mitigation is required.

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 Impact – The proposed project has no activities that could cause conversion of Farmland or forest land to alternative uses. No adverse impact can occur. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		**X**		
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)?		**X**		
d) Expose sensitive receptors to substantial pollutant concentrations?		**X**		
e) Create objectionable odors affecting a substantial number of people?		**X**		

SUBSTANTIATION

Background

Placentia's climate, as with all of Southern California, is largely dominated by the strength and position of the semi-permanent high-pressure center over the Pacific Ocean near Hawaii. It creates cool summers, mild winters, infrequent rainfall, it drives the refreshing daytime sea breeze, and it maintains comfortable humidity's and ample sunshine. Unfortunately, the same atmospheric processes that create the desirable living climate combine to severely restrict the ability of the atmosphere to disperse the air pollution generated mainly by the large population attracted by the climate. Portions of the Los Angeles Basin, including northern Orange County, therefore, experience some of the worst air quality in the nation for certain pollutant species.

Regional air quality is controlled by the location and strength of pollutant sources and by the winds and inversions that control the horizontal and vertical regional dispersion patterns. Winds near the project site, as monitored at the South Coast Air Quality Management District (SCAQMD) measurement station in Anaheim, display several characteristic regimes. During the day, especially in summer, winds are from the west and southwest at 7-9 miles per hour. At night, especially in winter, the land becomes cooler than the ocean and an offshore wind of 3-5 miles per hour develops. One other important wind regime occurs when a high-pressure center forms over the western United States and creates strong offshore winds. These winds are warmed and dried by air compression as they descend from the upper desert regions into the basin. These winds are accelerated through local canyons and create hot, dry, gusty Santa Ana's from the east and northeast across northern Orange and southern Los Angeles counties.

The low frequency of calms and adequate daytime ventilation speed typically do not allow for any daytime stagnation of air pollutants in the Placentia area. The moderate onshore breeze carries any locally generated emissions eastward toward the Chino Hills or across northern Orange County and then up Santa Ana or Carbon Canyons toward receptors in western San Bernardino and Riverside Counties. Any daytime air quality problems occur mainly when winds shift more into the northwest and the daytime clean sea breeze is replaced by airflow across substantial pollution generation areas of southwestern Los Angeles County. These winds bring occasional unhealthful smog levels across the project site during the summer and early fall. Wind at night drifting seaward across the air basin and off the nearby hills is much slower and does allow for localized stagnation of pollution, but the density of vehicular sources in the upwind area is generally low enough to minimize any major air pollution problems. Any air pollution episodes, if they occur, are, therefore, due mainly to pollutants transported into the area rather than any locally generated emissions.

In addition to winds that govern the horizontal rate and trajectory of any air pollutants, Southern California experiences several characteristic temperature inversions that control the vertical depth through which pollutants can be mixed. The daytime onshore flow of marine air is capped by a massive dome of warm air that acts like a giant lid over the basin. As the clean ocean air moves inland, pollutants are continually added from below without any dilution from above. As this layer slows down in inland valleys of the basin and undergoes photochemical transformations under abundant sunlight, it creates very unhealthful levels of smog (mainly ozone).

Ambient Air Quality Standards

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court

also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA’s 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$, which matches the California AAQS. The severity of the basin’s non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm, which matches the current California standard. It will require 3 years of ambient data collection, and then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2030.

In 2010 a new federal one-hour primary standard for nitrogen dioxide (NO_2) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO_2) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO_2 is typically not a problem pollutant.

Table III-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O3)	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.075 ppm (147 µg/m3)		
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		–		
Fine Particulate Matter (PM2.5)	24 Hour	–	–	35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	15 µg/m3		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m3)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m3)		9 ppm (10 mg/m3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 g/m3)		–	–	
Nitrogen Dioxide (NO2) [8]	1 Hour	0.18 ppm (339 µg/m3)	Gas Phase Chemiluminescence	100 ppb (118 pg/m3)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)		0.053 ppm (100 µg/m3)	Same as Primary Standard	
Sulfur Dioxide (SO2) [9]	1 Hour	0.25 ppm (655 µg/m3)	Ultraviolet Fluorescence	75 ppb (196 pg/m3)	–	Ultraviolet Flourescense; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m3)	
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm (for certain areas) [9]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) [9]	–	
Lead 8 [10,11]	30-Day Average	1.5 µg/m3	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m3 (for certain areas) [11]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m3)		
Visibility Reducing Particles [12]	8 Hour	See footnote 12	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride [10]	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (10/1/15)**

Table III-2
HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Baseline Air Quality

Existing and probable future levels of air quality around the project area can best be best inferred from ambient air quality measurements conducted by the SCAQMD at the Anaheim monitoring station. This station measures both regional pollution levels such as smog, as well as primary vehicular pollution levels near busy roadways such as carbon monoxide and nitrogen oxides. Pollutants such as particulates (PM-10 and PM-2.5) are also monitored at Anaheim. Table III-3 is a 6-year summary of monitoring data for the major air pollutants compiled from this air monitoring station. From this data the following conclusions regarding air quality trends can be drawn:

a. Photochemical smog (ozone) levels occasionally exceed standards. All state and federal ozone standards have been exceeded one percent or less of all days in the past 6 years. Measurements from more recent years demonstrate progressively improved ozone levels in the area except perhaps for some temporary "backsliding" in 2014. While ozone levels are still occasionally elevated, they are much lower than 10 to 20 years ago.

b. Respirable dust (PM-10) levels occasionally exceed the state standard on approximately 2 percent of measured days. The less stringent federal PM-10 standard has not been exceeded in the last 6 years.

c. The federal ultra-fine particulate (PM-2.5) standard of 35 $\mu g/m^3$ has been exceeded on less than one percent of measurement days in the last 6 years.

d. More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS. Data from a recent "near roadway" monitoring study directly along the I-5 shoulder (<50 feet) in Anaheim showed noticeably elevated levels of NOx and CO, but even at this close distance federal clean air standards were not exceeded.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Standards or Thresholds of Significance

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

a. Conflicts with or obstructs implementation of the applicable air quality plan.
b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
c. Results in a cumulatively considerable net increase of any criteria pollutants 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. Exposes sensitive receptors to substantial pollutant concentrations.
e. Creates objectionable odors affecting a substantial number of people.

Table III-3
AIR QUALITY MONITORING SUMMARY (2009-2014)
(NUMBER OF DAYS STANDARDS WERE EXCEEDED, AND MAXIMUM LEVELS DURING SUCH VIOLATIONS)
(ENTRIES SHOWN AS RATIOS = SAMPLES EXCEEDING STANDARD/SAMPLES TAKEN)

Pollutant/Standard	2009	2010	2011	2012	2013	2014
Ozone						
1-Hour > 0.09 ppm (S)	0	1	0	0	0	2
8-Hour > 0.07 ppm (S)	2	1	1	0	0	6
8- Hour > 0.075 ppm (F)	1	1	0	0	0	4
Max. 1-Hour Conc. (ppm)	0.093	0.104	0.088	0.079	0.084	0.111
Max. 8-Hour Conc. (ppm)	0.077	0.088	0.072	0.067	0.070	0.081
Carbon Monoxide						
8- Hour > 9. ppm (S,F)	0	0	0	0	0	0
Max 8-hour Conc. (ppm)	2.7	2.0	2.1	2.3	2.6	2.1
Nitrogen Dioxide						
1-Hour > 0.18 ppm (S)	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.068	0.073	0.074	0.067	0.082	0.076
Inhalable Particulates (PM-10)						
24-hour > 50 $\mu g/m^3$ (S)	1/56	0/57	2/57	0/61	1/59	2/61
24-hour > 150 $\mu g/m^3$ (F)	0/56	0/57	0/57	0/61	0/59	0/61
Max. 24-Hr. Conc. ($\mu g/m^3$)	62.	43.	53.	48.	77.	85.
Ultra-Fine Particulates (PM-2.5)						
24-Hour > 35 $\mu g/m^3$ (F)	4/334	0/331	2/352	4/347	1/331	6/334
Max. 24-Hr. Conc. ($\mu g/m^3$)	64.5	31.7	39.2	50.1	37.8	56.2

Source: South Coast AQMD Air Monitoring Station Data Summary, Anaheim Station (3176)

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is

minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines. These daily emissions thresholds are included in Table III-4).

Table III-4
DAILY EMISSIONS THRESHOLDS

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

Proposed Project

The proposed project consists of a General Plan Amendment to the City of Placentia General Plan to create the Transient Oriented Development (TOD) and the establishment of a new TOD Zone Classification and related development standards. There is no specific development project proposed at this time, although the TOD Zone development standards envision a catalyst site that is anticipated to develop in the near future. The proposed project will be established within an area of the City that is almost 100% developed (refer to the aerial photo in Figure 3). Therefore, it is very difficult to forecast changes in air emissions from future development for the following reasons. First, it is not possible to know whether future development will reuse existing structures, demolish existing structures, or add on to existing structures to meet the TOD designation objectives. Second, it would be speculative to make a forecast regarding future area source emissions. For example, new development using modern building standards could add substantial additional square footage and still use less energy than existing

buildings. To avoid speculation, the only viable analytical alternative is to require detailed evaluations of each specific future project, which is imposed as a mitigation measure in the following analysis.

The only available project-related emission variable to evaluate is the maximum 5,000 vehicle trips that will be permitted within the 20-acre TOD area at buildout. Based on the trip generation forecast contained in the Traffic Impact Study (refer to Appendix 5), the existing development in the project area generates an estimated 1,247 average trips per day (ADT). The cap of 5,000 vehicle trips (net) at buildout assumes that an estimated 752 dwelling units (DU) could be constructed under an all residential development scenario and stay within the 5,000 vehicle trip cap or, alternatively, a mix of 75% residential (564 DU) and 25% commercial (~30,000 square feet of gross leasable area (GLA)) could also stay within the 5,000 vehicle trip cap. The trip generation component of the proposed project can be analyzed for air emissions and an emission forecast is presented below that assumes buildout in 2018 (a worst case assumption).

Impact Evaluation – Air Quality

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact **–** Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (21). These indicators are discussed below.

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Operational Impacts
The project regional analysis demonstrates that project-related vehicle operation emissions would not exceed the applicable SCAQMD threshold, and would therefore not result in or cause violations of the CAAQS and NAAQS. On the basis of the preceding discussion, the project is consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. The proposed TOD GPA, Zone Change and Development Standards will replace the existing Industrial and Manufacturing land use designations within the 28.2-acre project area. Even though the new designations will replace the existing land use designations, the proposed new land use designations are clearly consistent with SCAG regional programs.

SCAG RTP/SCS Regional Policies
The following analysis of SCAG's Regional Transportation Plan/Sustainable Communities policies is provided.

SCAG's 2012-2035 RTP/SCS Plan identifies coordinated transportation and land use planning strategies intended to reduce greenhouse gas (GHG) emissions in accordance with SB 375 and to benefit regional quality of life. The RTP/SCS Plan emphasizes placing higher 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. Placentia's TOD

designation (refer to Appendix 1) is designed to achieve this specific goal. Specific metrics identified in the SCAG Facts About California's Sustainable Communities Plans[1] (Fact Sheet) are: 2/3 of new housing will be multi-family by 2035; over 60% of all jobs will be within High Quality Transit Areas (HQTAs) by 2035; over half of new homes and jobs will be within walking distance of transit; fewer drive-alone trips and more transit use, biking and walking and HOV (high occupancy) trips; average auto trip length decreases through 2035; per capita vehicle miles traveled (VMT) decreases through 2035. The proposed project includes sidewalks, bike paths and most important, close proximity to mass transit, including the new Placentia Metrolink Station. The site is located within a HQTA and future TOD development will be within reasonable walking distance of mass transit. The project encourages the construction of mixed use development, including multi-family residences in a region where abundant job opportunities exist, such that future residents would be able to access employment via transit, biking or walking (multiple use development is highly encouraged.

The proposed project constitutes infill development, through redevelopment of an aging industrial area of the City. The California Air Resources Board (CARB) Technical Evaluation of the Greenhouse Gas Emission Reduction Quantification for the Southern California Association of Governments' SB 375 Sustainable Communities Strategy dated May 2012 notes that SCAG's SCS relies on the following key policies and strategies:

- Focusing new growth in existing and emerging population centers and along major transportation corridors;
- Creating significant areas of mixed use development and walkable communities;
- Targeting growth around existing and planned transit stations; and
- Preserving existing open space and protecting established residential areas.

The CARB Evaluation further states, "The preferred alternative is believed to meet demand for a broader range of housing types, with new housing and land use focused on the development of smaller lot single-family homes, townhomes, and multi-family condominiums and apartments." The proposed Project is consistent with the focus of future development on townhomes and multi-family condominiums and apartments. The Project area will eventually integrate into a walkable community oriented towards high quality mass transit availability after redevelopment is completed.

The proposed Project would be consistent with SCAG 2012 RTP/SCS Goals summarized as follows.

RTP/ SCS Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness

Consistent. The proposed project establishes a new land use designation (TOD) that will facilitate redevelop an older area of the City to take advantage of a new Metrolink Station adjacent to the site. Appendix 1 identifies the anticipate infrastructure improvements (roadways, bike trails, sidewalks and mass transit) that will be created through the new TOD land use designation.

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; incorporation of new mass transit features and mixed-use (commercial and residential development), the new TOD designation fulfills this goal.

[1] http://www.arb.ca.gov/cc/sb375/scag_fact_sheet.pdf

RTP/ SCS Goal 3: Ensure travel safety and reliability for all people and goods in the region

Consistent. The proposed 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 proposed 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. Implementation of the TOD GPA and Zone Change 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 a high density residential area adjacent to the new Metrolink Station the City's proposed TOD GPA and Zone Change 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 (non-motorized transportation, such as bicycling and walking)

Consistent. The proposed project includes sidewalks and bicycle trails that would provide safe and aesthetically pleasing opportunities for pedestrian and bicycle travel. The new land use designation is also designed to integrate retail commercial facilities to support the future residents. The specific goal of this new 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. A specific objective of the new TOD designation is to facilitate redevelopment of the existing project area and to replace mostly older industrial buildings with either new buildings or through reuse of the existing structures. This transition to modern energy efficient structures will result in substantial incentive for energy efficient buildings.

