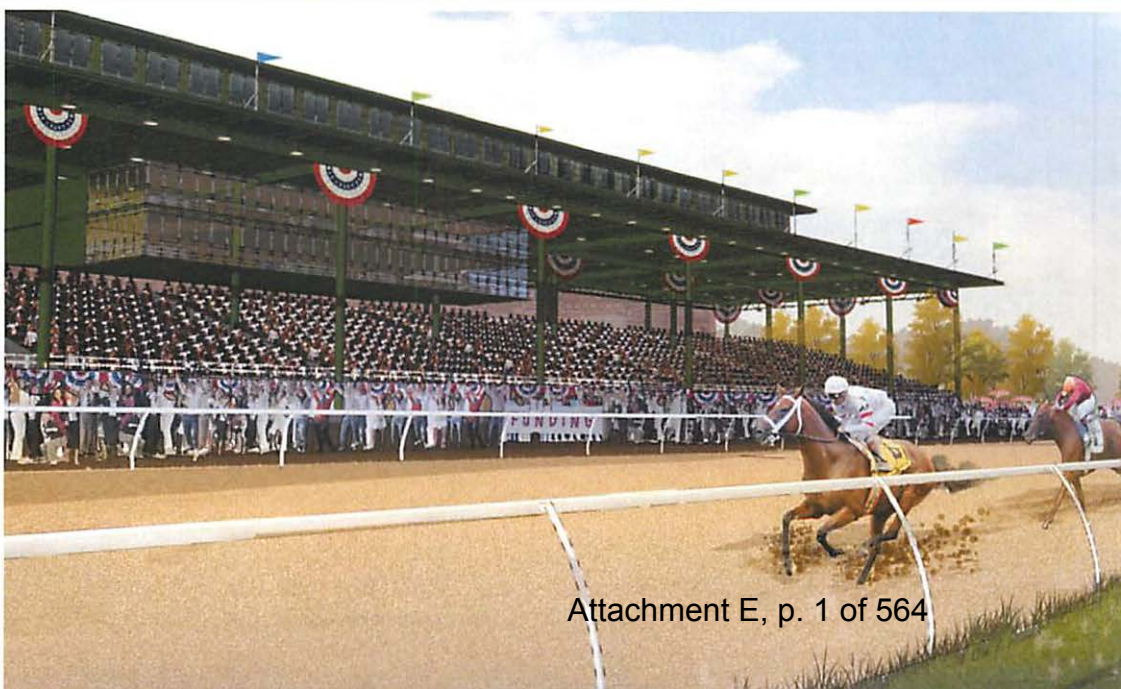
CITY OF
SEASIDE

Monterey Downs and Horse Park and Central Coast Veterans Cemetery Specific Plan Environmental Impact Report



RBF
A Baker Company

2. Project Description

2.1. Project Overview

The City of Seaside is processing an application for a Specific Plan, General Plan Amendment, Zoning Amendment, Planning Area and Sphere of Influence Amendment, and Annexation and Pre-zoning from Monterey Downs, LLC for the reuse of approximate 710.5 acres for the Monterey Downs and Horse Park and Central Coast Veterans Cemetery Specific Plan (hereinafter "proposed project") within the Parker Flats area of the former Fort Ord.

The proposed project includes evaluation of the following applications submitted by the project applicant:

- ***City of Seaside Planning Area Boundary Amendment (PAA-12-01).*** This application is to amend the City of Seaside Planning Area (aka General Plan area) to include the entire Specific Plan area, which is an addition of approximately 562.5 acres.
- ***City of Seaside Sphere-of-Influence Amendment (SOI-12-01).*** This application is to amend the City of Seaside Sphere-of-Influence to include the entire Specific Plan area, which is an addition of about 562.5 acres. This action also requires Monterey County Local Agency Formation Commission (LAFCO) approval.
- ***Prezoning (PZ-12-01) and Annexation (ANX-12-01).*** This application is to prezone the project area and annex the 562.5 acres into the City of Seaside. This action also requires LAFCO approval.
- ***General Plan Amendment (GPA-12-01).*** This application is to amend the *City of Seaside General Plan*, which includes both mapping and text amendments associated with the entire 710.5 acres.
- ***Zoning Amendment (ZA-12-02).*** This application is to amend the City of Seaside Zoning Ordinance, which includes both mapping and text amendments associated with the entire 710.5 acres.
- ***Tentative Subdivision Map (TM-12-01).*** This application is for subdivision of the Monterey Downs and Monterey Horse Park portion of the proposed project.

The Monterey Downs and Horse Park components of the proposed project includes the following: a 225,000 square foot horse training facility that would be comprised of a track and stabling area, ancillary buildings, and a 6,500 seat sports arena and grandstand; a 330,000 square-foot commercial center; a 15,000 square-foot horse park that would be comprised of a visitors center, office space, veterinary clinic, and horse stables; two affordable extended stay hotels for a total of 256 units; 1,280 residential units ranging from apartments to single family residential homes; a 100,000 square foot office park; a 200-room (100,000 square foot) hotel; a 5,000 square foot tennis and swim club; a 73-

acre habitat preservation area; and 74 acres dedicated to open space and parks and infrastructure.

The project applicant may seek approval from the California Horse Racing Board for a certain number of dates to operate short, horse race meets. The California Horse Racing Board is the state agency that regulates horse racing in California. Timing and number of meets, as well as the number of days of each horse race meet are regulated by the State of California. It is unknown whether, when, and to what extent, permission to operate a meet would be granted.

The proposed project includes development of the City's corporation yard in the northwest corner of the project area. The planned corporation yard would include 16,200 square foot administration building, a 21,300 square foot equipment maintenance building, 14,700 square foot crew facility, as well as parking and storage yards and police impound lot.

The Central Coast Veterans Cemetery (CCVC) component of the proposed project includes 13,838 burial sites for twenty years of internments, an administration building, a maintenance yard and building, memorial areas, veterans' hall, cultural history museum, chapel, and a 300-seat amphitheater for special events. An adjacent 45.9-acre parcel is proposed as an optional habitat restoration area.

The proposed project includes amending the City's planning boundary and sphere of influence, and annexation of those portions of the project area currently located in unincorporated Monterey County to the City of Seaside. This includes the City's proposed future corporation yard site and portions of the CCVC and the Monterey Downs and Horse Park project that are located in unincorporated Monterey County.

2.2. Project Location and Setting

Project Site Location

The 710.5 acre project area is located on the eastern edge of the City of Seaside and unincorporated Monterey County within the Parker Flats area of the former Fort Ord. The project area is located generally east of the intersection of Gigling Road and the Parker Flats Cut-off (hereinafter "project area"). Figure 2-1: Regional Location Map illustrates the regional context of the project site and Figure 2-2: Project Location Map shows the project vicinity in relation to Fort Ord.

The project site is comprised of Assessor's Parcel Numbers (APNs): 031-071-008-000, 031-072-022-000, 031-011-050-000 031-011-055-000, 031-011-056-000, 031-011-056-000, and 031-151-048-000 ***[Note to City and Project Applicant: Please confirm APNs.].***

Project Site Existing Conditions

The project area is essentially undeveloped and predominantly covered in rolling topography. Figure 2-3: Topography of the Project Area shows the topography of the project area and surrounding area.

The project area contains a mix of oak woodland, chaparral, grassland, and riparian habitat (Denise Duffy and Associates 2013). The forest cover within the project area is comprised almost entirely of coast live oak (*Querca agrifolia*). There are also a few Monterey pine (*Pinus radiata*) and Monterey Cypress (*Cupressus macrocarpa*) trees. In total, the project area contains approximately 48,456 trees of which, approximately 39,182 trees are located on the Monterey Downs and Horse Park and 9,274 trees are located on the CCVC (Staub Forestry and Environmental Consulting 2010 and 2012).

Existing minor improvements within the project area include several outbuildings (a total of 75,000 square feet) that were formerly used by the U.S. Army, paved parking lots on a portion of the City's proposed corporation yard site, as well as several paved, gravel, and dirt roads that traverse the project area. Two overhead utility corridors traverse the project area. One north-south through the center of the project area and the other parallels Gigling Road. Existing site conditions at the project area and are shown in Figure 2-4: Existing Conditions and in Figures 2.5-a through 2.5-d: Photographs of the Project Area.

The Monterey Downs and Horse Park includes the Veterans Cemetery Endowment Parcel, a property that was once identified as the future corporation yard (City of Seaside); the original property included in the Horse Park Exclusive Negotiating Agreement (County of Monterey), and a former Monterey-Salinas Transit (MST) parcel, also known as the FOST 11 parcel (County of Monterey). The entire project area has been transferred from the U.S. Army to the Fort Ord Reuse Authority (FORA).

Surrounding Land Uses

Surrounding land uses include vacant land that is proposed for the Monterey Peninsula College Emergency Vehicle Operations Center (MPC E.V.O.C.), County of Monterey Fort Ord Recreational Habitat Area (FORHA) open space, Bureau of Land Management (BLM) open space and the Fort Ord National Monument to the south; California State University Monterey Bay (CSUMB) open space, an Army maintenance parcel, abandoned military barracks, and the Department of the Defense (DoD) office building to the north; County of Monterey FORHA open space and BLM open space to the east; and military housing, Chartwell School and Marshall Elementary School to the west of the project area. Surrounding land uses are presented on Figure 2-6: Surrounding Land Uses.

2.3. Site History

In 1991, the Federal government decommissioned Fort Ord. FORA was created by the legislature to oversee the disposition and redevelopment of the former Fort Ord. In

June 1997, FORA adopted the *Fort Ord Base Reuse Plan* (FORA 1997), which provides a framework for the development and redevelopment of the former military base. The *Fort Ord Base Reuse Plan* identified the project area as a Veterans Cemetery and included an Equestrian Center Opportunity site in the vicinity of the project area. The CCVC and an Equestrian Center are both supported by the policies and objectives of the *Fort Ord Base Reuse Plan*.

Following adoption of the *Fort Ord Base Reuse Plan*, the State of California prepared a preliminary master plan and budget package in 2002. Approximately six years later, the County of Monterey prepared the *Central Coast Veterans Cemetery, Fort Ord Development Master Plan* (Monterey County 2008) and FORA prepared the *Implementation Report for the Central Coast Veterans Cemetery* (FORA 2011) in 2011 to guide future development of the CCVC.

Site Remediation

The former Fort Ord was placed on the United States Environmental Protection Agency's (U.S. EPA) National Priorities List in 1990 because of groundwater contamination associated with the former landfill. To oversee the cleanup of the base, the U.S. Army, the Department of Toxic Substances and Control (DTSC), the Central Coast Regional Water Quality Control Board, and the U.S. EPA entered into a Federal Facility Agreement (FFA). The purpose of the FFA is to ensure that the environmental impacts associated with past and present activities at the former Fort Ord are thoroughly investigated and that appropriate remedial action is taken as necessary to protect the public health and the environment. In November 1998, the U.S. Army agreed to evaluate Munitions and Explosives of Concern (MEC) at the former Fort Ord and perform a basewide Munitions Response (MR) Remedial Investigation/Feasibility Study. The Fort Ord Reuse Authority is now responsible for clean-up of the subject properties through an Environmental Services Cooperative Agreement (ESCA) with the U.S. Army.

Cleanup zones within the former Fort Ord have been divided into several Munition Response Areas (MRA's). The majority of the project area is located within the Parker Flats MRA and the northwest portion of the project area is located in the County North MRA.

The Environmental Services Cooperative Agreement Remediation Program Team ("the ESCA RP Team") on behalf of FORA has prepared a *Remedial Design/Remedial Action, Land Use Controls Implementation, and Operation and Maintenance Plan* (RD/RA LUCI O&M Plan). The *RD/RA LUCI O&M Plan* provides information on how the remedy selected in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD) dated June 24, 2008 for the Parker Flats MRA Track 2 Munitions Response Site will be implemented and maintained. As shown in Figure 2-7: ESCA Clean Up Map, the portion of the project area proposed for the CCVC is proposed to be cleaned to a "Non-Residential Development" remediation standard. The western portion of the Monterey Downs and Horse Park is proposed to

be cleaned to a "Residential Development" remediation standard; the northern and southern portions are proposed to be cleaned to a "Non-Residential Development" remediation standard; and the central area of the eastern portion of the project area is proposed to be cleaned to a "Mixed Use Development" and "Habitat Reserve" remediation standard.

According to FORA, the CCVC site has been cleaned to a "Non-Residential Development" remediation standard, which is sufficient for construction of a cemetery. In addition, approximately 24.0 acres of the 30.4 acre endowment fund parcel has been cleaned to a "Residential Development" remediation standard. The northern portion of the endowment fund parcel is remaining for remedial investigation, but is proposed to be cleaned to a "Residential Development" remediation standard and the habitat restoration area is remaining for remedial investigation, but is scheduled to be cleaned to a "Non-Residential Development" remediated standard. The southern portion of the Monterey Downs and Horse Park (known as Parker Flats I) has been cleaned to a "Residential Development" remediation standard.

Site remediation for all property located in the City of Seaside and the middle portion of the Monterey Downs and Horse Park are currently underway. Completion of the remaining site remediation and the associated approval process to allow transfer of the property is anticipated in 2014. Cleanup of the MEC within the remaining portions of the project site would comply with the *RD/RA LUCI O&M Plan* or any subsequent changes to that plan required by the ESCA RP Team prior to transfer of the project area (FORA 2013).

2.4. Zoning and Land Use Designations

The land use designations in the *Fort Ord Base Reuse Plan* are shown in Figure 2-8: Fort Ord Base Reuse Plan Land Use Designations. The project area is designated Business Park/Light Industrial/Office/R&D, Low Density Residential, and Public Facility/Institutional in the *Fort Ord Base Reuse Plan* (FORA 1997). The *Fort Ord Base Reuse Plan* Land Use Concept Ultimate Development Map (Figure 3.3) shows a Veterans' Cemetery Opportunity site at the City of Seaside/County of Monterey boundary and three locations for an Equestrian Center Opportunity site in the project vicinity.

The land use designations in the *City of Seaside General Plan* (City of Seaside 2004) are shown in Figure 2-9: City of Seaside General Plan Land Use Designations. The portion of the project area located within the City of Seaside is designated High Density Residential and Park and Open Space in the *City of Seaside General Plan* and zoned RH-High Density Residential and OSR – Open Space-Recreation.

The portion of the project area located within the County of Monterey is designated Single Family Residential (SFR)-Low Density Residential, and Business Park/Light Industrial Office/R&D in the *Monterey County General Plan, Fort Ord Master Plan* (Monterey County 2007) and is zoned Public Quasi Public-Design Control with a Site Plan Review Overlay (PQP-D-S). The *Monterey County General Plan, Fort Ord Master Plan*

also designates a portion of the project area as Public Facility/Institutional and the southern portion of the proposed Central Coast Veterans' Cemetery parcels as School/University. In addition, the project area is shown as an opportunity site for a hotel, golf course, and equestrian center in the *Monterey County General Plan, Fort Ord Master Plan*. The land use designations in the *Monterey County General Plan, Fort Ord Master Plan* are shown in Figure 2-10: Monterey County General Plan Land Use Designations.

2.5. Proposed Planning Approvals

Planning Area Boundary Amendment

The proposed project proposed as amendment to the City's Planning Area (aka General Plan area) to include the entire o area, which is an addition of approximately 562.5 acres.

Sphere of Influence Amendment

The project proposes an amendment to the City's Sphere-of-Influence to include the entire Specific Plan area, which is an addition of about 562.5 acres. This action also requires Monterey County Local Agency Formation Commission (LAFCO) approval.

Pre-Zoning and Annexation

The project proposes to prezone the project area and annex the 562.5 acres into the City of Seaside. This action also requires approval from LAFCO.

General Plan Amendment

The project proposes to amend the City's General Plan, which includes both mapping and text amendments associated with the entire 710.5 acres of the project area.

Zoning Amendment

The project proposes to amend the City's Zoning Ordinance, which includes both mapping and text amendments associated with the entire 710.5 acres to reflect the

Tentative Subdivision Map

The project proposes subdivision of the Monterey Downs and Monterey Horse Park portion of the proposed project. The Vesting Tentative Map for the proposed project includes approximately 880 single family residential lots ranging in size from approximately 2,500 square feet to approximately 7,200 square feet. ***[Note: To be revised once tentative subdivision map is completed.]***

2.6. Project Objectives

The City of Seaside and the project applicant have provided the following project objectives for the proposed project:

Economic Objectives

- Establish a financially feasible, fiscally responsible, and pedestrian/equestrian friendly community.
- Create hundreds of construction jobs and thousands of permanent jobs in the office, hospitality, retail, and recreation sectors.
- Expand upon the strong tourism and recreational opportunities by providing venues for a number of visitor serving uses.
- Create new sources of annual tax revenues to help expand government services in the region.
- Provide a variety of housing types.

Educational Objectives

- Assist local colleges in developing new educational opportunities in the animal sciences field.
- Offer part-time jobs for high school and college students.
- Provide housing types suitable for college students and professors.

Environmental Objectives

- Achieve consistency with the Habitat Management Plan and the Habitat Conservation Plan developed as part of the Base Reuse Plan.
- Integrate natural habitats into the community's open space network.
- Create landscape buffers around the community that help transition from the urban habitat/ecosystem to the native habitat/ecosystem.
- Encourage multi-modal transportation opportunities, especially bicycle, pedestrian, equestrian, and public transportation by providing a mix of uses, interconnected streets, and convenient access to public transportation.
- Reduce groundwater consumption with water reclamation programs, drought-tolerant landscaping and the use of reclaimed water.
- Preserve groundwater quality by integrating Low Impact Development (LID) stormwater management solutions.

California Central Coast Veterans Cemetery (CCVC)

- Provide dignified, environmentally site-sensitive burial accommodations and infrastructure to support cemetery activities that honor and respect Veteran's.
- Develop additional functions for the property, ancillary to burial, that honor and respect Veterans and Veterans' activities.
- Find a manner that is appropriate to the purpose and spirit of the CCVCC, in which to create and maintain an Endowment Fund.

2.7. Project Characteristics

Proposed Land Uses

The proposed project is comprised of the Monterey Downs and Horse Park, the CCVC, and the City of Seaside corporation yard, which are addressed in a comprehensive Specific Plan that has been prepared by the project applicant in coordination with the City of Seaside. The Specific Plan includes a detailed land plan, circulation plan, public facilities and services plan, architectural design guidelines, development standards, landscaping and grading design standards, and an implementation plan. The Specific Plan would act as the planning tool for the City of Seaside to guide and direct new development, economic development, streetscape improvements, transportation development, parking, pedestrian amenities and trails, open space, and land use within the project area.

The proposed project is the coordinated development of a mixed use master plan village that would include an equestrian training facility with a track for training and potentially racing; a grandstand and sports arena and entertainment center; mixed use neighborhood with visitor serving commercial; a diverse mix of residential neighborhoods; a horse park comprised of a visitors center and office space; veterinary clinic, and horse stables; natural habitat preservation areas; staging areas, trails and trail access; open space and parks; affordable workforce lodging; and aquatic center with a tennis and swim club; a fire station site; and hotel and office uses.

The Specific Plan also includes expanding public services within the project area with approximately 17 acres of land dedicated to a new corporation yard for the City of Seaside, which would include a 16,200 square foot administration building, a 21,300 square foot equipment maintenance building, 14,700 square foot crew facility, as well as parking and storage yards and a police impound lot. The Specific Plan also includes three acres for construction of a new fire station at the corner of Gigling Road and 8th Avenue.

The Specific Plan also proposes to develop the CCVC in accordance with the *CCVC Development Master Plan* (Monterey County 2008) and the *CCVC Implementation Report* (FORA 2011) on 135 acres. The cemetery would supply approximately 13,838 burial sites, ancillary uses such as a veteran's hall, non-denominational chapel, and an amphitheater, as well as a separate parcel with habitat mitigation opportunities.

Portions of the project area located in unincorporated portions of the County are proposed to be annexed into the City of Seaside. Figure 2-11: Existing Jurisdictional Boundaries and Figure 2-12: Proposed Jurisdictional Boundaries show the existing and proposed jurisdictional boundaries for the proposed project. The proposed project is requesting a sphere of influence (SOI) update and annexation of approximately 562.5 acres of land currently located within unincorporated portions of the County.

The proposed project is presented in Figure 2-13: Land Use Plan and described below in Table 2-1: Planning Areas. An illustrative plan of the Monterey Downs and Horse Park

is shown in Figure 2-14: Illustrative Plan of the Monterey Downs and Horse Park and an illustrative plan of the California Central Coast Veterans Cemetery is shown in Figure 2-15: Illustrative Plan of the California Central Coast Veterans Cemetery.

308 **Table 2-1: Planning Areas**

Planning Area	Gross Acreage	Maximum Gross Density	Commercial (Square Feet)	Residential Units	Hotel/Lodging (Rooms)
Monterey Downs and Horse Park					
Recreation 1 (Rec-1)[1]	110.7		15,000		
Recreation 2 (Rec-2)[2]	138.7		225,000		256
Commercial 1 (C-1)	26.9	.20 FAR	205,000		200
Commercial 2 (C-2)	24.0	.35 FAR	330,000		200
Multi-Family Residential (RM)	22.9	20 DU/Acre		426	
Residential 1 (R-1)	66.8	7 DU/Acre		473	
Residential 2 (R-2)	26.1	5 DU/Acre		124	
Residential 3 (R-3)	33.6	8 DU/Acre		257	
Open Space (OS)	72.5				
Public Facility (PF)[3]	19.9				
Open Road (OR)	34.2				
Central Coast Veterans Cemetery					
Central Coast Veterans Cemetery (VC)	134.8	Per Veterans Cemetery Master Plan[4]			
Total	**711.1**		**775,000**	**1,280**	**656**

DU = Dwelling Unit; FAR = Floor to Area Ratio

Notes:

1. The Rec-1 Planning Area includes the Monterey Horse Park.
2. The Rec-2 Planning Area includes the Monterey Downs Equestrian Training Track and 6,500 seat Sports Arena.
3. The PF Planning Area includes a new fire station and public works corporation yard, as well as four acres dedicated to the MCWD for use and access to the existing water tank site.
4. The CCVC Master Plan includes approximately13,838 burial sites at the State Veterans Cemetery, as well as an Administration Building and Maintenance Building. The ancillary facilities would include a Veterans Hall, Cultural History Museum, Chapel and a 300 seat Amphitheatre. The CCVC also includes a 46 acre habitat restoration opportunity area.

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Monterey Downs and Horse Park

Recreation 1 (Rec-1)

The 111 acre Recreation 1 (Rec-1) planning area is planned as Monterey Horse Park, which would offer year-round access to various equestrian events. The Monterey Horse Park would accommodate eight events of the International Equestrian Federation, which include dressage, eventing, jumping, driving, vaulting, endurance, para-equestrian, and reining. All events at the Monterey Horse Park would be hosted in a collection of sand-based outdoor arenas with supporting infrastructure including 680 permanent horse stalls, 3,000 square feet available to therapeutic endeavors, and a 7,000 square foot visitor's center.

Recreation 2 (Rec-2)

The 138.7 acre Recreation 2 (Rec-2) planning area is planned to include the Equestrian Training Track and Sports Arena, which would be modeled after the Del Mar Thoroughbred Club in Del Mar, California. The Equestrian Training Track and Sports Arena would contain approximately 225,000 square feet of visitor serving uses, with an arena, thoroughbred training facility and potential racing meet. The sports arena would have 6,500 seats and could be used for a variety of special events including trade shows, car shows, dog shows, veteran's events, and graduation ceremonies for up to 13 events per year. The facilities include grandstands, barns for up to 1,500 horses, parking and other ancillary uses. The racetrack's in-field area would also include an above-ground recycled water storage basin.

An additional seven acres within this planning area has been designated for the development of 256 workforce lodging units for track employees and their families. The residential density of the Rec-2 planning area is up to 40 units per acre.

Commercial 1 (C-1)

The 26.9 acre Commercial 1 (C-1) planning area is located in the northern portion of the project area and would include 100,000 square feet of commercial office space, a 100,000 square foot hotel, and 5,000 square feet for a neighborhood servicing tennis and swim recreation center.

Commercial 2 (C-2)

The Commercial 2 (C-2) planning area is 24 acres and is envisioned as the town center of the Specific Plan. The C-2 planning area would include 330,000 square feet of commercial spaces envisioned as a collection of outdoor shopping venues with an open air plaza known as the "Country Walk." Commercial uses would include restaurants, museums, small office spaces and small retail stores, a movie theatre, hotel, and a farmer's market. In addition, mixed-use commercial and multi-family residential uses would be permitted within this planning area.

Multi-Family Residential (RM)

The 22.9 acre Multi-family Residential (RM) planning area is located in the central area of the project area adjacent to the "Country Walk" town center. The RM planning area would contain up to 426 multi-family residential dwelling units, arranged in an apartment style with elevations up to four stories. There would also be up to 26 courtyard homes within this planning area. Student housing would be a permitted use within this planning area.

Residential 1 (R-1)

The 66.8 acre Residential (R-1) planning area is located in the western portion of the project area and it would consist of 473 detached residential dwelling units with minimum lot sizes ranging from 2,500 to 4,000 square feet and a maximum density of seven dwelling units per acre. Two neighborhood parks ***[Note to Project Applicant: Please provide acreage of neighborhood parks.]*** and a designated off-street paseo is also proposed within this planning area.

Residential 2 (R-2)

The 25.9 acre Residential 2 (R-2) planning area is located southwest of the "Country Walk" town center along the western side of Eastside Parkway. It would contain up to 124 detached residential dwelling units with a minimum lot size of 4,000 square feet and a maximum density of five dwelling units per acre. This planning area would also contain a neighborhood park ***[Note to Project Applicant: Please provide acreage of neighborhood park.]*** and an off-street paseo.

Residential 3 (R-3)

The 33.6 acre Residential 3 (R-3) planning area is located west of the "Country Walk" town center and the RM planning area. It would contain up to 257 residential dwelling units with a maximum density of eight dwelling units per acre. This planning area would contain "Courtyard" style detached dwelling units with a minimum lot size of 2,000 square feet and traditional detached single family homes with a minimum lot size of 2,500 square feet. A neighborhood park with a connecting paseo system is also proposed within this planning area.

Open Space (OS)

The Open Space (OS) planning area consists of 73 acres of native Oak woodland habitat known as the "Oak Oval." The Oak Oval was set-aside as open space as part of the *East Garrison/Parker Flats Land Use Modification Memorandum of Understanding* between FORA. Monterey Peninsula College (MPC), County of Monterey, Bureau of Land Management (BLM), and the U.S. Army. Existing multi-use trails and a cross country course would be preserved and new trails created.

Public Facilities (PF)

The Public Facilities (PF) planning area is comprised of 19.9 acres to facilitate construction of the new fire station and public works corporation yard for the City of Seaside. The corporation yard would include a 16,200 square foot administration building, a 21,300 square foot equipment maintenance building, 14,700 square foot crew facility, as well as parking and storage yards and police impound lot. In addition, approximately four acres within this planning area would be dedicated to the Marina Coast Water District (MCWD) for access to their existing water tank site.

Open Road (OR)

The 34.2 acre Open Road (OR) planning area includes all of the backbone roadways including the Eastside Parkway Extension, Gigling Road Extension, the Parker Flats Road Extension, and the Parker Flats roadway improvements.

Linear Park Preserve Overlay (LP-O)

The ___ acre ***[Note to Project Applicant: Please provide acreage. Not provided in the table on page 2-11 of the Specific Plan.]*** Linear Park Preserve Overlay is located along both sides of the Eastside Parkway and along the north side of Parker Flats Road. This overlay would include multi-use trails, oak tree preservation and slope grading, oak tree mitigation and restoration, and water retention areas.

Firewise Overlay (FW-O)

The ___ acre ***[Note to Project Applicant: Please provide acreage. Not provided in the table on page 2-11 of the Specific Plan]*** Firewise Overlay is located within 200 feet of the entire OS planning area, the southern and eastern boundary of the Rec-1 planning area and the eastern boundary of the Rec-2 planning area to restrict flammable development within 200 feet of the habitat area boundary to provide a buffer from the threat of wildland fire.

Central Coast Veterans Cemetery

Veterans Cemetery (VC)

The Veterans Cemetery (VC) planning area is 135 acres. The California Department of Veterans Affairs (CDVA) is proposing to build the CCVC through a Federal Grant program offered by the U.S. Department of Veterans Affairs that would be managed by the State of California following construction. The overall intent of the CVCC is to create a monument to the service and sacrifice of the California State Veterans. The CVCC would be completed in phases with the first phase in concurrence with the limits of the State Cemetery Grant program.

The CCVC would include the following development areas:

- ***State Veterans Cemetery*** - The State Veterans Cemetery would include 13,838 burial sites with different types of burial facilities to meet the desires of all veterans. The State Veterans Cemetery would also include an

administration and maintenance building to serve and maintain the cemetery. In addition to burials and associated support buildings, the State Veterans Cemetery would include several features to honor Veterans, including a ceremonial entry at the Avenue of the Flags and a plaza at the administration building that incorporates the State flag, Missing in Action (MIA) flag, and the bronze service seals. The base of the hill would contain a memorial plaza that incorporates donor sites. At the top of the hill would be a flag plaza and a circular terrace for accommodation of a relocated Drill Sergeant statute.

- ***Ancillary Facilities*** – Two parcels totaling five acres for ancillary facilities including a veteran's hall, cultural history museum, a non-denominational chapel, a 300-seat amphitheater, and parking areas.
- ***Endowment Fund Opportunity Parcel*** – A 31.5 acre endowment fund opportunity parcel located in the northern portion of the CCVC site. The State of California Assembly Bill (AB) 3055 states that prior to construction by the Federal government, there must be an endowment fund adequate for continued operations of the cemetery once it is constructed. This endowment must be funded prior to release of grant funds to construct the facility.[1]
- ***Right-of-Way Dedication*** – Right-of-way dedication as part of the (OR) Planning Area.

The southern third of the CVCC has been designated as "Development Area with Habitat Restoration Opportunity." This 45.90 acre site located south of the Parker Flats Cut-off on a steep hillside continuous with the MPC Plant Reserve. This area is predominantly comprised of oak woodland and is well suited for habitat restoration due to its proximity to the MPC plant reserve.

2.8. Site Access and Circulation

Streets

The vehicular circulation framework for the proposed project consists of external improvements (backbone roadway infrastructure) providing access to the project area and an internal circulation network, which includes neighborhood serving roadway infrastructure and intersections. Figure 2-16: Circulation Network illustrates the proposed internal circulation network. All roadways located within the project area would be public roads.

External Circulation Network

[1] The project applicant intends to purchase this endowment parcel and thus this parcel has been included in the proposed Monterey Downs and Horse Park component of the proposed project and is proposed for residential use in the R-1 Planning Area.

Primary access to the project area would be from Gigling Road and the planned Eastside Parkway (via Eucalyptus Road). The planned Eastside Parkway would connect with Gigling Road and bisect the project area from southwest to the northeast. Improvements to the Eastside Parkway have been identified in *the Fort Ord Base Reuse Plan Capital Improvement Program* (CIP). The *Fort Ord Base Reuse Plan CIP* also includes plans to widen Gigling Road from two to four lanes between General Jim Moore Boulevard and its intersection with the future Eastside Parkway alignment. Improvements to Gigling Road and construction of the Eastside Parkway would be completed by FORA.

The proposed project includes the following off-site roadway improvements:

- Improvements to 7th and 8th Street are anticipated from the proposed project's northern boundary to Gigling Road;
- Improvements to Colonel Durham Street from the proposed project's western boundary to 8th Street;
- The "Gigling Extension" Road (currently the southern extent of 8th Street) would be physically extended from the future Gigling Road and the Eastside Parkway intersection near its intersection with Parker Flats Road.
- Improvements along Parker Flats Cut-off are envisioned from Parker Flats Road through the VC planning area until its intersection with Eucalyptus Road. Parker Flats Cut-off would be a two-way, two-lane roadway with a right-of-way width of 100 feet.
- Hayfork Road would be improved from Parker Flats Road to the western Rec-1 Planning Area boundary.

[Note: Above description is from the Specific Plan. RBF has identified the necessary improvements. They can either be included here and in the Specific Plan, or included in the Transportation section of the EIR as mitigation measures. At this stage, we have assumed the later.]

Internal Circulation Network

The proposed project would have twelve access points to the project area roadway network located at Eastside Parkway, Gilging Road, 8th Avenue, Parker Flats Road and the Parker Flats Cut-off. Each of the twelve access points are described below:

Eastside Parkway

The proposed Eastside Parkway would serve as one of the primary entrances to the project area. The roadway would extend northeast from its intersection with Eucalyptus Road where it intersects with Parker Flats Road. The proposed project would construct five new driveways along the proposed Eastside Parkway north of Gigling Road. The new driveway connections to Eastside Parkway would include:

- Monterey Downs Road (8th Avenue) and Eastside Parkway would be a four-leg signal controlled intersection that will provide access from Eastside Parkway and Monterey Downs Road/8th Avenue to the central project area including the Horse Park, "Country Walk" shopping area, residential development, trail lands, RV parking lots, and horse trail staging areas.
- Monterey Downs Road would be a two-lane collector roadway with divided median including on-street parking, sidewalks, and Class-II bicycle lanes. Monterey Downs Road will provide primary access to the center of the project area from Gigling Road and Eastside Parkway.
- Project Driveway 1 and Eastside Parkway would include a three-leg side-street-stop controlled intersection (northbound stop). This driveway would provide limited gate controlled access to the horse track and support facilities.
- Project Driveway 2 and Eastside Parkway would be a three-leg side-street stop controlled intersection (northbound stop), which would provide access to the horse track parking area and affordable workforce lodging.
- Project Driveway 3 and Eastside Parkway would be a three-leg side-street stop controlled intersection (westbound stop) and will provide access to the horse track parking area.
- Project Driveway 4 and Eastside Parkway would be a four-leg side street stop controlled intersection (northbound/southbound driveways stop). The north driveway will provide access to the hotel, office, and recreational facilities to the north. The south driveway will provide access to the "Country Walk" shopping area and the open space/trail areas.

Monterey Downs Road

The proposed project would construct one new intersection at the proposed Monterey Downs Road and 8th Avenue between Gigling Road and Colonel Durham Street. The configuration of this new intersection is as follows:

- Project Driveway 5 and Monterey Downs Road is a three-leg side-street stop controlled intersection (westbound stop) would provide access to the project's hotel, office, and recreational facilities.

Gigling Road

The proposed project would construct one new driveway connection onto Gigling Road between 7th Avenue and 8th Avenue, the configuration of this new intersection is as follows:

- Project Driveway 6 and Gigling Road is a three-leg side-street stop controlled intersection (northbound stop) that will provide access to residential development.

Parker Flats Road and Parker Flats Cut-off

Parker Flats Road would serve as one of the primary entrances to the project area. The roadway would extend eastward from its intersection with Normandy Road and would ultimately intersect with Eastside Parkway at the primary project entrance. Parker Flats Cut-off would extend south and southeast from its intersection with Gigling Road. Improvements to Parker Flats Road and Parker Flats Cut-off from Normandy Road to the project area including new bike lanes, sidewalks, and landscaping.

The proposed project will construct five new driveways between Normandy Road and Eastside Parkway that will provide access to the Monterey Downs and the CCVC. These new driveway intersections are as follows:

- Project Driveway 7 and Parker Flats Road would be comprised of a three-leg side-street stop controlled intersection (southbound stop) that will provide access to residential development.
- Project Driveway 8 and Parker Flats Road would be a four-leg side-street stop controlled intersection (northbound/southbound stop) that will provide access to residential development to the north and the Central Coast Veterans Cemetery to the south.
- Project Driveway 9 and Parker Flats Road would be a three-leg side-street stop controlled intersection (northbound stop) that would provide access to the CCVC to the south.
- Project Driveway 10 and Parker Flats Cut-off is a three-leg side-street stop controlled intersection (westbound stop) that would provide access to the Central Coast Veterans Cemetery to the east.
- Project Driveway 11 and Parker Flats Cut-off is a three-leg side-street stop controlled intersection (westbound stop) that would provide access to the Central Coast Veterans Cemetery to the east.

Primary and internal streets within the project area would include minimum pavement area designed to accommodate movement of emergency vehicles (including fire and police).

Parking

Development standards in the proposed Specific Plan include parking standards for each planning area, which supersede those of the *City of Seaside Municipal Code* for each planning area.

Non-Vehicular Transportation

The proposed project includes pedestrian and bicycle connections throughout the project area, which provide connections within the project area and to the surrounding urban and open space areas. The proposed project includes dedicated Class I multi-use pathways and Class II bike lanes.

The proposed project would dedicate land on both sides of Eastside Parkway a portion of the Gigling Extension Road and the north side of Parker Flats Road for a multi-use trail. The proposed project also includes a network of trails including multi-use trails within the OS planning area and within the Rec-2 and Rec-1 planning areas. A cross country equestrian course is proposed adjacent to the proposed OS planning area and within the adjacent preserved open spaces east of the project area. The proposed project also includes two staging areas located within the C-2 planning area adjacent to the Oak Oval and within the Rec-1 planning area adjacent to the County of Monterey FORHA open space area. The staging areas would provide public parking and other features to facilitate access to the trail network within the FORHA open space area and to the trails in the Fort Ord National Monument. Figure 2-17: Trail Network illustrates the proposed trails within the project area.

2.9. Infrastructure Improvements

Storm Drainage

Stormwater runoff for the proposed project would be retained on-site as required by the *Fort Ord Base Reuse Plan* and the *Marina Coast Water District Storm Water Master Plan*. Storm drains would be constructed to convey runoff into stormwater basins located within each planning area. Stormwater Best Management Practices (BMPs) and erosion control devices would be utilized during construction and post-construction.

According to the *Preliminary Hydrological Study* (Diamond West, Inc. 2012), the proposed project includes approximately seven stormwater basins ***[Note: If the basin identified in the CCVC is included it's not noted in the table]*** sized to accommodate the 100-year, 24-hour storm, while taking into account infiltration rates. Figure 2-18: Backbone Stormwater Infrastructure shows the connection points and Figure 2-19: Stormwater Basins and Drainage Area Boundaries illustrates the location of the stormwater retention basins. Table 2-2: Storm Water Basins summarizes the storage volume, flow volume, infiltration volume and the storage required for each basin.

Table 2-2: Stormwater Basins

Drainage Basin Location	Storage Volume (Acre feet)	Flow Volume (Before Infiltration)	Infiltration Volume	Storage Required
17E/20A Basin/Park	3.3	6.4	4.9	1.4
15A Basins (2)	3.2	6.4	3.2	3.2
9C Basin/Park	2.1	6.4	4.3	2.0
29F Basin	36.5	36.1	19.6	16.5
331 Basin	569.9	1.7	0	1.7
22A Basin (CCVC)				

[Note: To confirm the sizing of the drainage basin at the CCVC. The Preliminary Hydrology study prepared by Diamond West notes Basin 22A, but there is no information provided.]

A large portion of the project area would flow to one basin that is located south of the proposed training track (29F Basin). The southwestern portion of the project area has been directed to approximately four smaller basins (17E/20A Basin Park, 15A Basins, 9C Basin). For the three basins that are located within the residential component of the proposed project, two of the basins would utilize park sites that would be sized to up to a two foot depth with 4:1 slopes. As these basins would also serve as active parks, as well, some underground storage or localized drainage pits may be incorporated into the design in order to ensure that nuisance water does not continually wet the surface. The depth would be shallow enough so that fencing would not be necessary. The basin proposed within the training track (331 Basin) is sized much larger than needed for stormwater storage. However, this basin would collect and store reclaimed water and has been sized for that purpose.

Based upon the preliminary plans for the CCVC, several catch basins would be required in the main cemetery road and would outlet either directly to a drainage basin (22A Basin), or to landscaped roadside ditches. Several other road crossings would be necessary to route runoff originating on the hillside above the cemetery either around the cemetery or to ditches within the cemetery. Runoff within the cemetery itself may be handled with landscaped ditches and culverts.

Domestic Water

The MCWD would provide potable water to the proposed project. The proposed project would be fully looped with existing facilities to provide standard pressure service within pressure Zone D consistent with the Marina Coast Water District's *Urban Water Master Plan* (MCWD 2010) as shown in Figure 2-20: Proposed Backbone Domestic Water Improvements. Pressure Zone D is served by an existing water tank located southwest of the project area. The proposed project includes a connection to the existing water system at Normandy Road and the Parker Flats Cut-off. A second

connection would be established near the Colonel Durham Street and 8th Avenue. Currently, the nearest point of connection for Zone D is located at Colonel Durham Street and 6th Avenue. From the existing points of connection, water mains would need to be extended approximately two blocks in order to convey water to the project area. The water pipelines would then be extended beneath Eastside Parkway to create the main project loop. This looped backbone water pipeline would service multiple properties and therefore the improvements are anticipated to be a MCWD Capital Improvement Program project.

As development proceeds within each phase of the proposed project, each individual project would connect to the backbone infrastructure system in Eastside Parkway or in Parker Flats Road. Service mains would be extended beneath the internal streets and service laterals would be extended to each individual residence. Within the areas proposed for commercial development, larger service mains would be extended from the backbone to provide water to the individual components. Given, the large geographic area planned for uses within the Rec-1 and Rec-2 planning areas, multiple service mains and an internally looped system may be required.

At full build-out, the proposed project would use approximately 550 acre feet per year (AFY) of water (Schaaf and Wheeler 2012).[2]

Reclaimed Water

The proposed project would construct reclaimed water service infrastructure as part of its water service infrastructure development program to prepare for the availability of recycled water since reclaimed water is not currently available within MCWD's service area. The MCWD *Water Master Plan* calls for reclaimed water infrastructure to be constructed along General Jim Moore Boulevard to the west and along the reconstructed portions of Eucalyptus Road to the south of the project area. In addition, MCWD is planning to construct a 1.5 million gallon reclaimed water tank, which would be located at the same site as the current Zone D and Zone E tanks. The anticipated point of connection for reclaimed water would be near Reservoir D/E and would be extended north of the project area.

At full build-out, the proposed project's total reclaimed water demand would be 220 AFY. New reclaimed water mains would be extended south from the existing recycled water system connection point located at Intergarrison Road and the 5th Avenue intersection. From this intersection, the main would continue east along Intergarrison Road and south along 8th Avenue to Gigling Road. Reclaimed water mains would be extended to the eastern portion of project area along Gigling Road and east from Colonel Durham Street and the 8th Avenue intersection.

[2] This estimate assumes the project's compliance with water conservation guidelines and therefore the water demand factors have been adjusted accordingly.

This reclaimed water main would also be extended to the southwestern portions of the project area. The system would extend from the Eastside Parkway through mains in Parker Flats Road and the Gigling Extension Road. Service mains would also be extended to the individual project components that would be utilizing reclaimed water. The CCVC would require a connection to the existing recycled water main at General Jim Moore Boulevard.

Figure 2-21: Backbone Reclaimed Water Infrastructure shows the location of the planned backbone infrastructure. To increase the availability of reclaimed water for the project area and surrounding areas, a reclaimed water storage reservoir is proposed within the Rec-1 planning area. The proposed project plans the interior portions of the equestrian training track (the "Infield") would be designed to include a reclaimed water reservoir with the ability to provide 300 AFY of storage. If it is determined that a reclaimed water reservoir is not needed, then this portion of the sports arena could also be used as athletic fields.

Wastewater

Wastewater conveyance and disposal for the proposed project may either be provided by the MCWD or by the Seaside County Sanitation District (SCSD). The wastewater would be ultimately pumped to the Monterey Regional Water Pollution Control Agency (MRWPCA) regional treatment plant. At full build-out, the wastewater generated by the proposed project would be 1.3 million gallons per day (MGD).

Based on the location of the existing wastewater infrastructure improvements, two wastewater points of connection are anticipated for the proposed project. One of these connection points would be at or near Gigling Road and 7th Avenue and could be adjusted to Intergarrison Road and 8th Avenue (the northern point of connection). The other point of connection would be at the intersection of Parker Flats Cut-off and Normandy Road (the southern connection). From the northern point of connection, backbone wastewater infrastructure would be constructed beneath a portion of the Gigling Extension Road and Eastside Parkway. From the southern point of connection, backbone wastewater infrastructure would be constructed beneath Parker Flats Road.

Portions of the wastewater infrastructure would gravity flow to each point of connection. However, wastewater would require pumping via an onsite lift station and force mains in order to establish direct flow to the more northerly point of connection. The proposed sewer lift station would be located within the Rec-1 planning area, between the training track and the OS planning area. This lift station would convey flows from the lower elevations via force main to the northern point. The C-1 planning area would also gravity flow to this northern point of connection. The remaining parcels, including the majority of the residential dwellings located within the R-1, R-2, and R- 3 planning areas would gravity flow to the southern point of connection. See Figure 2-22: Backbone Wastewater Infrastructure for points of connection and pump station location.

For the CVCC, sewer service would be provided by a septic system due to the minimal sewage flows anticipated and the distance to an existing sewer system. If sewer service is required at the proposed amphitheater in the southern corner of the CCVC, it would be served by a septic system, or a pump station and force main at the Parker Flats Cut-off.

Dry Utilities

Dry utilities typically include electric, telephone, cable, gas, and data/cable service, as applicable. The project applicant would coordinate with the respective utilities providers to ensure that services would be extended from existing facilities within the rights-of-way of existing roadways to the project area.

Electric

The project area is located within the service area of Pacific Gas and Electric (PG&E). Electrical service for the Monterey Downs and Horse Park would connect to an existing electrical distribution line from the 12kv PG&E substation located near Gigling Road and 6th Avenue, routed along Gigling Road to the east and then along the proposed Eastside Parkway for distribution to the proposed project to serve as a backbone system. PG&E has plans to upgrade the existing station to a 21 kv substation. Smaller electrical conduits would be installed through the residential streets or commercial areas for individual services. All future electrical facilities would be installed underground with no overhead lines.

The current PG&E electrical distribution line that is located in the vicinity of Normandy Road and Parker Flats Cut-off would serve the CCVC. An option to reach the amphitheater in the southern corner of the project area would be to extend electric service from Parker Flats Road through the CCVC or to extend electrical service from the Normandy Road connection point along the Parker Flats Cut-off to the southeast.

Telephone

The project area is located within the service area of AT&T for telephone service. All new service would be established by constructing new infrastructure along with the recordation of all necessary easements. Future data and telephone service lines are expected to be composed of fiber-optic cable. Service is expected to be extended from the Gigling Road and 6th Avenue to the project area. From this location, the lines would be constructed beneath the Eastside Parkway, Gilging Road and/or Parker Flats Road. Each individual development project within the project area would tie into this backbone system. Wireless communication infrastructure may also be constructed within the project site. All future facilities would be installed underground with no overhead lines.

Gas Service

The project area is located within the natural gas service area of PG&E for gas service. PG&E currently has facilities located west of the project site in Normandy Road. Gas service for the Monterey Downs and Horse Park would be extended from this system

through Eastside Parkway to form a backbone gas main. Depending on the timing of construction of Eastside Parkway, these gas main lines would loop through the site and also connect to facilities located in Intergarrison Road. Smaller gas conduits would be installed through the residential streets or commercial areas for individual service.

Gas service for the CCVC would be from an extension along Parker Flats Road. If gas service is required at the proposed amphitheater in the southern portion of the project site, it could be feasible to reach this portion of the project area by extending a main through CCVC with the appropriate easements.

Data/Cable Service

Comcast would be the cable provider for the project area. Comcast's existing facilities are located west of the project site in General Jim Moore Boulevard. Data/cable service would extend east from General Jim Moore Boulevard or Normandy Road and Parker Flats Road and then north along the proposed Eastside Parkway. Individual projects within the project area would tie into the backbone system. All future facilities would be installed underground with no overhead lines.

2.10. Project Phasing

The four development phases and their associated planning areas are shown in Table 2-3: Project Phasing and in Figure 2-23: Proposed Phasing Plan.

Table 2-3: Project Phasing

Phase	Planning Area	Duration of Construction Activities
Phase 1	R-1, R-2, and CCVC	60 months
Phase 2	R-3, RM, and Rec-1	48 months
Phase 3	C-2	24 months
Phase 4	Rec-2, C-1 and PF	36 months
Source: Diamond West, Inc. 2013		

The proposed project includes 52 development areas planned within the four phases. Each development area would be graded and built before moving on to the next development area.

Each development phase is proposed to be built-out over an average of three years with ultimate build-out of the proposed project occurring over 12 years. Timing of the proposed project is subject to changes based on market conditions, absorption rates, infrastructure extensions, and product mix requirements.

2.11. Site Preparation and Construction Activities

The proposed project would result in the grading and disturbance of approximately 605 acres or approximately 85 percent of the 710.5 acre project area. Grading and site preparation activities would occur on 228 acres during Phase 1; 167 acres during Phase 2; 24 acres during Phase 3; and 185.5 acres during Phase 4. Cut and fill is proposed to be balanced within the boundaries of the project area and construction staging areas would occur within the respective development phase. The proposed project would also include the demolition of one 45,000 square foot structure within Phase 1 of the proposed project. The proposed project would include an average of 200 construction workers per day during each phase of the proposed project.

The proposed project would result in the removal of approximately 41,187 trees from the project area, a majority of these trees would be coast live oaks. However, the OS planning area would ensure preservation of the 73 acre Oak Oval.

2.12. EIR Uses and Approvals

As mandated by the CEQA Guidelines section 15124(d), the following is a list of agencies that are expected to use the EIR in their decision making, and a list of approvals for which the EIR would be used:

Local Agencies

City of Seaside

- Approval of a Planning Area Boundary Amendment (PAA-12-01)
- Approval of a Sphere-of-Influence Amendment (SOI-12-01)
- Approval of Vesting Tentative Subdivision Maps
- Approval of Prezoning (PZ-12-01) and Annexation (ANX-12-01)
- Approval of a General Plan Amendment (GPA-12-01)
- Approval of a Zoning Amendment (ZA-12-02)
- Tentative Subdivision Map for Monterey Downs and Horse Park (TM-12-01)
- Approval of a Forest Management Plan and Use Permits for tree removal
- Approval of identified off-site road improvements
- Certification of the EIR

County of Monterey Local Agency Formation Commission (LAFCo)

- Approval of a Sphere of Influence Amendment: to include portions of the project site, which are located in unincorporated Monterey County into the City of Seaside Sphere of Influence
- Prezoning and Annexation of the portions of the project area that are located in the County of Monterey to the City of Seaside

Regional Agencies

FORA (Responsible Agency)

- Project Consistency Determination

State Agencies

Regional Water Quality Control Board

- Clean Water Certification

Department of Veterans Affairs

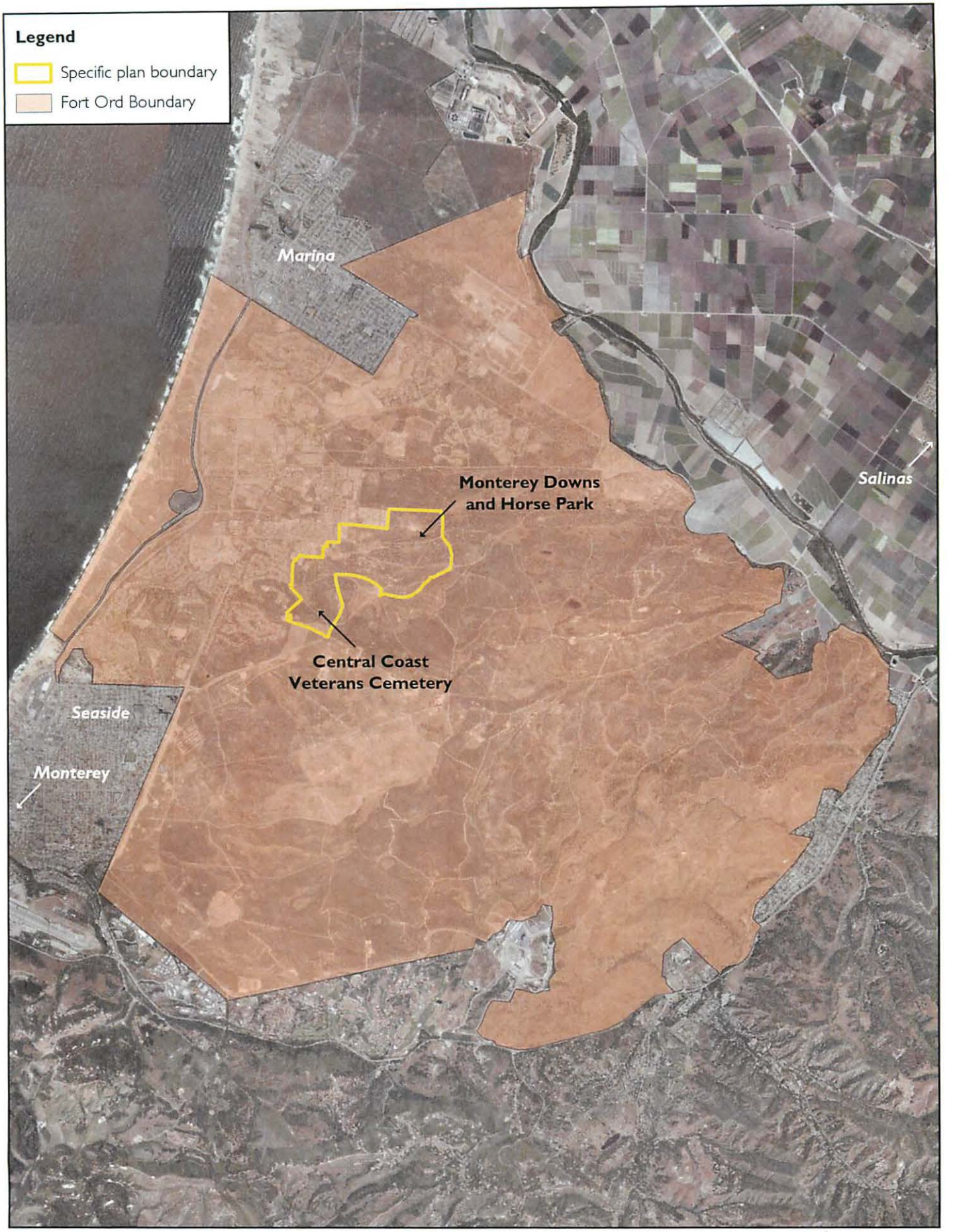
- Approval of Plans and Specifications

[Note: Please confirm what additional approvals would be required (e.g. Horse Racing) would be required]

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Regional Location Map

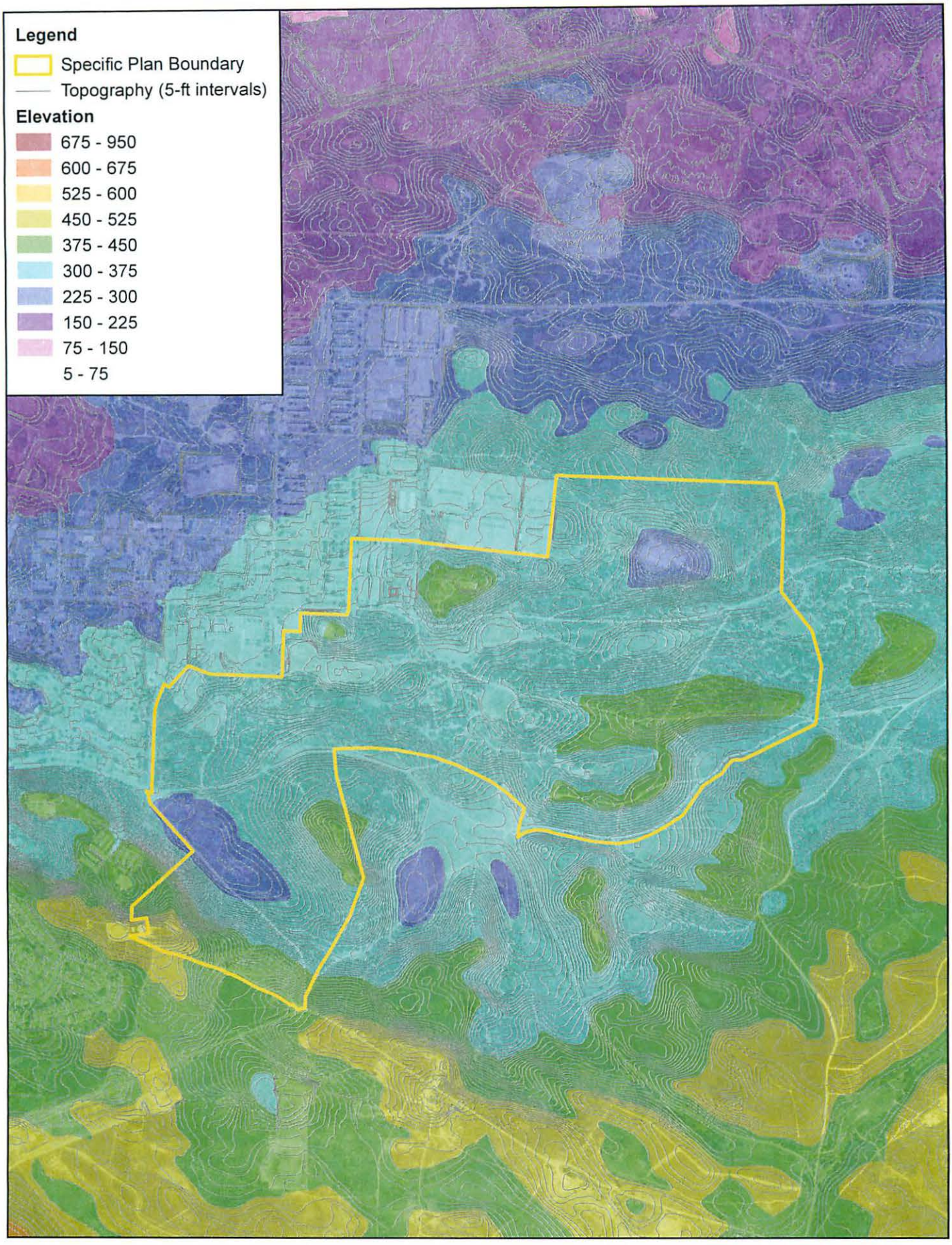
Figure 2-1



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Project Vicinity Map

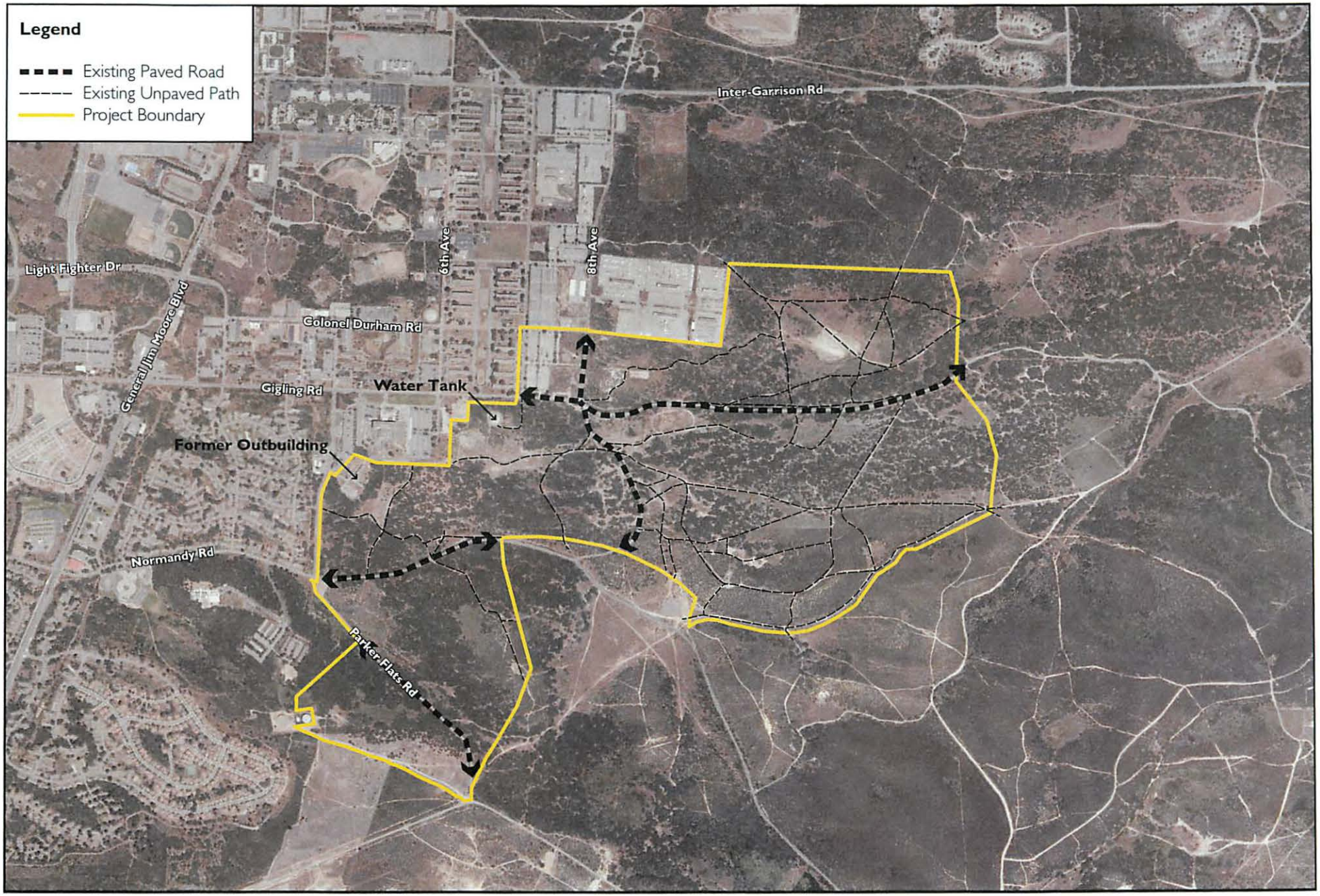
Figure 2-2

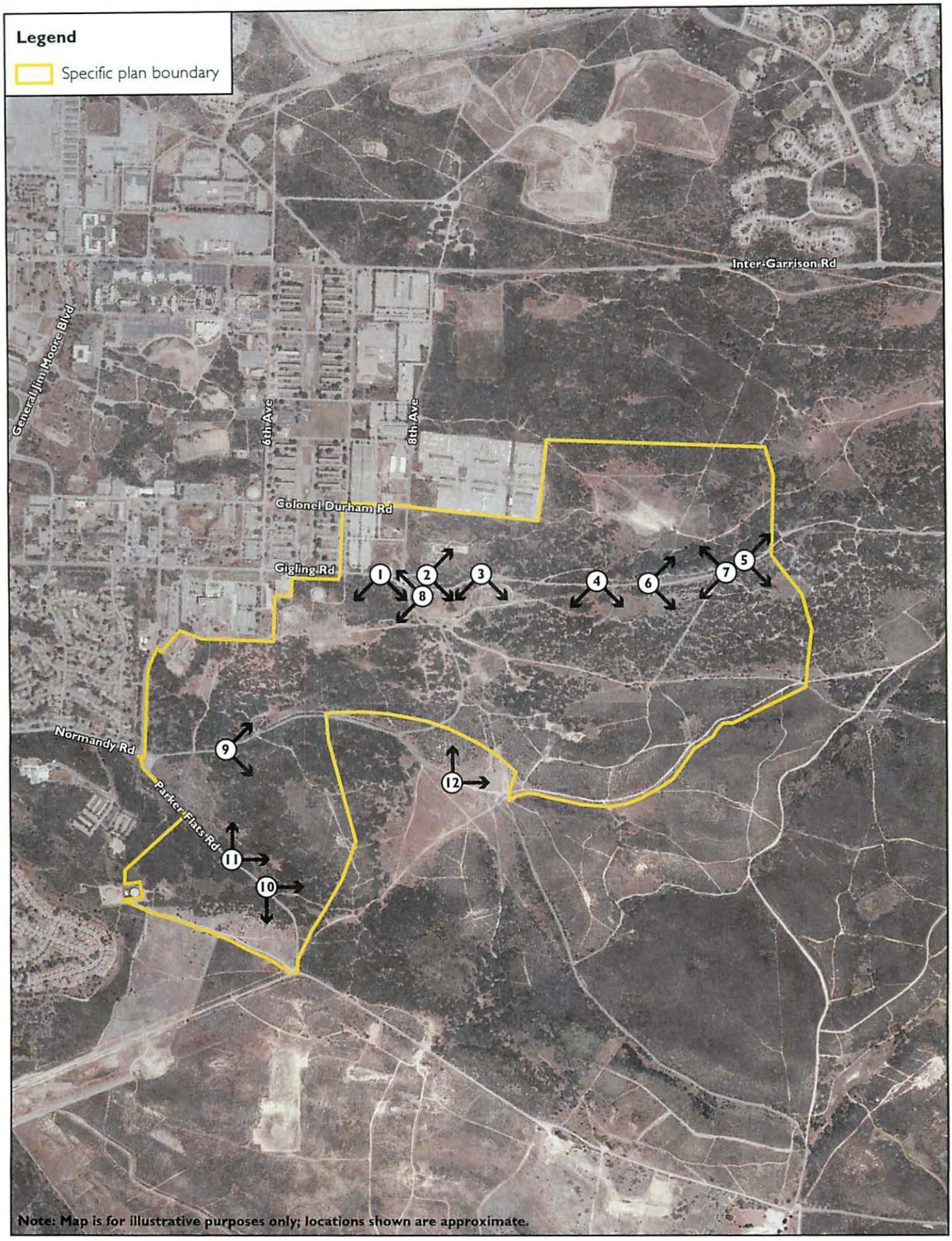


MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Topography of the Project Area

Figure 2-3


Legend
Existing Paved Road
Existing Unpaved Path
Project Boundary
Inter-Garrison Rd
Light Fighter Dr
General Jim Moore Blvd
6th Ave
8th Ave
Colonel Durham Rd
Gigling Rd
Water Tank
Former Outbuilding
Normandy Rd
Parker Flats Rd



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Photographs of the Project Area

Figure 2-5a

View from Gigling Road looking south near the western boundary of the Proejct Site.

View of typical oak trees along Gigling Road.

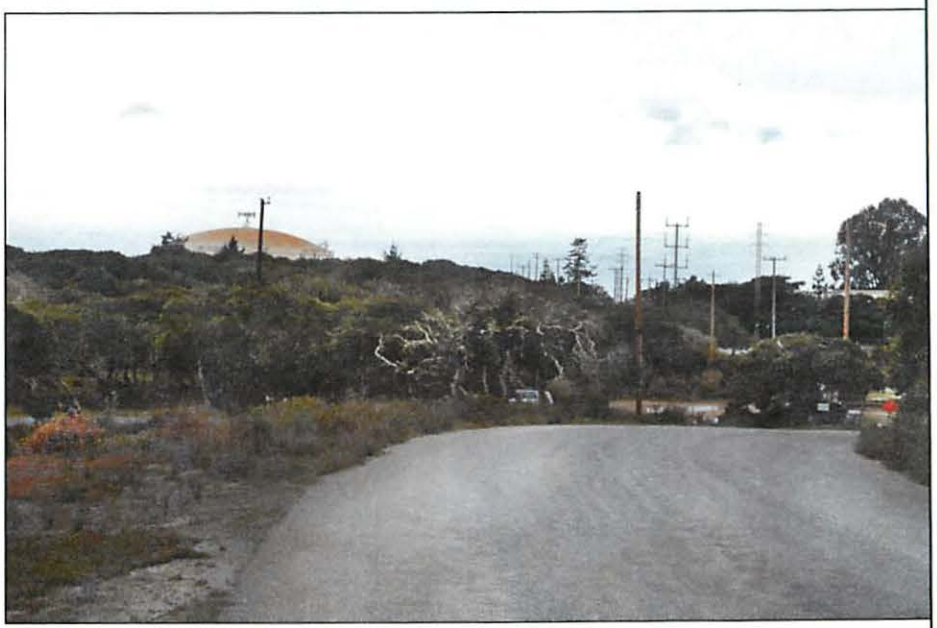
View of "Oak Oval" from Gigling Road.