RTP/ SCS Goal 8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation

Consistent. The proposed project design requirements (Appendix 1) includes sidewalks and bike trails and connections to mass transit that will facilitate non-motorized transportation 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 proposed project would have no direct impact on system monitoring, rapid recovery planning, and coordination with other security agencies. However, the proposed 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.

AQMP Consistency Conclusion

The project would not result in or cause NAAQS or CAAQS violations. The project is specifically designed to support the local and regional goals for use of alternative modes of transportation. It will be fully consistent with the SCAG RTP/SCS goals designed to meet SB 375. The proposed project is therefore considered to be consistent with the AQMP.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant With Mitigation Incorporated **–** As indicated in the summary project description above, the proposed project does not presently consist of any specific projects for which construction emissions can be forecast. Due to the concept of redeveloping the project area that is already fully built out, it is too speculative for accurate construction emissions to be estimated. Also as noted above, the ability to forecast future area source emissions is considered too speculative until specific projects are submitted for review under the TOD designation/classification. However, to get a general assessment of a comparable project, research was conducted to identify a comparable local project with both demolition and construction impacts. Appendix 2 provides the air emission forecast for a project in nearby Anaheim (LA PALMA VILLAGE) and with appropriate mitigation incorporated the construction emissions can be controlled to a less than significant impact level. Based on this comparable example, it is reasonable to assume that future development within the TODA will be able to demonstrate compliance with the SCAQMD's construction CEQA significance thresholds. As older structures and uses are removed or reconstructed, the amount of energy consumed by the new use relative to the existing use will have to be estimated on a case-by-case basis.

III-1 ***For each future project implemented within the TOD project area, the development shall identify project construction related emissions and specific best available control measures (BACMs) identified in Rule 403 required to ensure that fugitive dust or construction equipment exhaust emissions will not exceed SCAQMD construction thresholds of significance or emission concentrations at the nearest receptors identified by local significance thresholds. The specific BACMs identified shall be made conditions of approval to ensure implementation.***

III-2 ***Only "Low-Volatile Organic Compounds" paints (no more than 100 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.***

The City considered alternative development scenarios within the proposed TOD development area. As indicated in the project description, all efforts have been made to integrate mixed-uses and alternative modes into the project area to minimize future vehicle trips and vehicle miles traveled. The Traffic Impact Study estimated that the existing trips from the developed TOD area at 1,247 trips. Thus, to meet the objective of limiting future trips from the project area to 5,000 trips per day, the maximum number of trips that can be generated by future uses (all residential scenario and mix of residential and commercial) is 3,753. The following table provides the vehicle emission estimates based on based on CalEEMod defaults for the project area.

Table III-5
DAILY OPERATIONAL AIR POLLUTANT EMISSIONS YEAR 2018

Source	Operational Emissions[1]						
	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Mobile	8.2	39.6	111.4	0.3	27.6	7.7	36,031.1
SCAQMD Threshold	55	55	550	150	150	55	--
Exceeds Threshold (Yes/No)	No	No	No	No	No	No	--

[1]Emissions are expressed in pounds per day
SOURCE: Giroux & Associates (January 2017)

Based on this forecast, the future trips generated from the project area will not exceed the SCAQMD thresholds of significant for operational/occupancy emissions. Note that the detailed emission forecast data are provided in Appendix 2 of this document.

Because the City has included an assumption that total trips from the project area will not exceed 5,000 trips, the following mitigation measures will be implemented.

III-3 ***As individual projects are submitted for entitlements in the future, the City will maintain a record of each individual project's forecast trip generation and net area source emissions. When total trip generation (including the 1,247 existing trips) approaches 4,500, the City will not consider additional project entitlements within the TOD area, unless actual field monitoring of trips and area source verifies that actual trip generation is measured as being less than the SCAQMD thresholds when the verification is calculated. Field monitoring can consist of measuring trips and area source emissions from individual developments or monitoring trips on the local roadways entering and leaving the TOD area. Other verifiable measures may also be used to verify total trips, including interviews with residents or owners of businesses and verification of actual area source emissions. If the data indicate that the 5,000 trip ADT will be exceeded, the City will perform a new environmental evaluation in compliance with CEQA to assess whether continued development within the TOD area will exceed the emission significance thresholds in place at the time of measurement.***

Implementation of measure III-3 will ensure that air emission thresholds related to the adoption of the TOD GPA and Zone Change will not cause significant air pollution emissions within the South Coast Air Basin.

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)?

Less Than Significant With Mitigation Incorporated **–** The project area is designated as an extreme non-attainment area for ozone, and a non- attainment area for PM_{10} and $PM_{2.5}$.

Construction Impacts
Project construction-source emissions would not exceed applicable SCAQMD regional thresholds based on implementing mitigation measures III-1 and III-2. Therefore, project construction-source emissions would be considered less than significant on a future project-specific and cumulative basis.

Operational Impacts
Project operational- source emissions would not exceed applicable SCAQMD regional thresholds with implementation of mitigation measure III-3. Therefore, project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant With Mitigation Incorporated **–** In this section the potential to expose sensitive receptors to substantial pollutant concentrations is evaluated. This section focuses on Localized Significance Thresholds and Carbon Monoxide (CO) emissions. The potential impact of project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Background on Localized Significance Threshold (LST) Development
The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM10 and PM2.5; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology).

Based on implementation of mitigation measures III-1, III-2, and III-3, LST emissions must be less than the LST significance thresholds for future individual projects, or the project would be required to prepare a follow-on CEQA compliance evaluation. Therefore, sensitive receptors would not be subject to a significant air quality impact during project construction or operation/occupancy.

CO Hotspot Analysis

As discussed below, the project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of project-specific carbon monoxide (CO) "hot spots" is not needed to reach this conclusion.

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted. Also, CO concentrations in the project vicinity have steadily declined, as indicated by historical emissions data presented previously (Table III-3).

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table III-6.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (39). In contrast, the ambient 8-hr CO concentration within the Project study area is estimated at 2.7 ppm (please refer to previous Table III-3). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Table III-6
CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (40).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table III-7. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase

four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[2]

The proposed project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

Table III-7
TRAFFIC VOLUMES FOR INTERSECTIONS EVALUATED IN AQMP

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant With Mitigation Incorporated **–** The potential for the project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

Residential uses typically do not generate offensive odors and do not require any mitigation to be a less than significant odor source. However, the proposed project would allow uses that can generate odors, including retail commercial uses such as dry cleaners and restaurants, including fast food. The City will implement the following mitigation measure for commercial uses that can generate offensive odors.

III-4 For each future project implemented within the TOD project area that can generate offensive odors, the development shall identify project-specific best available control measures (BACMs) for the specific odors that ensure adjacent sensitive receptors will not be exposed to odor concentrations that would conflict with residential uses. The specific BACMs identified for odor control shall be made conditions of approval to ensure implementation.

[2] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

Potential sources of operational odors generated by the project could also include disposal of miscellaneous commercial refuse. Consistent with City requirements, all project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances and can be utilized by sensitive odor receptors in the future to enforce effective management of any nuisance odors.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				**X**
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?				**X**
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?				**X**
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?				**X**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
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?				**X**

SUBSTANTIATION: The following information utilized in this Section of the Initial Study was obtained from both a review of the project area and from the U.S. Fish and Wildlife Service IPaC Trust Resources Report, generated on October 12, 2016, pertaining to the TOD Project area only. The IPaC report is provided as Appendix 3 to this document.

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 Impact – The TOD project area is 100% urbanized with no open land, no natural habitat and no potential habitat to support any species identified as candidate, sensitive or special status species. Though the IPaC report states that some threatened and endangered species exist within the project region, this report is provided as a general overview of the project area with no data specific to the project site itself. Therefore, because the TOD project area is 100% urbanized, there is no potential for impacts to any listed species as part of the implementation of the proposed project. With no habitat or species of concern located within the project area, the implementation of the TOD designation has no potential for impact to any native biological resources. No impacts are anticipated. No mitigation is required.

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 – The project area is 100% urbanized and does not contain any riparian habitat or other sensitive natural community resources. Therefore, no adverse impact to any native biological resources can occur from implementing 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 – The project area is 100% urbanized and does not contain any wetlands a defined by Section 404 of the Clean Water Act) or any other sensitive natural community resources. Therefore, no adverse impact to any native biological resources, including wetlands, can occur from implementing the proposed project.

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 – With no native habitat and no wildlife corridors through the project area, the project has no potential to interfere with the movement of native animals of any kind or to impede the use of any native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact – The project area is 100% urbanized and does not contain any native plants, including trees. Landscape plants and trees do occur sporadically throughout the area (refer to Figure 3), but these non-native plants are not covered by local policies or ordinances as there are no ordinances regarding the removal or preservation of native trees within the City of Placentia. Therefore, the proposed project does not have a potential to conflict with any policies or ordinances that protect native biological resources.

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 100% urbanized and there are no adopted plans to protect native habitats or natural communities. As previously stated, the City of Placentia does not have any Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional or state habitat plans that would pertain to the project area. Therefore, the proposed project does not have a potential to conflict with any such plans.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?		**X**		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				**X**
c) Directly or indirectly destroy a unique paleon-tological resource or site or unique geologic feature?				**X**
d) Disturb any human remains, including those interred outside of formal cemeteries?			**X**	
e) Cause a substantial adverse change in the significance of a tribal cultural resource pursuant to AB 52?			**X**	

SUBSTANTIATION

a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?

Less Than Significant With Mitigation Incorporated – As noted in the project description, the TOD project area is 100% developed with urban uses. Many of the existing structures are older than 50 years, some of them much older. Development of future TOD facilities will likely require demolition of existing structures in some instances. The exception to the currently proposed development is the former Placentia Orange Growers Association packing warehouse which is known to have some historic value and which is proposed to be retained and reused for mixed commercial uses. Although none of the structures have been identified by the City as historic, a potential does exist that such structures may have historical significance as defined in Section 15064.5 of the State CEQA Guidelines. Therefore, the following mitigation measure will be implemented to ensure that no significant adverse impact to a significant cultural resource will result from future redevelopment of a property within the TOD project area.

V-1 Prior to demolition of any structure greater than 50 years in age in support of a TOD facility, the City will require a comprehensive historical resource evaluation of the structure. If it is determined that the structure has significant historical value, specific management actions will be defined to reduce impacts to a less than significant impact level. If mitigation to a less than significant historical impact level cannot be achieved, the City will require the preparation of a second tier environmental document, most probably EIR, prior to allowing the TOD project to proceed.

This measure can control the historical impacts of the TOD approval to a less than significant impact level, or it will result in preparation of a higher level document prior to demolition of any historically significant structure in support of the TOD project area.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?

No Impact – The whole of the TOD area has been historically disturbed through grading, compaction and building or infrastructure construction. Therefore, the project area can no longer contain any archaeological resources/sites with integrity or contextual value. The proposed project has no potential to adversely impact significant archaeological resources or values.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact – The whole of the TOD area has been historically disturbed through grading, compaction and building or infrastructure construction. Therefore, the project area can no longer contain any paleontological resources/sites with integrity or contextual value. The proposed project has no potential to adversely impact significant paleontological resources or values.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact – Based on historic disturbance of the whole project area, the potential for encountering human remains is very low. If human remains are accidentally exposed during demolition or site grading, Section 7050.5 of the California Health and Safety Code requires a contractor to immediately stop work in the vicinity of the discovery and notify the County Coroner. The Coroner must then determine whether the remains are human and if such remains are human, the Coroner must determine whether the remains are or appear to be of a Native American. If deemed potential Native American remains, the Coroner contacts the Native American Heritage Commission to identify the most likely affected tribe and to initiate proper recovery of such remains. Since this process is mandatory, no mitigation is required to ensure that the impacts to human remains will be less than significant.

e) Cause a substantial adverse change in the significance of a tribal cultural resource pursuant to AB 52?

Less Than Significant Impact – The City of Placentia has been notified by two Native American tribes regarding possible occurrence of traditional cultural resources within its boundaries. AB 52 notification was sent to the following Native American groups: Gabrieleño Band of Mission Indians – Kizh Nation and Juaneño Band of Mission Indians – Acjachemen Nation. At the date of this publication no responses had been received.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
• 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.				**X**
• Strong seismic ground shaking?			**X**	
• Seismic-related ground failure, including liquefaction?			**X**	
• Landslides?				**X**
b) Result in substantial soil erosion or the loss of topsoil?		**X**		
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?		**X**		
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?		**X**		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				**X**

SUBSTANTIATION

a) 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.*

No Impact – According to the Draft General Plan Safety Element, the City of Placentia does not have any active faults located within its boundary, this is shown on the Fault Map obtained from the United States

Geological Survey (Figure VI-1). Therefore, future residential and commercial structures constructed within the TOD area will not be subject to surface rupture from a know earthquake fault.

- *Strong seismic ground shaking?*

Less Than Significant Impact – The Draft General Plan Safety Element indicates that the City is exposed to moderate to severe seismic shaking. Some degree of structural damage may occur due to stronger seismic shaking. However, the risk can be reduced through adherence to seismic design codes in the California Building Code, 2013. Since this is a General Plan policy and therefore mandatory for future development within the TOD area, no mitigation is required in order to minimize future impact to structures from ground shaking.

- *Seismic-related ground failure, including liquefaction?*

Less Than Significant Impact – The Draft General Plan Safety Element indicates that portions of the City are exposed to limited liquefaction hazards. The State of California Seismic Hazard Zones, Orange Quadrangle shows that the proposed project area is located within an area with historic occurrences of liquefaction (Figure VI-2). Some degree of structural damage may occur due to potential liquefaction within the project area. The City's building code requires structures in liquefaction areas to be designed to withstand the potential impacts that could be caused by liquefaction. Since this is a building code requirement and therefore mandatory, no mitigation is required in order to minimize future impact to structures from liquefaction hazard.

- *Landslides?*

No Impact – The project area does not have substantial slopes or steep topography located within its boundaries. The majority of the City, including the TOD area, is not identified as having a significant landslide hazard. With no potential for landslides, the proposed project will not expose future development in the TOD area to such hazards.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant With Mitigation Incorporated – All future development under the TOD designation will occur within an existing urbanized area as re-development. The TOD area is an engineered environment with an existing stormwater runoff system already in place. Each City is required to ensure that site development implements a Storm Water Pollution Prevention Plan to control soil erosion, loss of topsoil and water pollution during construction and a Water Quality Management Plan to control soil erosion, loss of topsoil and water pollution over the long term. With implementation of these mandatory Plans, the mitigation outlined below, and their Best Management Practices (BMPs), future development under the TOD designation will not result in substantial soil erosion or loss of topsoil.