View of unpaved path connection from Gigling Road.

View of Gigling Road looking east near the western boundary of the Project Site.

View along Gigling Road near where power lines cross.

View of Gigling Road looking west near the eastern boundary of the Project Site.

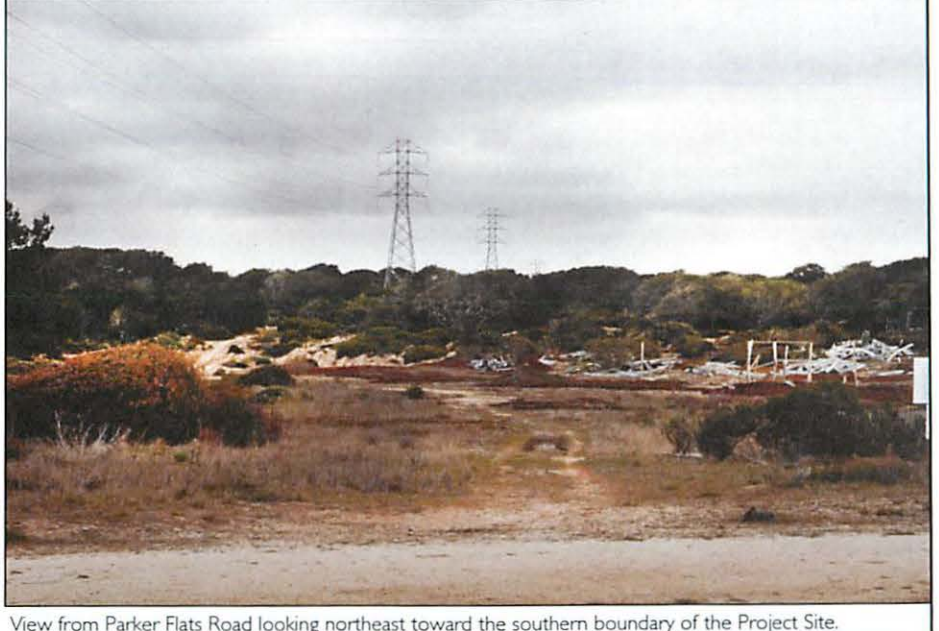


View from Gigling Road looking west at the water tanks and Eighth Avenue.

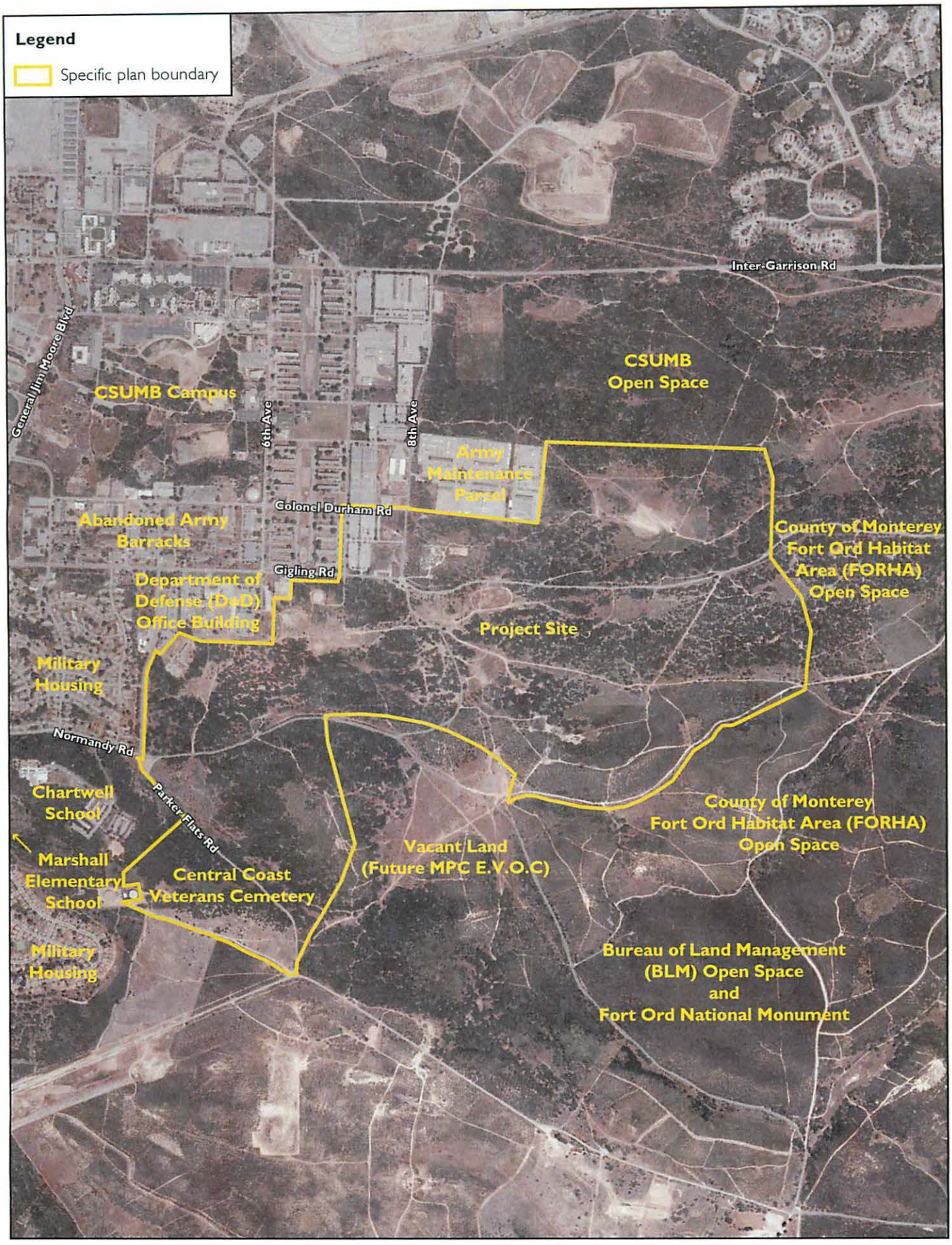
View of power lines running through and south of the Project Site.

View along Parker Flats Road near southern boundary of the Project Site.

View from Parker Flats Cut-Off looking northeast near the southwestern boundary of the Project Site.



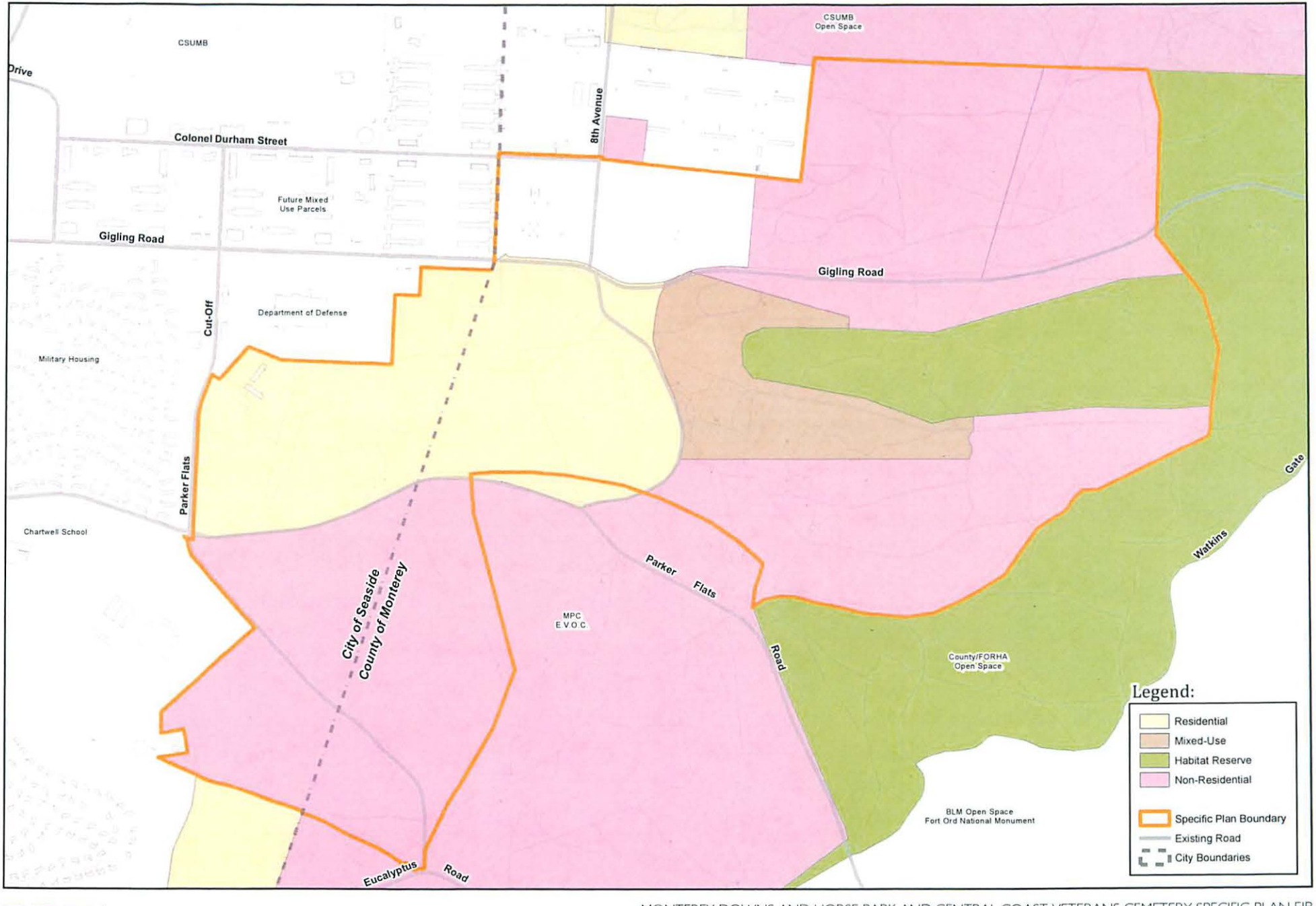
View from Parker Flats Road looking northeast toward the southern boundary of the Project Site.



RBF A Baker Company

Surrounding Land Uses

Figure 2-6



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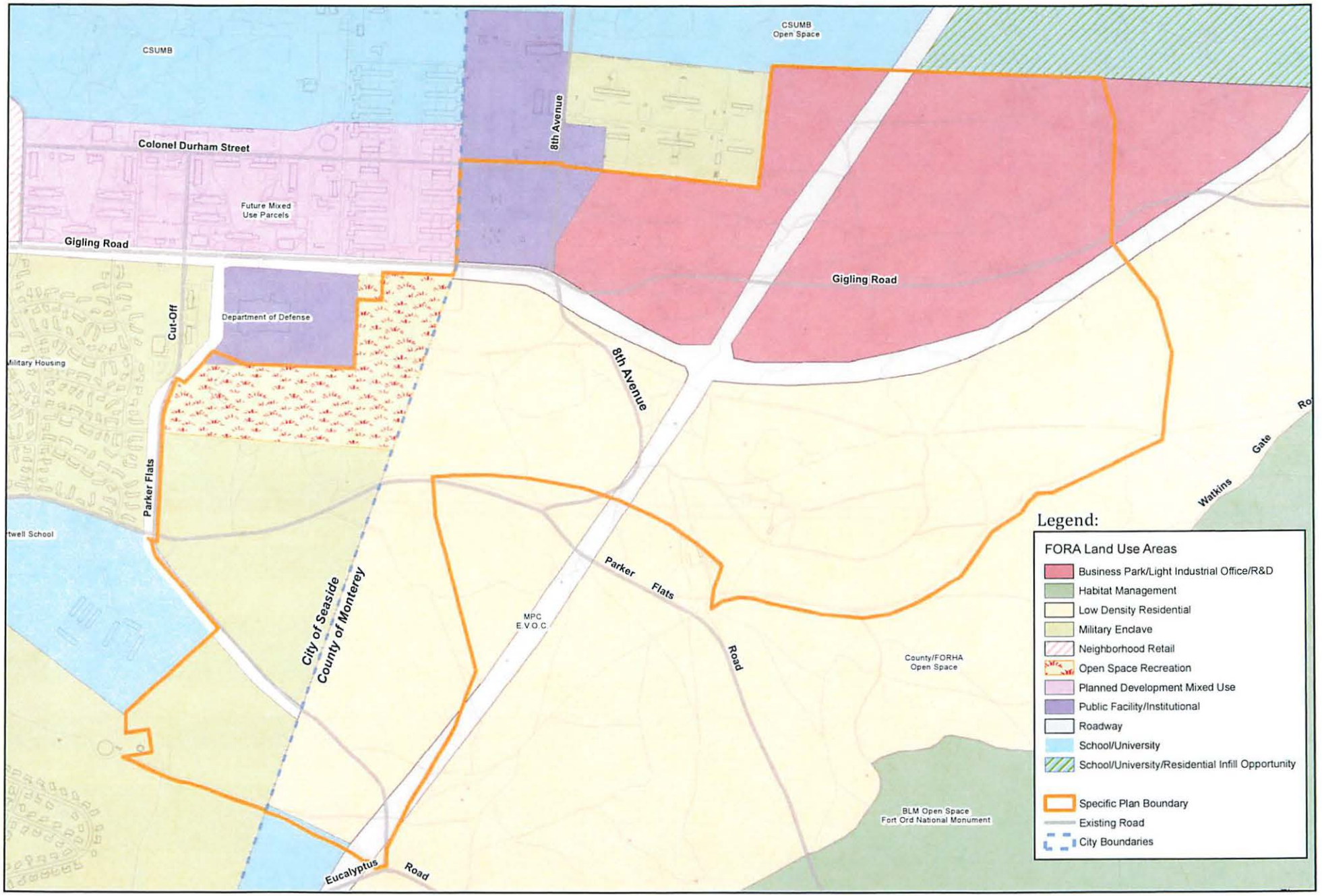
ESCA Clean Up Map

Figure 2-7



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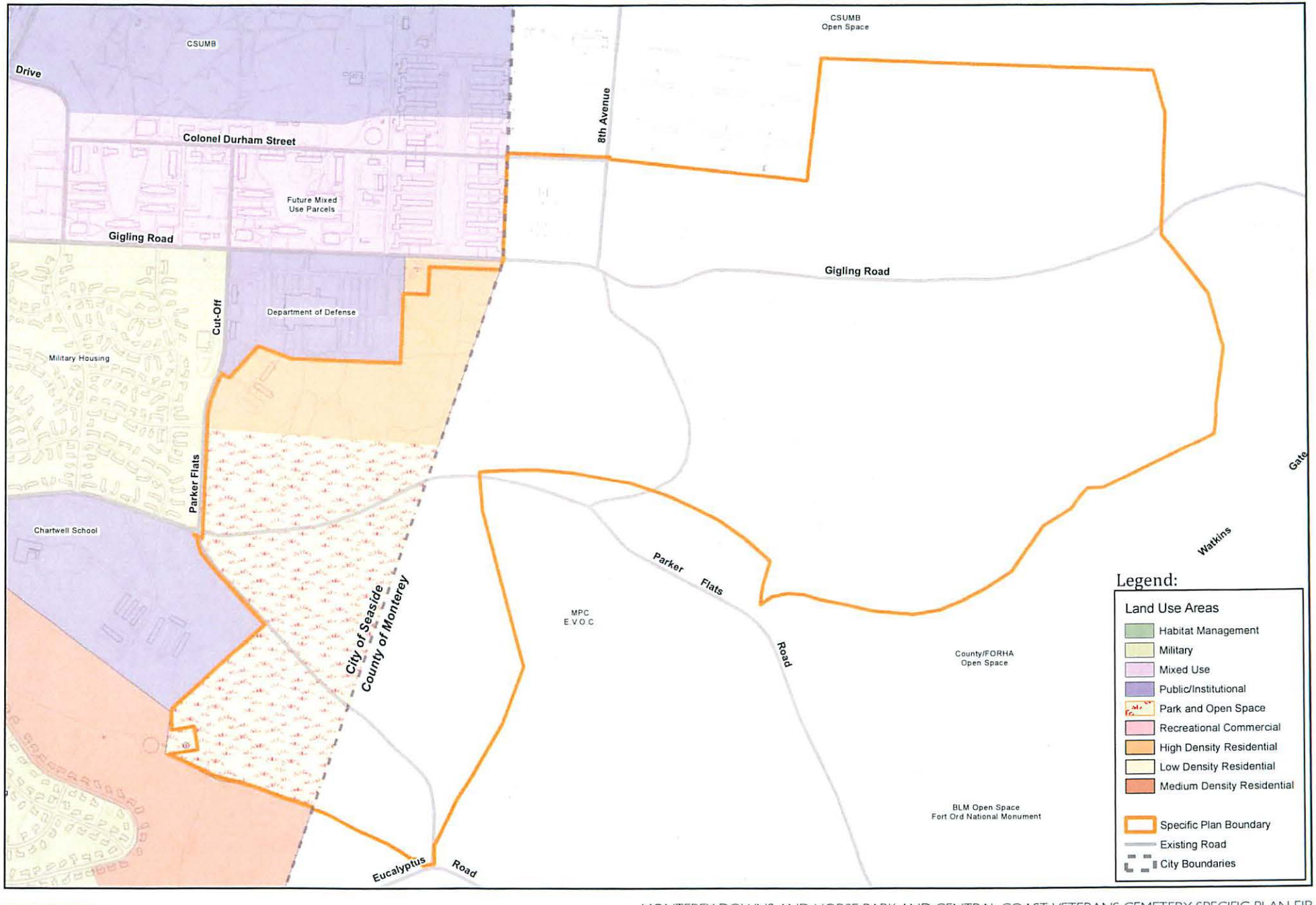
MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

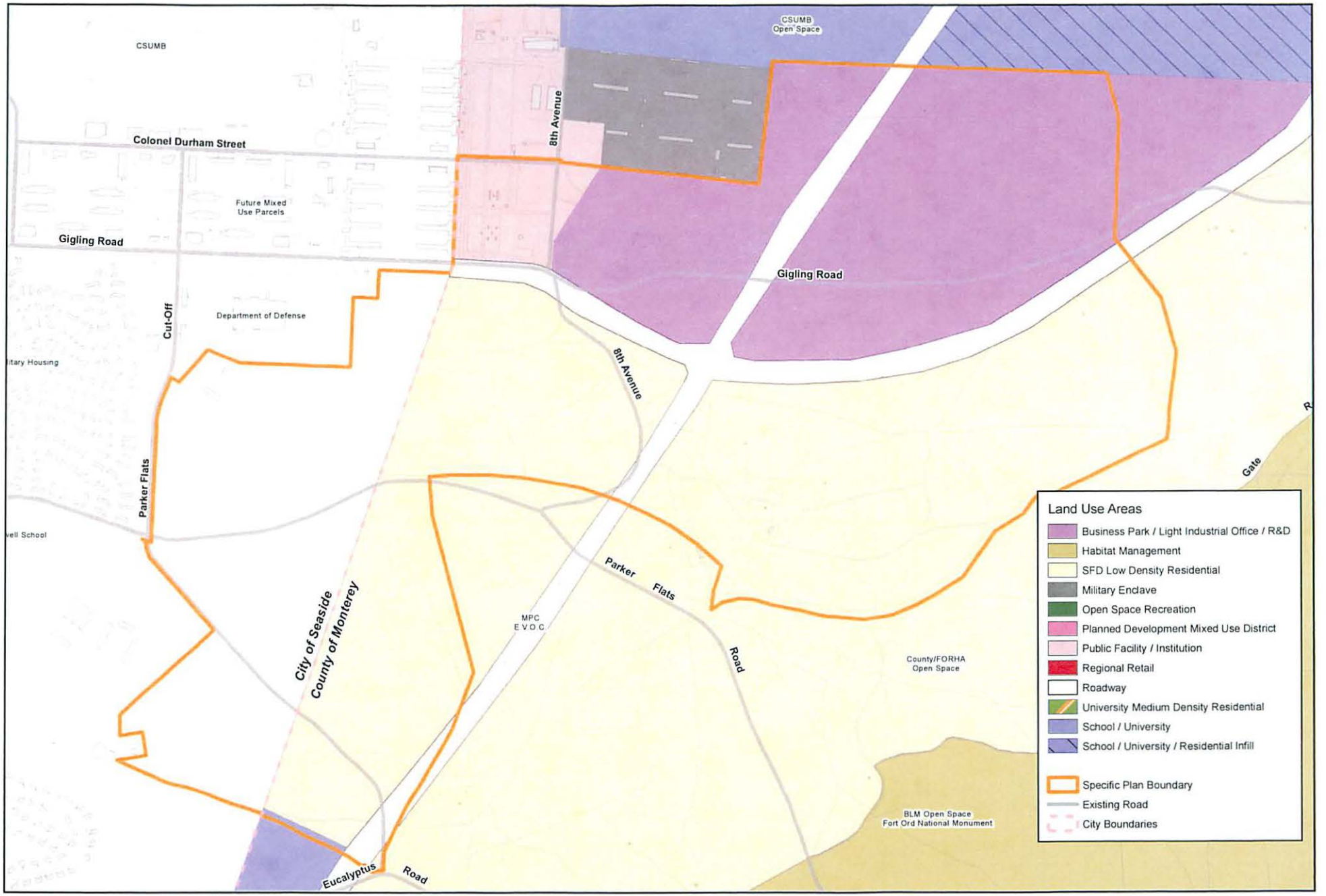
Fort Ord Base Reuse Plan Land Use Designations

Figure 2-8



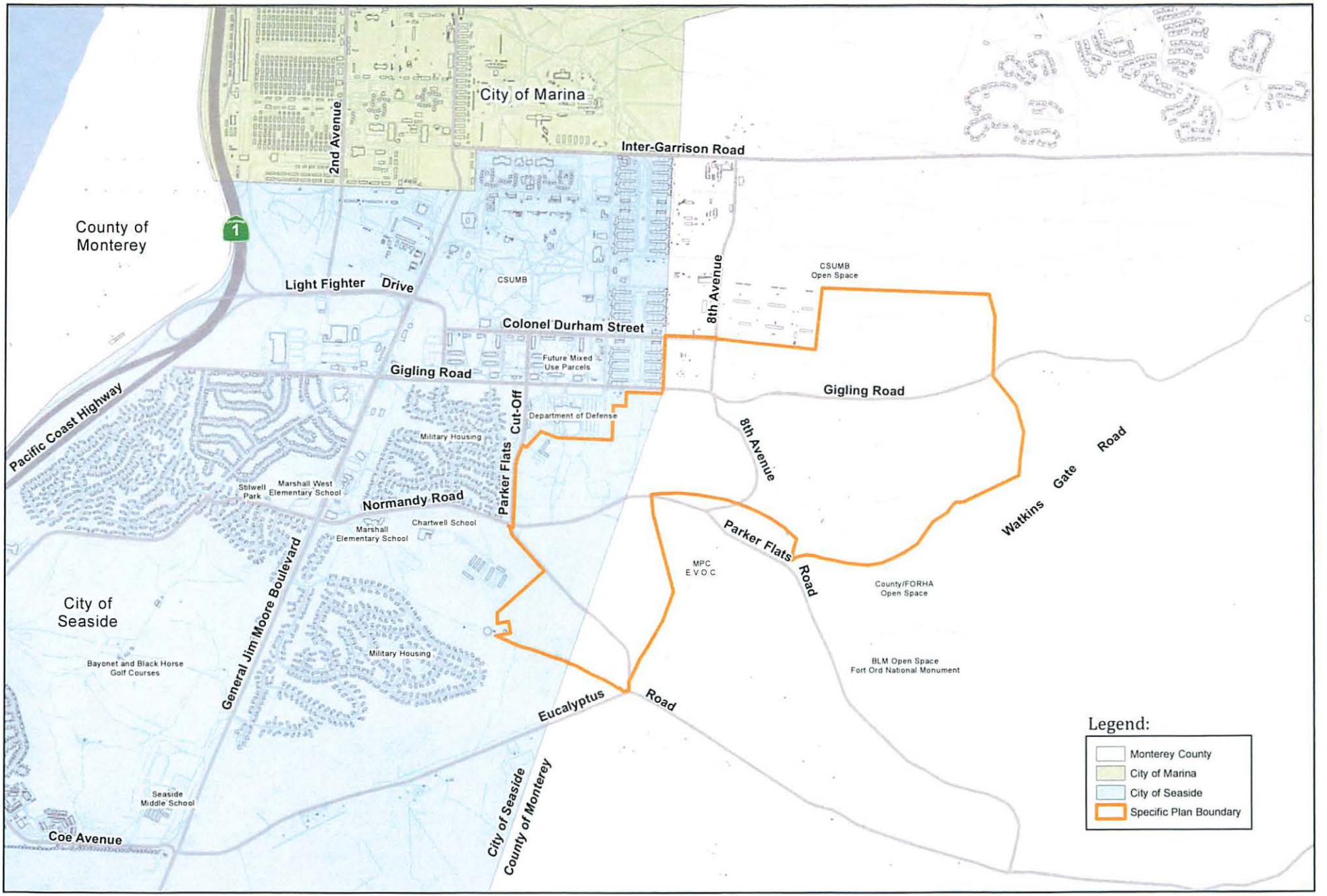
City of Seaside General Plan Land Use Designations

Figure 2-9



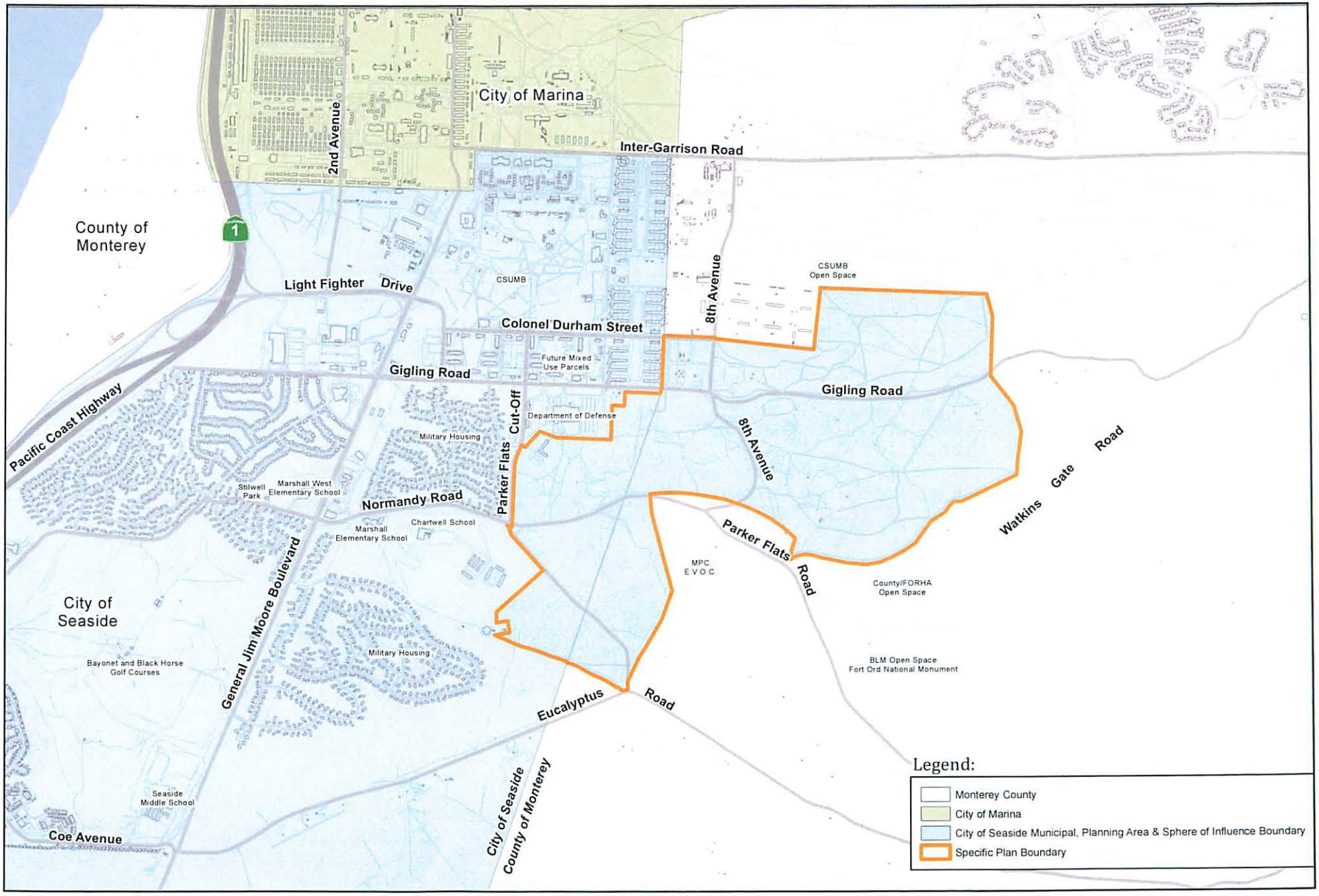
Monterey County General Plan Land Use Designations

Figure 2-10



Existing Jurisdictional Boundaries

Figure 2-11



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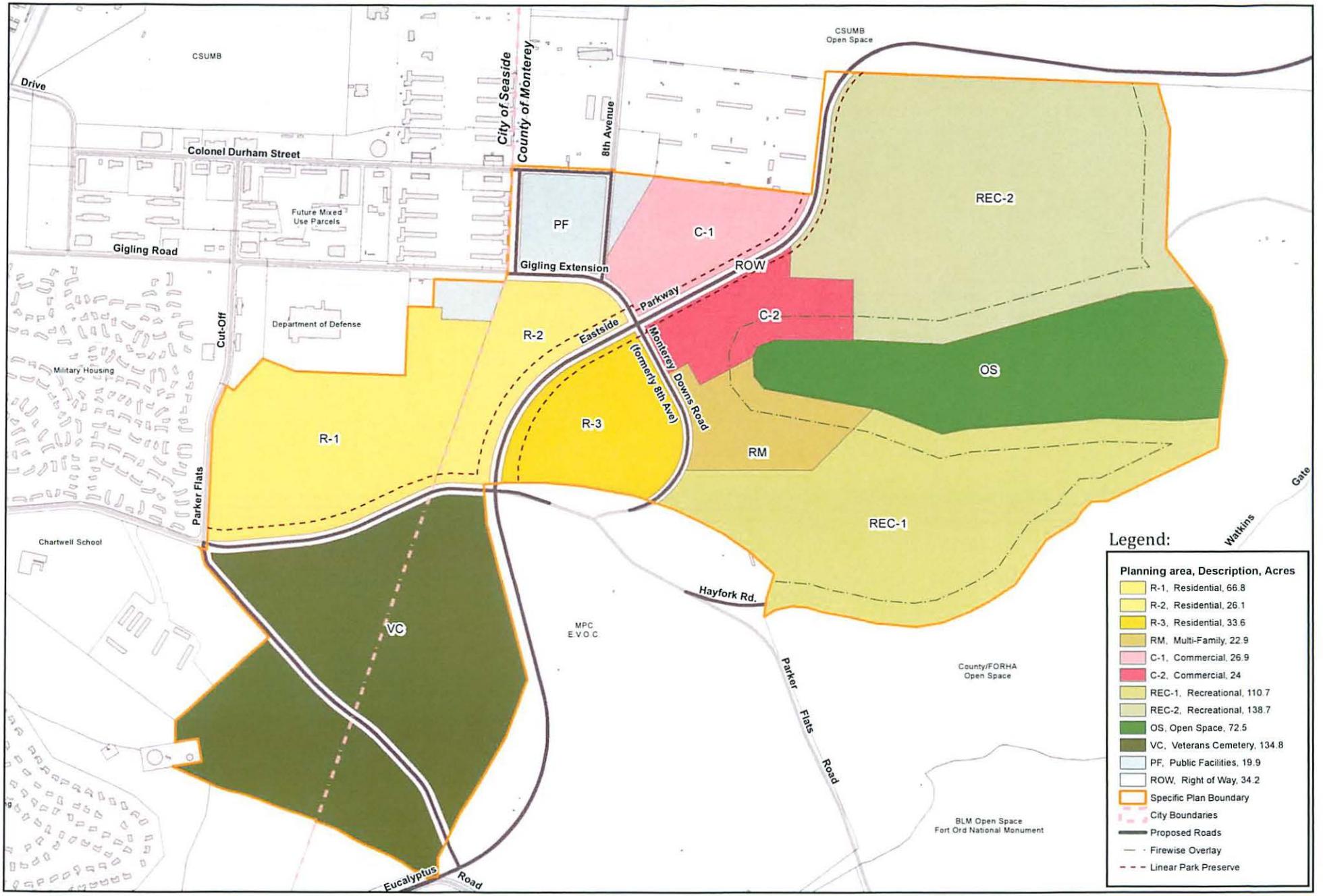
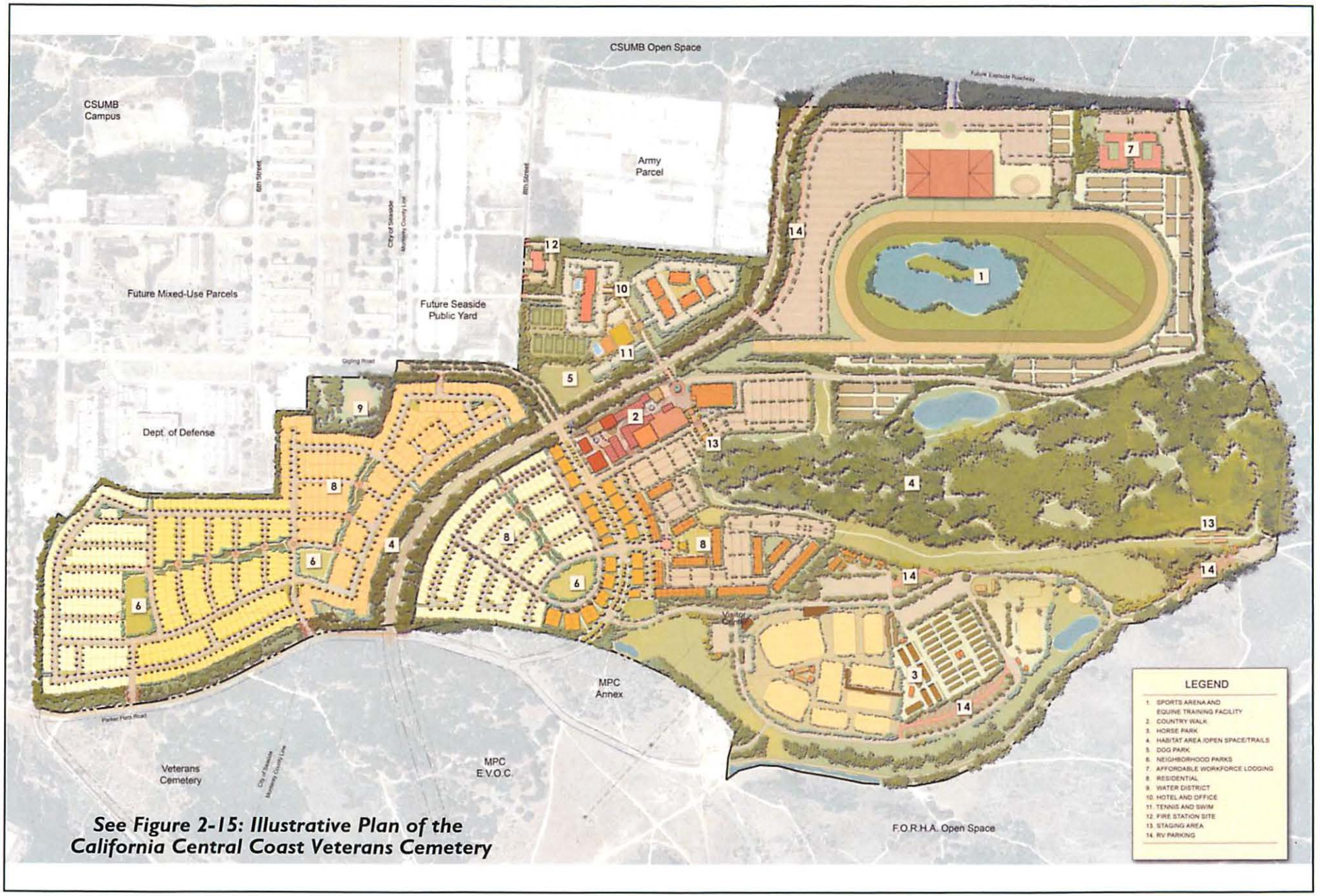
MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Proposed Jurisdictional Boundaries