VI-1 ***Prior to approval of specific development projects within the TOD area in the future, the City will require comprehensive documentation of the erosion control and water quality best management practices (BMPs) that will be implemented by a proposed site specific project. This documentation shall demonstrate that erosion, sedimentation and discharge of storm water from the site during construction and after development will not cause degradation of storm water runoff from the project site that could cause or contribute to a violation of the beneficial uses and water quality standards downstream from the project site.***

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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant With Mitigation Incorporated – Within the TOD area future structures may be about 75 feet in height (five stories). Although the existing development within the TOD area includes structures up to about 50 feet in height, the new structures may require additional geotechnical engineering to address the potential for lateral spreading, subsidence or liquefaction issues. Therefore, the following mitigation measure shall be implemented for new structures constructed within the TOD area that are over two stories.

VI-2 Concurrent with accepting an application for a residential structures within the TOD area, the developer shall submit a professionally prepared geotechnical report that includes geotechnical design specifications for the proposed structure at the project site. These design specifications shall demonstrate that any site specific sources of instability can be controlled to a less than significant impact level and these requirements shall be implemented through a condition of approval imposed by the City on the proposed structure.

With implementation of this mitigation measure, the potential for geotechnical instability to adversely impact future structures constructed under the TOD designation can be controlled to a less than significant impact level.

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?

Less Than Significant With Mitigation Incorporated – All future development under the TOD designation will occur within an existing, relatively flat, urbanized area as re-development. As discussed in the General Plan, expansive soils within the City appear "to pose no significant development constraint or land use planning impact so long as adequate pre-development and designs are utilized" (Safety Element 1-13 to 1-14). These pre-development and design requirements are addressed in the City's building code, and are therefore mandatory. Additionally, according to the United States Department of Agriculture Web Soil Survey, the project Area of Potential Effect (APE) is underlain by Mocho loam and Myford sandy loam, which are, according to the National Cooperative Soil Survey (see links below), moderately to extremely well-drained with slow permeability, and therefore are not considered expansive soils. However, there is insufficient information to conclude whether any expansive soil exists within the whole of the TOD area. Mitigation measure VI-2 contains requirements that will ensure that if expansive soil occurs at any location within the area, it will not result in creating a substantial risk to life or property.

https://soilseries.sc.egov.usda.gov/OSD_Docs/M/MOCHO.html
https://soilseries.sc.egov.usda.gov/OSD_Docs/M/MYFORD.html

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact – The whole TOD area is presently served by a wastewater collection system (sewer) and no future structures will be utilizing septic tanks or alternative onsite disposal systems. Therefore, the proposed TOD designation does not rely on such soils and no adverse impact can result under this issue.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		**X**		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		**X**		

SUBSTANTIATION

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?

Less Than Significant With Mitigation Incorporated – "Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.

- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

Thresholds of Significance

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO_2 equivalent/year. In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions which recommended a threshold of 3,000 MT CO_2e for all land use projects. This 3,000 MT/year recommendation has been used as a guideline for this analysis. In the absence of an adopted numerical threshold of significance, project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level. Project Related GHG Emissions Generation.

Proposed Project

The proposed project consists of a General Plan Amendment to the City of Placentia General Plan create the Transient Oriented Development (TOD) and the establishment of a new TOD Zone Classification and related development standards. There is no specific development project proposed at this time, although the TOD Zone development standards envision a catalyst site that is anticipated to develop in the near future. The proposed project will be established within an area of the City that is almost 100% developed (refer to the aerial photo in Figure 3). Therefore, it is very difficult to forecast changes in GHG emissions from future development for the following reasons. First, it is not possible to know whether future development will reuse existing structures, demolish existing structures, or add on to existing structures to meet the TOD designation objectives. Second, it would be speculative to make a forecast regarding future area source and energy emissions. For example, new development using modern building standards could add substantial additional square footage and still use less energy than existing buildings. This could result in an actual reduction in GHG emissions relative to the existing condition. To avoid speculation, the only viable analytical alternative is to require detailed evaluations of each specific future project, which is imposed as a mitigation measure in the following analysis.

The only available project-related GHG emission variable to evaluate is the maximum 5,000 vehicle trips that will be permitted within the 28.2-acre TOD area at buildout. Based on the trip generation forecast contained in the Traffic Impact Study (refer to Appendix 5), the existing development in the project area generates an estimated 1,247 average trips per day (ADT). The cap of 5,000 vehicle trips (net) at buildout assumes that an estimated 752 dwelling units (DU) could be constructed under an all residential development scenario and stay within the 5,000 vehicle trip cap or, alternatively, a mix of 75% residential (564 DU) and 25% commercial (~30,000 square feet of gross leasable area (GLA)) could also stay within the 5,000 vehicle trip cap. The trip generation component of the proposed project can be analyzed for GHG emissions and an emission forecast is presented below that assumes buildout in 2018 (a worst case assumption).

Construction Activity GHG Emissions

With no specific projects under consideration at this time, the amount of GHG emissions related to construction activities cannot be estimated. Regardless, the following mitigation measure will be Implemented to control future project specific GHG emissions to a less than significant impact level.

VII-1 As individual projects are submitted for review in the future, the City will require a GHG emission forecast for proposed construction activities. If construction-related GHG emissions exceed regionally accepted thresholds, the City will require mitigation to offset such emissions. Mitigation may be in the form of GHG emission offsets or credits obtained from other projects or mitigation banks. If the data indicate that the construction GHG emissions will exceed thresholds of significance in place at the time of construction after application of mitigation, the City will perform a new environmental evaluation in compliance with CEQA to assess whether continued development will exceed the emission significance thresholds in place at the time of measurement.

Project Operational GHG Emissions

There is no GHG threshold of significance for a planning area project compared to an individual project, which has a threshold of 3,000 MTCO2(e). Therefore, the following mitigation measure will be implemented by the City to control future individual project-related GHG emissions to the 3,000 MTCO2(e), based on all GHG emissions generated by project operation/occupancy and the annualized construction emissions. To address future GHG emissions and control them below the 3,000 MTCO2(e)

threshold for future project specific impacts, the following mitigation measure will be implemented by the City.

VII-2 As individual projects are submitted for entitlements in the future, the City will require a GHG evaluation on each project and ensure that project-related GHG emissions do not exceed the 3,000 MTCO2(e) threshold. Where this threshold will be exceeded, the City will require the developer to provide project-related GHG emission reductions (such as higher energy conservation), use of recycled water or other GHG reduction measures. The City will also accept verifiable GHG emission offsets from projects. However, if the data indicate that the project specific GHG threshold will be exceeded, the City will perform a new environmental evaluation in compliance with CEQA to assess whether the development within the TOD area will exceed the emission significance thresholds.

This measure combined with the project's implementation of regional SB 375 goals associated with TOD development will ensure that the proposed TOD GPA and Zone Change will not cause significant GHG emissions.

Consistency with GHG Plans, Programs and Policies

The City of Placentia has not yet developed a Greenhouse Gas Reduction Plan. The applicable GHG planning document is AB-32. As discussed above, the project is not expected to result in a significant increase in GHG emissions. As a result, the project results in GHG emissions below the recommended SCAQMD 3,000 MTCO2(e) threshold established for future specific projects. Therefore, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		**X**		
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?		**X**		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
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?		**X**		
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?				**X**
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?				**X**
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	
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?				**X**

SUBSTANTIATION

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 With Mitigation Incorporated – The proposed TOD designation will allow future residential, office and commercial development within the existing developed project area. During

occupancy of the proposed project, either residential or commercial in nature, potentially hazardous materials such as fuel, paint products, solvents, and cleaning products, could be present on site once a TOD area site is developed. Such materials will be present on-site in small quantities for regular cleaning and maintenance activities associated with the operation of commercial uses. Residential uses do not routinely transport, use or generate hazardous materials or wastes in a quantity that poses a hazard to individual or the neighborhood. Minor quantities of household hazardous waste may be generated randomly by residential uses, but such generation is in small quantities and it is typically random, not routine. During the construction of future structures in the TOD area, there could be a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people or the environment. Therefore, the following mitigation measure will be incorporated into the SWPPP or erosion control plan prepared for all future construction within the TOD project area, and this will reduce any such potential hazards to a less than significant level.

VIII-1 All spills or leakage of petroleum products or other hazardous materials during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP or erosion control plan prepared for site specific development within the project area.

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?

Less Than Significant With Mitigation Incorporated – As noted in the previous discussion, residential uses have a very low potential to cause a significant hazard from release of hazardous material to the environment. Any household hazardous materials/wastes will be of such a small quantity that creation of a significant hazard due to upset or accident conditions is below a level of significant impact. Additionally, the commercial uses permitted under the TOD area are not of a nature that will require the use of and potential release of significant quantities of hazardous materials into the environment because hazardous materials will not be present on future sites in large enough quantities to pose a threat to the environment. However, during construction, accidental release of hazardous material, particularly construction equipment accidental release of petroleum products can occur and pose a hazard to the public or environment. Mitigation measure VIII-1 above is considered sufficient to mitigate any future significant impacts. Thus, implementation of this measure can ensure that no significant adverse impact to humans or the environment will result from future development under the TOD designation.

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 – The project will not allow hazardous emissions to be emitted or to include handling hazardous or acutely hazardous materials, substances, or waste because the TOD restricts future uses to residential and commercial uses consistent with the TOD designation. No existing or proposed schools are located within a one-quarter mile distance of the project area. No adverse impacts are anticipated under this issue.

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?

Less Than Significant With Mitigation Incorporated – Based on a review of hazardous materials sites gathered from the California State Water Board's GeoTracker website, there are 23 known hazardous materials sites located within one-half mile of the project area, with some occurring within the project

area. Most of these sites have been remediated (cleaned) and the cases closed. However, there is a potential for future development under the TOD designated area to expose the public to significant hazards from re-developing property within the project area. Therefore, the following mitigation measure shall be implemented prior to approval of any future project proposed under the TOD designation.

VIII-2 Prior to approval of any project under the TOD designation, a Phase I and/or Phase II Environmental Site Assessment shall be prepared to document the potential for any residual contamination at a site being developed within the TOD area. Any identified residual contamination shall be remediated to a level that will permit residential use prior to approval of any project proposed under the TOD designation.

Implementation of this measure can ensure that no significant adverse impact to humans or the environment will result from future development under the TOD designation.

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 – There are no public airports located within two miles of the TOD designated area. Therefore, the project area has no potential to cause or experience any adverse impact related to public airport operations.

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 – There are no private airstrips located within two miles of the TOD designated area. Therefore, the project area has no potential to cause or experience any adverse impact related to public airport operations.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact – The TOD project area is not located along any primary evacuation routes located within the City of Placentia. Therefore, the potential for future development to physically interfere with adopted emergency response plan or evacuation plan is considered a less than significant impact.

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 City of Placentia does contain areas (along the northern perimeter of the City) that are exposed to wildland fire hazards. However, the TOD area located south of the BNSF Railway tracks does not contain any wildland fire hazards areas. Therefore, no potential exists to expose people or structures to such significant hazard.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?			**X**	
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)?		**X**		
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 onsite or offsite?				**X**
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 onsite or offsite?				**X**
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?			**X**	
f) Otherwise substantially degrade water quality?			**X**	
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?				**X**
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				**X**
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?			**X**	
j) Inundation by seiche, tsunami, or mudflow?				**X**

SUBSTANTIATION

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact – The TOD area is 100% developed and with minor exceptions is covered with impervious surface. For a developed area the only three sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater; from storm water runoff; and potential discharges of pollutants, such as accidental spills. Wastewater from the project area is delivered to Orange County water reclamation facilities that meet waste discharge requirements imposed by the Santa Ana Regional Water Quality Control Board. To address storm water and accidental spills within this engineered environment, any new project must ensure that site development implements a Storm Water Pollution Prevention Plan (SWPPP) or erosion control plan to control potential sources of water pollution that could violate any standards or discharge requirements during construction and a Water Quality Management Plan (WQMP) to control water pollution over the long term. Mitigation to address both of these circumstances has been identified. Specifically, measures VI-1 and VIII-1 identify specific measures with performance standards that will ensure neither source of water pollution result in violation of any water quality standards or waste discharge requirements. With implementation of these measures and the BMPs, future development under the TOD designation will not cause violation of 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)?

Less Than Significant With Mitigation Incorporated – The TOD area is 100% developed and with minor exceptions is covered with impervious surface. Thus, the project area does not presently function as a recharge area for the regional aquifer and will not serve this function after development under the TOD designation. There are no groundwater wells located within the project area and the future construction of new structures has no potential to directly intercept the groundwater table within the project area since it is at least 50 feet below the ground surface. The project area already consumes potable water, primarily for industrial uses within the TOD area. However, the shift of uses to multi-family residential and commercial uses under the TOD designation may result in a substantial increase in the number of water connections, and a possible increase in actual groundwater consumption. Since it was not possible to obtain an accurate estimate of current water consumption, the following mitigation measure shall be implemented to address future water consumption and potential groundwater extractions:

IX-1 Concurrent with individual project applications in the future, the applicant for a project in the TOD area shall submit a review of existing water consumption on the property, and a forecast of future water consumption by the proposed development. If water consumption by the new project is less than currently occurs on the property, no further action is required. If water consumption is forecast to increase by more 25% than current water demand or 5,000 gallons per day per acre, the project applicant shall fund sufficient water conservation measures within the project area (including the proposed project) to offset the increase in demand on the local water purveyor. Specific conservation measures that can by funded include, but are not limited to: use of recycled water for exterior landscaping, ultra low flush toilets; interior water fixtures that reduce water consumption, such as on-demand water heaters; replacement of existing high water demand landscaping with xeric landscaping; installation of smart landscape/irrigation management/control systems (such as drip systems); and use of onsite low water demand landscaping. To verify adequate

water demand offset, the City shall consult with the local water purveyor and verify the adequacy of the offset.

With implementation of the above water conservation measures future development under the TOD designation can be implemented without adverse impact to any groundwater resources.

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 onsite or offsite?

No Impact – The local drainage pattern for the TOD area is already established as runoff from private property enters the local streets and is transported to the regional system. As previously noted the project area is fully developed, and an estimated 95% or more of the rainfall leaves the area as surface runoff. There are no streams or channels within the project area, which is 100% developed. The proposed project will not alter this existing drainage system and therefore has no potential to cause substantial erosion or siltation on- or offsite.

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 onsite or offsite?

No Impact – Please refer to the preceding discussion under issue c). The drainage pattern of the TOD area will not be altered and the existing development results in almost 100% impervious surface. Re-development of the project area under the TOD designation has no potential to cause an increase in surface runoff which could cause flooding onsite or offsite. In fact, by requiring additional landscaping and modern water quality management systems to be installed, less surface runoff may occur in the future.

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 – As indicated under issues c) and d), the project area is 100% developed with urban uses and runoff from the area is not forecast to increase as a result of future re-development of the project area under the TOD designation. Potential sources of pollution within the project area remain essentially the same, except as noted in preceding discussions where new SWPPPs and WQMPs must be implemented in conjunction with future development (Mitigation Measures VI-1 and VIII-1).

f) Otherwise substantially degrade water quality?

Less Than Significant Impact – Under the TOD designation a mix of residential, office and commercial uses can be developed to replace primarily industrial uses. These are comparable uses to the existing development within the project area. Such uses will continue the pattern of urban pollution, but the future development with more stringent BMPs will not contribute to any additional substantial degradation of water quality, and should improve future storm water runoff. The proposed project impact is forecast to be a less than significant impact.

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 TOD area is not located within an area subject to 100-year flood hazards. Therefore, future development under the TOD designation will not be exposed to such hazards.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact – The TOD area is not located within an area subject to 100-year flood hazards. Therefore, future development under the TOD designation will not be exposed to such hazards. No potential exists to 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?

Less Than Significant Impact – The City of Placentia is exposed to limited dam inundation hazards from Carbon Canyon Dam. This hazard occurs in the eastern portion of the City along Carbon Canyon Creek. The TOD area is minimally exposed to this hazard, which represents a less than significant impact under this issue.

j) Inundation by seiche, tsunami, or mudflow?

No Impact – The project site is not located within a channel or area that would be exposed to any of the referenced hazards, i.e., seiche, tsunami or mudflow. No adverse impact under this issue can occur from future development under the TOD area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?			**X**	
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?			**X**	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

SUBSTANTIATION

a) Physically divide an established community?

Less Than Significant Impact – The project area is already divided by the BNSF Railway east-west main line tracks. The rationale for considering the TOD district is that a proposed new Metrolink passenger train station that will be installed within the project area. This new station creates an opportunity to redevelop the area surrounding the Metrolink station with a higher density, transit-oriented development (TOD) neighborhood. However, the City's General Plan does not currently have a mixed-use land use designation that can accommodate higher density residential development with supporting commercial and office uses. The proposed TOD General Plan designation and zone classification will support this new circumstance and allow higher density residential, office and commercial uses to be developed to take advantage of this new mode of transportation that will provide transit connections throughout the southern California region. The TOD district is limited to the approximately 28.2-acre area shown on the project site maps and future TOD-related structures will not physically divide this existing highly urbanized area. Instead these new structures will be integrated into this existing mixed-use project area. Therefore, potential TOD designation impacts are forecast to result in a less than significant adverse impact to this established community. The objective of the City is to foster a major improvement in this area in conjunction with the installation of the new Metrolink station.

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?

Less Than Significant Impact – At the present time the land uses within the area encompassed by the proposed TOD district are mixed, with the primary use of the area for industrial-related activities. This is consistent with the area's historic proximity to the BNSF Railway east-west main line track serving as the northern boundary of this planning area. In anticipation of a new Metrolink passenger station, the City is seeking to allow high density residential development with supporting office and commercial uses to be developed in close proximity to the station (TOD development). The project area already contains limited residential and commercial uses, so the uses themselves will not be new. Future development under the TOD land use designation/classification must comply with all new TOD Development Standards and Policies as summarized in the Project Description and as detailed in Appendix 1. These Development Standards establish specific development and design standards that the City considers to be self

mitigating with regarding to consistency with the existing City General Plan. Also note that all existing General Plan policies and other regulations from other agencies, such as the Regional Board, will continue to apply to the project area. Therefore, future TOD projects will not be relieved from conforming and implementing any policies designed to avoid or mitigate environmental effects. The proposed project is not forecast to conflict with the applicable land use designations once it is approved because all future projects within the TOD area must be developed consistent with this new General Plan land use designation and zone classification. The TOD district will provide a new development option within the City consistent with the regional rail transportation plan. Thus, implementation of the TOD designation will create a less than significant conflict with the existing land use plan, policies and regulations applicable to the project area. Also, please refer to the discussion in the Air Quality Section regarding the proposed project's consistency with the SCAG SB 375 programs.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact – The City of Placentia does not contain any areas that are located within a habitat conservation planning area or natural community conservation planning area. Therefore, the proposed TOD project zone district has no potential to conflict with such planning areas.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
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?				**X**

SUBSTANTIATION

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?

No Impact – The project area has been developed 100% with urban land uses. There are no known mineral resources within the project area and it is not designated for mineral resource exploitation. The addition of the TOD district will not cause any loss of mineral resource values to the region or 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?

No Impact – Refer to the text under a) above. There are no known mineral resource recovery sites located within the project area and none are delineated on the City's General Plan or any other plan. Therefore, the proposed project can not result in the loss of availability of a mineral resource recovery site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		**X**		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		**X**		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		**X**		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		**X**		
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?				**X**
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?				**X**

SUBSTANTIATION

Background

For a detailed analysis of the Noise and Vibration setting within the City of Placentia and in the vicinity of the BNSF Railway mainline tracks refer to Appendix 4, a noise study completed for a project just east of the project area. The thresholds of significance—noise standards—within the City of Placentia and as developed by the U.S. Department of Housing and Urban Management Guidelines 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. However, under the Placentia Municipal Code (Section 23.81.170), construction related activities are exempt from noise regulations provided that the activities take place between the hours of 7 a.m. to 7 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday. No construction activities are allowed on Sundays or Federal Holidays.

Baseline train operations noise levels at the Project site is 79 dB CNEL in the City of Placentia because the Burlington Northern Santa Fe Railroad (BNSF) line is located north and adjacent to the proposed project site. An estimated 50 trains per day, or two trains per hour, travel through this corridor.

CNEL-based standards apply to noise sources whose noise generation is preempted from local control (such as from on-road vehicles, trains, airplanes, etc.). Since local jurisdictions cannot regulate certain transportation noise generators (local jurisdictions are preempted by the State and Federal Governments), they typically exercise land use planning authority on the receiving property. Uses that are amenable to local control are generally considered "stationary sources." Local jurisdictions typically regulate the level of noise that one use may impose upon another.

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?

Less Than Significant With Mitigation Incorporated – The Project site is located in an area of a high background noise environment (79 dB, CNEL) due to the presence of the BNSF railroad corridor just north of the project site, as described above. Other sources of ambient noise include traffic along roadways within the TOD project area. Table XII-1 provides existing noise levels along the various Placentia streets identified in the Traffic Impact Study, as well as forecasts into the future. Background noise levels throughout the TOD project area already exceed the residential noise standards for daytime and nighttime periods identified in Table XII-2. The modeled noise data indicate the noise levels "with" and "without" project conditions for the time frames evaluated in the Traffic Impact Study (Appendix 5). Project implementation does not create a change in noise levels greater than a +1.8 db CNEL impact at 50 feet from the roadway centerline. The greatest change is forecast for Crowther Avenue east of Melrose. By 2035, with a larger volume of background traffic, the noise impact at this location decreases to +0.5 dB CNEL. In addition, most roadway segments demonstrate less than a +0.2 dB CNEL noise impact from the proposed project.

From an impact standpoint, noise mitigation (attenuation) will be required for the future residential developments within the TOD area. Most commercial development will benefit from noise mitigation, but it may not be required in all instances. Modest attenuation will be required along Crowther because the maximum CNEL in 2018 (assumes buildout) will not exceed 65 dB CNEL. Other roadways, such as Melrose will slightly exceed the 65 dB CNEL value and will require substantial attenuation to conform to the City's noise threshold in Table XII-2. From an cumulative adverse noise impact standpoint, the proposed project will not increase noise by 3 dB below 65 dB CNEL or above 1.5 dB CNEL above 65 dB CNEL. Because these cumulative noise thresholds are not exceeded for the proposed project, future noise impacts along roadways will not be considered cumulatively considerable.

Noise mitigation for specific projects will vary in the future and need to be identified for each specific project site. Therefore, the following measure shall be implemented to ensure that future residential and commercial development within the TOD area are not exposed to significant noise levels.

XII-1 The City shall require a noise study for each future specific project that will identify whether noise attenuation features (such as dual-paned windows with specific sound transmission features, mechanical ventilation, balcony buffers, or street level buffers) must be installed to meet the City's noise standards as identified in Table XII-2. This noise study shall be submitted with the project design and noise attenuation features shall be incorporated and identified on design plans submitted to the City for review and approval. Specific measures shall be implemented that demonstrate compliance with City noise standards, or a follow-on CEQA environmental document must be prepared for a project that cannot meet the standards.

Implementation of this measure can ensure that future development within the TOD project area will not be exposed to noise levels exceeding the City's significance thresholds.

Table XII-1
NOISE AND LAND USE COMPATIBILITY MATRIX

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-Motel, 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	NA	50-65	NA	65-85
Sports Arenas, Outdoor Spectator Sports	NA	50-70	NA	70-85
Playgrounds, Neighborhood Parks	50-70	NA	70-75	75-85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-70	NA	70-80	80-85
Office Buildings, Business Commercial and Professional	50-67.5	67.5-75	75-85	NA
Industrial, Manufacturing, Utilities, Agriculture	50-70	70-75	75-85	NA

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.

NA: Not Applicable

Source: Modified from U.S. Department of Housing and Urban Development Guidelines and State of California Standards.

Table XII-2
CITY OF PLACENTIA RESIDENTIAL NOISE STANDARDS

Noise Zone	Noise Level	Time Period
Residential	55 db(A) 50 dB(A)	7:00 a.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.
Commercial	65 dB(A)	Anytime
Industrial	70 dB(A)	Anytime

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant With Mitigation Incorporated – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration.

Due to the presence of the BNSF railroad corridor just north of the TOD project area, groundborne vibration is present within the area and may occur throughout the project area during construction of future development. Train vibration depends upon a variety of factors. The weight of the train, the travel speed, the condition of the track and the character of the subsoil all affect the observed vibration level. The USDOT (US Department of Transportation) Guideline called "Transit Noise and Vibration Impact Assessment" (May, 2006) suggests a significance threshold of 80 VdB for train vibrations if there are currently approximately 30 train movements per day, 75 VdB for between 30-70 events and 72 VdB for more than 70 events per day.

The closest TOD project area is approximately 100 feet to the track centerline. Vibration levels from heavy rail systems depend upon train travel speed. Freight trains are restricted to a 30-35 mph speed limit in areas of at-grade crossings. The RMS vibration level at 30 mph is approximately 3 VdB less than at 50 mph. A reference vibration level of 74 VdB has therefore been assumed at the closest building façade to the tracks. Vibration generally reduces as it propagates though a building.

Freight train vibration levels of 74 VdB at 115 feet from the track for a locomotive-powered freight train traveling at 30 mph would marginally exceed the VdB annoyance threshold without the effects of coupling losses if there are more than 70 train movements per day, which there are. Vibration mitigation for specific projects will vary in the future and need to be identified for each specific project site. Therefore, the following measure shall be implemented to ensure that future residential and commercial development within the TOD area are not exposed to significant vibration levels.

XII-2 The City shall require a vibration study for each future specific project that will identify whether noise attenuation features (such as dual-paned windows, spread footings, or other vibration features) must be installed to meet the 72 VdB vibration threshold recommended for the volume of train traffic. This vibration study shall be submitted with the project design and vibration attenuation features shall be incorporated and identified on design plans submitted to the City for review and approval. Specific measures shall be implemented that demonstrate compliance with the 72 VdB threshold, or a follow-on CEQA environmental document must be prepared for a project that cannot meet the standards.

Implementation of this measure can ensure that future development within the TOD project area will not be exposed to vibration levels exceeding the referenced significance threshold.

c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less Than Significant With Mitigation Incorporated – Refer to the analysis in XII. a) above that identifies the potential permanent noise level increase associated with future traffic and the mitigation required to ensure that future TOD development projects will meet the City's noise standards.

d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less Than Significant With Mitigation Incorporated – As stated in the background provided in this section, the City of Placentia regulated construction noise by setting limits on allowable daytime hours of activity, which is shown in Table XII-2. The nearest sensitive receptors are the residential uses located at specific locations within the TOD project area and those located across Orangethorpe Avenue to the north.

Construction equipment noise levels would range between 80 and 90 dB (L_{eq}) at the about 50 feet from the equipment in use. Construction activities are allowed without limits only between the hours of 7:00 a.m. and 7:00 p.m. as stipulated in the City's Noise Ordinance. There does not appear to be any need for 24-hour construction activities, so the objective for short-term construction noise impacts is to minimize the intrusion on affected noise sensitive land uses, if they exist. The following is a list of potential construction noise mitigation that can be implemented in conjunction with a project that may adversely impact a noise sensitive land use. The specific construction noise mitigation measures that shall be implemented for a specific project must be identified in the noise study required in measure XII-1.

XII-3 Future projects that may adversely impact noise sensitive uses shall use noise reducing barriers and other devices to reduce exterior noise levels at the nearest sensitive receptor to 65 CNEL or less during the daytime construction hours. This shall include installation of a temporary construction barrier around the source of construction noise.

XII-4 No construction activities shall occur during the hours of 7 PM through 7 AM, Monday through Saturday and at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists. Stated differently, construction activities shall be limited to 7 AM to 7 PM on weekdays; and no construction activities on Sunday or federal holidays.

XII-5 Stationary construction equipment that generates noise above the 65 dB threshold at the nearest sensitive receptor shall be placed behind a temporary noise construction barrier while in use.