Figure 2-12


CSUMB
Drive
Colonel Durham Street
City of Seaside
County of Monterey
8th Avenue
CSUMB
Open Space
Future Mixed
Use Parcels
PF
C-1
REC-2
Gigling Road
Gigling Extension
ROW
Parkway
Cut-Off
Department of Defense
R-2
Eastside
C-2
Military Housing
(formerly 8th Ave)
Monterey Downs Road
OS
R-1
R-3
RM
Parker Flats
REC-1
Chartwell School
Watkins
Gate
Hayfork Rd.
VC
MPC
E.V.O.C.
County/FORHA
Open Space
Parker
Flats
Road
BLM Open Space
Fort Ord National Monument
Eucalyptus
Road
Legend:
Planning area, Description, Acres
R-1, Residential, 66.8
R-2, Residential, 26.1
R-3, Residential, 33.6
RM, Multi-Family, 22.9
C-1, Commercial, 26.9
C-2, Commercial, 24
REC-1, Recreational, 110.7
REC-2, Recreational, 138.7
OS, Open Space, 72.5
VC, Veterans Cemetery, 134.8
PF, Public Facilities, 19.9
ROW, Right of Way, 34.2
Specific Plan Boundary
City Boundaries
Proposed Roads
Firewise Overlay
Linear Park Preserve

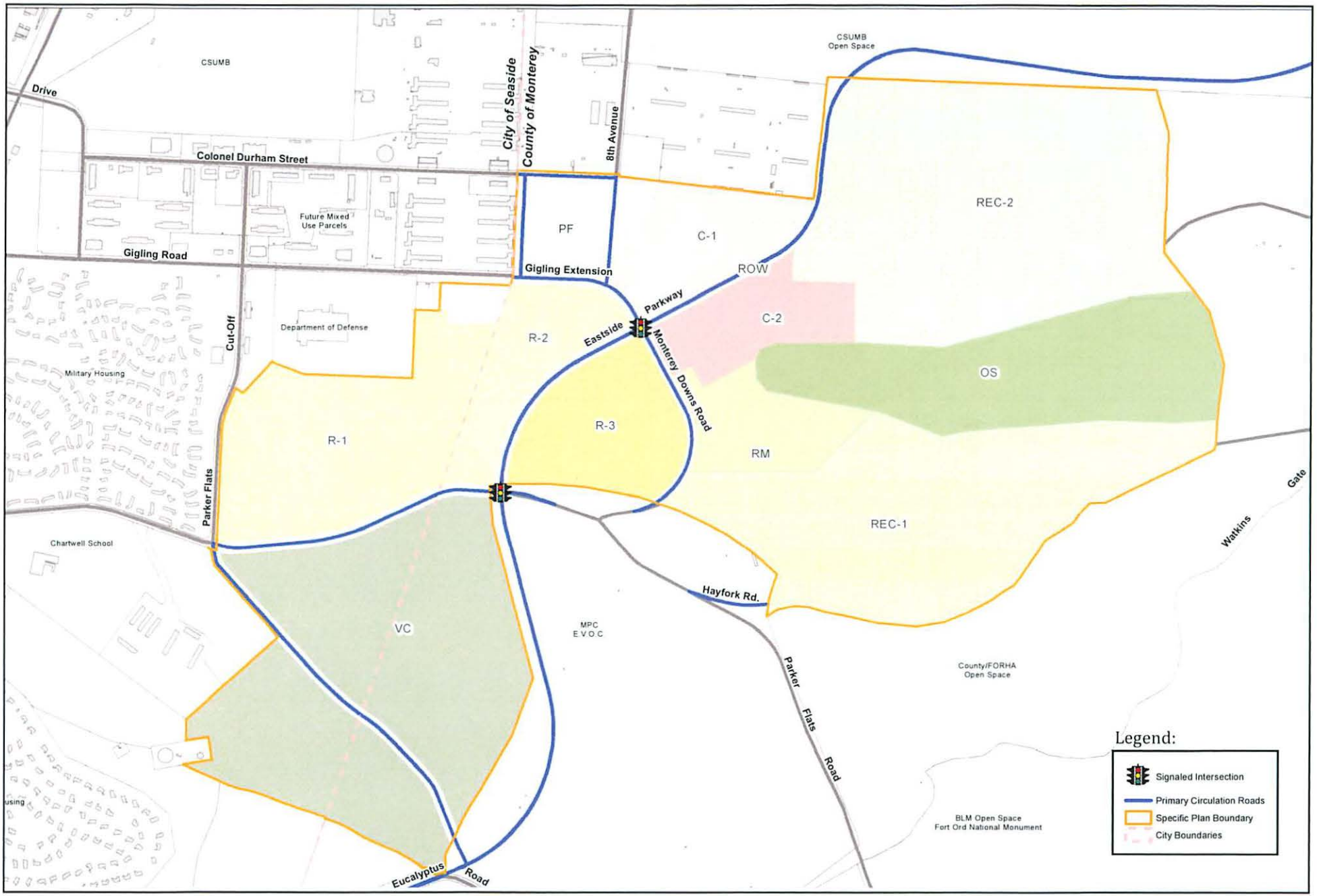


Illustrative Plan of the Monterey Downs and Horse Park

Figure 2-14

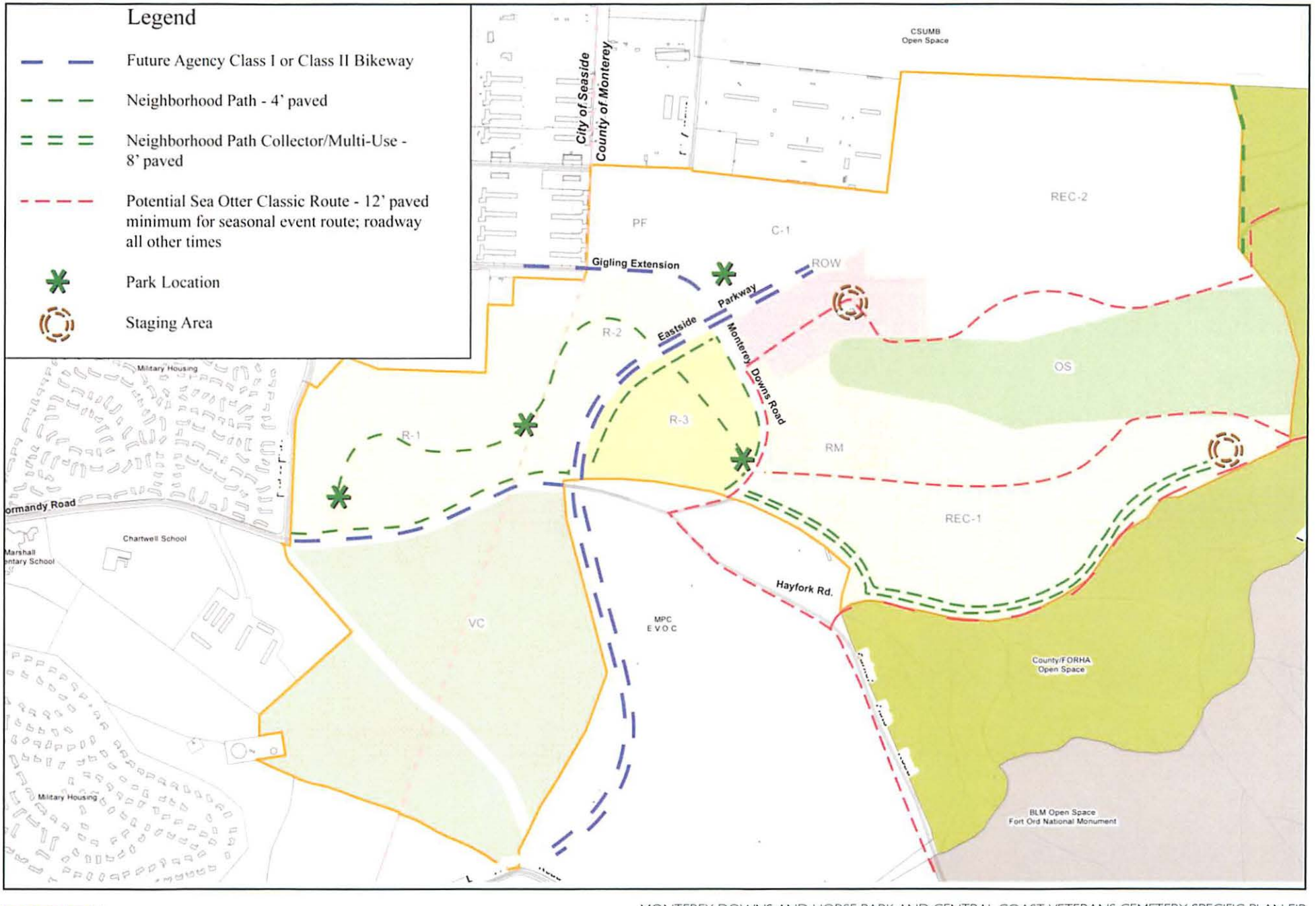
RBF A Baker Company

Illustrative Plan of the California Central Coast Veterans Cemetery



Circulation Network

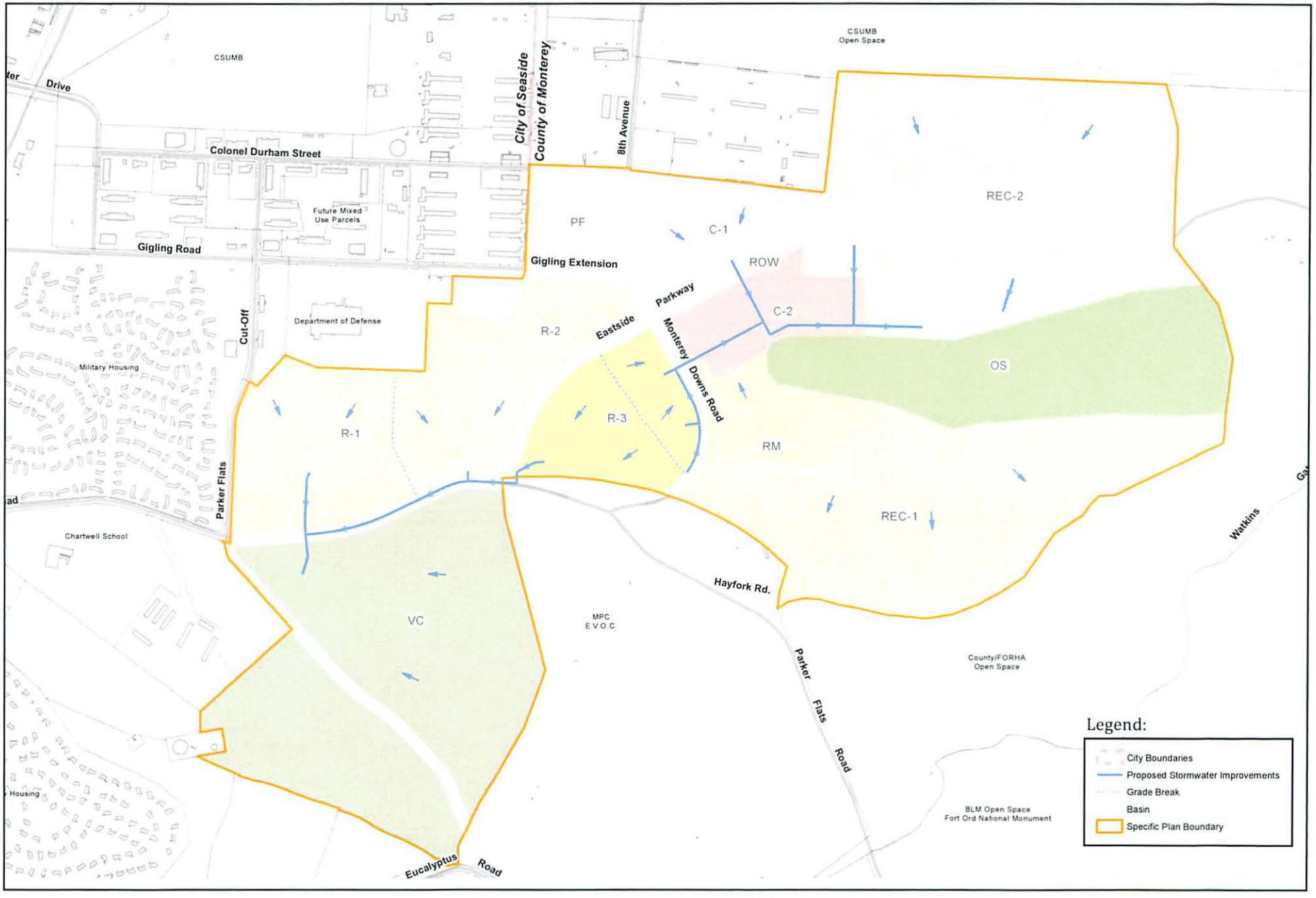
Figure 2-16



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

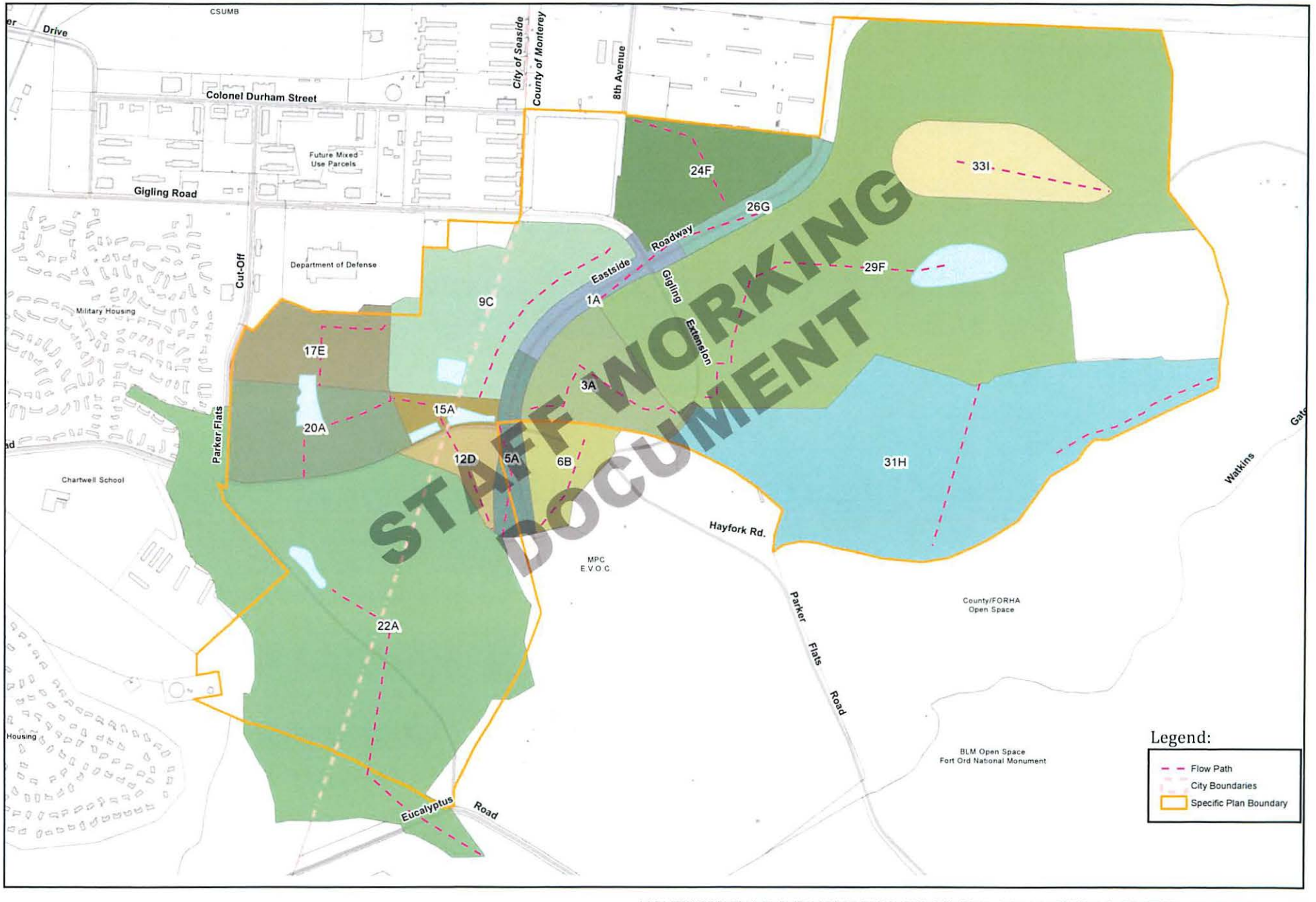
Trail Network

Figure 2-17



Backbone Stormwater Infrastructure

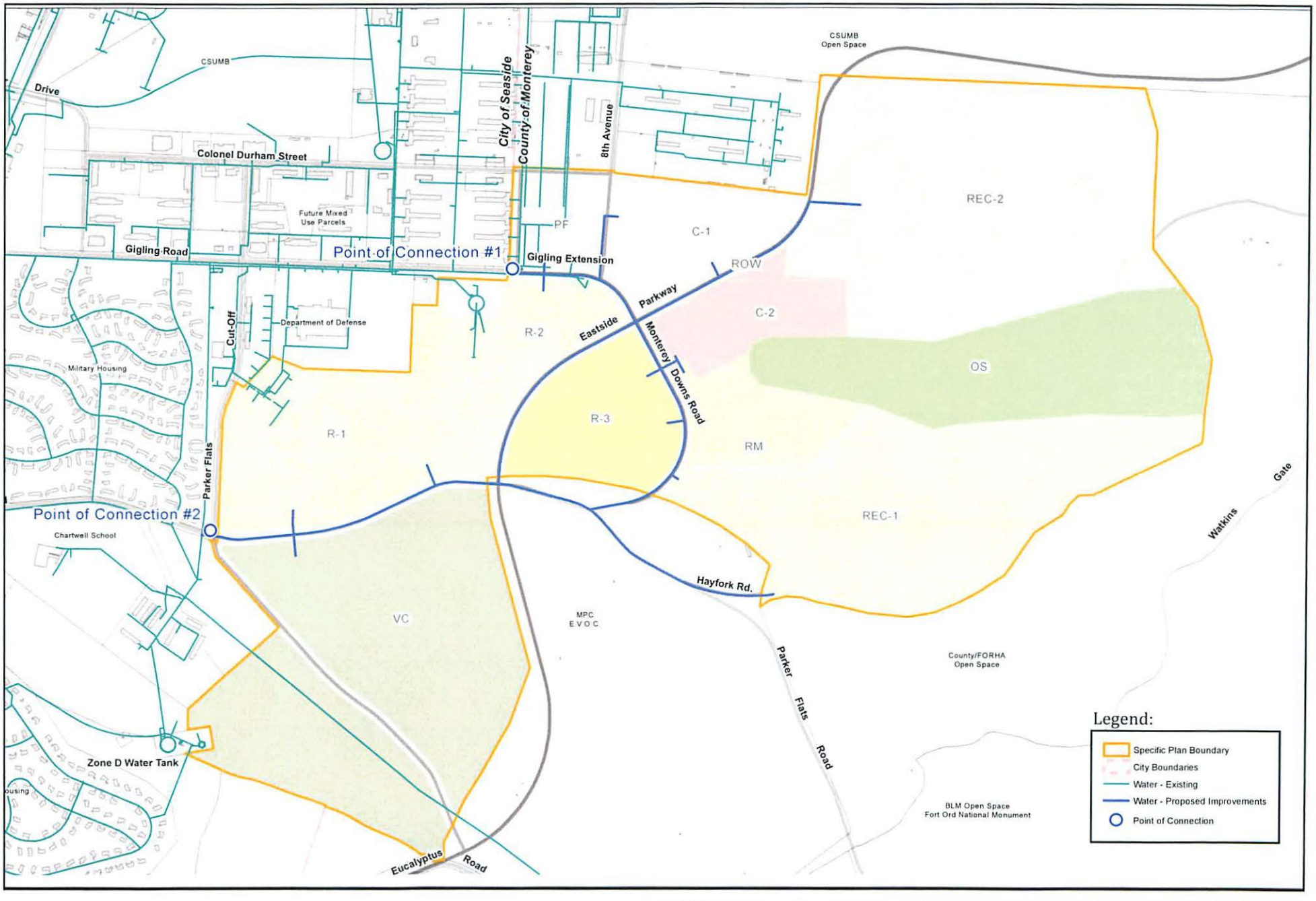
Figure 2-18



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Stormwater Basins and Drainage Area Boundaries

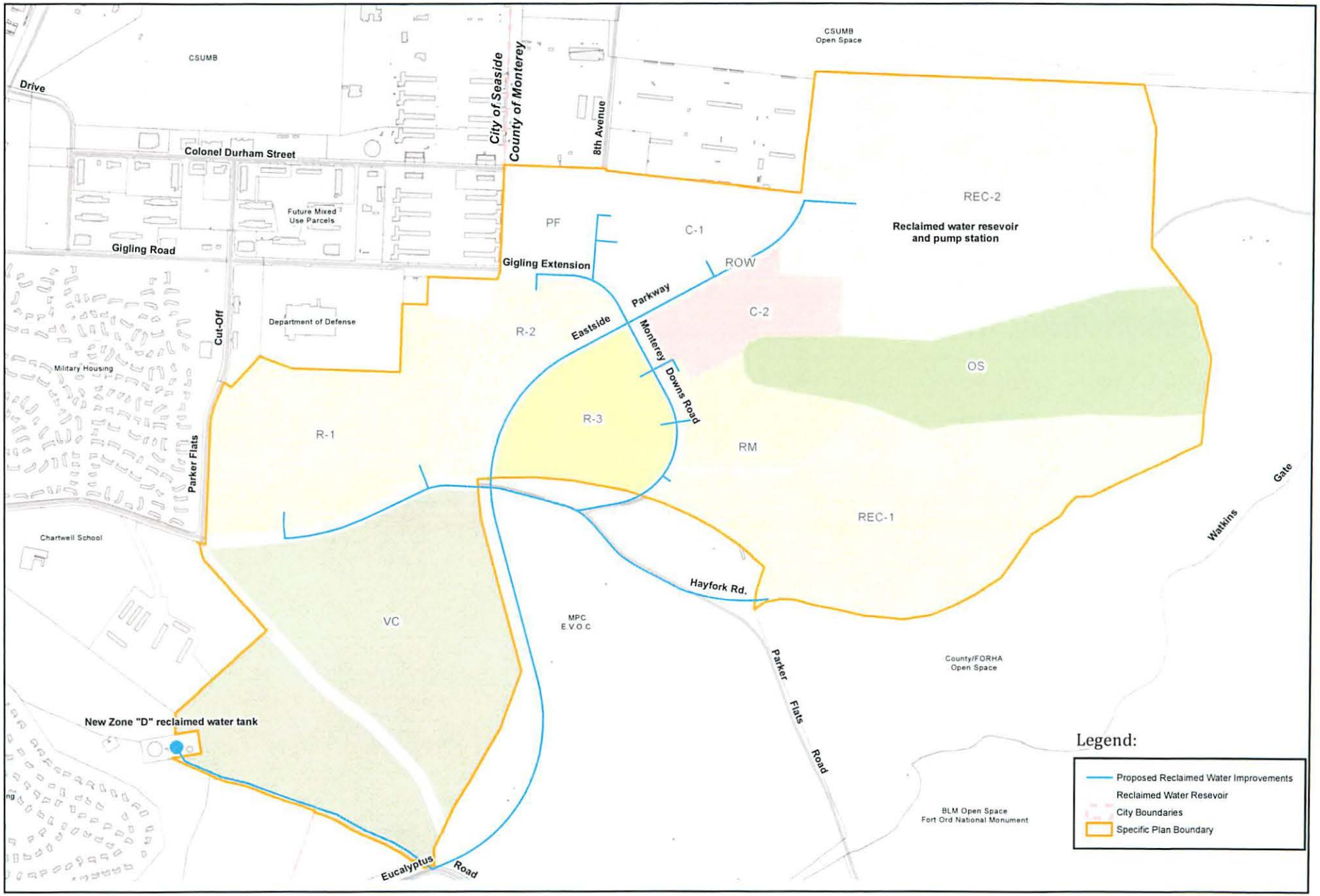
Figure 2-19



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Backbone Domestic Water Infrastructure

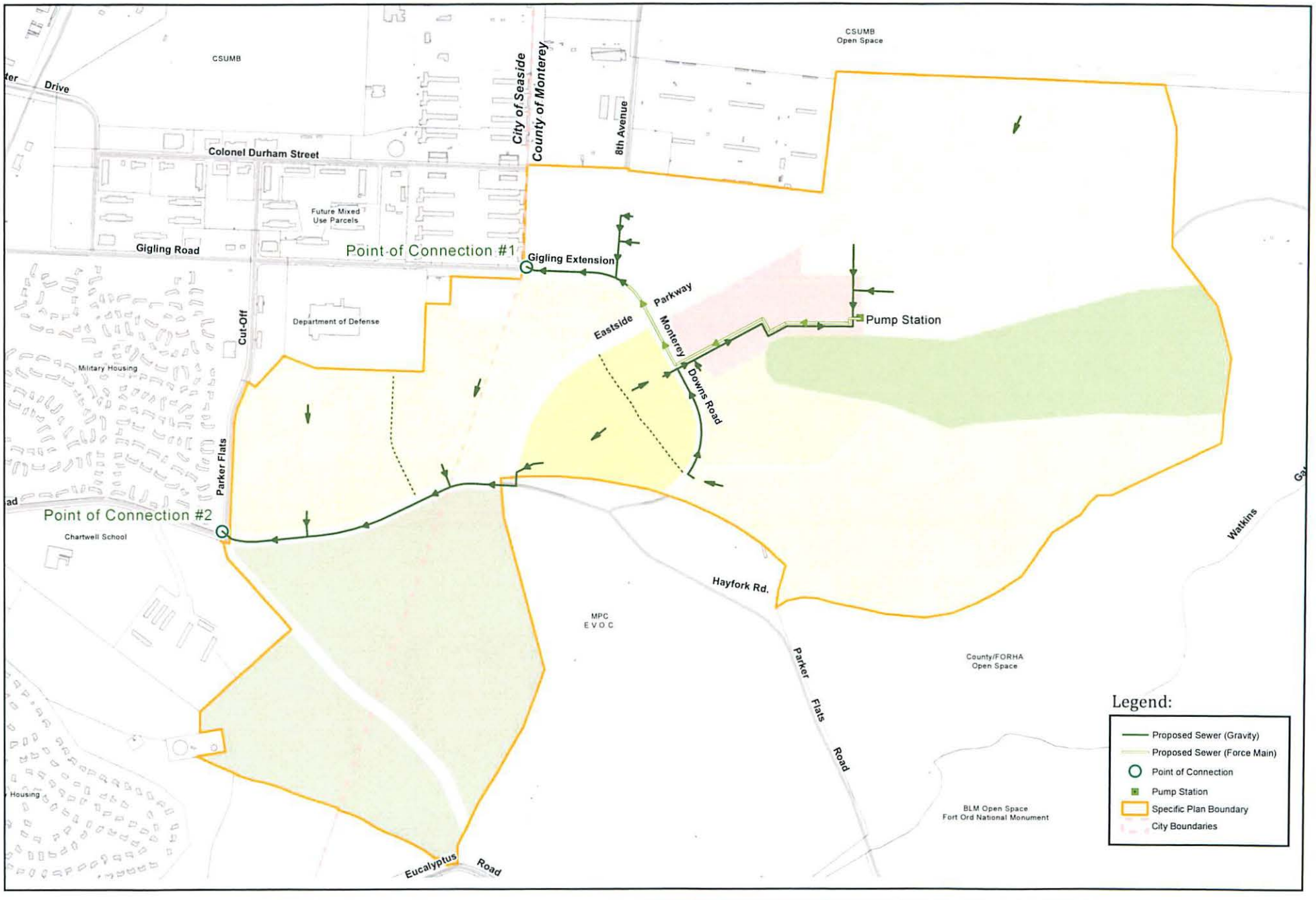
Figure 2-20



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

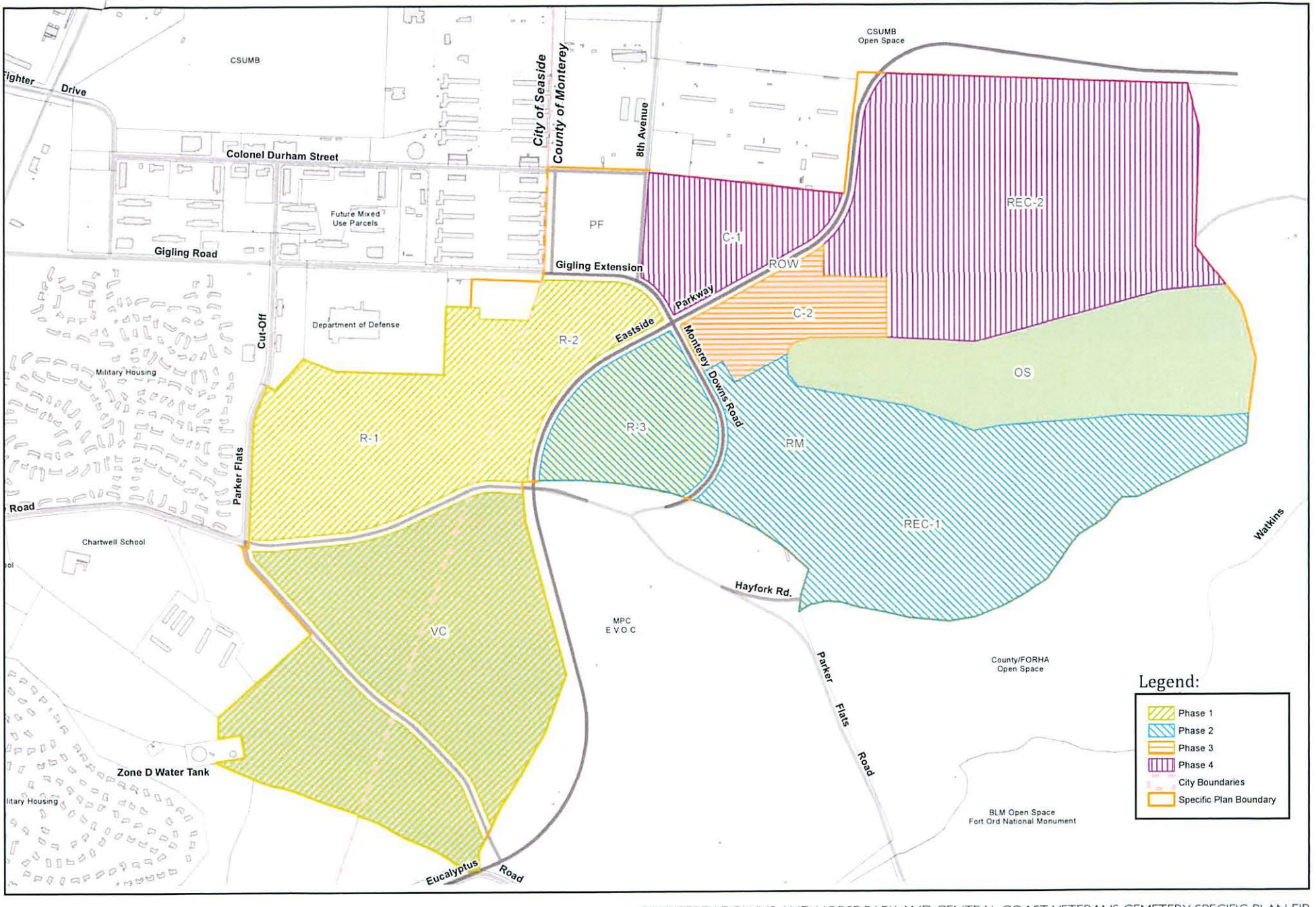
Backbone Reclaimed Water Infrastructure

Figure 2-21



Backbone Wastewater Infrastructure

Figure 2-22



Proposed Phasing Plan

Figure 2-23

Administrative Draft

Monterey Downs and Horse Park and the Central Coast Veterans Cemetery (CVCC) Specific Plan

Draft Environmental Impact Report

SCH # 2012091056

Table of Contents

Appendices

List of Figures

Note – Figures are located at the end of each respective section in the EIR.