XII-6 The project developer 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.

XII-7 Project developer will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities.

XII-8 Equipment not in use for five minutes shall be shut off.

XII-9 Equipment shall be maintained and operated such that loads are secured from rattling or banging.

XII-10 Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.

XII-11 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

XII-12 No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.

XII-13 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. Resident's 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.

All of the preceding measures will not be required for every project and may need to be adjusted to minimize intrusion during future construction activities within the TOD project area. The noise study required in measure XII-1 shall identify the specific measures applicable to individual projects in the future.

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 – As previously discussed under section VII, the proposed project is not located within two miles of a public airport and is not located in an airport land use plan area and therefore would not expose people residing or working in the project area to excessive noise levels as a result of overhead flights. No impacts are anticipated. No mitigation is required.

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 – No private airstrips are located within the vicinity of the project. Implementation of the Project as it has been proposed would not subject people working or residing in the project area to

excessive noise levels with operations at a private airstrip. No impacts are anticipated. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			**X**	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			**X**	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			**X**	

SUBSTANTIATION

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 – According to SCAG's profile for the City of Placentia (May 2013), the City had a 2012 population of 51,084 persons and an average household size of 3.1 persons per unit, slightly higher than the 3.0 average household size for Orange County as a whole. Under a worst case assumption if the whole approximately 28.2-acre TOD area was developed with 752 residential units (the number of units that along with existing vehicle trips would result in the 5,000 trip cap assuming all residential within the TOD area, refer to Appendix 5, Traffic Impact Study), the population increase within the City under this proposed project could be approximately 1,550 persons (752 units – 11 sfr units = 741 units x 3.1 = 2,297 persons). This equates to an estimated 4.5% increase in the City's overall population (2,297 persons/51,084 persons = 0.04496%). This increase in population is not considered a substantial direct increase and given that this area of the City has sufficient existing infrastructure to serve the future development envisioned for the TOD area, the overall effect of the project will be a less than significant impact on induced growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact – The project area encompasses approximately 28.2 acres. The area is occupied by mixed uses that include an estimated eleven residences and commercial activities, but primarily industrial uses. The TOD district envisions up to 752 multifamily residential units that will be able to take advantage of the new Metrolink station that will be installed in Placentia. Even if any single-family residence is displaced by future TOD development, at a minimum density of 65 units per acre the loss of single-family residences will be fully offset. Thus, the potential adverse impact under this issue is considered a less than significant impact.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact – The analysis in the preceding section b) indicates that a small number of residents (about 34 persons) within the TOD area may be displaced, but a substantially greater number of new residences will be created and offset those lost. Based on the eleven residences located within the project area, substantial numbers of people (estimated to be 34 persons) would not be displaced if the new TOD designation is established. Since future development that may occur within the TOD area will be private developer driven, it is assumed that, if property is assembled that includes the single-family residential property, the property owners will agree to the property purchase and will find alternative housing on their own, including possible occupancy in the new multifamily residential structures. Based on these facts and assumptions, the proposed project is not forecast to cause displacement of substantial numbers of people that would require construction of replacement of housing elsewhere. Thus, the potential adverse impact under this issue is considered a less than significant impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. PUBLIC SERVICES: 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?			**X**	
b) Police protection?		**X**		
c) Schools?			**X**	
d) Recreation/Parks?		**X**		
e) Other public facilities?				**X**

SUBSTANTIATION

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?

Less Than Significant Impact – The Orange County Fire Authority provides fire protection and emergency response service to the City of Placentia. The nearest fire station, Station 35, is located at the intersection of Chapman Avenue and North Bradford Avenue within one-half mile of the TOD area. The TOD area is presently 100% developed with mixed urban uses, ranging from industrial uses and structures to commercial and single-family residential properties. The proposed project will allow redevelopment to proceed with high density residential use, office and commercial use structures in the TOD district, as well as the reuse of the historic Packing House Building. Many of the existing structures are very old (most more than 50 years old) and they do not include modern fire protection designs, such as fire sprinklers. The new structures that will be built under the TOD designation must incorporate all current fire protection measures included in the current applicable building code. Additionally, refurbishment and reuse of the historic Packing House Building will be required to incorporate all current fire protection measures included in the current building code, including any codes applicable to a historic structure if applicable. This requirement along with the increased value of the developed land, which will generate additional property tax, is considered sufficient to control impacts on the fire protection and emergency response system to a less than significant impact level. No substantial changes in existing fire protection facilities will result from implementing the proposed project.

b) Police protection?

Less Than Significant With Mitigation Incorporated – As noted in the preceding discussion regarding fire protection, the TOD area is already 100% developed with mixed urban uses. The proposed project would allow up to 5,000 new daily trips through a mixture of residential, office and commercial uses. These trips include the possibility of up to 752 new residential units at high density within the scope of the plans for the TOD project area. The City of Placentia Police Department provides police protection and assists with emergency responses to the project area. The proposed multifamily residential uses that can be developed within the project area, if the TOD district is approved, can add approximately 2,297 new City residents, assuming a density of 3.1 persons per unit. Based on current staffing levels at the City, between 50 and 60 sworn officers, the addition of these potential residents would require approximately one to two additional sworn officers, based solely on population. There are a variety of ways to assess the need for additional police officers, but using the population methodology would require proposed future development to demonstrate adequate funds to support additional police manpower. This can be accomplished by requiring the preparation of a fiscal impact analysis documenting future tax revenues or documenting with some detailed information that additional law enforcement personnel are not required. The following mitigation measure will be implemented.

> ***XIV-1 Future projects implemented under the TOD district shall submit a fiscal impact analysis focused on law enforcement and recreation demand and costs to evaluate the need for additional fees to support these two City services. The documentation shall be reviewed and approved by the City and if additional fees must be paid, the City shall impose them as conditions of approval for the future projects either directly or through creation of a community facilities district. Alternatively, if the City imposes a Public Safety Impact Fee, this fee shall provide sufficient funding for the increased demand for these services.***

Implementation of this measure can ensure that adequate law enforcement personnel are available to meet demand for law enforcement services from future TOD-related development.

c) Schools?

Less Than Significant Impact – The TOD designation includes the possibility of developing up to 752 new residential units at high density within the scope of the plans for the TOD district. Assuming average generation of 1.1 new students per unit, this would result in about 827 new students. This is a conservative value that may be less due to the type of new residential units. New residential units, office uses and commercial uses can bring new residents to the City. The state has mandated (SB 50) that payment of fees established for each new residential unit is sufficient to offset potential impacts to the affected school system(s). Based on this finding and the mandatory requirements for developers to pay fees per residential unit as well as the required development impact fees for future office and commercial development, the proposed project will not cause a significant adverse impact due to generation of new students. Thus, school impacts are considered less than significant.

d) Recreation/Parks?

Less Than Significant With Mitigation Incorporated – The proposed project may generate approximately 2,297 new residents in the City of Placentia. These residents will increase the demand for City parks and recreation facilities by some unquantifiable amount. Mitigation measure XIV-1 will provide the detailed evaluation of future TOD district project impacts on recreation and park facilities and indicate whether specific fees need to be collected to offset project-related demand for such facilities. Such fees, if justified, may be collected under the Quimby Act or as conditions of approval, particularly if future projects incorporate recreation components that may offset demand on public facilities. With implementation of measure XIV-1 impacts to recreation and park resources can be reduced to a less than significant impact.

e) Other public facilities?

No Impact – No other public facilities have been identified that might be impacted by the TOD project district.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?		**X**		
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?		**X**		

SUBSTANTIATION

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 With Mitigation Incorporated – Please refer to the discussion under issue XIV.d and mitigation measure XIV-1. Implementation of new residences under the TOD district, as well as jobs generated from the commercial and office development under the TOD district can increase the use of public recreation and park facilities to the point that substantial physical deterioration could occur or could be accelerated. Until a specific profile of the future residents is developed and an evaluation of their demand for recreation/park facilities is discussed in some detail (including private recreational facilities provided by individual developments), it is not possible to forecast specifically whether future demand related to future TOD projects will cause adverse impact on recreational resources. Implementation of measure XIV-1 can provide sufficient information for each specific project to determine whether fees may be required to offset future project-specific demand for such facilities. With implementation of measure XIV-1 potential impacts to recreation/park facilities can be reduced to a less than significant impact level.

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 With Mitigation Incorporated – Please refer to the discussion under issue XV.a and mitigation measures XIV-1. Consistent with the discussion under a) above, mitigation measure XIV-1 will provide specific data to allow a determination by the City of the need for additional recreation/park area(s) and the proportional fees that future TOD-related projects may need to pay to offset demand. With implementation of measure XIV-1 potential demand for additional recreation/park facilities can be reduced to a less than significant impact level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. TRANSPORTATION / TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		**X**		
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?		**X**		
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?				**X**
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		**X**		
e) Result in inadequate emergency access?		**X**		
f) Result in inadequate parking capacity?			**X**	
g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?		**X**		

SUBSTANTIATION

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?*

Less Than Significant Impact With Mitigation Incorporated – Under the proposed TOD designation, an expected maximum of 5,000 net daily trips are expected to be generated as a result of the project's implementation. 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 project's Traffic Impact Study prepared by Albert Grover & Associates dated August 18, 2016 and amended January 19, 2017 (provided as Appendix 5), analyzed 15 intersections within the Project Area and alternative street designs for Crowther Avenue. However, this traffic study prepared for the TOD project, is not a typical traffic study because a significant portion of the trips generated from the TOD project area are expected to be internal when buildout is achieved and will be to/from the planned Placentia Metrolink Station. Thus, under the TOD designation, a factor of 35% transit-oriented trips was used to determine the net number of trips to and from the Project Area as a maximum 5,000 trips.

The Traffic Study analyzed the LOS of 15 intersections under six scenarios for both morning and afternoon peak hours: Existing (2016) Conditions without Project Scenario; Existing (2016) Conditions with Project Scenario; Opening Day (Year 2018) Conditions without Project Scenario; Opening Day (Year 2018) Conditions with Project Scenario; Future Buildout (Year 2035) Conditions without Project Scenario; and Future Buildout (Year 2035) Conditions with Project Scenario. The City of Placentia's criteria for acceptable signalized intersections LOS is D or better, and a significant impact occurs when the signalized intersection operates at LOS E or F. All 15 intersections, at present, are currently operating within the City's "acceptable" criteria. Additionally, all signalized study intersections and unsignalized project driveway intersections operate at acceptable LOS D or better during the Existing and Opening Day Conditions with or without the project. According to the Traffic Study, the following intersections would be operating at deficient LOS of E or F by Future Buildout (2035) without the project based on the projected Citywide Future Buildout per the City of Placentia Draft General Plan Update: Chapman Avenue/SR-57 Southbound Ramps (PM); Chapman Avenue/SR-57 Northbound Ramps (AM and PM); Placentia Avenue/Crowther Avenue (PM); Orangethorpe Avenue/Placentia Avenue (PM); Orangethorpe Avenue/SR-57 Northbound Ramps (PM); and Orangethorpe Avenue/Melrose Street (PM); Kraemer Boulevard/Orangethorpe Avenue (AM and PM). For the Future Buildout "with Project" (2035) scenario, the LOS does not change at more than half of the study intersections, and most of the study intersections would operate at a deficient LOS under the "without Project" (2035) conditions and continue to remain deficient under "with Project" conditions. However, no new intersections would be impacted under the Future Buildout with Project (2035) scenario, instead several intersections would be more significantly impacted. Therefore, in order to mitigate and offset the impacts from the creation of the TOD district, the following mitigation measures will be implemented:

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. A 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;***
- ***Orangethrope 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 Ave 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.***

With implementation of the above mitigation measure, any long-term impacts that would result from the proposed TOD project are reduce to a less than significant impact on the circulation system. The proposed project also has the potential to impact the flow of traffic during the construction phase of the TOD implementation. In order to minimize any short-term construction impacts, the developer of each project shall be subject to the following mitigation measures:

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.

With implementation of the above mitigation measures, any impacts from construction activities as a result of developing within the TOD project area are considered less than significant. No further mitigation is required.

To further enhance the focus on TOD experience along Crowther Avenue, the City requested that the traffic consultant evaluate the possibility of configuring Crowther as a Two-Lane Facility rather than a Four-Lane Facility. Figure XVI-1 shows the two alternative configurations and the evaluation indicates that throughout the planning period will be able to handle the forecast traffic on Crowther. Towards the buildout date of 2035, the roadway will still meet or exceed the approximate 22,000 vehicles per day maximum average daily traffic. This is a design issue and if the City seeks to maintain the Two-Lane Configuration permanently, it would have to seek concurrence from the Orange County Transportation Agency (OCTA), including a possible amendment to the OCTA Master Plan of Arterial Highways (MPAH). Since this issue does not need to be resolved at this time due to low traffic volumes on Crowther, the City can address the ultimate design of Crowther and modifications to the MPAH in the future when this issue rises to a level of concern.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact With Mitigation Incorporated – Please see the response under XVI.a. above. Implementation of mitigation measures XVI-1 through XVI-11 will reduce potential impacts associated with maintaining Level of Service standards to a less than significant level.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact – As discussed in Section VIII above, the project is not located within the vicinity of any airports. As a result, the project would not result in any changes in air traffic patterns, either at Fullerton Municipal Airport, located approximately 8 miles to the west of the project site, or John Wayne Airport, located approximately 15 miles to the south of the project site. Therefore, project implementation will not result in a change to air traffic patterns at the airport. No significant 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 With Mitigation Incorporated – The proposed project is located in an area that contains existing development. The project design does not include the construction of any sharp curves or dangerous intersections along existing roadways. Future projects will not include the construction of any structure or feature that will create a substantial increase in hazards due to a design feature. All future development under the TOD designation will be reviewed by the City to ensure that no incompatible uses or hazards due to a design feature are created. Access to the site, as previously

stated under issue XVI.a. above must comply with all City design standards. Mitigation measure XVI-1 will serve as sufficient mitigation to offset any future impacts under this issue. Not further impacts are anticipated, and no further mitigation is required.

e) Result in inadequate emergency access?

Less Than Significant Impact With Mitigation Incorporated – Please see the response under XVI.a. above. Implementation of mitigation measures XVI-1 through XVI-11 will reduce potential impacts associated with inadequate emergency access both during construction and once the TOD area is developed to a less than significant level.