List of Tables

Executive Summary

This summary provides a brief description of the proposed project, project alternatives, and all potentially significant impacts identified during the course of the environmental analysis. This summary is intended as an overview and should be used in conjunction with a thorough reading of the Draft EIR (EIR). The text of this report, including figures, tables and appendices, serves as the basis for this summary.

Summary of Alternatives

CEQA Guidelines require that an EIR describe and evaluate alternatives to the project that could eliminate significant adverse project impacts or reduce them to a less-than-significant level. The following alternatives are evaluated in this EIR in the Chapter 4 – CEQA Considerations.

- Alternative #1 – No Project Alternative – No Development
- Alternative #2 – No Project Alternative – Existing Land Use Designations
- Alternative #3 – California Central Coast Veterans Cemetery Alternative
- Alternative #3 – Alternate Use for the Training Track and Arena

Summary of Environmental Impacts

All impacts identified in the subsequent environmental analysis are summarized in this section. The summary includes all impacts analyzed in this EIR by each technical area.

Table S-1: Executive Summary of Project Impacts

Project Impacts	Level of Significance Without Mitigation	Summary of Mitigation Measures	Resulting Level of Significance
Aesthetics and Visual Resources			
Air Quality			
Biological Resources			
Cultural Resources			
Geology and Soils			
Greenhouse Gas Analysis			

Project Impacts	Level of Significance Without Mitigation	Summary of Mitigation Measures	Resulting Level of Significance
Hazards and Hazardous Materials			
Hydrology and Water Quality			
Land Use and Planning			
Noise			
Population and Housing			

Project Impacts	Level of Significance Without Mitigation	Summary of Mitigation Measures	Resulting Level of Significance
Public Services and Recreation			
Transportation and Circulation			
Utilities			

1. Introduction

1.1. Purpose

The City of Seaside, as lead agency has determined that the proposed Monterey Downs and Horse Park and the Central Coast Veterans Cemetery (CCVC) Specific Plan (hereinafter "proposed project") may result in adverse environmental effects as defined by the California Environmental Quality Act (CEQA) Guidelines Section 15064. Therefore, the City of Seaside has prepared a Program and Project Environmental Impact Report (EIR) to evaluate the potentially significant adverse environmental impacts of the proposed Specific Plan and subdivision of the Monterey Downs and Monterey Horse Park portion of the proposed project. A full description of the proposed project is in Chapter 2: Project Description.

This EIR focuses on evaluation of the following environmental issue areas: aesthetics and visual resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services and recreation, population and housing, transportation and traffic, and utilities.

This EIR has been prepared in accordance with the State CEQA Guidelines. As stated in the CEQA Guidelines, an EIR is an "informational document" with the intended purpose to: "inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project." Although the EIR does not control the ultimate decision on the proposed project, the City must consider the information in the EIR and respond to each significant effect identified in the EIR through findings in conjunction with any project approval. As defined in Section 15382 of the CEQA Guidelines, a "significant effect on the environment" is defined as:

> "...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether a physical change is significant."

1.2. Environmental Review Process

The review and certification process for the EIR will involve the following procedural steps:

Notice of Preparation

In accordance with Section 15063(a) of the CEQA Guidelines, the City of Seaside determined that an EIR would be necessary for the proposed project; therefore an

Initial Study was not prepared. In accordance with Section 15082(a) of the CEQA Guidelines, the City of Seaside circulated a Notice of Preparation (NOP) to responsible and trustee agencies for a period of 30-days to solicit comments on the scope of the EIR regarding the proposed project (See Appendix A). CEQA Guidelines Section 15375 defines an NOP as:

> "...a brief notice sent by the lead agency to notify the responsible agencies, trustee agencies, and involved federal agencies that the lead agency plans to prepare an EIR for the project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information contained in the EIR."

The comment period of the NOP was from Friday, September 22, 2012 to Monday, October 22, 2012. The City of Seaside also held a public scoping meeting on Tuesday, October 9, 2012 at the Odemeyer Center in the City of Seaside. Representatives from the City of Seaside attended the scoping meeting and public comments were provided during the meeting both orally and in writing. A total of 48 letters were received from members of the public, as well from the following agencies:

- Fort Ord Base Realignment and Closure Office (October 1, 2012),
- California Department of Transportation (October 19, 2012),
- Monterey Peninsula Water Management District (October 19, 2012),
- California State University of Monterey Bay (October 19, 2012),
- Monterey County Resource Management Agency, Planning and Building Inspection Department (October 19, 2012),
- United States Department of the Interior, Bureau of Land Management (October 22, 2012),
- Local Agency Formation Commission of Monterey County (October 24, 2012),
- Transportation Agency of Monterey County (October 25, 2012), and
- Fort Ord Reuse Authority (October 26, 2012).

Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The NOP and responses to the NOP are contained within Appendix A of this Draft EIR.

Draft EIR

The Draft EIR contains a description of the proposed project, description of the environmental setting, identification of project impacts and effects found not to be significant, mitigation measures for impacts found to be significant, and an analysis of project alternatives. Upon completion of the Draft EIR, the City filed a Notice of

Completion (NOC) with the State Office of Planning and Research, in accordance with Section 15085 of the CEQA Guidelines.

Public Notice/Public Review

The Draft EIR will be published and circulated for review and comment by the public and other interested parties, agencies and organizations for a 60-day review period from Monday, October 21, 2013 through Friday, December 20, 2013 ***[Note: To confirm]***. Concurrent with filing the NOC, the City of Seaside provided a public notice of the availability of the Draft EIR for public review in accordance with CEQA Guidelines Section 15087(a), and invited comments from the general public, Responsible and Trustee Agencies, organizations, and other interested parties. Notice of the time and location of a City meeting to receive comments on the Draft EIR will be published prior to the public hearings on the proposed project.

All comments or questions regarding the Draft EIR should be addressed to:

Teri Wissler Adam, Contract Project Manager
City of Seaside
Resource Management Department
440 Harcourt Avenue
Seaside, CA 93955

Response to Comments/Final EIR

Following the public review and comment period for the Draft EIR, a Final EIR will be prepared. The Final EIR will respond to comments received during the public review and comment period. The City will review and consider the Final EIR prior to the decision to approve, revise, or reject the proposed project or an alternative to the proposed project.

Certification of the Final EIR

If the City of Seaside finds that the Final EIR is "adequate and complete" the City of Seaside may certify the Final EIR. The rule of adequacy generally holds that the EIR can be certified if: 1) it shows a good faith effort at full disclosure of environmental information, and 2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of environmental considerations.

Project Consideration

After review and consideration of the Final EIR, the City of Seaside may act upon the proposed project. A decision to approve the proposed project would be accompanied by written findings in accordance with CEQA Guidelines Section 15091 and, if applicable, Section 15093 (Statement of Overriding Considerations).

1.3. Provisions for Projects on Former Military Bases

The California legislature adopted specific provisions to address CEQA review for planning and redevelopment of former military bases. A reuse plan EIR may be based on

the physical setting as it existed at the time the decision to close the base was made final, and the EIR prepared for the reuse plan is considered, with some exceptions, to provide the CEQA review for all subsequent actions in furtherance of the reuse plan. For purposes of determining whether a reuse plan, public or private activities taken pursuant or furtherance of a reuse plan may have a significant effect on the environment, an environmental impact report may be prepared in the context of physical conditions that were present at the time that the federal decision for closure or realignment of the base or reservation became final (CEQA Guidelines Section 15229). The federal decision to close Fort Ord became final in 1993, and the *Fort Ord Base Reuse Plan* and *Fort Ord Base Reuse Plan EIR* baseline conditions are those that were present in 1993. The Reuse Plan (SCH #96013022) was certified by FORA on June 13, 1997.

CEQA Guidelines Section 15229(c) states:

> All public and private activities taken pursuant to, or in furtherance of, a reuse plan for which an EIR was prepared and certified pursuant to this section shall be deemed to be a single project. A subsequent or supplemental EIR shall be required only if the lead agency determines that any of the circumstances described in Section 15162 [subsequent] or 15163 [supplemental] exist.

The following excerpts from CEQA Guidelines Section 15229 (d), subsection (2) omitted] clarify that although new environmental document may not be required for projects that are in furtherance of the reuse plan, the lead agency remains responsible to ensure that any potential environmental effects are adequately addressed in accordance with current laws:

> (1) Nothing in this section shall in any way limit the scope or review or determination of significance of the presence of hazardous or toxic wastes, substances, and materials, including but not limited to contaminated soils and groundwater. The regulation of hazardous or toxic wastes, substances, and materials shall not be constrained by this section…
>
> (2) All subsequent development at military base or reservation shall be subject to all applicable federal, state or local laws, including but not limited to, those relating to air quality, water quality, traffic, threatened and endangered species, noise, and hazardous or toxic waste, substances, or materials.

Since certification of the *Fort Ord Base Reuse Plan EIR (*FORA 1997*)*, new information has become known and changes in the environmental setting potentially affecting the severity of environmental impacts have occurred. Such new information and changes include: changes to the regional water and traffic settings, awareness of greenhouse gas emissions as an environmental issue, and more detailed information on land use, biological resources, public services, and utilities. Therefore, this EIR has been prepared subsequent to the *Fort Ord Base Reuse Plan EIR.*

1.4. Report Organization

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Environmental Impact Reports. Among other things, an EIR must include: description of the project and environmental setting; an environmental impact analysis; mitigation measures; alternatives to the proposed project; identification of significant irreversible environmental changes; growth-inducing impacts; and cumulative impacts.

The environmental issues addressed in the Draft EIR were established through the preparation of environmental documentation and supporting technical reports developed for the proposed project, public agency responses to the NOP and comments received. Based upon documentation, technical reports, NOP responses, consultation with the City of Seaside, and review of the proposed Specific Plan, the City of Seaside has determined the scope for this EIR. This Draft EIR is organized in the following manner:

Section S – Executive Summary

This section summarizes the characteristics of the proposed project and provides a concise summary matrix of the project's environmental impacts, associated mitigation measures.

Section 1.0 – Introduction

This section provides an introduction and overview of the EIR review and certification process.

Section 2.0 – Project Description

This section provides a detailed description of the proposed project, including project location, site conditions, intended objectives, background information and physical and technical characteristics of the proposed project.

Section 3.0 – Environmental Setting, Impacts and Mitigation Measures

This section contains an analysis of environmental topic areas to be addressed, as identified below. Each subsection contains a description of the existing setting of the project area and surrounding area and identifies project-related impacts and recommends mitigation measures where necessary.

Subsection 3.1, Aesthetics and Visual Resources: This subsection addresses the potential change in character of the project area as measured against the existing setting and visual conditions and surrounding land uses. Project visibility, scale, additional light and glare, and visual character are considered relative to the nature of the project area from its former use on the former Fort Ord. The analysis is based on a site reconnaissance, photo documentation of the project site, an evaluation of existing policy documents, and an evaluation of the impacts of the proposed project on the landscape.

Subsection 3.2, Air Quality: This subsection addresses the requirements of the Monterey Bay Unified Air Pollution Control District (MBUAPCD) and analyzes local and regional air quality impacts associated with project implementation including both short-term construction impacts and long-term operational impacts from mobile and stationary sources. It also addresses the potential for exposure to objectionable odors from surrounding uses. This analysis is based on air quality modeling performed for the proposed project by RBF Consulting, which is included as Appendix B of the Draft EIR.

Subsection 3.3, Biological Resources: This subsection addresses project impacts to biological resources and tree removal with implementation of the proposed project. The analysis is based on two biological assessments prepared by Denise Duffy and Associates for the CCVC in May 2011 and for the Monterey Downs and Horse Park in June 2013, which were peer reviewed by Zander and Associates. The analysis is also based on two forest resource evaluations prepared by Staub Forestry and Environmental Consulting for the CCVC in November 2010 and for the Monterey Downs and Horse Park in December 2012, which were peer reviewed by Roy Webster and Associates. This subsection addresses the potential degradation or elimination of potential species and potential impacts on listed, proposed, and candidate threatened and endangered species, as well as potential impacts to oak woodland habitat and the removal of Coast live oak trees within the project area. The biological assessments are included as Appendix C and the forest resource evaluations are included as Appendix D in the Draft EIR.

Subsection 3.4, Cultural Resources: This subsection analyzes the presence or absence of potentially significant archaeological and historic resources within the project area based on a cultural resource assessment by Pacific Legacy. Since the proposed project includes a General Plan Amendment and a Specific Plan, the City of Seaside completed the Senate Bill (SB 18) consultation process. Mitigation measures are included to address the potential to uncover unidentified archaeological or historic resources that may be present within the project area, as well as the potential to disturb undiscovered human remains that may be located outside of an existing cemetery within the project area.

Subsection 3.5, Geology and Soils: This subsection examines potential geologic and seismic hazards, as well as any engineering constraints and general soil suitability for the land uses proposed by the proposed project. Information contained in this section is based on the *Soil Survey of Monterey County* (Natural Resources Conservation Service 1978), as well as a geotechnical report prepared by Pacific Crest Engineering for the Monterey Downs and Horse Park in December 2012 and a geotechnical report prepared by Kleinfelder in September 2010 for the CCVC. These reports were peer reviewed by the Michael Baker Corporation in July 2013. The geotechnical reports are included in Appendix E in the Draft EIR.

Section 3.6: Greenhouse Gas Analysis: This subsection examines greenhouse gas emissions (GHGs) associated with the proposed project. Consideration of the project's consistency with applicable plan, policies, and regulations, as well as the introduction of

new sources of GHGs is described and analyzed. The analysis is based on GHG modeling performed for the proposed project by RBF Consulting (2013), which is included as Appendix B of the Draft EIR.

Subsection 3.7, Hazards and Hazardous Materials: This subsection evaluates the potential presence of hazardous materials and unexploded ordnance within the project area; the potential for wildfire hazards; the potential to interfere with an emergency response plan; and the potential for airport hazards. The potential risk of these conditions in proximity proposed development and human activities is evaluated.

Subsection 3.8, Hydrology and Water Quality: The impacts of the proposed project on hydrology, storm drainage, water resources and water quality are discussed in this subsection. The analysis identifies existing drainage patterns, potential flood hazards and stormwater retention requirements of the City of Seaside. This section is based upon a hydrology analysis prepared by Diamond West, Inc. (2013) and peer reviewed by RBF Consulting. The hydrology analysis is included as Appendix F in the Draft EIR.

Subsection 3.9, Land Use and Planning: The relationship of the proposed project to relevant regional and local plans, including the *City of Seaside General Plan* and the Monterey County Local Agency Formation Commission policies and procedures are discussed in this subsection. This subsection also addresses whether or not development of the proposed project would physically divide an established community and whether the proposed project is consistent with the *Installation-wide Multispecies Habitat Management Plan* (U.S. Army Corps of Engineers 1997) and the *Monterey Bay Unified Air Pollution Control District's (MBUAPCD) Air Quality Management Plan* (MBUPACD 2008).

Subsection 3.10, Noise: Compatibility between the existing noise environment and anticipated noise levels generated by the both project-generated traffic and on-site activities upon completion of the proposed project are examined within this subsection. This subsection also addresses consistency of the proposed project with the Noise Element in the *City of Seaside General Plan* and Section 17.30.060, *Noise Standards*, of the *Seaside Municipal Code*. This analysis is based on noise modeling conducted for the proposed project by RBF Consulting, which is included as Appendix G of the Draft EIR.

Subsection 3.11, Population and Housing: This subsection of the EIR addresses potential population and housing impacts that may occur with implementation of the proposed project based on current and projected population, housing and employment in the City of Seaside. The analysis is based on the Housing Element in the *City of Seaside General Plan* (City of Seaside 2011) and data from the California Department of Finance, the California Employment Development Department, the U.S. Census, and the Association of Monterey Bay Area Government (AMBAG).

Subsection 3.12, Public Services and Recreation: This subsection analyzes demand generated by the proposed project for additional public services such as schools, parks/recreation facilities, police, and fire services. It also provides an assessment of

additional system requirements and public facility improvements that would be necessary to serve the demands of the proposed project at full build-out.

Subsection 3.13, Transportation and Traffic: This subsection analyzes potential impacts on the areas roadway network, including roadway segments and intersections for both current conditions and future scenarios. Focus scenarios are analyzed namely: 1) Existing, 2) Existing Plus Project Build-out; 3) Cumulative (2035); and 4) Cumulative (2035) Plus Project Build-out. This subsection also addresses potential impacts on non-vehicular transportation including public transit, pedestrian access, and bicycle routes. This subsection is based on a traffic impact analysis prepared by RBF Consulting, which is incorporated into the Draft EIR. The technical appendices to the traffic analysis are included as Appendix H in the Draft EIR.

Subsection 3.14, Utilities: The provision of potable water service, wastewater treatment and disposal, natural gas and electric service, and solid waste impacts are analyzed in this subsection. A water supply assessment (WSA) was prepared for the proposed project by Schaaf and Wheeler on behalf of Marina Coast Water District in November 2012, and is incorporated as Appendix I and wastewater calculations prepared by Diamond West are included in Appendix J of the Draft EIR.

Section 4.0 – CEQA Considerations

This subsection of the EIR addresses the required discussions and analyses of various topical issues mandated by CEQA Guidelines Section 15126.2, including: significant and unavoidable environmental effects; growth inducing impacts; significant irreversible environmental changes and effects found not to be significant.

This subsection also addresses alternatives to the proposed project and cumulative impacts. CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the proposed project, which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the proposed project. The alternatives analysis compares the proposed project to four alternatives: ***[Note: Preliminary alternatives to the proposed project to be confirmed with the City.]***

- Alternative #1 – No Project Alternative – No Development
- Alternative #2 – No Project Alternative – Existing Land Use Designations
- Alternative #3 – California Central Coast Veterans Cemetery Alternative
- Alternative #4 – Alternate Use for the Training Track and Arena – Business Park

Impacts associated with cumulative development were analyzed based on the project's effects in relation to build-out of the existing adopted *Fort Ord Base Reuse Plan* (FORA 1997) and the *City of Seaside General Plan* (City of Seaside 2004).

Section 5.0 – Report Preparers and References

This section provides a list of all authors and agencies that assisted in the preparation of the Draft EIR by name, title, and company or agency affiliation. It also itemizes supporting and reference data used in the preparation of the Draft EIR and lists all governmental agencies, organizations, and other individuals consulted in preparing the Draft EIR.

Appendices

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical reports prepared in support of the analysis.

1.5. Impact Terminology

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- Standards of Significance: A set of criteria used by the lead agency to determine at what level, or "threshold", an impact would be considered significant. Significance criteria used in this EIR include the CEQA Guidelines and Statutes; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and the goals, objectives, and policies of the City of Dublin General Plan.
- Less Than Significant Impact: A less than significant impact would cause no substantial change in the environment and no mitigation is required.
- Potentially Significant Impact: A potentially significant impact may cause a substantial adverse change in the physical conditions of the environment. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.
- Significant Impact: Significant impacts are identified by the evaluation of project effects using specified standards of significance. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.
- Significant Unavoidable Impact: A significant and unavoidable impact would result in a substantial change in the environment for which no feasible mitigation is available to reduce the impact to a less than significant level, although mitigation may be available to lessen the degree of the impact.
- Cumulative Impact: Cumulative impacts refer to two or more individual affects which, when considered together, are considerable or which compound or increase other environmental impacts.

3. Environmental Setting, Impacts & Mitigation Measures

Each environmental section in this chapter presents information in four parts:

- ***Environmental Setting*** - The Environmental Setting section provides a general overview of the conditions on and adjacent to the planning area.
- ***Regulatory Setting*** - The Regulatory Setting presents local, state and federal regulations which are relevant to the proposed project.
- ***Relevant Project Characteristics*** - The Relevant Project Characteristics section provides a more detailed description of the elements of the proposed project that are relevant to the impact analysis for a particular topic. Relevant project information may relate to the size, characteristics and/or location of project elements. Any project elements that may cause impacts, as well as those that may serve to minimize impacts, are identified.
- ***Impacts and Mitigation Measures*** - The Impacts and Mitigation Measures section provides a brief description of standards that were used to evaluate whether an impact is considered significant based on standards identified in CEQA, the State CEQA Guidelines, and agency policy or regulations. Impacts are identified and analyzed. Mitigation measures that would reduce potentially significant or significant impacts are identified, as well as the significance of the impact after implementation of mitigation measures. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

Referenced graphics are presented at the end of each section.

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3.1. Aesthetics & Visual Resources

This section describes the aesthetic and visual resources of the project site and its surroundings, and discusses the potential aesthetic impacts that may result with implementation of the proposed project. The primary visual and aesthetic issues are views from the adjacent BLM lands and the Fort Ord Habitat Restoration Habitat Areas (FORHA), and views from adjacent public roadways. Visual impacts were evaluated using a combination of a site reconnaissance, review of photo documentation and aerial photographs, and a review of existing policy documents.

Environmental Setting

Visual Image

Visual images dominate an observer's impression of a district, city, or region. To understand how visual images influence an observer's impression, the aesthetic value of an area must first be defined. Aesthetic value is a measure of visual character and scenic quality combined with a viewer's response to the area. Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure to a viewshed varies with the number of viewers, the number of views seen, the distance of the views, and the viewing duration. Viewer sensitivity is related to the extent of the public's concern for particular visual resources.

Both natural landscapes and the built environment contribute to perceived visual images and aesthetics value of a view. Aesthetic value is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Visual images and their perceived visual quality can vary significantly seasonally and even hourly as weather, light, shadow, and the elements that compose the resource change.

Definition of Terms

Numerous methods have been developed to characterize the scenic quality of a visual resource and the viewer response to that resource. As such, several approaches that focus on different visual aspects or issues are used. One commonly used set of criteria includes vividness, intactness, and unity.

- Vividness is the visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.
- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, as well as in natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Regional Visual Setting

The project site is located within the former Fort Ord on the Monterey Peninsula. Regional aesthetics on the coastal Monterey Peninsula include rocky shores, windswept cypress trees, cove beaches, rolling sand dunes, and human-made landmarks such as Cannery Row, Fisherman's Wharf, and historic missions and mission-era buildings. Monterey Bay itself has a high aesthetic quality with picturesque sunsets and sea life, such as migrating whales, sea otters, and sea lions. Inland aesthetics of the Salinas River Valley include agricultural fields, meandering waterways, and distant views. The regional geography is characterized by rolling coastal hills, ridgelines, steep cliffs, and a patchwork of oak woodlands, chaparral, and grasslands.

Lands within the former Fort Ord are generally characterized by either urbanized development or rolling hills with mature vegetation and oak woodlands. Urbanized development consists of abandoned military buildings, expansive pavement, overgrown vegetation, and newer residential, educational, and office buildings.

Project Setting

The project site is generally undeveloped and consists of rolling topography with a vegetative mix of oak woodland, maritime chaparral, and annual grassland. Parts of the project site have been disturbed with roadways, utilities, and evidence of previous military activity.

As shown in Figure 2-3: Topography of the Project Area, the greater project region generally slopes downward from the southeast (~550 ft. above mean sea level [msl]) to the northwest (~200 ft. above msl). Oak woodlands are a predominant feature within and around the project site, although maritime chaparral and season grasslands are present throughout undeveloped areas.

A network of trails and former military roads are present throughout the project site and adjacent lands. Portions of these trails have views of and into the project site. Two overhead utility corridors run through the project site. One overhead utility line with significant steel lactic structures bisects the project site in a north-south direction, and the other, a wooden power pole, parallels Gigling Road. These utility corridors are generally visible throughout the project site and the project area. At least one former military structure exists within the project site, although several leveled sites may have accommodated structures in the past.

Surrounding Land Uses

Surrounding land uses include: vacant land that is proposed for the Monterey Peninsula College Emergency Vehicle Operation Center (MPC E.V.O.C.) and County/Bureau of Land Management (BLM) open space to the south and east of the project site; California State University Monterey Bay (CSUMB) open space, an Army maintenance parcel, vacant military barracks to the north, the Department of the Defense (DoD) facility to the north; and residential uses and Chartwell School to the west of the project site. Surrounding land uses are presented on Figure 2-5: Surrounding Land Uses.

Scenic Vistas

A scenic vista is a view that possesses visual and aesthetic qualities of high value to the community. Scenic vistas can provide views of natural features or significant structures and buildings. The term "vista" generally implies an expansive view, usually from an elevated point or open area.

According to the *Monterey County General Plan* Scenic Highway Corridors and Visual Sensitivity Map (Monterey County 2010) and the *Fort Ord Reuse Plan*, the project site is not located within and/or would not be visible from an identified critical viewshed. However, there are several trails located on the FORHA and BLM open space areas west of the project site that provide periodic views of the project site (discussed below) and surrounding area from higher elevations along the trails. These are generally brief and distant views that are frequently interrupted and intermittent due to adjacent vegetation and topography.

Scenic Resources and Roadways

Along with the National Scenic Byways Program (implemented by the Federal Highway Administration), the California Scenic Highway Program (Streets and Highways Code Sections 260-263) designates scenic corridors. According to the California Department of Transportation, the California Scenic Highway Program is intended to "protect and enhance the natural scenic beauty of California's highways and adjacent corridors, through special conservation treatment." Within Monterey County, portions of Highways 1, 25, 156, and 198 are officially designated or eligible scenic highways. The project site is not visible from any of the corridors.

According to the *Monterey County General Plan* Scenic Highway Corridors and Visual Sensitivity Map (Monterey County 2010) and the *City of Seaside General Plan*, the project site would not be visible from any identified critical viewsheds.

Light and Glare

Lighting nuisances can generally be categorized by the following:

- Glare – Intense light that shines directly, or is reflected from a surface into a person's eyes;
- "Skyglow"/Nighttime Illumination – Artificial lighting from urbanized sources that alters the rural landscape in sufficient quantity to cause lighting of the nighttime sky and reduction of visibility of stars and other astronomical features; and
- "Spillover" Lighting – Artificial lighting that spills over onto adjacent properties, which could interrupt sleeping patterns or cause nuisances to neighboring residents.

Regulatory Setting

State

Streets and Highway Code, Section 260 et seq. - State Scenic Highway Program

The California Scenic Highway Program (CSHP) was created by the Legislature in 1963 with the purpose of preserving and protecting scenic highway corridors from change, which diminish the aesthetic value of lands adjacent to highways. The stated intent (Streets and Highway Code Section 260) of the California Scenic Highway Program is to protect and enhance California's natural beauty and to protect the social and economic values provided by the State's scenic resources. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The CSHP includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code.

State highways nominated for scenic designation must first be on the statutory list of highways eligible for scenic designation in the State Scenic Highway System. A process for adding eligible highways to the statutory list is described in Section III: Obtaining Eligibility. County highways nominated for scenic designation that are believed to have outstanding scenic values are considered eligible and do not require any legislative action. Both State and county highway nominations follow the same process and have the same requirements.

Scenic highway nominations are evaluated using the following criteria:

- The State or county highway consists of a scenic corridor that is comprised of a memorable landscape that showcases the natural scenic beauty or agriculture of California (see definition for "vividness", under Section III: Step 1, Visual Assessment).
- Existing visual intrusions do not significantly impact the scenic corridor (see definitions for "intactness" and "unity" below, under Section III. Step 1: Visual Assessment).
- Demonstration of strong local support for the proposed scenic highway designation.
- The length of the proposed scenic highway is not less than a mile and is not segmented.

The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. According to the *California Department of Transportation (Caltrans) Scenic Highway Program (CSHP)*, State Route 1 from State Route 68 to the San Luis Obispo County line, State Route 68 from State Route 1 to the Salinas River, and State Route 156 from east of

Castroville to US Route 101 are officially designated scenic highways. State Route 25 between State Routes 156 and 198, State Route 68 from Monterey to US Route 101, State Route 156/US Route 101 State Route 156 near Prunedale northeasterly to State Route 156, State Route 156 from near Castroville to northeast of Hollister, and State Route 198 from US Route 101 to State Route 33 are considered eligible Scenic Highways.

Local

Fort Ord Reuse Plan

Land Use Objective A: Encourage land uses that respect, preserve and enhance the natural resources of Fort Ord. The former Fort Ord is located in a diverse and scenic natural environment. From coastal strand and dune areas to maritime chaparral and oak woodlands, the area offers a broad range of natural features. Land use and design policies can encourage development that enhances the beauty of the natural environment by carefully distributing building intensity and land uses. Fort Ord jurisdictions can preserve the environment by encouraging project design that is responsive to natural features, such as plant and animal habitats.

Residential Land Use Policy I-1: The City of Seaside shall support FORA in the preparation of regional urban design guidelines, including a scenic corridor design overlay area, to govern the visual quality of areas of regional importance.

> **Program I-1.1:** The City of Seaside shall prepare design guidelines for implementing development on former Fort Ord lands consistent with the regional urban design guidelines (to be prepared by FORA) and the General Development Character and Design Objectives of the Fort Ord Reuse Plan Framework. (Question to City: Status?)
>
> **Program I-1.2:** The City of Seaside shall review each development proposal for consistency with the regional urban design guidelines and the General Development Character and Design Objectives of the Fort Ord Reuse Plan Framework. (Possible per above?)

City of Seaside General Plan

Urban Design Element

Goal UD-1: *Create and maintain a positive image that also provides a clear identity for the community within the region.*

Policy UD-1.1: Enhance the City's image and identity within the region's natural setting.

Policy UD-1.2: Support a variety of neighborhood revitalization and improvement programs to address commercial and residential areas in need of enhancement.

Implementation Plan UD-1.2.1 Landscaping Plans and Design Features. Include landscaping plans and design features in accordance with the new design standards in all public improvement plans for the City.

Goal UD -2: *Create and preserve distinct neighborhoods and business districts.*

Policy UD-2.1: Protect the character of single-family neighborhoods by restricting out-of scale buildings, incompatible uses and designs, blocked views and/or access to sunlight, and excessive through traffic.

Implementation Plan UD-2.1.1 Design Standards in Zoning Ordinance. Adopt design standards in the Seaside Zoning Ordinance to establish the scale of buildings, guidelines for quality design in new construction, building additions, and redevelopment, procedures to protect existing private views and access to sunlight as much as possible while at the same time allowing others the opportunity to enjoy the magnificent views from Seaside. (See also Land Use Implementation Plans LU-2.1.1 and 2.3.2)

Policy UD-2.2: Minimize potential light and sound impacts of new development and redevelopment on surrounding areas.

Implementation Plan UD-2.2.1 Restrict Light and Noise Impacts. Continue to impose and enforce mitigation measures and operation requirements on new development to restrict construction and operation lighting and noise levels to regular work hours during the week and to acceptable times during the weekends.

Policy UD-2.3: Ensure projects use design and site planning facilities that reduce potential criminal activities.

Goal UD -3: *Provide and maintain a streetscape system that protects views and enhances visual quality and continuity within the community.*

Policy UD-3.1: Protect private views of significant natural features, such as the Monterey Bay, Roberts Lake, the Pacific Ocean, the surrounding mountains, and other important viewsheds.

Implementation Plan UD-3.1.1 View Protection and the BAR. Continue to require all additions that increase building heights and new developments to stake and flag development at least ten days prior to consideration by the Board of Architectural Review (BAR) for design approval. When feasible, require project site redesign, modified landscaping, or reduced building heights to avoid obstruction of private views.

Policy UD-3.2: Preserve the unique public views visible from the Highway 1 corridor between Fremont Boulevard and the northern boundary of the City as identified in the Fort Ord Reuse Authority (FORA) Plan.

Implementation Plan UD-3.2.1 Viewshed Protection Standards. Establish and enforce design guidelines and standards to preserve and protect public and private viewsheds while still allowing development to occur.

Conservation/Open Space Element

Goal COS-8: *Encourage exterior lighting that preserves night skies.*

Circulation Element

Policy C-4.3: Ensure well-landscaped parking lots that facilitate pedestrian movement and screen unattractive structures.

Implementation Plan C-4.3.1 Parking Lot Landscaping Standards. Require parking areas that facing streets or adjoining properties to be landscaped per specific requirements in the Zoning Ordinance and/or through the Specific Plan process.

City of Seaside Municipal Code, Title 17, Zoning Ordinance

Chapter 17.30 (Standards for All Development and Land Uses) of the City of Seaside Municipal Code expands upon the zoning district development standards of Article 2 (Zoning Districts, Allowable Land Uses and Zoning District Standards) by addressing additional details of site planning, project design, and the operation of land uses. These standards are intended to ensure that proposed development is compatible with existing and future development on neighboring properties, and is consistent with the general plan and any applicable specific plan. The following regulations apply:

17.30.020 - Fences, Walls, and Screening: This section regulates height limits, specific requirements for certain land uses, prohibited materials, exemptions, and screening requirement for certain uses and areas.

17.30.030 - Height Limits and Exceptions: This section describes the required methods for measuring the height of structures in compliance with the height limits established by this title, and exceptions to those height limits.

17.30.040 - Landscaping Standards: The purpose of this section is to improve the physical appearance of property within the city, and to provide appropriate landscape buffers where necessary.

17.30.070 - Outdoor Lighting: This section regulates outdoor lighting with requirements for energy-efficiency, position of fixtures, maximum illumination, prohibited lighting, and new lighting on commercial buildings.

17.30.100 - Setback Requirements and Exceptions: This section provides standards for the location, required size, and allowable uses of setbacks. Setback standards provide open areas around structures for: access to and around

structures; access to natural light, ventilation and direct sunlight; separation between potentially conflicting activities; space for privacy, landscaping and recreation; and visibility and traffic safety.

17.30.130 - View Protection: This section regulates staking and flagging for new construction that meets certain criteria.

Chapter 17.38 (Signs) of the City of Seaside Municipal Code regulates the use of the signs in the City. The regulations established by this chapter are intended to appropriately limit the number, placement, size, and type of signs allowed within the city, and to require the proper maintenance of signs.