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?

Less Than Significant Impact With Mitigation Incorporated – The proposed project will increase the availability of public transit, as the purpose of the project is to create a Transit-Oriented Development within the City to serve the residents by developing a TOD district (multi-use, higher density development) around the City's future Metrolink Station. According to the Traffic Study, pedestrian sidewalks surround the site, and the adjacent streets are sufficient width to accommodate bicycle traffic. Thus, the project is not expected to have a negative impact on any alternative modes of transportation. However, the TOD area is not currently served by OCTA bus routes, and as part of the creation of the TOD district, the City will need to confer with OCTA to discuss and plan future bus routes that will serve the future Metrolink Station. With implementation of mitigation, future TOD project will not directly conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and therefore any impacts under this issue are considered less than significant.

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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			**X**	
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?		**X**		
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		**X**		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?		**X**		
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?		**X**		
f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			**X**	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			**X**	

SUBSTANTIATION

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact – The issue of water quality and Regional Board treatment requirements is addressed in the Hydrology Section under issue IX.a). The proposed project will deliver wastewater generated from the residences to the regional wastewater reclamation plant operated by Orange County. Residential and commercial wastewater rarely contains constituents that would cause a wastewater treatment plant to exceed Regional Board requirements as established in Waste Discharge Requirements (WDR). No adverse impact from generation of wastewater onsite is forecast to result from project implementation. Although not considered "wastewater" the Regional Board through the regional MS-4 permit requires management of stormwater runoff to prevent indirect source (non-point source) contamination of surface runoff in the Santa Ana River Basin. As described in Section IX.a), the proposed project is implementing storm water quality controls that will meet the current requirements of

the Regional Board. Based on these findings, the proposed project will not cause a violation of wastewater treatment requirements of the Regional 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?

Less Than Significant With Mitigation Incorporated – Although the proposed project will increase the intensity of use within the TOD area, it will add only minimal outdoor (landscape) water demand and based on past experience, multi-family residences use much less water than new single-family residences. Future residential and commercial projects will also generate additional municipal wastewater above that currently being generated. The scope of these changes in the existing water consumption and wastewater generation will, to a large extent, depend on the efficiency of the fixtures incorporated into the design of new facilities when compared to the water consumption of existing development. Because of this issue is currently open ended, the following mitigation measure will be implemented to ensure that neither the water or wastewater utility systems serving the TOD project area will be subject to a significant impact that would require new water or wastewater to expand in a manner that could cause significant environmental effects.

XVII-1 Future projects implemented under the TOD district shall submit a detailed evaluation of water demand and wastewater generation based on the fixtures that will be installed. This information shall be compared to the current demand by existing development and a net impact determination made. This net impact shall be compared to available water supply capacity and wastewater treatment capacity of the serving utility systems. If the demand/generation exceeds the capacity of either utility system, the modifications to the system(s) shall be evaluated and a determination of indirect impact reached in a second tier environmental document. The documentation shall be reviewed and approved by the City and if specific measures must be implemented, the City shall impose them as conditions of approval for the future projects. In no instance shall a project be approved that would cause significant environmental effects on either the water or wastewater system, including adequacy of water supplies and treatment capacity. Mitigation in the form of offsets, such as funding water conservation or wastewater generation reductions at other location, shall be implemented where deemed necessary.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant With Mitigation Incorporated – As described in Section IX, the TOD area is essentially 100% impervious due to previous urban development. The existing drainage system has been designed to accommodate runoff from the project area. Although it is unlikely that additional runoff will be generated by the proposed project, future TOD development shall document that runoff will not be increased. This shall be done in accordance with the following mitigation measure.

XVII-2 Future projects implemented under the TOD district shall submit a detailed evaluation of stormwater drainage from the new project relative to the existing development. If the future project will generate stormwater runoff that exceeds the existing volume or time of accumulation, onsite stormwater detention shall be installed as part of the site development of offset any increase that would exceed the capacity of the existing stormwater collection and transport systems. In no instance shall a project be approved that would cause significant environmental effects on either the existing drainage

system, unless the system incremental stormwater increase is detained onsite or the drainage system altered to accommodate any change.

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 With Mitigation Incorporated – As noted under issue XVII.b, adequacy of water supply cannot be effectively determined until an evaluation of the difference between current consumption and future consumption is defined. Mitigation measure XVII-1 will provide this information to ensure that future development does not cause significant impact to water demand/supply issues.

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 With Mitigation Incorporated – As noted under issue XVII.b, adequacy of wastewater treatment capacity cannot be effectively determined until an evaluation of the difference between current generation and future generation is defined. Mitigation measure XVII-1 will provide this information to ensure that future development does not cause significant impact to existing facilities operated by the area's wastewater treatment provider.

f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact – The City of Placentia is primarily served by the Olinda Landfill, operated by Orange County and located in Brea, California. This facility is permitted to operate through 2030. Due to the large available daily and long-term capacity at this landfill, the proposed project is not forecast to cause any adverse impact on the continued operation because it has sufficient permitted capacity to accept the project's solid waste disposal needs.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact – The proposed project is subject to Assembly Bill 1327, Chapter 18, Solid Waste Reuse and Recycling Access Act of 1991 (Act). The Act requires that adequate areas be provided for collecting and loading recyclable materials such as paper products, glass, and other recyclables. The project must conform to the City's requirements to ensure compliance with the Act. Based on these factors, it is anticipated that the project will have a less than significant impact related to compliance with statutes and regulations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			**X**	
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?			**X**	
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, the effects of other current projects, and the effects of probable future projects)?		**X**		
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		**X**		

SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed TOD GPA and Zone Change, including Development Standards, can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis in the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized following this section.

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?*

Less Than Significant Impact – The Project has no potential to adversely impact any biological resources. No mitigation was required or identified. The project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce 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, or reduce the number or restrict the range of a rare or endangered plant or animal. The Project site is in an urban area with developed structures and infrastructure surrounding the property and no natural biological habitat exists within the APE. Based on the historic disturbance of the site, and its current disturbed condition, the potential for impacting archaeological is low, but mitigation is required to address the potential for historic resources due to the age of many of the structures within the TOD project area. Please see biological and cultural sections of this Initial Study.

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 – The proposed project reflects the City and applicant's objective of creating a Transit-Oriented Development (TOD) land use district in conjunction with the future Metrolink Passenger Station. The creation of such a district meets a regional goal of higher density residential development associated with mixed commercial and service uses. Thus, based on the project's objectives and the lack of any significant adverse environmental impacts, this project meets both the short- and long-term environmental goals of the City of Placentia, with no identifiable disadvantage for either circumstance.

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, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant With Mitigation Incorporated – Based on the analysis in this Initial Study, the proposed TOD land use district has been evaluated as not having the potential to cause impacts that are individually or cumulatively considerable. There are no other projects in the project vicinity to which this project would contribute to a cumulatively considerable impact. The issues of Aesthetics, Air Quality/GHG, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Recreation, Transportation and Utilities require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects do not rise to a level of cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, less than significant impacts.

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation Incorporated – The proposed project includes activities that have a potential to cause direct substantial adverse effects on humans. The issues of Aesthetics, Air Quality/GHG, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Recreation, Transportation and Utilities require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant.

Conclusion

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 with the issues of agricultural and forestry resources, biological resources, land use and planning, mineral resources, and population/housing. The issues of Aesthetics, Air Quality/GHG, Cultural Resources

Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Recreation, Transportation and Utilities 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.

Based on the findings in this Initial Study, the City of Placentia proposes to adopt a Mitigated Negative Declaration (MND) for the TOD GPA and Zone Change Project, including the proposed Development Standards. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) will be issued for this project by the City of Placentia. The Initial Study and NOI will be circulated for 30 days of public comment because this project appears to involve future interactions with Caltrans as either a responsible or trustee agency. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed by the City of Placentia for possible adoption at a future City Council meeting, the date for which has yet to be determined. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting date in accordance with the requirements in Section 21092.5 of CEQA (statute).

SUMMARY OF MITIGATION MEASURES

Aesthetics

I-1 Prior to approval of any new TOD facilities within the project area, the applicant shall submit an evaluation of the scenic value of structures that will be replaced by the new TOD facility. Based on the findings, the following actions may be required: no further action if no resource; recordation of the scenic values of a structure if merited; and integration of existing building scenic elements into the new building design. Implementation of these measures will avoid loss of any scenic resource values due to future TOD-related development within the project area.

I-2 Future developers shall submit an analysis of potential glare from lighting or sunlight that may impact vehicles on adjacent roadways or structures. This analysis shall demonstrate that due to building orientation or exterior treatment of windows, no significant light or glare impacts may be caused that could adversely impact driver safety on the adjacent roadways or occupied structures in the vicinity of the new development. This analysis shall be submitted to the City for review and approval prior to issuance of the final building permit(s) for new structures within the TOD area.

I-3 Future developers shall submit an analysis that potential lighting from new structures does not create an adverse light impact on adjacent structures. This analysis shall demonstrate that based on an approved lighting plan for new structures, adjacent structures or areas are not exposed to intrusive or harmful amounts of light. This analysis shall be submitted to the City for review and approval prior to issuance of the final building permit(s) for new structures within the TOD area.

Air Quality

III-1 For each future project implemented within the TOD project area, the development shall identify project construction related emissions and specific best available control measures (BACMs) identified in Rule 403 required to ensure that fugitive dust or construction equipment exhaust emissions will not exceed SCAQMD construction thresholds of significance or emission concentrations at the nearest receptors identified by local significance thresholds. The specific BACMs identified shall be made conditions of approval to ensure implementation.

III-2 Only “Low-Volatile Organic Compounds” paints (no more than 100 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

III-3 As individual projects are submitted for entitlements in the future, the City will maintain a record of each individual project’s forecast trip generation and net area source emissions. When total trip generation (including the 1,247 existing trips) approaches 4,500, the City will not consider additional project entitlements within the TOD area, unless actual field monitoring of trips and area source verifies that actual trip generation is measured as being less than the SCAQMD thresholds when the verification is calculated. Field monitoring can consist of measuring trips and area source emissions from individual developments or monitoring trips on the local roadways entering and leaving the TOD area. Other verifiable measures may also be used to verify total trips, including interviews with residents or owners of businesses and verification of actual area source emissions. If the data indicate that the 5,000 trip ADT will be exceeded, the City will perform a new environmental evaluation in compliance with CEQA to assess whether continued development within the TOD area will exceed the emission significance thresholds in place at the time of measurement.

III-4 For each future project implemented within the TOD project area that can generate offensive odors, the development shall identify project-specific best available control measures (BACMs) for the specific odors that ensure adjacent sensitive receptors will not be exposed to odor concentrations that would conflict with residential uses. The specific BACMs identified for odor control shall be made conditions of approval to ensure implementation.

Cultural Resources

V-1 Prior to demolition of any structure greater than 50 years in age in support of a TOD facility, the City will require a comprehensive historical resource evaluation of the structure. If it is determined that the structure has significant historical value, specific management actions will be defined to reduce impacts to a less than significant impact level. If mitigation to a less than significant historical impact level cannot be achieved, the City will require the preparation of a second tier environmental document, most probably EIR, prior to allowing the TOD project to proceed.

Geology and Soils

VI-1 Prior to approval of specific development projects within the TOD area in the future, the City will require comprehensive documentation of the erosion control and water quality best management practices (BMPs) that will be implemented by a proposed site specific project. This documentation shall demonstrate that erosion, sedimentation and discharge of storm water from the site during construction and after development will not cause degradation of storm water runoff from the project site that could cause or contribute to a violation of the beneficial uses and water quality standards downstream from the project site.

VI-2 Concurrent with accepting an application for a residential structures within the TOD area, the developer shall submit a professionally prepared geotechnical report that includes geotechnical design specifications for the proposed structure at the project site. These design specifications shall demonstrate that any site specific sources of instability can be controlled to a less than significant impact level and these requirements shall be implemented through a condition of approval imposed by the City on the proposed structure.

Greenhouse Gas Emissions

VII-1 As individual projects are submitted for review in the future, the City will require a GHG emission forecast for proposed construction activities. If construction-related GHG emissions exceed regionally accepted thresholds, the City will require mitigation to offset such emissions. Mitigation may be in the form of GHG emission offsets or credits obtained from other projects or mitigation banks. If the data indicate that the construction GHG emissions will exceed thresholds of significance in place at the time of construction after application of mitigation, the City will perform a new environmental evaluation in compliance with CEQA to assess whether continued development will exceed the emission significance thresholds in place at the time of measurement.

VII-2 As individual projects are submitted for entitlements in the future, the City will require a GHG evaluation on each project and ensure that project-related GHG emissions do not exceed the 3,000 MTCO2(e) threshold. Where this threshold will be exceeded, the City will require the developer to provide project-related GHG emission reductions (such as higher energy conservation), use of recycled water or other GHG reduction measures. The City will also accept verifiable GHG emission offsets from projects. However, if the data indicate that the project specific GHG threshold will be exceeded, the City will perform a new environmental evaluation in

compliance with CEQA to assess whether the development within the TOD area will exceed the emission significance thresholds.

Hazards and Hazardous Materials

VIII-1 All spills or leakage of petroleum products or other hazardous materials during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP or erosion control plan prepared for site specific development within the project area.

VIII-2 Prior to approval of any project under the TOD designation, a Phase I and/or Phase II Environmental Site Assessment shall be prepared to document the potential for any residual contamination at a site being developed within the TOD area. Any identified residual contamination shall be remediated to a level that will permit residential use prior to approval of any project proposed under the TOD designation.

Hydrology and Water Quality

IX-1 Concurrent with individual project applications in the future, the applicant for a project in the TOD area shall submit a review of existing water consumption on the property, and a forecast of future water consumption by the proposed development. If water consumption by the new project is less than currently occurs on the property, no further action is required. If water consumption is forecast to increase by more 25% than current water demand or 5,000 gallons per day per acre, the project applicant shall fund sufficient water conservation measures within the project area (including the proposed project) to offset the increase in demand on the local water purveyor. Specific conservation measures that can by funded include, but are not limited to: use of recycled water for exterior landscaping, ultra low flush toilets; interior water fixtures that reduce water consumption, such as on-demand water heaters; replacement of existing high water demand landscaping with xeric landscaping; installation of smart landscape/irrigation management/control systems (such as drip systems); and use of onsite low water demand landscaping. To verify adequate water demand offset, the City shall consult with the local water purveyor and verify the adequacy of the offset.