Relevant Project Characteristics

The proposed Specific Plan includes both development standards and design guidelines to guide future development. These development and guidelines would be used during the design review process for project applications within the Specific Plan Area. The design guidelines apply to all new construction within the Specific Plan area.

Development of the project site would permanently change the wooded character of the project area and would extend the existing developed character of the areas west of the project site, particularly along Giggling Road. The developed portions of the project area would require the removal of approximately 42,000 oak trees. Areas where trees would not be removed include the Oak Oval (72.5 acres) and the Development Area with Habitat Restoration Opportunity (46 acres) adjacent to the proposed veteran's cemetery.

Implementation of the proposed project would alter the existing visual character of the project site by changing it from a largely natural landscape to a built environment with a mix of visitor serving equestrian and special event venues, mixed-use commercial, residential, recreation, trails open space preservation, public facilities and veteran cemetery uses. Higher density residential and commercial development would occur in the eastern portion of the project area, closer to existing development. The proposed horse track, equestrian facility and cemetery would have fewer built structures.

Building heights would range from single-story residential to commercial buildings up to four stories (50' maximum height). The sport arena/grandstand would have a maximum height of 100 feet (150 feet maximum inclusive of towers, steeples, domes, cupolas, and other similar features. Parking structure(s) in the recreational areas (REC-1 and -2) would have a maximum height of 5 stories or 60 feet. The proposed cemetery site would consist of ___ single-story buildings with a height not exceeding ___ feet (discuss with applicant), and landscaped burial sites.

Impacts and Mitigation Measures

Criteria for Determining Significance

In accordance with the CEQA, *State CEQA Guidelines*, and agency and professional standards, a project impact would be considered significant if the project would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resource, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and surroundings, i.e., be incompatible with the scale or visual character of the surrounding area or substantially detract from the integrity, character and/or aesthetic character of the neighborhood; and/or
- Create a new source of substantial light or glare, such that it poses a hazard or nuisance.

Methodology

The analysis of potential aesthetic impacts within this section is based on a site reconnaissance of the project area and surrounding area, the *City of Seaside General Plan*, and photographs of the project area and vicinity. The site reconnaissance and photo documentation of the planning area was performed by RBF Consulting in 2013. Photos were taken to characterize the visual character of the project site and surrounding area.

Potential impacts were assessed by forecasting the anticipated appearance of future development within the project site based on design schematics of the proposed project. Nighttime lighting and day and nighttime glare are assessed qualitatively through comparative analysis of existing and proposed conditions and evaluation of design guidelines and development standards included in the proposed Specific Plan. Existing sources of light and glare are identified and quantified where possible.

Project Impacts and Mitigation Measures

Substantial Adverse Effect on a Scenic Vista or Scenic Highways

The project site is not located within a scenic vista designated by the City of Seaside General Plan, the Monterey County *General Plan Scenic Highway Corridors and Visual Sensitivity Maps*, and the *Fort Ord Base Reuse Plan*. Views of and through the project site are typical to the surrounding area and are not considered particularly unique to the project area and the region.

There are a number of trails both on and around the project site that are used for non-motorized recreation including hiking, biking, and horseback riding. These trails are located with the Oak Oval and east of the project site on land within the Fort Ord Recreational Habitat Area (FORHA) (see Figure 3.12-1: FORHA Trail Map) and on the Fort Ord National Monument, which is managed by the BLM (see Figure 3.12-2: Fort Ord National Monument Trail Map. Trails with the FORHA are managed according to

the *FORHA Trail Master Plan* (Administrative Draft January 2012). There are no designated scenic vistas identified by the FORHA plan or by BLM. Consequently, development of the project site would not have an impact on any designated scenic vistas.

According to a review of a Caltrans-maintained list of eligible and officially designated Scenic Highways, the closest officially designated state highway to the project site is a portion of State Route 1 between State Route 68 (south of the project area) and the Carmel River. In addition, a portion of State Route 68 between State Route 1 and the Salinas River to the east is also officially designated. Neither of these portions of highway is visible from the project site nor would the project site be visible from these stretches of highway.

Because the proposed project would not be seen from any designated scenic vista, nor from any designated Scenic highway, there would be **no significant impact**.

Degradation of the Visual Character of the Project Area and Surrounding Area

Impact 3.1-1: Implementation of the proposed project would sustainably alter the character of the existing natural landscape of the project site but would extend the existing development pattern located west of the project site. This would be considered a **potentially significant impact**.

The project site is located east of and adjacent to existing development. This includes land uses associated with the DOD and CSUMB including residential homes (military housing), office space, vacant barracks, maintenance/storage yards and public roadways.

In general terms, given the varying topography, existing roadway alignments, and existing vegetation, views from outside of the project site are intermittent and infrequent. While there are temporary views of project site from existing roadways and trails, these viewed tend to be relatively sporadic and distant.

To assess the potential visual impacts of the proposed project, a series of panoramic photos were prepared from public roadways on and around the project site. As shown in Figure 3.1-1**a**: Project Viewpoints, five viewpoints are identified and the respective views shown in Figures 3.1-1**b** through 3.1-1**e**.

Figure 3.1-1**b**: Project Viewpoints shows Viewpoint 1 looking east from Gigling Road and 8th Street and Viewpoint 2 looking east from Parker Flats Road and Normandy Road. Both of these viewpoints are generally at higher elevations than a majority of the project site and represent key nodal points into the project site. Views from these two viewpoints would be substantially altered as much of the vegetation would be removed. However, it is important to note that existing development is located east and adjacent to these viewpoints so the change in visual character would be an easterly expansion of the existing built form from the surrounding area.

Figure 3.1-1**c**: Project Viewpoints shows Viewpoint 3 looking northeast from Eucalyptus Road and Park Flats Cutoff Road. This viewpoint is from the southeast corner of the project site and is the highest elevation (~420 ft. above msl). From this viewpoint, the project site is currently obstructed by vegetation. As part of the proposed project, this vegetation would remain unchanged until such time that FORA constructs the proposed Eastside Parkway. From this viewpoint, a person would experience a fairly expansive view of the project site, as well as the existing built environment to the north and east.

Figure 3.1-1**d**: Project Viewpoints shows Viewpoint 4 looking northeast from Parker Flats Road south of the project site. This viewpoint is located in a relatively low point of the site in an area that is relatively devoid of trees. With the proposed project, views from this viewpoint would include the Horse Park in the foreground, multi-family residential and the Oak Oval in the mid-ground, and, judging from the height of the third electrical utility structure, only the very tallest structures of the Sports Arena in the background.

Figure 3.1-1**e**: Project Viewpoints shows Viewpoint 5 looking southwest from Gigling Road and Parker Flat Road within the FORHA open space area. Given the existing vegetation and topography, views of the project area would not be possible.

However, further south and west within the FORHA area is a series of trails where, from some vantage points, the proposed project would be visible. This is would exist on trails traversing east to west, particularly adjacent to the project site. As noted on Figure 3.12-1: FORHA Trail Map, these include trails P-23, P-13, P-14, P-08, P-06, P-01 through P-04 and trails within the Oak Oval. Users of these trails will likely experience periodic views of the proposed project including the Horse Park (e.g. stables, barns, equestrian riding areas), the Oak Oval, and the Sports Arena (e.g. race track, grandstand), as well as the existing electrical utility structure which is a predominant feature of the landscape. Users would also experience views of more distant existing built features further east and northeast including the eight-story ODD office building, a large water tank, and other structures associated with former military base use (e. g. storage yards, office buildings, abandoned barracks, etc.)

In the short-term during construction, the visual character of the project area would be substantially altered as trees are removed and grading occurs. Over time, as development occurs, the Project site would be built out and include substantial landscaping and per the requirement of the develop standards and guidelines, plus the requirements of the *City of Seaside General Plan* and related Development Guidelines, would be integrated with and become an extension of the existing built environment that currently exists to the east.

Development of the project site would change the overall scenic value of the project site's visual contribution to the natural landscape and would contribute to a gradual change from undeveloped natural vistas to developed vistas areas.

The *Fort Ord Base Reuse Plan EIR* found that build-out of the former Fort Ord would result in less than significant impacts from changes to visual quality. Sites without existing development, such as the project site, would have greater effects, but implementation of the visual protection policies as described in the *Fort Ord Base Reuse Plan* and the *City of Seaside General Plan*, described above, would reduce these impacts to less than significant.

Furthermore, the development standards and design guidelines described in the Specific Plan would ensure that the visual quality of the project site is not substantially degraded, particularly in the long term. The architectural design guidelines (Chapter 5) establish an overall architectural character for the project site by using a number of compatible traditional and contemporary architectural styles. The landscaping and grading design standards (Chapter 7) will be used to establish a cohesive landscape design that will largely utilize drought-tolerant native plants and be designed to integrate with the surrounding environment.

Approximately 72 acres of the project area (the Oak Oval) will be set aside as open space, which will function as a combination park and natural preserve. This open Space area will include a number of pedestrian and equestrian pathways that will link the Eastside Parking and the proposed Town Center to the FORHA open space preservation areas. Another 46 acres identified as the Development Area with Habitat Restoration Opportunity adjacent to the proposed cemetery would be remain as natural open space. In addition, expanded greenways are proposed along Park Flats Road, Gigling Extension Road and the Eastside Parkway as well as a series of neighborhood parks and open space throughout the project site.

The proposed project would be required to implement the applicable *Fort Ord Reuse Plan* and the *City of Seaside General Plan* and *Municipal Code* visual protection policies. Furthermore, the proposed project would set aside open space areas and, where development occurs, be required to comply with development standards and design guidelines identified in the Specific Plan. With the implementation of these requirements, and in context to the existing visual character on and surrounding the project site, particularly the existing adjacent development, the proposed project would be consistent with the overall intentions of the FORA *Base Reuse Plan* would therefore have a **less than significant impact** on the aesthetics and visual resources of the project site and surrounding area.

Light and Glare

Impact 3.1-2: Implementation of the proposed project would introduce new sources of glare from reflective surfaces and nighttime lighting. This would be considered a **potentially significant impact**.

Development of the project site has the potential to create new sources of glare from architectural and paved surfaces. The proposed project includes new roadway and parking areas, buildings, and other miscellaneous built structures. Sources of glare

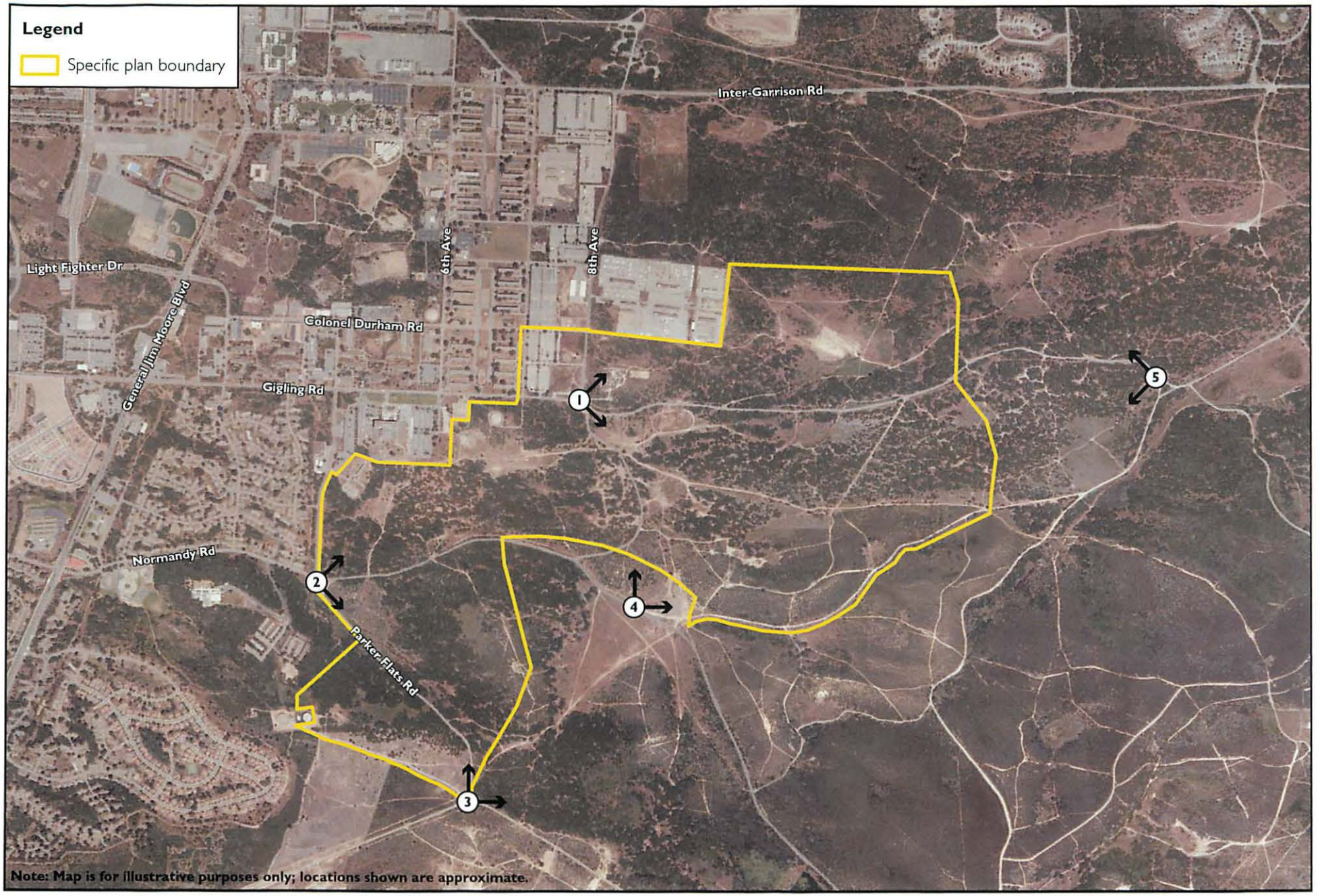
including building rooftops and sun reflections off vehicles in parking lots. Most building materials would be non-reflective. As described in the Specific Plan (Section 5.4.2 General Architectural Guidelines [d]), roof materials would have a matte finish to minimize glare and highly reflective roof surfaces would be discouraged.

Glare effects would be most visible from public roadways which would generally be distant and brief. Over time, built structures would be partially obscured by trees and variations in grade. As such, the impact from daytime reflection and glare would be considered **less than significant** and no mitigation is required.

The proposed project would note create a substantial new source of light and glare during all hours of the night and would contribute incrementally to the degradation of atmospheric "night sky" conditions. The Specific Plan (Section 7.5.1 Exterior Lighting) includes an extensive list of standards designed to minimize excessive lighting. These include:

- All street lighting shall be installed consistent with the City of Seaside standards (per the development standards for each land use).
- Private and public light fixtures will be designed to prevent light-spillover onto adjacent properties and to prevent light pollution of the night-sky. For example, all exterior floodlights, pole lights, and carriage lights shall include shielding in a manner such that all the luminous flux falls upon either the surface of the structure to be illuminated or on the ground wholly on the property on which it is installed.
- Private and public light fixtures shall be architecturally compatible with the overall design of buildings, and used to reinforce community design and identity.
- All night lighting should have a warm, incandescent appearance, except where dictated otherwise by the utility company; "cool" light sources, such as mercury vapor and low or high-pressure sodium lights, shall not be visible from major streets and preferably should not be uses. Illuminated areas shall be localized as much as possible. Light fixtures that broadcast light over large areas, or which are a source of glare, are not permitted.
- Outdoor lighting should be designed to minimize the impact of artificial lighting on night-time skies.

These design standards would reduce the impacts of light and glare to a **less than significant level**.



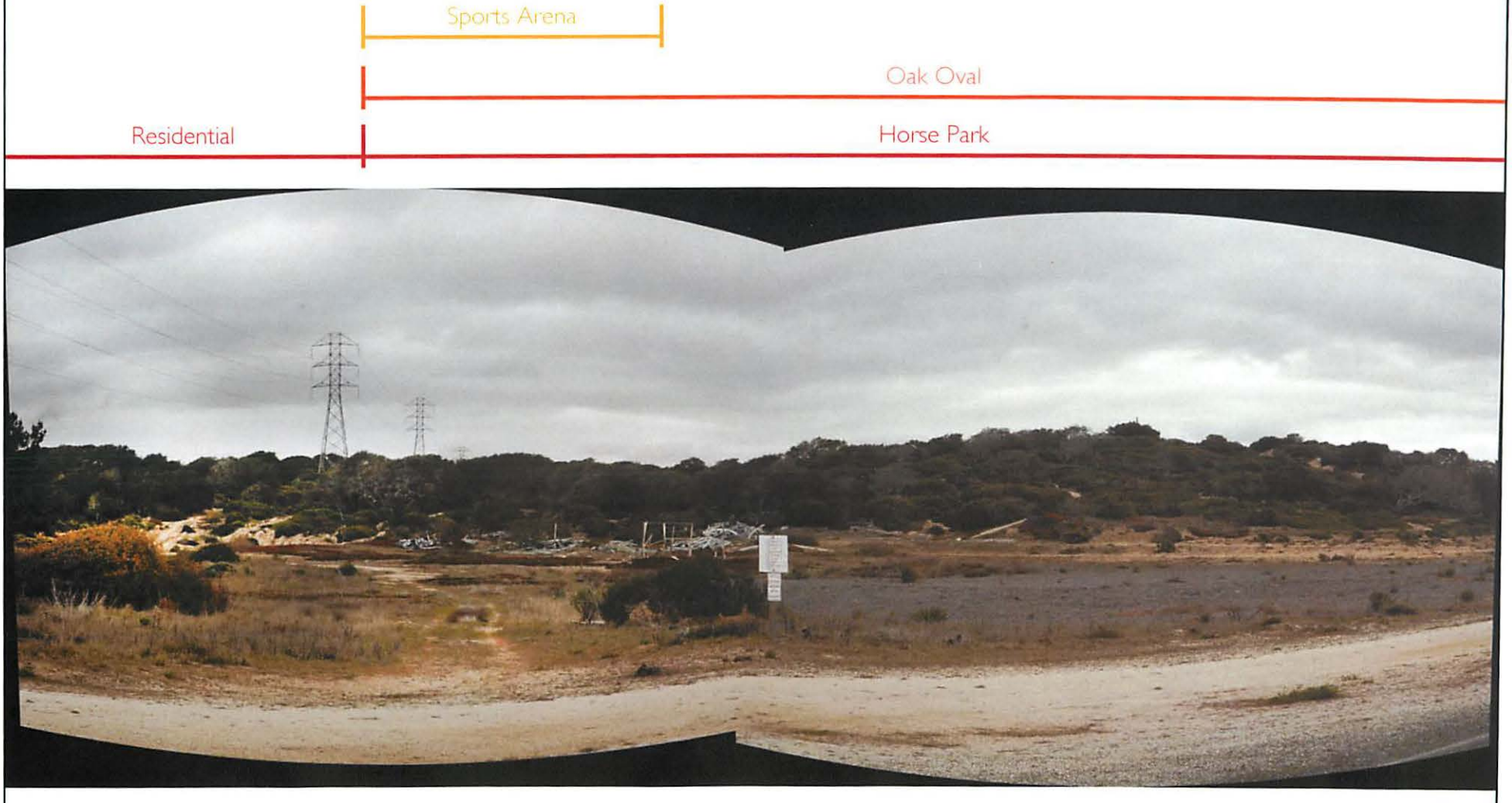
RBF A Baker Company

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Project Viewpoints

Figure 3.1-1a

Viewpoint 4: Looking northeast from Parker Flats Road South of the Project Site



Note: Views are for illustrative purposes only; locations of land uses shown are approximate.

Viewpoint 5: Looking southwest from Gigling Road and Parker Flats Road

County of Monterey Fort Ord Habitat Area (FORHA) Open Space

Note: Views are for illustrative purposes only; locations of land uses shown are approximate.

3.12 Public Services and Recreation

This section of the Draft EIR describes existing public services within the proposed project area, including fire protection, law enforcement, schools, and other public facilities. This section also discusses parks and recreational facilities. The potential impacts on public services were evaluated, based in part, on coordination with the appropriate local service agencies that serve the proposed project area. This section provides baseline information and evaluates potential impacts on public services practices and policies related to the proposed project.

Environmental Setting

The public services addressed in this section include fire protection, law enforcement, schools, parks/recreational facilities, and other city- and county-wide public protection facilities.

Fire Protection Services

A portion of the project area is currently located in unincorporated Monterey County and is served by the Monterey County Regional Fire District and a portion of the project area is currently located in the City of Seaside and is served by the City of Seaside Fire Department according to the jurisdictional boundaries shown in Figure 2-11: Existing Jurisdictional Boundaries.

Seaside Fire Department

The Seaside Fire Department (SFD) is headquartered approximately 3.25 miles southwest of the project area at 1635 Broadway Avenue. The SFD provides fire protection and emergency prevention and response services to the entire City, as well as related public education and advice to the public (City of Seaside General Plan 2004). The SFD provides include fire suppression, emergency medical response, hazardous materials detection and removal, vehicular accident response, and other rescue situations. The SFD also has a fire prevention program that reviews plans for new construction and renovations to ensure compliance with all pertinent life safety requirements (Seaside Fire Department 2012).

The SFD's minimum daily staffing is seven personnel, which includes one Chief in a Command vehicle, three personnel on a pumper/truck, and three personnel on an engine. The SFD staffs a Type 3 (wildland) fire engine, a medium rescue vehicle and a County hazardous materials unit. The SFD also maintains two reserve engines in their fleet. All personnel are trained as basic life support/emergency medical technicians (BLS/EMTs) (Personal communication between Steve Prelsnik, City of Seaside Fire Department and Jennifer Stewart on March 28, 2012).

The fire service refers to response time as the time the call is dispatched to the time of arrival of the first fire truck. Access to the project area would depend on traffic, roadway access, and obstructions (traffic calming). Current estimated average response time to the project area is estimated to be between seven to eight minutes (Personal

communication between Steve Prelsnik, City of Seaside Fire Department and Jennifer Stewart on March 28, 2012). The SFD has mutual aid and automatic aid agreements with neighboring fire agencies including the Monterey County Regional Fire Agency and the Presidio of Monterey.

The Insurance Service Office (ISO) Grading Schedule is a means of classifying cities with reference to their fire defenses and physical conditions. Base fire insurance rates are rated on a scale of 1 to 10 with protection class 1 affording the best (lowest) fire insurance rates. Factors considered in the rating include required fire flow for buildings, available water supplies, fire station locations, fire equipment and communication systems, fire inspection programs, and firefighter training programs. The insurance classification developed under this schedule is one of several elements used in the development of insurance rates. The SFD's current ISO is a class '4' protection rating (Personal communication between Steve Prelsnik, City of Seaside Fire Department and Jennifer Stewart on March 28, 2012).

Monterey County Regional Fire District

The Monterey County Regional Fire District (MCRFD) has a service area of approximately 350 square miles and additional six fire stations. There are 52 full-time employees who are supported by 40 volunteer firefighters. The MCRFD responds to structure, wildland, vehicle, and other types of fires that occur within the MCRFD, in addition to public service calls, medical emergencies, vehicle accidents and hazardous material response. All of MCRFD's engines carry a full complement of medical and rescue equipment (Monterey County Regional Fire District 2012). All of the MCRFD's personnel are Emergency Medical Technicians (EMT) or paramedics (Monterey County Regional Fire District 2012).

Law Enforcement Services

Police protection services in the project area are provided by the Monterey County Sheriff's Office, the City of Seaside Police Department, and the California Highway Patrol.

Monterey County Sheriff's Office

The Sheriff's Patrol Division of the Monterey County Sheriff's Office provides a full range of law enforcement and related emergency response services to a resident population of approximately 110,000 (unincorporated areas) over an area of 3,325 square miles from three stations (Monterey County Office of the Sheriff 2012). The Central Station (Salinas) patrols all of North County, the Salinas Valley south to Gonzales and west, halfway to Monterey. The Coastal Station (Monterey) covers unincorporated areas of the Monterey Peninsula (which includes the project area), Carmel Valley and the coastal areas to the San Luis Obispo County line. The South County Station (King City) provides coverage of southern Monterey County from Gonzales south to the San Luis Obispo County line, and west to the ridgeline of the

Santa Lucia Mountain Range. In addition, the Sheriff's Office operates the County Detention Facility in Salinas (Monterey County Office of the Sheriff 2012).

The Sheriff's Office contains an Administrative Bureau, an Enforcement Operations Bureau, and a Custody Operations Bureau. The Enforcement Operations Bureau includes the Sheriff's Patrol Division, Special Operations Division, Investigation Division, Narcotics Division, and a Crime Prevention Unit (Monterey County Office of the Sheriff 2012).

As of March 2012, the Sheriff's Office had 382 full-time equivalent staff positions. This includes 228 sworn safety officers and 94 non-sworn support staff positions (Personal Communication between Lieutenant Alig, Monterey County Sherriff and Jennifer Stewart, RBF Consulting on March 22, 2012).

Seaside Police Department

The City of Seaside Police Department is located at 440 Harcourt Avenue and serves approximately ten square miles and a population base of ~ 34,900 people. There are 39 sworn and ten civilian officers, which equates to 1.2 officers per 1,000 persons.

The Seaside Police Department Patrol Division handles the daily street patrol in the City, responds to dispatched calls for service, traffic enforcement, enforcement of local, state and federal laws, and general crime prevention (City of Seaside Police Department 2012). The Patrol Division is divided into three watches, providing coverage 24 hours a day, seven days a week. Each watch has two Sergeants and a minimum of six Officers. A single Patrol Commander oversees the activities of the Patrol Division (City of Seaside Police Department 2012).

The City of Seaside is geographically divided into beats; a "beat" being the area of responsibility for an assigned officer. Typically, there is one officer assigned per beat, per shift, with one or two additional officers assigned as follow-up or traffic officers to support the beat officers. Officers patrol their assigned beat, responding to dispatched calls for service or otherwise enforcing laws within that area. The current average response time to the project area is estimated to be approximately two minutes (Personal Communication with Chief Myers, Police Chief and Erika Spencer, RBF Consulting on 8/1/13).

California Highway Patrol (CHP)

As a major Statewide law enforcement agency, the California Highway Patrol (CHP) is responsible for the management and regulation of traffic to achieve safe, lawful and efficient use of the California highways as well as provide disaster and lifesaving assistance. The CHP also provides traffic regulation enforcement; oversees response to emergency incidents on California's highways or assists other public agencies responding to emergency incidents; and promotes the safe and efficient movement of people and goods on California highways to minimize loss of life, injuries, and property damage. CHP officers patrol state highways and implement the CHP's other law enforcement

activities (e.g., drug interception, vehicle theft investigation and prevention, vehicle inspections, accident investigations, and public awareness campaigns), with the support of the non-uniformed personnel assigned to area and division offices (California Highway Patrol 2012).

The CHP has eight divisions that provide services throughout California. The project area is located in the Coastal Division service area. The Coastal Division has 11 area offices, one resident post, two commercial vehicle inspection facilities and three communication/dispatch centers. These facilities staff nearly 700 uniformed and non-uniformed employees (California Highway Patrol 2012). The closest area office to the proposed project is located at 960 E. Blanco Road in Salinas.

Emergency Medical Service

Emergency medical services are provided by hospitals in neighboring communities. These include Natividad Medical Center and the Salinas Valley Memorial Hospital in Salinas and the Community Hospital of Monterey Peninsula (CHOMP) in Monterey. Ambulance service is provided by private companies.

CHOMP recently developed a 12,000 square foot facility in the City of Marina in 2012 near the southeast corner of Imjin Parkway and 2nd Avenue that includes urgent care, primary care, a satellite lab, and imaging services.

Salinas Valley Memorial Hospital (SVMH) is also planning a new medical center at the southwest corner of Imjin Parkway and Third Avenue in the City of Marina. SVMH envisions that there will be a Doctors on Duty urgent medical center providing general practice and specialist physicians, primary-care medical groups and medical labs.

Schools

Monterey Peninsula Unified School District

The proposed project is located in the Monterey Peninsula Unified School District (MPUSD), whose service area also includes the cities of Seaside, Monterey, Marina, and portions of unincorporated Monterey County. The MPUSD operates 13 elementary schools, two middle schools, four high schools, one continuation school, and two community day schools (Education Data 2012). Total MPUSD enrollment for the 2010-2011 school year was 11,167 K-12 students, with an average class size of 24.8 students, and a pupil-teacher ratio of 22.7 students to one teacher (Education Data 2012). Enrollment data for the Monterey Peninsula Unified School District for 2010 to 2011 school year is shown in Table 3.12: Enrollment Data for the Monterey Peninsula Unified School District (2010 – 2011).

153 **Table 3.12-1: Enrollment Data for the Monterey Peninsula Unified School District (2010 – 2011)**

School	Grades	Address	City	Enrollment
Elementary Schools				
Crumpton (J.C.)	K-5	460 Carmel Avenue	Marina	421
Del Rey Woods	K-5	1281Plumas Avenue	Seaside	443
Foothill	K-5	1700 Via Casoli	Monterey	412
Highland	K-5	1650 Sonoma Avenue	Seaside	469
Ione Olson	K-5	261 Beach Road	Marina	484
King (Martin Luther)	K-5	1713 Broadway	Seaside	396
La Mesa	K-5	1 La Mesa Way	Monterey	392
Marina Vista	K-5	390 Carmel Avenue	Marina	450
Marshall (George C.)	K-5	300 Normandy Road	Seaside	785
Monte Vista	K-5	251 Soledad Drive	Monterey	379
Ord Terrace	K-5	1755 La Salle Ave.	Seaside	536
Middle Schools				
Los Arboles	6-8	294 Hillcrest Avenue	Seaside	647
Colton (Walter)	6-8	100 Toda Vista Street	Monterey	698
Seaside	6-8	999 Coe Ave.	Seaside	810
High Schools				
Seaside	9-12	2200 Noche Buena Street	Seaside	1,038
Marina	9-12	298 Patton Parkway	Marina	634
Monterey	9-12	101 Hermann Drive	Monterey	1,253
Monterey Peninsula Community Day	9-12	700 Pacific Street	Monterey	12
Continuation High Schools				
Central Coast Continuation High School	9-12	200 Coe Avenue	Seaside	142
Total				**11,167**

Source: Education Data, 2012

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Schools closest to the project area include:

- Marshall Elementary School located at 300 Normandy Road, Seaside;
- Ord Terrace Elementary School located at 1755 La Salle Avenue, Seaside;
- Seaside Middle School located at 999 Coe Avenue, Seaside;
- Los Arboles Middle School located at 294 Hillcrest Avenue, Marina;
- Seaside High School located at 2200 Noche Buena Street in Seaside; and
- Marina High School located at 298 Patton Parkway, Marina, CA.

California State University Monterey Bay (CSUMB)

There is one four-year college, the California State University Monterey Bay (CSUMB), located within the City of Seaside. CSUMB is located in the northernmost portion of the City (approximately 1.25 miles northwest of the proposed project), and it offers 22 undergraduate degree programs, eight graduate degree programs, and teaching credentials. For the 2011-2012 school year, there were 5,173 undergraduate and graduate students at CSUMB (CSUMB 2012).

Parks/Recreation Facilities

City of Seaside

The City of Seaside owns and/or maintains 28 parks and recreation areas totaling 50.71 acres. Nearly half of the parks in the City of Seaside are small mini-parks of less than one acre in size within existing residential neighborhoods. In addition to these parks, the City of Seaside owns two golf courses (Bayonet and Black Horse), a community center, an indoor swimming pool, and a youth education center. The City of Seaside also maintains three youth baseball/softball fields.

Seaside Highlands Community Park and Metz Park, which is a 2.10 acre mini-park, are the closest parks to the project area.

County of Monterey

The largest and most important piece of open space and recreation in unincorporated Monterey County on the former Fort Ord is the Bureau of Land Management (BLM), which is comprised of approximately half (approximately 8,000 acres) of the Fort Ord interior lands. The BLM maintains 86 miles of trail for hikers, mountain bikers,

horseback riders, wildlife/wildflower photographers and nature enthusiasts[23]. Significant recreation events, particularly mountain bike rallies, are scheduled within the BLM lands.

In addition to the BLM lands, the County of Monterey has designated open space areas to the north and east of the project site. The County of Monterey developed the *Recreational Habitat Area Trail Master Plan* in January 2012, which serves as a guide for future recreational trail planning and implementation within the County Habitat Management Areas. The Oak Oval, which is an existing oak woodland located within the middle of the project area identified as a component of the *Recreational Habitat Area Trail Master Plan* and designates several two and four foot trails that would connect with the adjacent BLM lands. Figure 3.12-1: FORHA Trail Map shows the existing and proposed trails in the Recreational Habitat Area Trail Master Plan.

Other Public Facilities

Libraries

The closest library to the proposed project is the Seaside Community Library, located at 550 Harcourt Avenue in the City of Seaside, which is located approximately four miles southwest of the proposed project. The Seaside Community Library is part of the Foundation for Monterey County Free Libraries. The Foundation was established in 1990 to improve services and programs for library users and has established Adult Literacy Programs, Homework Centers, Children's Programs, Bookmobile services, new book purchases, and new information technology services. The Seaside Branch Library is the largest of the 17 branches of the Monterey County Free Library system and serves as a regional reference center and important collection base for the use of more than 127,000 registered patrons of the system. The library is open six days per week, for a total of fifty-four hours per week (Seaside Branch Library 2012).

Public Health

The Monterey County Health Department provides public health services to Monterey County. The Health Department provides a variety of services, including adult behavioral services alcohol and drug treatment, communicable diseases treatment, HIV/AIDS prevention, immunization, lifestyle risk, maternity, pediatric, and reproductive health services (Monterey County Health Department 2012). The Health Department operates clinics in Marina, Salinas, and Seaside. Natividad Hospital in Salinas, which is currently operated by the County, is the main provider of care for indigent and underinsured residents of the County and provides both primary and in-patient care (Monterey County Health Department 2012).

[23] Bureau of Land Management,, Fort Ord Public Lands Recreation, http://www.blm.gov/ca/st/en/fo/hollister/fort_ord/_recreation_fo.html, Accessed March 30, 2012.