Noise

XII-1 The City shall require a noise study for each future specific project that will identify whether noise attenuation features (such as dual-paned windows with specific sound transmission features, mechanical ventilation, balcony buffers, or street level buffers) must be installed to meet the City's noise standards as identified in Table XII-2. This noise study shall be submitted with the project design and noise attenuation features shall be incorporated and identified on design plans submitted to the City for review and approval. Specific measures shall be implemented that demonstrate compliance with City noise standards, or a follow-on CEQA environmental document must be prepared for a project that cannot meet the standards.

XII-2 The City shall require a vibration study for each future specific project that will identify whether noise attenuation features (such as dual-paned windows, spread footings, or other vibration features) must be installed to meet the 72 VdB vibration threshold recommended for the volume of train traffic. This vibration study shall be submitted with the project design and vibration attenuation features shall be incorporated and identified on design plans submitted to the City for review and approval. Specific measures shall be implemented that demonstrate

compliance with the 72 VdB threshold, or a follow-on CEQA environmental document must be prepared for a project that cannot meet the standards.

XII-3 Future projects that may adversely impact noise sensitive uses shall use noise reducing barriers and other devices to reduce exterior noise levels at the nearest sensitive receptor to 65 CNEL or less during the daytime construction hours. This shall include installation of a temporary construction barrier around the source of construction noise.

XII-4 No construction activities shall occur during the hours of 7 PM through 7 AM, Monday through Saturday and at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists. Stated differently, construction activities shall be limited to 7 AM to 7 PM on weekdays; and no construction activities on Sunday or federal holidays.

XII-5 Stationary construction equipment that generates noise above the 65 dB threshold at the nearest sensitive receptor shall be placed behind a temporary noise construction barrier while in use.

XII-6 The project developer 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.

XII-7 Project developer will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities.

XII-8 Equipment not in use for five minutes shall be shut off.

XII-9 Equipment shall be maintained and operated such that loads are secured from rattling or banging.

XII-10 Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.

XII-11 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

XII-12 No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.

XII-13 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. Resident's 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.

Public Services

XIV-1 Future projects implemented under the TOD district shall submit a fiscal impact analysis focused on law enforcement and recreation demand and costs to evaluate the need for additional fees to support these two City services. The documentation shall be reviewed and approved by the City and if additional fees must be paid, the City shall impose them as conditions of approval for the future projects either directly or through creation of a community facilities district. Alternatively, if the City imposes a Public Safety Impact Fee, this fee shall provide sufficient funding for the increased demand for these services.

Transportation / 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. A 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;
- Orangethrope 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.

Utilities and Service Systems

XVII-1 Future projects implemented under the TOD district shall submit a detailed evaluation of water demand and wastewater generation based on the fixtures that will be installed. This information shall be compared to the current demand by existing development and a net impact determination made. This net impact shall be compared to available water supply capacity and wastewater treatment capacity of the serving utility systems. If the demand/generation exceeds the capacity of either utility system, the modifications to the system(s) shall be evaluated and a determination of indirect impact reached in a second tier environmental document. The documentation shall be reviewed and approved by the City and if specific measures must be implemented, the City shall impose them as conditions of approval for the future projects. In no instance shall a project be approved that would cause significant environmental effects on either the water or wastewater system, including adequacy of water supplies and treatment capacity. Mitigation in the form of offsets, such as funding water conservation or wastewater generation reductions at other location, shall be implemented where deemed necessary.

XVII-2 Future projects implemented under the TOD district shall submit a detailed evaluation of stormwater drainage from the new project relative to the existing development. If the future project will generate stormwater runoff that exceeds the existing volume or time of

accumulation, onsite stormwater detention shall be installed as part of the site development of offset any increase that would exceed the capacity of the existing stormwater collection and transport systems. In no instance shall a project be approved that would cause significant environmental effects on either the existing drainage system, unless the system incremental stormwater increase is detained onsite or the drainage system altered to accommodate any change.

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https://soilseries.sc.egov.usda.gov/OSD_Docs/M/MYFORD.html

FIGURES

FIGURE 1
Regional Location

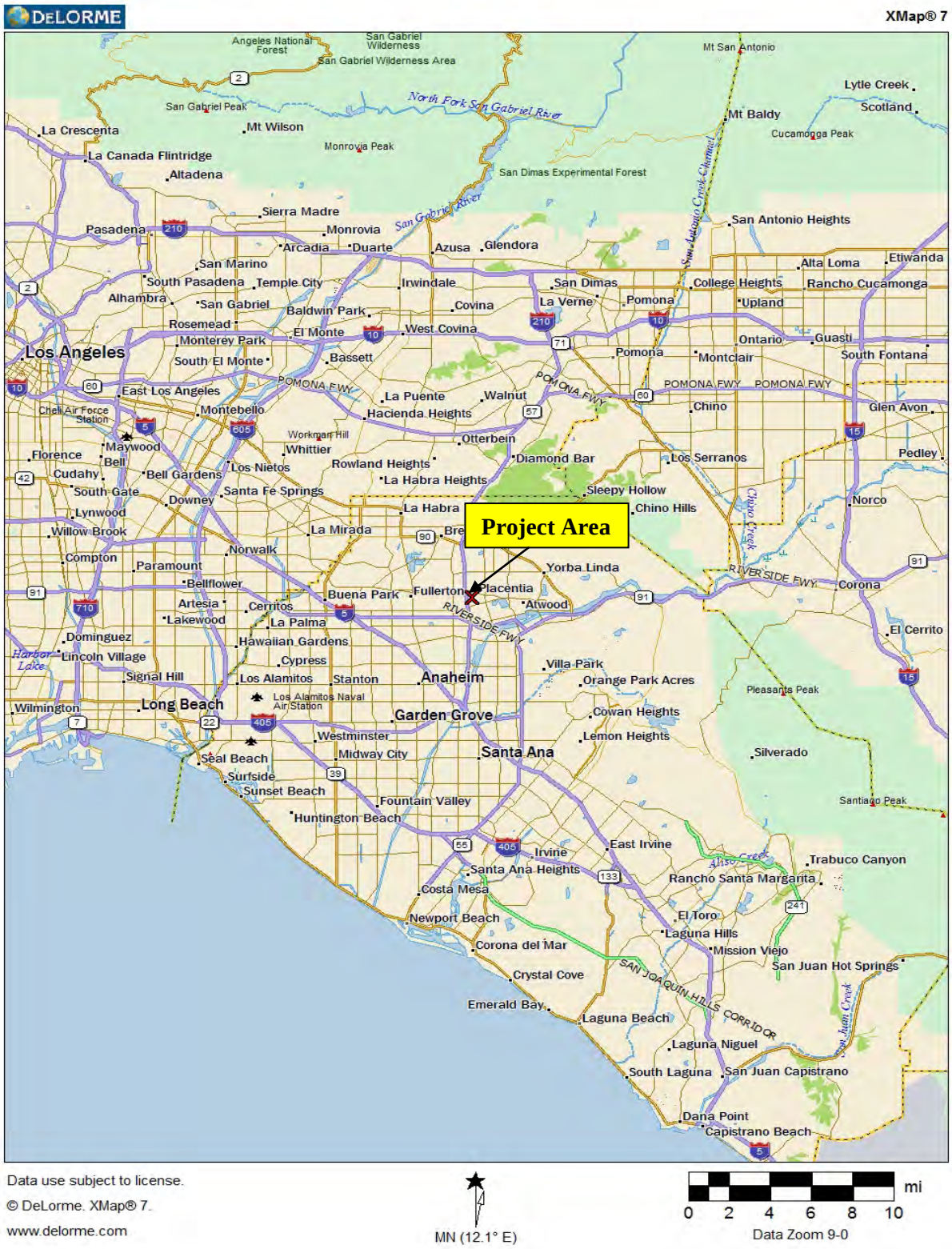


FIGURE 2
Site Location

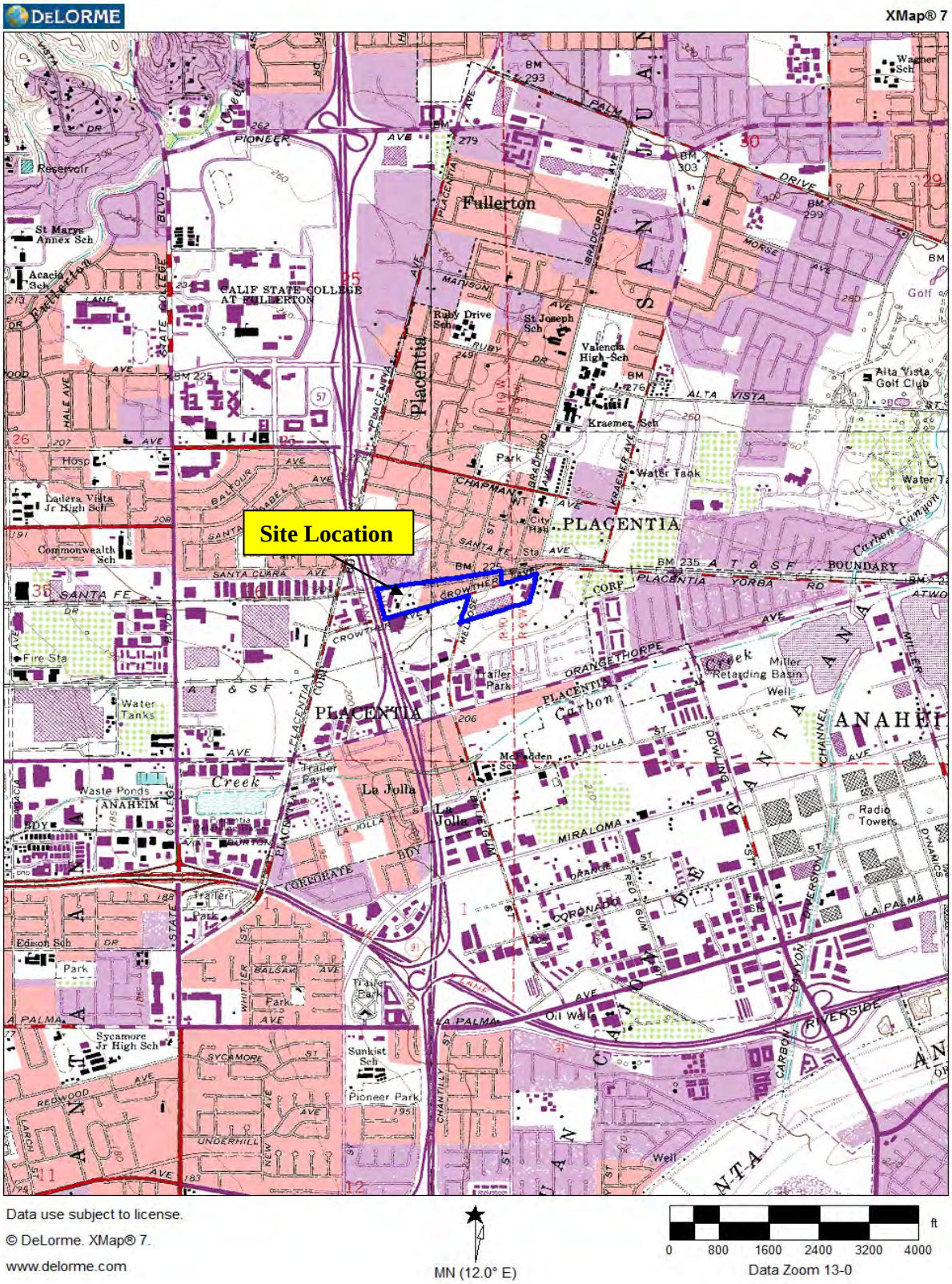
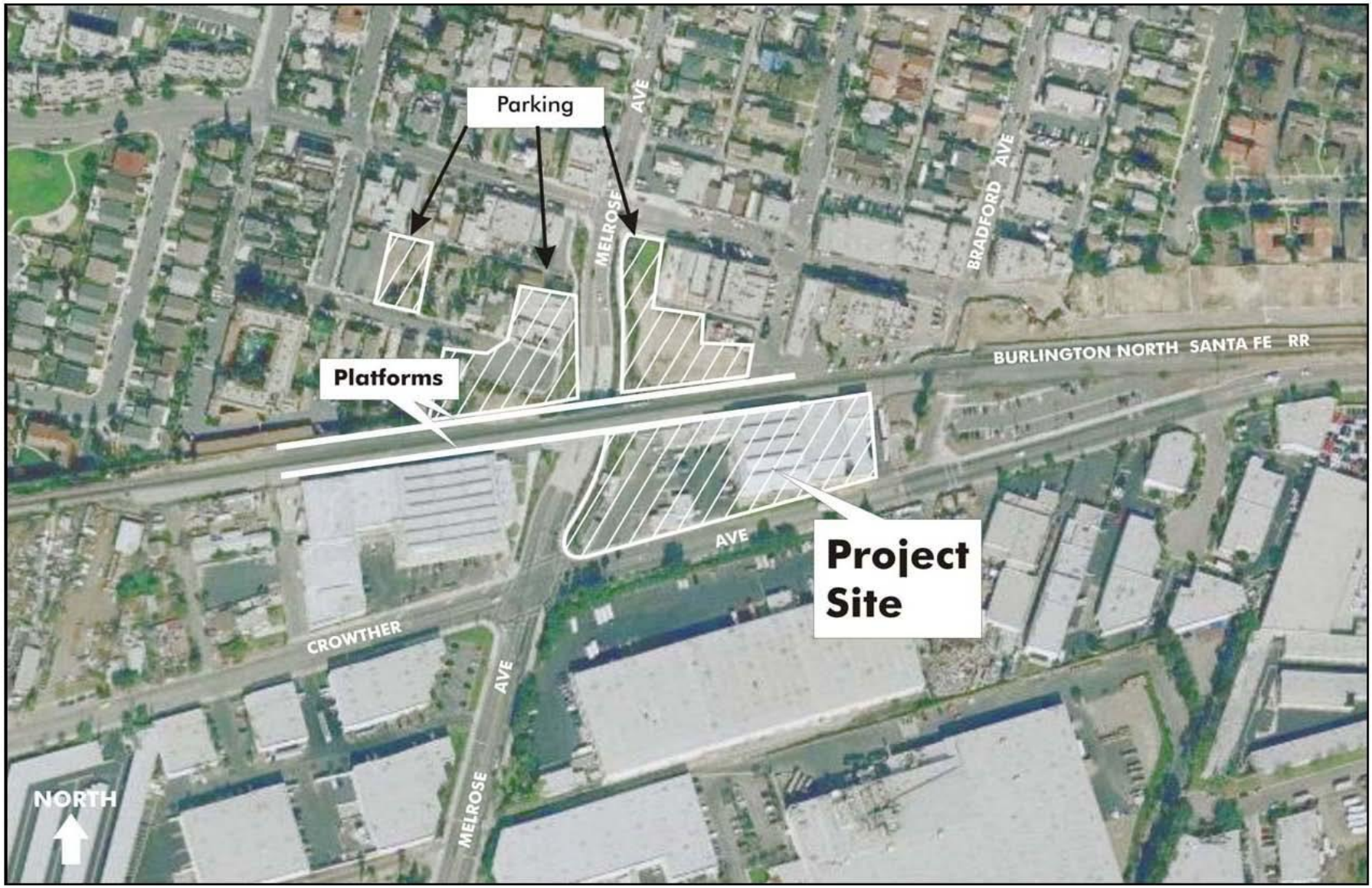