Regulatory Setting

State

Schools

School Facilities Act of 1998

The School Facilities Act of 1998 (also known as Senate Bill [SB] 50), provides state funding for new school construction projects that can satisfy certain criteria for such funding, including eligibility due to growth, Division of State Architect plan approval. However, the Act also dramatically limits the maximum amount of impact fees, which can be charged by school districts as mitigation for new residential, commercial, and industrial construction. The Act also prohibits local agencies from denying a development application on the basis of a person's refusal to provide school facilities mitigation that exceeds the fee amount and refusing to approve any legislative or adjudicative act on the basis that school facilities are inadequate.

Parks and Recreation

Quimby Act

Since the passage of the 1975 Quimby Act (California Government Code §66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The goal of the Quimby Act was to require subdividors to provide park and recreational lands to meet the increased demand from new subdivisions. Originally, the Act was designed to ensure "adequate" open space acreage in jurisdictions adopting Quimby Act standards, which ranged from three to five acres per 1,000 residents.

Local

City of Seaside

City of Seaside General Plan

Goal LU-9: Provide a sufficient level of fire protection, public education, and emergency response service (with a response time of five minutes) for all portions of the community.

Policy LU-9.1: Adopt and maintain level of service (e.g., response times, call handling) and staffing standards for the Fire Department.

> **Implementation Plan LU-9.2.1** Fire Prevention Development Requirements. Ensure the project developer has paid all appropriate fees, installed all required fire prevention and suppression devices, and that the circulation and water systems are adequate to serve the site.

Goal LU-10: Provide an effective and responsive level of police protection (including facilities, personnel, and equipment) through the Seaside Police Department.

Policy LU-10.1: Adopt and maintain level of service (e.g., response times, call handling) and staffing standards for the Police Department.

> **Implementation Plan LU-10.1.1** Adequate Law Enforcement. Review the level of services, facilities, and funding levels at budget time, adjusting when necessary to ensure that adequate levels of service and facilities are provided and maintained
>
> **Implementation Plan LU-10.1.2** Law Enforcement Development Requirements. Ensure the project developer has paid all appropriate fees, can be adequately served by the Police Department, and is designed in a manner that will prevent criminal behavior at the site.

Policy LU-11.1: Consider impacts of proposed projects on school enrollment and facilities.

> **Implementation Plan LU-11.1.1** School Impact Fees. During the review of development proposals, mitigate all potential impacts to schools in accordance with State laws and impact fee limits.

Goal COS-1: Provide and maintain a high quality parks and recreation system that meets the varying recreational needs of the community.

Policy COS-1.1: Provide a variety of well-maintained public parks and recreational facilities for Seaside residents.

Policy COS-1.3: Maximize pedestrian, transit, and bicycle access to parks and other local and regional activity centers as an alternative to automobile access.

Objective A: Protect public safety by minimizing the risk from fire hazards especially wildfire in grassland and wooded areas in the Fort Ord region.

Fire, Flood, and Emergency Management Policy A-1: The City shall reduce fire hazard risks to an acceptable level by inventorying and assigning risk levels for wildfire hazards and regulating the type, density, location, and/or design and construction of new developments, both public and private.

> **Program A-1.1:** The City shall incorporate the recommendations of the City Fire Department for all residential, commercial, industrial, and public works projects to be constructed in high fire hazard areas before a building permit can be issued. Such recommendations shall be in conformity with the current applicable Uniform Building Code Fire Hazards Policies. These recommendations should include standards of road widths, road access, building

materials, distances around structures, and other standards for compliance with the UCB Fire Hazards Policies.

Fire, Flood, and Emergency Management Policy A-2: The City shall provide fire suppression water system guidelines and implementation plans for existing and acquired former Fort Ord lands equal to those recommended in the Fort Ord Infrastructure Study (FORIS Section Table 4.1.8) for fire protection water volumes, system distribution upgrades, and emergency water storage.

Fire, Flood, and Emergency Management Policy A-3: The City shall develop in cooperation with other Fort Ord jurisdictions and the surrounding communities fire protection agencies, a fire management plan to ensure adequate staff levels, response time, and fire suppression operations in high fire hazard areas of the former Fort Ord. The fire management plan shall also include a fire "fuel management program" in conjunction with the County of Monterey and the Bureau of Land Management.

Fire, Flood, and Emergency Management Policy A-4: The City shall evaluate the need for additional fire station and fire suppression facilities and manpower within areas of the former Fort Ord which the City plans to annex in order to provide acceptable fire/emergency response time.

Objective C: Promote public safety through effective and efficient emergency management preparedness.

Fire, Flood, and Emergency Management Policy C-1: The City shall develop an emergency preparedness and management plan, in conjunction with the City of Marina, the County of Monterey, and appropriate fire, medical, and law enforcement agencies.

City of Seaside Parks, Recreation and Community Services Plan

The City of Seaside adopted the City's Parks, Recreation, and Community Services Plan in 2005. The planning study for the Seaside Parks, Recreation and Community Services Plan identified critical issues for the future of the City's park system. The first was the need to provide adequate park facilities in all of the City's neighborhoods. In the Fort Ord area this will be relatively easy because redevelopment was estimated to create new areas for park development. In some existing portions of Seaside this need was found to be more difficult to achieve due to the lack of available vacant land. The Plan identifies some approaches to meet the need for parks and recreation facilities.

The second critical issue was the need to provide support facilities, especially sport fields. Participation in field sports is substantially below average. This can be attributed to the lack and the condition of existing fields. The Plan recommends locating fields in groups for better playing and management conditions. It also suggests an effort be made to upgrade existing fields. While the Plan identifies park and facility needs and the importance of upgrading the existing park system, it also provides a strategy for funding these needs.

City of Seaside Bicycle Transportation Plan

The purpose of the Seaside Bicycle Transportation Plan is to establish a system of bikeways within the City of Seaside that connect with and complete the regional bikeway system. The growth of the former Fort Ord military installation, including the California State University Monterey Bay campus, will bring a significant number of residents, employees and students who require safe and efficient bicycle transportation to and from business, school and residential areas. Bikeways that connect residential neighborhoods with businesses, schools and services within the City are crucial to the development of this community.

Fort Ord Reuse Plan

Recreation and Open Space Element

Objective A: Integrate the former Fort Ord's open spaces into the larger regional open space system, making them accessible as a regional resource for the entire Monterey Peninsula.

Objective B: Protect scenic views, and preserve and enhance visual quality.

> **Program B-1.1:** The City of Seaside shall establish guidelines for minimum landscaping standards within the corridor which incorporate a regional landscape theme.

Recreation Policy B-2: The City of Seaside shall establish landscape gateways into the former Fort Ord along major transportation corridors to establish a regional landscape character.

Objective C: Promote the goals of the Habitat Management Plan through the sensitive siting and integration of recreation areas which enhance the natural community.

Recreation Policy C-1: The City of Seaside shall establish an oak tree protection program to ensure conservation of existing coastal live oak wood lands in large corridors within a comprehensive open space system. Locate local and regional trails within this system.

Objective D: Establish a system of community and neighborhood parks which provide recreation opportunities reflective of local community standards.

Recreation Policy D-1: The City of Seaside shall designate and locate park facilities to adequately serve the current and projected population of Seaside within the former Fort Ord for both active recreation as well as to provide for passive uses such as scenic vistas, fish and wildlife habitat, and nature study.

Recreation Policy D-2: The City of Seaside shall develop active parkland within the former Fort Ord within the 2015 time frame which reflects the adopted City of Seaside

standard of 2 acres of neighborhood parkland and 1 acre of community parkland per 1,000 population.

Recreation Policy D-4: The City of Seaside shall develop a plan for adequate and long-term maintenance for every public park prior to construction.

Objective E: Create opportunities for economic revitalization of the former Fort Ord through encouragement of commercial recreation opportunities in appropriate settings.

Recreation Policy E-1: Seaside shall identify an appropriate amount of commercial recreation opportunity sites in compatible settings to ensure that these recreation opportunities are realized. These uses will be considered compatible land uses where identified.

Objective F: Create a unified system of hiker/biker and equestrian trails which links all sectors of the former Fort Ord and encourages alternative means of transportation.

Recreation Policy F-1: The City of Seaside shall reserve sufficient space within key transportation arterials to accommodate paths for alternative means of transportation.

Recreation Policy F-2: The City of Seaside shall encourage the development of alternative means of transportation for recreation and other travel.

> **Program F-2.1:** The City of Seaside shall adopt a Comprehensive Trails Plan, and incorporate it into its General Plan. This Trail Plan will identify desired hiker/biker and equestrian trails within that portion of the former Fort Ord within Marina's jurisdiction, create a trail hierarchy, and coordinate trail planning with other jurisdictions within Fort Ord boundaries in order to improve access to parks, recreational facilities and other open space.

Objective G: Use open space wherever possible to create an attractive setting for the former Fort Ord's new neighborhoods and institutions.

Recreation Policy G-1: The City of Seaside shall use incentives to promote the development of an integrated, attractive park and open space system during the development of individual districts and neighborhood's within the former Fort Ord.

Recreation Policy G-2: The City of Seaside shall encourage the creation of private parks and open space as a component of private development within the former Fort Ord.

Recreation Policy G-3: The City of Seaside shall adopt landscape standards to guide development of streetscapes, parking lots, government facilities, institutional grounds, and other public and semi-public settings within the former Fort Ord.

Recreation Policy G-4: The City of Seaside shall coordinate the development of park and recreation facilities with neighboring jurisdictions including the City of Marina, Monterey County, CSUMB, California State Parks, and the Bureau of Land Management.

Relevant Project Characteristics

The proposed project includes a "Firewise Overlay" located within 200 feet of the OS planning area, the southern and eastern boundary of the Rec-1 planning area and the eastern boundary of the Rec-2 planning area to restrict flammable development within 200 feet of the habitat area boundary due to the high level of fuel that can accumulate in maritime chaparral. In addition, the Public Facilities (PF) planning area includes space to construct a new fire station and police substation (if necessary) for the City of Seaside.

72 acres of the project area is proposed as open space within the OS planning area, which will function as an open space preserve known as the Oak Oval that will become part of the Fort Ord Habitat Area (FORHA). The proposed project includes a number of pedestrian and equestrian pathways that would link to the FORHA within the Oak Oval and south of the project area within Parker Flats. In addition, expanded "greenways" are proposed along Parker Flats Road, Gigling Extension Road, and the Eastside Parkway to link the proposed project to this open space trail network. The greenways will provide additional off-street pedestrian, equestrian and bicycle connections along with natural transitions between the developed and rural areas of the proposed project.

In addition, the proposed project includes an equestrian facility adjacent to the OS planning area and within the adjacent preserved open spaces east of the project area (East Garrison – Parker Flats Land Use Modifications Reassessment, 2002), which would provide additional equestrian-oriented recreational opportunities. Figure 2-17: Trail Map shows the proposed trail locations within the project area.

Impacts and Mitigation Measures

Criteria for Determining Significance

In accordance with the CEQA, *State CEQA Guidelines*, agency and professional standards, a project impact would be considered significant if the project would:

- Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
  - Fire protection,
  - Police protection,
  - Schools,
  - Parks, or

- Other public facilities;

- 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;

- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment;

Methodology

Information in this section is derived primarily from the *City of Seaside General Plan*, the *Monterey Downs and Horse Park and the Central Coast Veterans Cemetery Specific Plan*, as well as personal communication with service providers.

Impacts and Mitigation Measure

Physical Impacts Associated with an Increased Demand for Fire Protection Service

Impact 3.12-1 The proposed project would increase the demand for fire and emergency services within the project area. The increase could require new or expanded facilities to meet the increased demands. This would be considered a **less than significant impact**.

The proposed project could be served by the City of Seaside Fire Department, the Monterey County Regional Fire District, or the Presidio of Monterey, which would provide fire protection and emergency response services. The proposed project would result in an increase in the population of the City by approximately 4,139 people at build-out, which would in turn create additional demand for fire protection and emergency services. Currently, the City of Seaside Fire Department operates at a ratio of one firefighter to 1,300 residents; however, the optimum goal for fire service is one firefighter per 1,000 residents.

The population generated by the proposed project would impact the City of Seaside Fire Department's ability to maintain the current service level ratio goal. According to the City of Seaside Fire Department, the City's current level of fire and emergency services is not adequate to serve the project area. The proposed project would require a minimum of a single three person engine company staffed 24 hours a day in the proximity of the project area to serve the proposed project due to its location in relation to the City's existing fire stations.

The Public Facilities (PF) planning area of the proposed project includes space to construct a new fire station and police station (if necessary) for the City of Seaside. This land would be adequate to construct up to a four-bay fire station, which would be more than sufficient to accommodate additional facility demand requirements associated with the proposed project.

In lieu of constructing a new fire station, the City of Seaside may elect to extend their contract agreement with the Presidio of Monterey, who would be able to provide fire protection services for the proposed project from their existing facilities.

At present, the City has not determined a specific course of action, however, no additional fire and emergency facilities would be required separate from what the proposed project would provide, and therefore impacts to fire and emergency services is considered **less than significant**.

Physical Impacts Associated with an Increased Demand for Law Enforcement Service

Impact 3.12-2 The proposed project would increase residential and business development within the project area, which would increase the need for additional police patrols in the project area beyond current police staffing, resulting in a potential need for additional police facilities, such as a new sub-station. This is considered a **less than significant impact**.

Following annexation of the project area, the proposed project would be served by the City of Seaside Police Department. The proposed project would result in an increase of 4,139 people at build-out of the proposed project, which would subsequently increase the demand for police protection services. Currently, the police department operates at a ratio of 1.2 officers per 1,000 residents. Based on this ratio, the proposed project may result in the need for approximately five additional officers. The population generated by the proposed project would not substantially increase the service ratio and the department would continue to meet its established service goal [Note: Chief Myers will return our request to update this information].

The City of Seaside Police Department estimates that the proposed project would increase work load by 0.1 per hour, per officer based on 20 officers and a projected call volume of 376 calls per services. The City of Seaside Police Department estimates that the current level of police protection services currently provided are not adequate for the proposed project (Personal Communication with Chief Meyers, City of Seaside Police Department on May 21, 2013). Based on existing staffing and resources, the proposed project would increase the need for patrols in the project area, necessitating the need for ___ additional police officers [Note: Chief Myers has stated that she will address the number of new officers needed to serve the proposed project.] Planning for future police staff includes a level of growth equal to the proposed project and would include adequate staff and service capacity to serve the project area.

If needed, the proposed project includes space for a police sub-station in the Public Facilities (PF) planning area (as part of the land associated with a potential fire station).

At present, the City has not determined a specific course of action, however, no additional police facilities would be required separate from what the proposed project would provide, and therefore impacts to police services is considered **less than significant**.

Increased Demand for Educational Facilities

Impact 3.12-3 The proposed project includes the development of 1,562 new residential housing units which would increase the demand for educational services in the project vicinity. This is considered a **potentially significant impact**.

The project area is located under the jurisdiction of the Monterey Peninsula Unified School District (MPUSD). Educational facilities in the project area include elementary schools, middle schools and high schools.

Based on a mid-range estimated school district generation rate 0.45 students per household,[24] the proposed project would generate approximately 703 new students within the project area. Most of these new students would attend Marshall Elementary School, Seaside Middle School, and Seaside High School. As shown in Table 3.12-2: Monterey Peninsula Unified School District Enrollment and Capacity for Most Relevant Project-Related Schools, all of these schools are very close to capacity (Personal communications with John Silvestrini, MPUSD and Bill Wiseman, RBF Consulting, August 8, 2013).

Table 3.12-2: Monterey Peninsula Unified School District Enrollment and Capacity for Most Relevant Project-Related Schools

School	Current Enrollment	Capacity	Excess Capacity
Marshall and Marshall West Elementary	740	809	69
Seaside Middle School	819	841	22
Seaside High School	1,017	1,060	46

Source: Mr. John Silvestrini, Monterey Peninsula School District, 2013.

Strategies for accommodating additional demand vary according to the type of school, geographic location, and funding availability. Strategies could include modifying school boundaries, busing school children, expanding existing schools, and/or constructing new schools.

In 1998, the California legislature passed Senate Bill 50, which authorizes school districts to levy developer fees in order to finance the construction or reconstruction of school facilities required to meet the educational demands created by new construction within

[24] Mid-range estimate between a low of 0.27 and 0.55 students per household based on study prepared as part of a Memorandum of Understanding between the City of Marina and MPUSD in 2005-6, as discussed with John Silverstrini and Bill Wiseman, RBF Consulting, August 9, 2013.

their respective districts. The California Government Code establishes three types of school fees for developers, which are commonly referred to as the Level 1, Level 2 and Level 3 Fees, as follows:

The Level 1 Fee is assessed if the school district can establish a reasonable relationship between the new development and the assessment of fees required to pay for facilities needed to accommodate future students (Section 66001).

Level 2 Fee - If state funding is available, the Level 2 Fee is assessed if a school district: (a) makes a timely application to the State Allocation Board ("SAB") for new construction funding; (b) conducts a School Facility Needs Analysis; and (c) satisfies at least two of the four requirements set forth in Section 65995.5(b)(3) (e.g., district has "substantial enrollment" or has reached maximum bonding capacity) (Section 65595.5).

Level 3 Fee - If state funding is no longer available, the Level 3 Fee can be assessed, thereby allowing a school district to impose a developer fee up to 100% of the School Facility Program new construction project costs (Section 65995.7).

The SAB determines the appropriate amount for school developer fees based on the statewide cost index. At present, the SAB Level 1 fee is $3.20 per assessable square foot of residential construction, and $.51/square foot for all commercial/industrial assessable area.

Because the project applicant would be required to pay applicable school impact fees as a condition of approval of the proposed project to mitigate any potential impacts to existing school facilities, this would ensure that the proposed project has a **less than significant impact** on schools in the MPUSD.

Increased Demand for Parks and Recreation Facilities

Impact 3.12-4: The proposed project would result in an increase of approximately 4,139 additional residents, which would result in the demand for an additional 8.3 acres of parks and recreational facilities, per City of Seaside standards. The proposed project includes 72 acres of open space (Oak Oval) that would be part of the Fort Ord Habitat Area (FORHA), and up to four neighborhood parks with paseos within planning areas R-1, R-2, and R-3. The proposed project would also increase the use of off-site trails in the project vicinity. Given this allocation of parks, open space and trails, the proposed project would result in a **less than significant impact** to parks and recreation facilities.

On-Site Park and Recreation Facilities

The proposed project includes a total of 1,562 residential units. Based on a population projection of 2.65 residents per household, the proposed project would result in approximately 4,139 residents. The Open Space Element in the *City of Seaside General*

575 *Plan* has set a goal of two acres of parkland per 1,000 residents. Based on this goal the
576 proposed project would be required to provide 8.3 acres of parkland.

577 Neighborhood parks, linear parks, and pocket parks would be provided within the R-1,
578 R-2 and R-3 planning areas for use by residents of the project area and surrounding
579 uses. The conceptual park designs are proposed to offer a variety of amenities tailored
580 for each park's intended use. For example, the more active recreational facilities such as
581 the neighborhood parks within the project area will include children's play equipment,
582 pools, grass play fields, barbeque areas, and other suitable facilities to meet the needs of
583 residents. The more passive recreational spaces, such as paseos, linear parks, and
584 pocket parks, will include more intimately scaled spaces, such as amenities suited for
585 quiet conversation, gardening, small neighborhood gatherings, and sightseeing.

586 As the proposed project would meet the City's parkland requirements by providing a
587 system of parks for residents of the proposed project, the proposed project would have
588 a **less than significant impact** on park and recreation facilities.

589 *On-site and Off-site Trails*

590 72 acres of the project area are proposed as open space, which will function as an open
591 space preserve known as the Oak Oval that would be part of the Fort Ord Habitat Area
592 (FORHA). The proposed project includes a number of pedestrian and equestrian
593 pathways that would link to the FORHA within the Oak Oval and south of the project
594 area within Parker Flats. In addition, expanded "greenways" are proposed along Parker
595 Flats Road, Gigling Extension Road, and the Eastside Parkway to link the proposed
596 project to this open space trail network. The greenways will provide additional off-
597 street pedestrian, equestrian and bicycle connections along with natural transitions
598 between the developed and rural areas of the proposed project.

599 The proposed project also includes an equestrian course that is envisioned adjacent to
600 the OS planning area and within the adjacent preserved open spaces east of the project
601 area (East Garrison – Parker Flats Land Use Modifications Reassessment, 2002), which
602 would provide additional equestrian oriented recreational opportunities.

603 The interconnected trail network within the project area would increase use of the
604 regional trails within the FORHA. As shown in the Figure 3.12-1: FORHA Trail Map
605 from the *Recreational Habitat Area Trail Master Plan* (County of Monterey 2012), future
606 development within the project area would link the trails with surrounding
607 development.

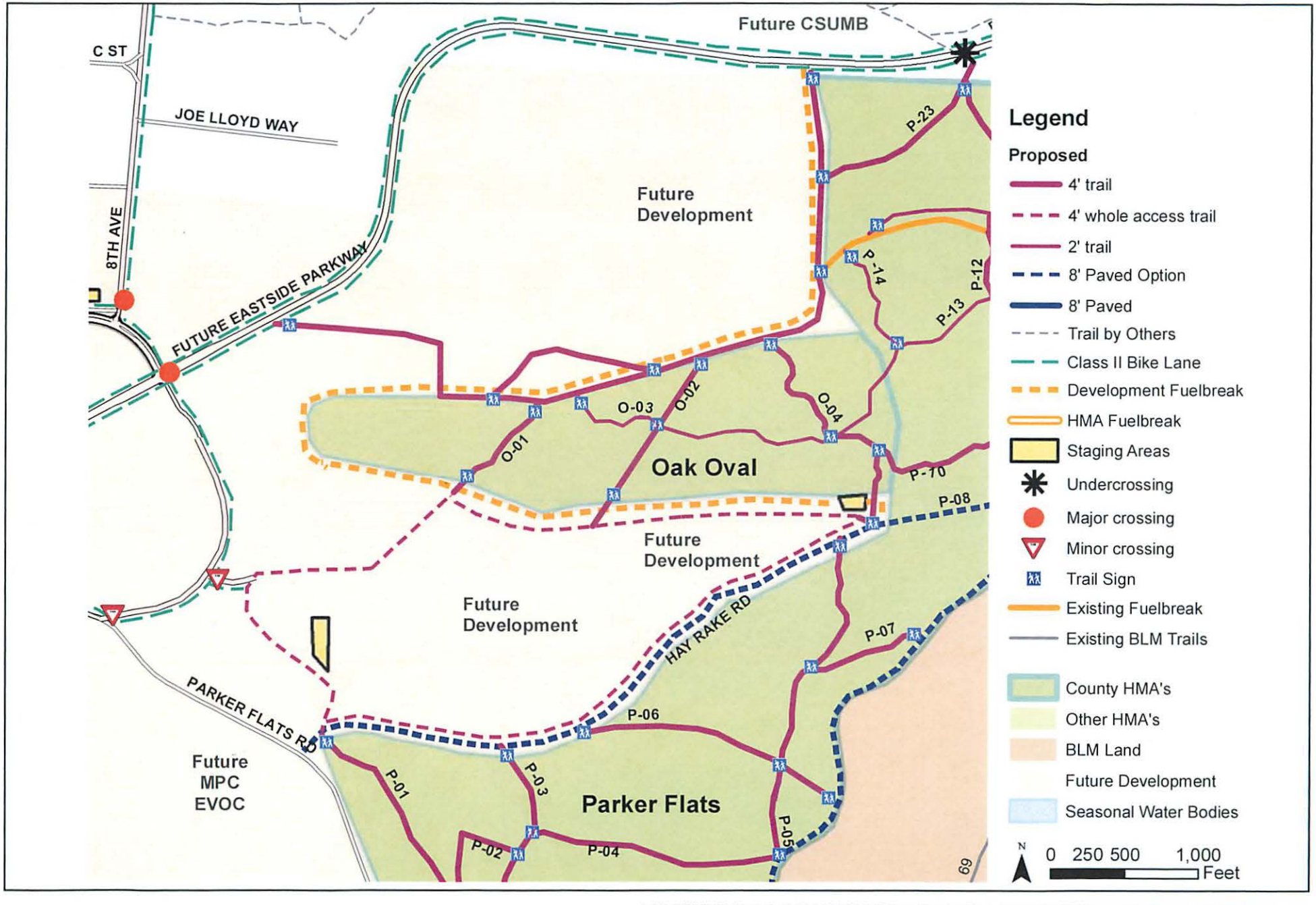
608 The County of Monterey is looking at funding options to ensure that maintenance and
609 operation costs are covered for the trails (e.g. FORHA parking fee and/or permits for
610 users that exert extra wear and tear on the trails such as equestrians and mountain
611 bicyclists). FORA has also included $12.2 million in its Capital Improvement Program
612 (CIP) budget for "Property Management and Caretaker Costs." This amount includes
613 $20,000 contributed for the development of the FORHA master plan and the remainder

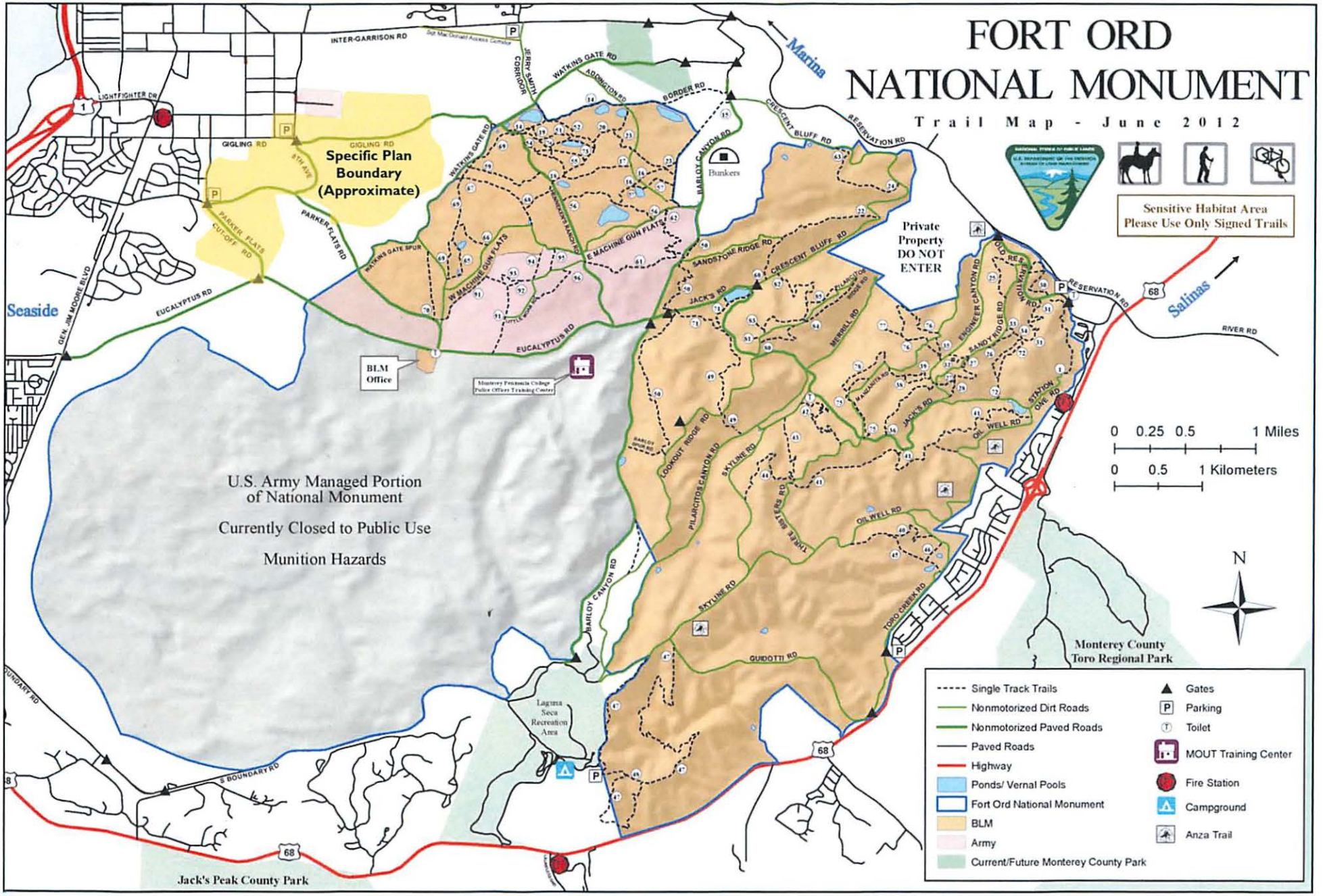
is available to jurisdictions such as the County of Monterey who are assuming responsibility for former Fort Ord properties to defray costs of maintaining the property. According to the Recreation Habitat Area Trail Master Plan, this budget allocation would be sufficient fund the maintenance endowment if the funds can be made available for this purpose. Therefore, increased use of the trails by residents within the project area is not anticipated to significantly degrade the FORHA and/or ultimately the BLM trails within the Pinnacles National Monument. Therefore, the proposed project is anticipated to result in a **less than significant impact** to the off-site trails in the project vicinity.

Increased Demand for Library Services or Other Public Facilities

Impact 3.12-5: The proposed project would result in an increase in demand for library services. The proposed project would provide adequate property tax revenue to the City, a portion of which is used to fund libraries and other public facilities. Existing library facilities have adequate capacity to serve the proposed project. In addition, the proposed project would not physically impact other public facilities. This is considered a **less than significant impact**.

The closest library to the proposed project is the Seaside Community Library, located at 550 Harcourt Avenue in the City of Seaside, which is located approximately four miles southwest of the project area. The Seaside Community Library is part of the Foundation for Monterey County Free Libraries. Although the proposed project would increase the demand for library services, funding for additional library facilities and other public facilities would be provided with an increase in property taxes and therefore additional demand for these services could be met concurrent with build out of the proposed project. Implementation of the proposed project is not anticipated to require the construction of new library facilities; would not cause or accelerate the physical deterioration of existing library facilities; and would not physically impact other public facilities. This would be considered a **less than significant impact**, and no mitigation is required.


Future CSUMB
C ST
JOE LLOYD WAY
8TH AVE
FUTURE EASTSIDE PARKWAY
Future Development
P-23
P-14
P-12
P-13
O-01
O-02
O-03
O-04
Oak Oval
P-70
P-08
Future Development
Future Development
HAY RAKE RD
P-07
PARKER FLATS RD
P-06
Future MPC EVOC
P-01
P-03
Parker Flats
P-02
P-04
P-05
69
Legend
Proposed
4' trail
4' whole access trail
2' trail
8' Paved Option
8' Paved
Trail by Others
Class II Bike Lane
Development Fuelbreak
HMA Fuelbreak
Staging Areas
Undercrossing
Major crossing
Minor crossing
Trail Sign
Existing Fuelbreak
Existing BLM Trails
County HMA's
Other HMA's
BLM Land
Future Development
Seasonal Water Bodies
N
0 250 500 1,000
Feet



Fort Ord National Monument Trail Map

Figure 3.12-2

3.11 Population and Housing

This section of the EIR describes the potential population and housing impacts associated with implementation of the proposed project. All physical, secondary environmental impacts related to population growth, such as traffic, noise and water supply, are discussed in their respective subsections of this Draft EIR. Information in this section was compiled from the *City of Seaside General Plan* (City of Seaside 2004), the City of Seaside Housing Element, data from the U.S. Census and American Community Survey, the California Department of Finance, the California Employment Development Department, the City of Seaside, and the Association of Monterey Bay Area Governments (AMBAG).

Environmental Setting

Population

Incorporated in 1954, Seaside is one of seven cities on the Monterey Peninsula. Nearby cities include Marina, Del Rey Oaks, Monterey, and Carmel-by-the-Sea. Overlooking the Monterey Bay, the city was developed as a primarily single-family community in the 1950s and 1960s. Seaside's proximity to the former Fort Ord, climate, and range of housing options has made the community a very desirable place to live. Many people who were attracted to the area for employment and other opportunities related to the military base chose to remain in the City even after it's the closure of Fort Ord.

According to the California Department of Finance (DOF) estimates, the City of Seaside is made up of 33,073 people, which is approximately eight percent of the population of Monterey County (DOF 2013). The 2012 population of the County was estimated at 419,586 (DOF 2013). The AMBAG Board adopted population, housing unit, and employment projections up to the year 2035 in 2008. However, AMBAG presented the *Draft Semi-Final 2012 Regional Growth Forecast Update* in June 2013 (AMBAG 2013). These forecasts will be adopted with the Metropolitan Transportation Plan (MTP) in 2014. Table 3.11-1: Population Projections presents the draft population forecasts between 2010 and 2035 for the County of Monterey and the City of Seaside, as well as the neighboring cities of Marina and Del Rey Oaks.

Table 3.11-1: Population Projections

Geography	2010	2020	2025	2030	2035	Compound Annual Growth Rate	Change Over Forecast Period
Monterey County	415,057	447, 516	463,884	479,487	495,086	0.71%	19.28%
Seaside	33,025	36,370	41,160	42,208	43,256	1.09%	30.98%
Marina	19,718	21,065	21,751	22,488	23,225	0.66%	17.79%
Del Rey Oaks	1,624	1,889	2,345	2,806	3,468	3.08%	113.55%

Source: AMBAG 2013

Based on the *Draft Semi-Final Growth Forecast*, AMBAG projects that the County of Monterey will grow by approximately 80,029 people by 2035 when the population is projected to be 495,086 with a growth factor of 19.28 percent over the forecast period of 2010 to 2035. Of that growth, the population in the City of Seaside is projected to grow by 10,231 people by 2035 to a population of 43,256 or approximately 30.98 percent growth over the forecast period (AMBAG 2013).

Housing

According to the 2013 DOF estimates, there were an estimated 3.15 persons per household in Seaside. This is less than the County average household size of 3.17 but greater than the State average household size of 2.90 (DOF 2013).

According to 2012 DOF estimates, there are currently 10,899 housing units in the City of Seaside (DOF 2013). Of these, 6,806 units, or 62 percent, are single-family detached. The vacancy rate in the City was 7.3 percent. This is much lower than the County average of 9.4 percent (DOF 2013). Table 3.11-2 City of Seaside Housing Stock, illustrates the types of housing units in the City.