FIGURE 3
Aerial Photo of Area Encompassed by TOD Overlay Area

FIGURE 4
Proposed Location of New Metrolink Passenger Platform



Source: City of Placentia Westlake Metrolink Station, Draft EIR (March 7, 2007)

FIGURE VI-1
USGS Fault Map

LA HABRA

DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

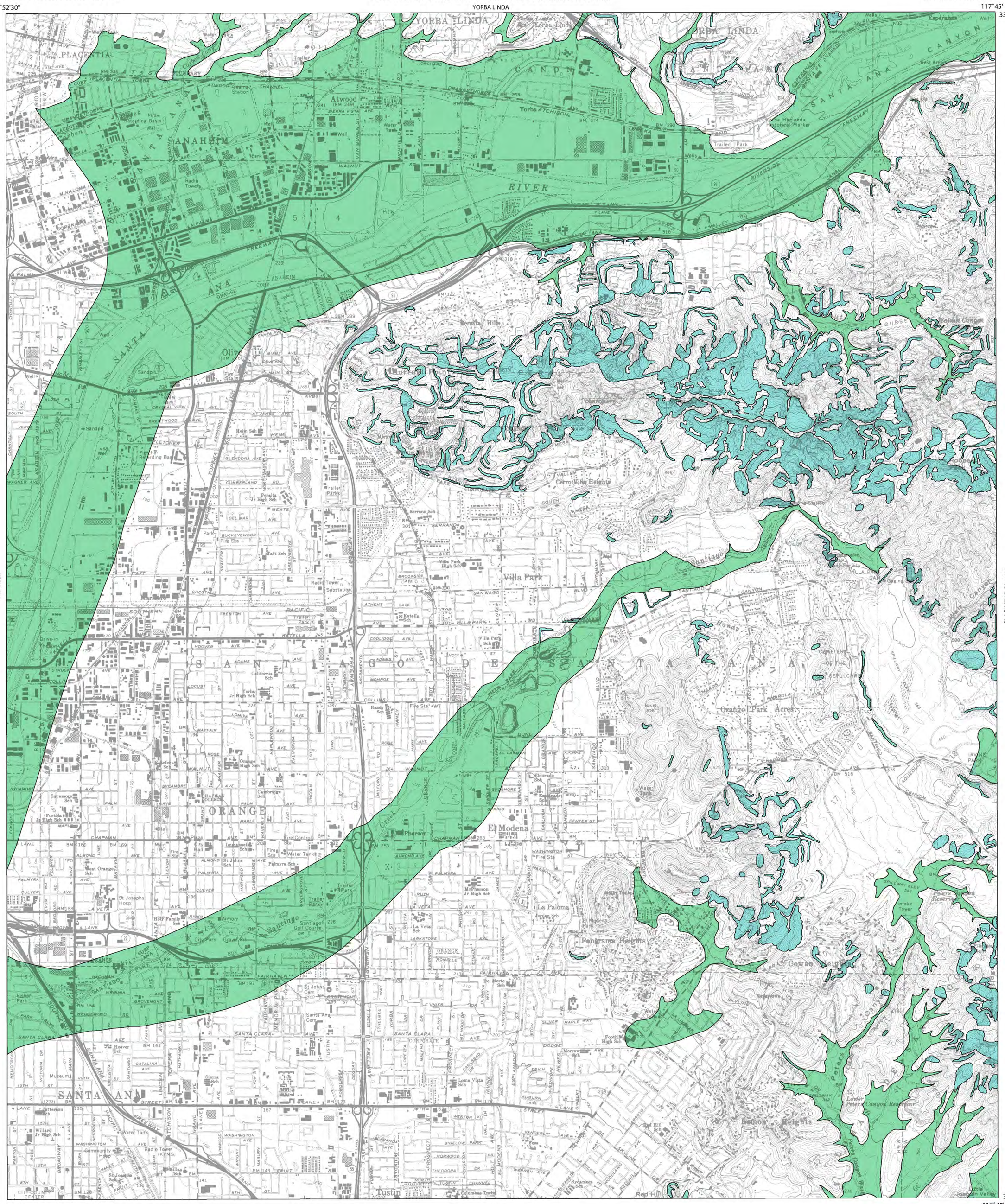
STATE OF CALIFORNIA - PETE WILSON, GOVERNOR
THE RESOURCES AGENCY - DOUGLAS P. WHEELER, SECRETARY
DEPARTMENT OF CONSERVATION - LAWRENCE J. GOLDZBAND, DIRECTOR

SEISMIC HAZARDS ZONES MAP
Orange Quadrangle

PRADO DAM

117°52'30" — 117°45' — 33°52'30"

YORBA LINDA



117°52'30" — 117°45' — 33°45'

TUSTIN

NEWPORT BEACH — EL TORO

Base Map prepared by U.S. Geological Survey, 1964, photorevised 1981

SCALE 1:24,000

1 .5 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

PURPOSE OF MAP

This map will assist cities and counties in fulfillng their responsibilities for protecting the public safety from the effects of earthquake-triggered ground failure as required by the Seismic Hazards Mapping Act (Public Resources Code Sections 2690-2699.6).

For information regarding the scope and recommended methods to be used in conducting the required site investigations, see DMG Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

For a general description of the Seismic Hazards Mapping Program, the Seismic Hazards Mapping Act and regulations, and related information, please refer to the draft User's Guide (see http://www.consrv.ca.gov/dmg/shezp/userguid.html).

Production of this map was funded by the Federal Emergency Management Agency's Hazard Mitigation Program and the Department of Conservation in cooperation with the Governor's Office of Emergency Services.

IMPORTANT - PLEASE NOTE

1) This map may not show all areas that have the potential for liquefaction, landsliding, strong earthquake ground shaking or other earthquake and geologic hazards. Also, a single earthquake capable of causing liquefaction or triggering landslide failure will not uniformly affect the entire area zoned.

2) Liquefaction zones may also contain areas susceptible to the effects of earthquake-induced landslides. This situation typically exists at or near the toe of existing landslides, downslope from rockfall or debris flow source areas, or adjacent to steep stream banks.

3) This map does not show Alquist-Priolo earthquake fault zones, if any, that may exist in this area. Please refer to the latest official map of earthquake fault zones for disclosures and other actions that are required by the Alquist-Priolo Earthquake Fault Zoning Act. For more information on this subject and and index to available maps, see DMG Special Publication 42.

4) Landslide zones on this map were determined, in part, by adapting methods first developed by the U.S. Geological Survey (USGS). A new generation of landslide hazard maps being prepared by the USGS (Jibson and Harp, in preparation) uses an experimental approach designed to explore new methods to assess earthquake-induced landslide hazards. Although aspects of this new methodology may be incorporated in future seismic hazard zone maps, the experimental USGS maps should not be used as substitutes for these official earthquake-induced landslide zone maps.

5) U.S. Geological Survey base map standards provide that 90 percent of cultural features be located within 40 feet (horizontal accuracy) at the scale of this map. The identification and location of liquefaction and earthquake-induced landslide zones are based on available data. However, the quality of data used is varied. The zone boundaries depicted have been drawn as accurately as possible at this scale.

6) Information on this map is not sufficient to serve as a substitute for the geologic and geotechnical site investigations required under Chapters 7.5 and 7.8 of Division 2 of the Public Resources Code.

7) DISCLAIMER: The State of California and the Department of Conservation make no representations or warranties regarding the accuracy of the data from which these maps were derived. Neither the State nor the Department shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

STATE OF CALIFORNIA
SEISMIC HAZARD ZONES

Delineated in compliance with
Chapter 7.8, Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)

ORANGE QUADRANGLE

OFFICIAL MAP

Released: April 15, 1998

STATE GEOLOGIST

MAP EXPLANATION

Zones of Required Investigation:

Liquefaction
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

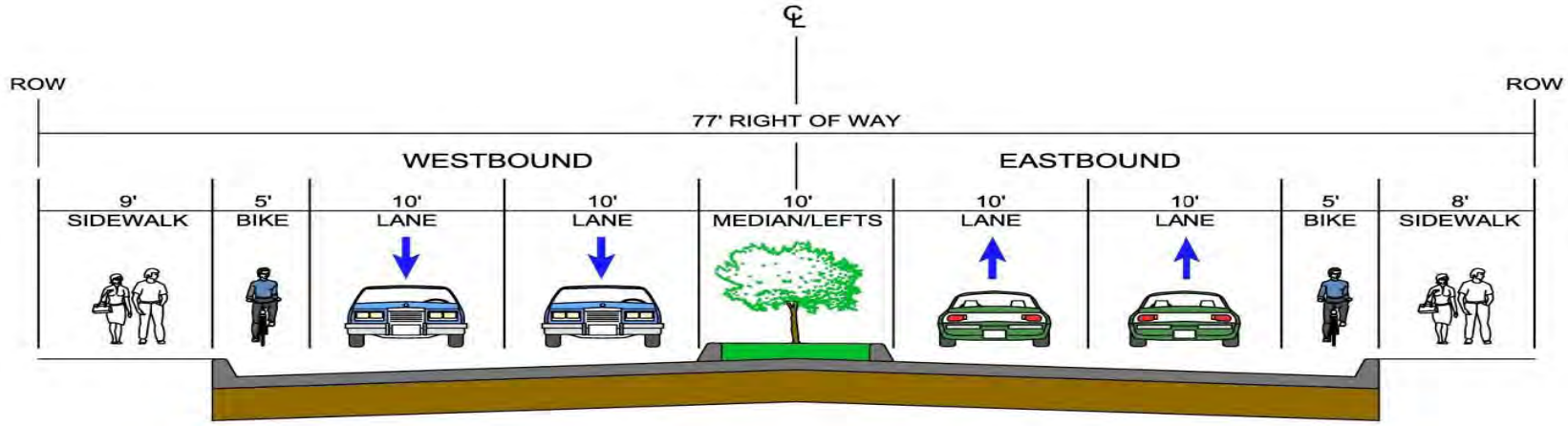
DATA AND METHODOLOGY USED TO DEVELOP
THIS MAP ARE PRESENTED IN THE FOLLOWING:

Seismic Hazard Evaluation of the Orange 7.5-minute quadrangle,
Los Angeles County, California: California Department of Conservation
Division of Mines and Geology Open-File Report 97-19.

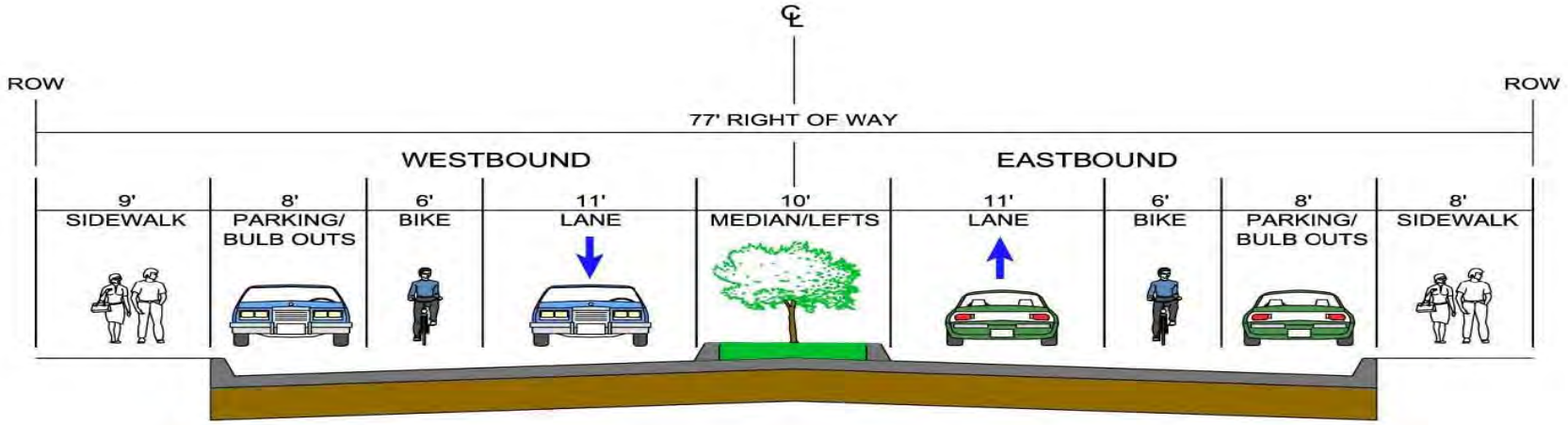
For additional information on seismic hazards in this map area, the rationale used for zoning, and additional references consulted, refer to DMG's World Wide Web site (http://www.consrv.ca.gov/dmg/).

FIGURE VI-2

FIGURE XVI-1
Crowther Avenue Alternative Design Configurations



Crowther Avenue as a Four-Lane Facility



Crowther Avenue as a Two-Lane Facility

Source: Addendum to Traffic Impact Study prepared by Albert Gover & Associates, January 2017