Table 3.11-2: City of Seaside Housing Stock

Single Detached	Single Attached	2-4 Units	5+ Units	Mobile Homes
6,806	1,265	877	1,368	583
62.4%	11.6%	8.0%	12.6%	5.3%

Source: DOF 2012

Future Housing Needs

Based on the Department of Housing and Community Development (HCD) determines housing construction needs for the State based on projected growth in population, employment and households. These housing needs are allocated among cities by Regional Councils of Government, which for the Monterey Bay area is AMBAG. AMBAG distributes regional housing needs, as determined by HCD, to each jurisdiction in Monterey and Santa Cruz counties. The future housing need in the City of Seaside refers to the share of the regional housing need that has been allocated to the City.

AMBAG adopted its Revised Regional Housing Needs Allocation (RHNA) Plan 2007-2014 for Monterey and Santa Cruz Counties on June 11, 2008. The total housing unit need for AMBAG was 15,130 units. The City of Seaside's share of the total AMBAG housing need was 598 units (AMBAG 2008). Table 3.11-3 Regional Housing Need Allocation, identifies the number of housing units needed per income category. Seaside's allocation of very low-income units is 131 and the allocation of above moderate-income units 251.

Table 3.11-3 Regional Housing Need Allocation

		Income Category 2007-2014			
Location	**Allocation 2007-2014**	**Very Low 22%**	**Low 17%**	**Moderate 19%**	**Above Moderate 42%**
Monterey County Total	11,913	2,621	2,025	2,264	5,004
City of Seaside	598	131	102	114	251

Source: AMBAG 2008

According to the *Draft Semi-Final 2012 Regional Growth Forecast Update* (AMBAG 2013), the City of Seaside is expected to have approximately 14,664 housing units by 2035 and increase of 23.6 percent between the 2010 and 20135 forecast period.

Employment

Based on the *Draft Semi-Final 2012 Regional Growth Forecast Update* (AMBAG 2013), the number of local jobs is expected to increase. As of 2010, there were an estimated 7,790 jobs in the City of Seaside. This number is expected to increase to 9,628 jobs by 2035. According to the U.S. Census, the arts/entertainment/recreation/accommodation and food service is the largest employment sector in the City of Seaside, employing approximately 23.3 percent, followed by educational services/health care/social assistance at 18.6 percent and professional/scientific/management/administrative/waste management services at 14.6 percent in 2012.

As of 2012, the City of Seaside had a labor force of approximately 17,000 people (DOF 2012) The City's unemployment rate of 6.7 percent is lower than the County's rate of 11.5 percent (DOF 2012). Table 3.11-4: Occupations of Seaside Residents, lists each employment sector. Table 3.11-5 Number of Paid Employees in Seaside, lists the number of full-time and part-time positions located in the City of Seaside based on report forms sent by the Census Bureau along with existing administrative records.

83 **Table 3.11-4: Occupations of Seaside Residents**

Occupation	2007-2011	% of Total
Agriculture, Forestry, Fishing and Hunting, and Mining	257	1.7 %
Construction	801	5.3 %
Manufacturing	367	2.4 %
Wholesale Trade	164	1.1 %
Retail Trade	1,923	12.7 %
Transportation, Warehousing, and Utilities	417	2.8 %
Information	291	1.9 %
Finance and Insurance, Real Estate, Rental and Leasing	706	4.7 %
Professional, Scientific, Management, Administrative, and Waste Management Services	2,212	14.6 %
Educational Services, Health Care, and Social Assistance	2,802	18.6 %
Arts, Entertainment, Recreation, Accommodation and Food Services	3,516	23.3 %
Other Services	1,016	6.7 %
Public Administration	637	4.2 %
Total	15,109	-

Source: U.S. Census 2013

84 **Table 3.11-5: Number of Paid Employees in Seaside**

Occupation	2002	2007	% Change 2002-2007
Wholesale Trade	81	62	-23%
Retail Trade	1,542	1,871	-21%
Information	68	100-249*	266%
Real Estate Rental and Leasing	83	97	17%
Professional, Scientific, and Technical Services	20-99*	71	-28%
Administrative, Support, Waste Management, and Remediation Services	209	192	-8%
Educational Services	1-19*	-	-

Health Care and Social Assistance	232	160	-31%
Arts, Entertainment, and Recreation	88	109	24%
Accommodation and Food Services	786	950	21%
Other Services	285	301	6%
Total	3,492	4,062	-

* In instances where a range of employee numbers were given, the higher number was used in calculations
Source: U.S. Census 2013

Jobs/Housing Balance

The jobs/housing ratio represents the total number of jobs to residential units in a city or region. This number helps to identify the ability of the community to provide a balance of adequate employment and housing for its current and projected population. A lower jobs/housing ratio indicates fewer jobs for residents, and a high number indicates more jobs than housing. A jobs/housing ratio of between 1 and 1.5 is generally considered balanced. Achieving a jobs/housing balance requires controlling the location, intensity, and nature of jobs and housing. Evaluation of the existing and future jobs/housing balance considers employment potential (existing and projected), housing demand, new housing production, and available transportation systems (particularly alternative transportation).

According to the *City of Seaside General Plan*, the City of Seaside had a jobs/housing ratio of approximately 0.68:1, which was the lowest in Monterey County and has continued to decline. As previously mentioned, there are currently approximately 4,062 jobs and 10,899 housing units. This represents a jobs/housing ratio of approximately 0.37:1 which indicates that there are more homes than jobs in the City of Seaside. This indicates that the City of Seaside is primarily a bedroom community, whose residents work throughout the Monterey Peninsula and other nearby employment centers. According to the Census Bureau's *Commuter Adjusted Daytime Population: 2006-2010 5-year ACS table*, Seaside's population decreases by 28.4 percent during the daytime due to commuting to communities outside of the area.

The market development strategy of the *Fort Ord Base Reuse Plan* is to support the goal of achieving the maximum market value for residential development in order to enhance the attractiveness of the former Fort Ord as a jobs center (FORA 1997).

Regulatory Setting

City of Seaside General Plan

Housing Element

Goal H-1: Maintain a range of housing opportunities to address the existing and projected needs of the community.

Policy H-1.1: Maintain a variety of housing types, sizes, and prices throughout the city to increase housing choice and ensure that households of all types and income levels have the opportunity to find suitable ownership or rental housing.

Policy H-1.2: Identify adequate sites and appropriate zoning and development standards to facilitate and encourage housing production commensurate with the projected housing needs of the City.

Policy H-1.3: Encourage the construction high-density, well designed housing and residential/commercial mixed use projects.

Policy H-1.4: Maintain a geographic dispersal of units affordable to very low, low- and moderate income households throughout the City.

Policy H-1.7: Ensure that new residential developments are adequately served by infrastructure, including water and sewer, park and recreation areas, libraries, transportation, public safety and other necessary community services.

Goal H-3: Use public-private partnerships and collaborative efforts to ensure that all segments of the community have access to safe and decent housing that meets their special needs.

Policy H-3.1: Participate in programs assisting in the production and conservation of adequate, safe, and attractive housing affordable to very-low, low, and moderate income households and other specific needs groups.

Policy H-3.5: Facilitate the development and provision of affordable housing through regulatory incentives, density bonuses, and other special needs housing.

Policy H-3.6: Support collaborative partnerships of nonprofit organizations, affordable housing developers, major employers, and for profit developers to support the production of a variety of affordable housing opportunities in Seaside.

Fort Ord Reuse Plan

Land Use Element

Objective A: Establish a range of permissible housing densities for the former Fort Ord area.

Residential Land Use Policy A-1: The City of Seaside shall provide variable housing densities to ensure development of housing accessible to all economic segments of the community. Residential land uses shall be categorized according to the following densities:

Land Use Designation	Actual Density – Units/Gross Acre
SFD Low Density Residential	up to 5 Du/Ac
SFD Medium Density Residential	5 to 10 Du/Ac
MFD High Density Residential	10 to 20 Du/Ac
Residential Infill Opportunities	5 to 10 Du/Ac
Planned Development Mixed Use District	8 to 20 Du/Ac

Development intensities for residential and other land uses in the City of Seaside are summarized on Table 3.3-3 in the Framework of the Reuse Plan. The full range of permitted uses in each Land Use Designation is described in Table 3.4-1 in the Framework of the Reuse Plan.

Objective C: Encourage highest and best use of residential land to enhance and maximize the market value of residential development and realize the economic opportunities associated with redevelopment at the former Fort Ord.

Objective F: Balance economic development needs with the needs of the homeless population in the community.

Impacts and Mitigation Measures

Thresholds of Significance

For purposes of this EIR, implementation of the proposed project may have a significant adverse population and housing impact if it would result in any of the following:

- Induce substantial population growth in an area either directly or indirectly;
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displace substantial number of people necessitating the construction of replacement housing elsewhere.

Methodology

Impacts evaluated within this section were based on adopted policy planning documents including the *City of Seaside General Plan* (City of Seaside 2004), the *City of Seaside Housing Element* (City of Seaside 2011), data from the U.S. Census and American Community Survey, the California Department of Finance, the California Employment Development Department, the City of Seaside, and the Association of Monterey Bay Area Governments (AMBAG).

Project Impacts and Mitigation Measures

Population Growth

Impact 3.11-1 The proposed project would directly induce substantial population growth in an area by proposing new homes and businesses. This would be considered a **less than significant impact.**

The proposed project includes residential units that proposed within the R-1 planning area that are currently located within the City of Seaside. However, the R-2 and R-3 planning areas are currently located within unincorporated Monterey County, but would be annexed to the City with implementation of the proposed project.

Assuming new housing units would have an average household size similar to current residential units in the City, the new housing units associated with the proposed project would increase the City's population by approximately 4,032[22] persons. The *City of Seaside General Plan* anticipates the creation of more than 18,000 jobs, 16,000 housing units, and a total population of more than 37,000 people within the portion of the City located on the former Fort Ord (City of Seaside 2004). According to the DOF, the City's current population within the City is approximately 33,073 people. The *City of Seaside General Plan* assumes a development capacity of approximately 43,000 residents under build-out of the General Plan. With implementation of the proposed project, the projected population would be within the City's projected population, as well as the projected population for the City of Seaside on the former Fort Ord. Therefore, the proposed project would not induce substantial population growth within the project area. This would be considered a **less than significant impact**.

Creation of New Businesses and Employment Opportunities and Inducement of Population Growth

Impact 3.11-2: Implementation of the proposed project would create new businesses and employment opportunities, which could directly induce population growth in the City of Seaside. This is considered a less than **significant impact**.

The proposed project would generate approximately 200 construction jobs during each phase of the proposed project and 1,743 permanent jobs in the office, hospitality, retail, and the recreation sectors (Wildan 2012). These additional jobs will help to achieve a jobs/housing balance within the project area. With the introduction of new employment opportunities, there is a potential that an increase in population could occur. However, the City currently has a slight excess in the amount of housing with a vacancy rate of 7.3 percent and an unemployment rate of 6.7 percent.

The construction of new development within the project area would increase temporary construction jobs in the area. As build-out of the proposed project is expected to occur gradually over a 12 year period, construction-related employment

[22] Projected increase calculation using 3.15 person per household (3.15 X 1,280 = 4,032)

would be similarly dispersed over that time. Local construction companies are likely to find ample pools of employable personnel in the local area based on current and projected employment trends.

Due to the fact that there is a surplus of unemployed residents in the City, it is likely that current residents of the City and surrounding area would fill the majority of the positions. Any additional population growth induced by the creation of new businesses could be supported by the available housing and new housing planned as part of the proposed project. Furthermore, the creation of new jobs would beneficially impact the jobs-to-housing ratio. Because new employment opportunities generated by the implementation of the proposed project would impact the jobs-to-housing ratio within the projected trend, and because new jobs are likely to be filled mostly by current residents, the creation of these new businesses is not expected to induce a population growth that would have a significant impact on the City.

Moreover, the proposed project would concentrate new growth and promote a mixture of land uses and a balance of jobs and housing to support a community in which people can live, work, shop, and play. Therefore, impacts related to population growth would be considered **less than significant**. No mitigation measures are necessary.

Displacement of Existing Housing and People

The project area is essentially undeveloped with the exception of several minor vacant outbuildings formerly used by the U.S. Army. These changes would not impact existing housing and would not displace any residents.

3.10 Noise

This section addresses potential noise impacts from the construction, traffic, and operations that could occur within proposed project.

The information contained within this section is based on data from the *2004 City of Seaside General Plan*, the *City of Seaside Municipal Code*, and noise measurements and analysis prepared by RBF Consulting, a copy of which can be found in Appendix G.

Environmental Setting

Noise Scales and Definitions

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Table 3.10-1: Sound Levels and Human Response.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time; refer to Table 3.10-2: Noise Descriptors.

31 **Table 3.10-1: Sound Levels and Human Response**

Noise Source	dB(A) Noise Level	Response
	150	
Carrier Jet Operation	140	Harmfully Loud
	130	Pain Threshold
Jet Takeoff *(200 ft.)* Discotheque	120	
Unmuffled Motorcycle Auto Horn *(3 ft.)* Rock'n Roll Band Riveting Machine	110	Maximum Vocal Effort Physical Discomfort
Loud Power Mower Jet Takeoff *(2000 ft.)* Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-Hour Exposure)
Heavy Truck *(50 ft.)* Pneumatic Drill *(50 ft.)*	90	
Alarm Clock Freight Train *(50 ft.)* Vacuum Cleaner *(10 ft.)*	80	Annoying
Freeway Traffic *(50 ft.)*	70	Telephone Use Difficult
Dishwashers Air Conditioning Unit *(20 ft.)*	60	Intrusive
Light Auto Traffic *(100 ft.)*	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper *(15 ft.)*	30	Very Quiet
Broadcasting Studio	20	Just Audible
	10	Threshold of Hearing

Source: Melville C. Branch and R. Dale Beland, *Outdoor Noise in the Metropolitan Environment*, 1970 (p. 2).

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Table 3.10-2: Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Source: Cyril M. Harris, *Handbook of Noise Control*, dated 1979.

Existing Noise Environment

Ambient Noise Levels

To quantify existing ambient noise levels, RBF Consulting conducted a noise survey on March 22, 2012 at several locations throughout the project area. The noise

measurement sites were representative of existing noise exposure in a given time period (10 minutes) within the project site and project vicinity. The project site has not been in operation since 2003; however, a caretaker is currently present on-site for security purposes. Therefore, existing ambient noise levels are very low. A summary of noise measurement results are presented in Table 3.10-3: Noise Measurements.

Table 3.10-3: Noise Measurements

Site No.	Location	Time	Leq (dBA)	Lmin (dBA)	Lmax (dBA)	Peak (dBA)
1	Gigling Road near 6th Street	12:00 PM	62.6	41.1	79.4	95.0
2	8th Avenue, south of Gigling Road (on-site)	12:25 PM	52.3	33.1	76.5	97.0
3	Ardennes Circle at Colmar Road	12:54 PM	59.9	38.3	81.9	108.2
4	Spotslyvania Court	1:22 PM	53.4	41.4	72.1	95.4

Source: RBF Consulting, March 22, 2012

Mobile

The existing noise environment within the project site and vicinity is influenced primarily by residential, commercial, and institutional uses surrounding the project site, as well as vehicular noise emanating from traffic on area roadways such as Normandy Road and Gigling Road.

Stationary Noise Sources

The primary sources of stationary noise in the vicinity of project site are from typical residential, commercial, and institutional uses (e.g., conversation, HVAC equipment, parking lots, etc.).

Sensitive Receptors

There are several sensitive receptors in the vicinity of the project area, including residential uses to the north and west, the George C. Marshall Elementary School, Chartwell School, the New High School Project, Stillwell Elementary School, Seaside Middle School, the Monterey College of Law, and California State University Monterey Bay to the west.

Existing Regulatory Setting

City of Seaside

City of Seaside General Plan

Noise Element

Goal N-1: Provide consistent and effective noise control through proper land use planning.

Policy N-1.1: Ensure that new development and reuse/revitalization projects can be made compatible with the noise environment and existing development.

Goal N-2: Minimize transportation-related noise impacts.

Policy N-2.1: Reduce noise impacts associated with motorized vehicles, aircraft, and trains.

Goal N-3: Minimize non transportation-related noise impacts.

Policy N-3.1: Reduce the impacts of noise-producing land uses, activities, and businesses on noise-sensitive land uses.

City of Seaside Municipal Code

Section 17.30.060, *Noise Standards*, of the Seaside Municipal Code, implements the policies of the noise element of the Seaside General Plan, and provides noise mitigation standards that are intended to protect the community health, safety, and general welfare by limiting exposure to the unhealthful effects of noise.

Seaside Municipal Code Section 17.30.060E states the following:

E. Noise Source Standards.

1. Stationary and Transportation Source Noise Level Limitations.

    a. No use, activity, or process within the city shall generate noise in excess of the levels identified by Table 3.10-4: Maximum Interior and Exterior Noise Standards and Table 3.10-5: Noise/Land Use Compatibility Matrix, below, as measured at the property line of a noise sensitive land use identified.

        i. If the measured ambient noise level exceeds the applicable noise level standard in any category shown in the tables, the applicable standards shall be deemed to equal the ambient noise level.

        ii. If the noise source being evaluated is continuous and cannot reasonably be discontinued or stopped to allow measurement of the ambient noise level, the noise level measured while the source is in operation shall be compared directly to the applicable noise level standards identified in the tables.

    b. Notwithstanding the above requirements, no person shall allow or cause the generation of any noise of a duration, pitch, repetition, tone, type, or volume that would be found to be a nuisance by a reasonable person beyond the boundaries of the property where the noise is generated.

100 **Table 3.10-4: Maximum Interior and Exterior Noise Standards**

Land Use	Noise Standard (CNEL)	
	Exterior dBA	Interior dBA
Residential	65	45
Mixed Use Residential	70	45
Commercial	70	--
Office	70	50
Industrial	75	55
Public Facilities	70	50
Schools	50	50
Source: City of Seaside Municipal Code, Table 3-2.		

101 **Table 3.10-5: Noise/Land Use Compatibility Matrix**

Land Use Category	(CNEL) dBA						
	50	55	60	65	70	75	80
Residential – Single-Family, Multi-Family, and Duplex	A	A	B	B	C	-	-
Residential – Mobilehomes	A	A	B	C	C	-	-
Transient Lodging – Hotels and Motels	A	A	B	B	C	C	-
Hospitals, Libraries, Nursing Homes, Places of Worship, and Schools	A	A	B	C	C	-	-
Amphitheaters, Auditoriums, Concert Halls, and Meeting Halls	B	B	C	C	-	-	-
Amusement Parks, Outdoor Spectator Sports, and Sports Arenas	A	A	A	B	B	-	-
Neighborhood Parks and Playgrounds	A	A	A	B	C	-	-
Cemeteries, Golf Courses, and Riding Stables	A	A	A	A	B	C	C
Office and Professional Buildings	A	A	A	B	B	C	-
Banks, Commercial Retail, Restaurants, and Theaters	A	A	A	A	B	C	-
Industrial, Manufacturing, Service Stations, Utilities, and Wholesale	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

A - 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.

B - 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.

C - Normally Unacceptable: New construction or development should generally 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.

Source: City of Seaside Municipal Code, Table 3-3, Noise/Land Use Compatibility Matrix – Noise Contours and Noise Impact Areas.

Seaside Municipal Code Section 17.30.060F states the following:

> Standards for Sensitive Receptors. New noise sensitive land uses as identified in Table 3.10-5, above, shall not be allowed where the noise level from existing non-transportation noise generators will exceed the noise level standards in Table 3.10-5, or where projected levels of transportation noise will exceed the levels specified in Table 3.10-5, unless effective noise mitigation measures are incorporated into project design to maintain outdoor and indoor noise levels on the receptor site in compliance with Table 3.10-4: Maximum Interior and Exterior Noise Standards and Table 3.10-5: Noise/Land Use Compatibility Matrix.
>
> 1. New Noise-Sensitive Uses. New construction and retrofits at existing structures shall include appropriate insulation, glazing, and other sound attenuation measures so that they comply with the standards in Table 3.10-4: Maximum Interior and Exterior Noise Standards, above.
>
> 2. Mitigation Required. Noise that may affect a proposed noise sensitive land use shall be mitigated to not exceed the noise level standards in Table 3.10-4: Maximum Interior and Exterior Noise Standards, above, at the property line of any noise-sensitive land use identified. Appropriate mitigation measures include:
>
>   a. Noise attenuation measures, and stationary noise source controls shall include the use of baffles, barriers, enclosures, setbacks, silencers, site design, and improved facade construction techniques.
>
>   b. Where noise mitigation measures are required, mitigation shall occur primarily through site planning and project design, where feasible. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

Fort Ord Reuse Plan

Noise Element

Objective A: Ensure that application of land use compatibility criteria for noise and enforcement of noise regulations are consistent throughout the Fort Ord Planning area.

Noise Policy A-1: The City shall coordinate with the other local entities having jurisdiction within the former Fort Ord in establishing a consistent set of guidelines for controlling noise.

Program A-1.1: The City shall adopt the land use compatibility criteria for exterior community noise shown in Fort Ord Reuse Plan Tables 4.5-3 for application in the former Fort Ord.

Program A-1.2: The City shall adopt a noise ordinance to control noise from non-transportation sources, including construction noise that incorporates the performance standards shown in Fort Ord Reuse Plan Table 4.5-4, for application in the former Fort Ord.

Objective B: Ensure through land use planning that noise environments are appropriate for and compatible with existing and proposed land uses based on noise guidelines provided in the noise element.

Noise Policy B-1: The City shall ensure that the noise environments for existing residences and other existing noise-sensitive uses do not exceed the noise guidelines presented in Fort Ord Reuse Plan Tables 4.5-3 and 4.5-4, where feasible and practicable.

Program B-1.1: The City shall develop and implement a program that identifies currently developed areas that are adversely affected by noise impacts and implement measures to reduce these impacts, such as constructing noise barriers and limiting the hours of operation of the noise sources.

Program B-1.2: Wherever practical and feasible, the City shall segregate sensitive receptors, such as residential land uses, from noise generators through land use.

Noise Policy B-2: By complying with the noise guidelines presented in Fort Ord Reuse Plan Tables 4.5-3 and 4.5-4, the City shall ensure that new development does not adversely affect existing or proposed uses.

Noise Policy B-3: The City shall require that acoustical studies be prepared by qualified acoustical engineers for all new development that could result in noise environments above noise range I (normally acceptable environment), as defined in Table 4.5-3. The studies shall identify the mitigation measures that would be required to comply with the noise guidelines, specified in Fort Ord Reuse Plan Tables 4.5-3 and 4.5-4, to ensure that existing or proposed uses will not be adversely affected. The studies should be submitted prior to accepting development applications as complete.

Noise Policy B-4: The City shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) which require that interior sound levels of 45 dB-Ldn be achieved for new multi-family dwelling, condominium, hotel, and motel uses.

Noise Policy B-5: If, through site planning or the architectural layout of buildings, it is not feasible or practicable to comply with the noise guidelines presented in Fort Ord Reuse Plan Tables 4.5-3 and 4.5-4, the City shall require the following, as conditions to approval: that noise barriers be provided for new development to ensure that the noise

guidelines are met; or that acoustical treatments be provided for new buildings to ensure that interior noise levels would be reduced to less than 45 dB-Ldn.

Noise Policy B-6: If the ambient day-night average sound level (DNL) exceeds the normally acceptable noise range for residential uses (low density single family, duplex, and mobile homes; multi-family; and transient lodging), as identified in Fort Ord Reuse Plan Table 4.5-3, new development shall not increase ambient DNL in residential areas by more than 3 dBA measured at the property line. If the ambient DNL is within the normally acceptable noise range for residential uses, new development shall not increase the ambient DNL by more than 5 dBA measured at the property line.

Noise Policy B-7: If the ambient DNL exceeds the normally acceptable noise range for commercial (office buildings and business, commercial, and professional uses) or industrial (industrial, manufacturing, utilities, and agriculture) uses, as identified in Fort Ord Reuse Plan Table 4.5-3, new development in commercial or industrial areas shall not increase the ambient DNL by more than 5 dBA measured at the property line.

Noise Policy B-8: If the ambient DNL exceeds the normally acceptable noise range for public or institutional uses (passively and actively used open spaces; auditoriums, concert halls, and amphitheaters; schools, libraries, churches, hospitals and nursing homes; golf courses, riding stables, water recreation areas, and cemeteries), as identified in Fort Ord Reuse Plan Table 4.5-3, new development shall not increase ambient Ldn by more than 3 dBA measured at the property line.

Noise Policy B-9: The City shall require construction contractors to employ noise-reducing construction practices.

Relevant Project Characteristics

The proposed Specific Plan includes residential development standards (R-1, R-2, and RM planning areas) that address walls for noise attenuation. The Specific Plan allows walls to exceed 6 feet in height and extend up to 10 feet in height for noise attenuation purposes, subject to preparation of an acoustical study. Soundwalls may be up to 10 feet in height when combined with retaining walls.

Impacts and Mitigation Measures

Criteria for Determining Significance

In accordance with the State *CEQA Guidelines*, agency and professional standards, a project impact would be considered significant if the project would:

- Expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose persons to, or generate, excessive ground borne vibration or ground borne noise levels;

- Substantially permanently increase ambient noise levels in the project vicinity above levels existing without the project;
- Substantially temporarily or periodically increase ambient noise levels in the project vicinity above levels existing without the project;
- 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, expose people residing or working in the project area to excessive noise levels; and
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Significance of Changes in Traffic Noise Levels

An off-site traffic noise impact typically occurs when there is a discernible increase in traffic and the resulting noise level exceeds an established noise standard. In community noise considerations, changes in noise levels greater than 3 dB are often identified as substantial, while changes less than 1 dB will not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. This is based on a direct immediate comparison of two sound levels. However, in a community noise situation, noise exposures are over a long period of time and changes in noise levels occur over years (rather than the immediate comparison made in a laboratory situation). Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB is the most commonly accepted discernible difference. A 5 dB change is generally recognized as a clearly discernible difference.

As traffic noise levels at sensitive uses likely approach or exceed the 65 CNEL standard, a 3.0 dB increase as a result of the project is used as the increase threshold for the project. Thus, the project would result in a significant noise impact when a permanent increase in ambient noise levels of 3.0 dB occur upon project implementation and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Significance of Changes in Cumulative Traffic Noise Levels

The project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to the "existing" conditions. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

- *Combined Effects*: The cumulative with project noise level ("Future With Project") would cause a significant cumulative impact if a 3 dB increase over

existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

- *Incremental Effects*: The "Future With Project" causes a 1 dBA increase in noise over the "Future Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Significance of Changes in Stationary Source Noise Levels

Stationary noise associated with the operation of any facility within a project area is considered significant if it would create, maintain, cause or allow the sound level, when measured on any other property, to exceed the allowable sound levels as identified in the City of Seaside Municipal Code (refer to Tables 3-2 (Maximum Interior and Exterior Noise Standards) and 3-3 (Noise/Land Use Compatibility Matrix) Chapter 17.30.060E-1, Stationary and Transportation Source Noise Level Limitations. Additionally, Section 10.60 of the Monterey County Code limits stationary noise sources are to a maximum noise level of 85 dBA at 50 feet. This standard does not apply to aircraft or stationary sources located in excess of 2,500 feet from any occupied dwelling unit.

Vibration Thresholds

With respect to ground-borne vibration from construction activities, the Federal Transit Administration (FTA) has adopted guidelines/recommendations to limit ground-borne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity.

A technical discussion of construction activity-related vibration is provided in the FTA publication titled *Transit Noise and Vibration Impacts Assessment* (May 2006). As described therein, for a building that is constructed with reinforced concrete with no plaster, a vibration level of up to 0.50 inch per second (in/sec) (102 velocity decibels [VdB]) is considered safe and would not result in any construction vibration damage. With respect to structures that are considered "well engineered," a ground-borne vibration damage threshold criterion of 2.0 inch-per-second PPV. The analysis has assumed a conservative threshold of 0.2 inch-per-second PPV.

Project Impacts and Mitigation Measures

Construction Noise

Impact 3.10-1 Project construction could cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project due to operation of heavy equipment during construction. This is considered a **potentially significant impact**.

Construction activities have a short and temporary duration, lasting from a few days to a period of several months. Groundborne noise and other types of construction-related noise impacts would typically occur during the initial site preparation, which can create the highest levels of noise. Generally, site preparation has the shortest duration of all construction phases. Activities that occur during this phase include earthmoving and soils compaction. High groundborne noise levels can occur during this phase due to haul trucks, backhoes, and other heavy-duty construction equipment.

The closest sensitive receptors to the project area are the residential uses, which are 2,600 feet to the north and 200 feet to the west, as well as Chartwell School, which is 650 feet to the west. The potential for construction-related noise to adversely affect these sensitive receptors would depend on the location and proximity of construction activities to these receptors.

Miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, scrapers, and other heavy-duty construction equipment. Table 3.10-6: Maximum Noise Levels Generated by Construction Equipment indicates the anticipated noise levels of construction equipment. Table 3.10-7: Typical Vibration Levels for Construction Equipment provides a description of construction equipment noise levels. The average nose levels presented in Table 3.10-6 are based on the quantity, type, and Acoustical Use Factor for each type of equipment that would be used.

Operating cycles for construction equipment used during these phases may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). These estimations of noise levels take into account the distance to the receptor, attenuation from molecular absorption and anomalous excess attenuation.

The closest that construction activities could occur is 200 feet from existing and proposed residences. This is the distance from the edge of the project boundary to the closest sensitive receptors. The majority of the construction would occur at distances of 1,000 feet or more from the nearest sensitive receptors and would not be expected to interfere with normal residential activities.

322 **Table 3.10-6: Maximum Noise Levels Generated by Construction Equipment**

Type of Equipment	Acoustical Use Factor[1] (percent)	Lmax at 50 Feet (dBA)
Crane	16	81
Dozer	40	82
Excavator	40	81
Generator	50	81
Grader	40	85
Other Equipment (greater than five horse power)	50	85
Paver	50	77
Pile Driver (impact)	20	101
Pile Driver (sonic)	20	96
Roller	20	80
Tractor	40	84
Truck	40	80
Welder	40	73

NOTE:
1. Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006.

323

324 Construction noise impacts generally occur when construction activities occur in areas
325 immediately adjoining noise sensitive land uses, during noise sensitive times of the day,
326 or when construction durations last over extended periods of time. Construction
327 activities associated with the project would occur in four phases, which correspond to
328 the development areas in the Specific Plan. Construction activities would begin in one
329 development area and subsequently move to the other development areas. Therefore,
330 construction would not occur in any one location for an extended period of time.
331 Additionally, Mitigation Measure 3.10-1a would ensure that construction activities do
332 not occur during noise sensitive times of the day.

333 The construction of the proposed project is not anticipated to result in significant
334 temporary noise impacts on receptors within the project vicinity; however, some
335 construction related noise may occur. Additionally, project construction would not
336 include pile driving, which is the most common source of construction causing elevated
337 vibration levels. Implementation of Mitigation Measure 3.10-1a would reduce
338 construction noise associated with future development through the use of site-specific
339 noise reduction features. Specifically, Mitigation Measure 3.10-1a would require the use
340 of the best available noise control techniques as well as requiring alternatives to

pneumatic power tools. Mitigation Measure 3.10-1a also includes measures to respond to and track complaints related to construction noise. With implementation of Mitigation Measure 3.10-1a, short-term construction noise impacts would be reduced to **less than significant** levels.

Mitigation Measures

MM 3.10-1a: **Construction Noise Reduction Measures**. Prior to the issuance of demolition permits or ground disturbing activities (whichever occurs first), the Contractor shall demonstrate to the satisfaction of the City of Seaside Planning Division that the proposed project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Property occupants located adjacent to the project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Seaside Planning Division prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- The Contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Planning Division. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

- Construction activities shall occur between the hours of 7:00 AM and 7:00 PM daily (except Saturday, Sunday, and holidays when the construction hours are between 9:00 AM and 5:00 PM) pursuant to Section 9.12.030 and Section 17.30.060 of the Seaside Municipal Code.

Exposure to Short-term Construction-Related Vibration

Impact 3.10-2 Project construction could expose people to or generate excessive groundborne vibration at adjacent structures during construction. This is considered a **less than significant impact**.

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibration that spreads through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 inch per second (in/sec) (102 velocity decibels [VdB]) is considered safe and would not result in any construction vibration damage. Maximum vibration levels that could be generated by construction equipment are presented in Table 3.10-7: Typical Vibration Levels for Construction Equipment.

411 **Table 3.10-7: Typical Vibration Levels for Construction Equipment**

Equipment	Approximate peak particle velocity at 25 feet (inches/second)[1]	Approximate peak particle velocity at 200 feet (inches/second)[2]
Large bulldozer	0.089	0.004
Loaded trucks	0.076	0.003
Small bulldozer	0.003	0.0001
Pile Driver (impact)	0.644	0.028
Pile Driver (sonic)	0.170	0.008

Notes:
1. Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.
2. Calculated using the following formula:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
D = the distance from the equipment to the receiver

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413 In the worst-case scenario, bulldozers and loaded trucks would operate approximately
414 200 feet from the closest existing sensitive receptors. As indicated in Table 3.10-7,
415 based on the Federal Transit Administration (FTA) data, vibration velocities from these
416 types of heavy construction equipment operation that would be used during project
417 construction would range from 0.003 to 0.0089 inches per second (in/sec) peak particle
418 velocity (PPV) at 25 feet from the source of activity. Therefore, vibration levels
419 associated with operation of typical heavy construction equipment (i.e., bulldozers and
420 loaded trucks) at the existing sensitive receptors is not expected to exceed the 0.5
421 in/sec PPV threshold for cosmetic damage from transient vibration. At 200 feet,
422 vibration levels would range from 0.0001to 0.028 in/sec PPV. Additionally, as noted
423 above, the proposed project would not require pile driving. Therefore, impacts are
424 considered **less than significant**.

425 Exposure to Long-Term Stationary Noise

426 Impact 3.10-3: Operation of proposed office buildings and the traffic associated with
427 operation would not result a substantial permanent increase in ambient
428 noise levels in the project vicinity above levels existing without the
429 project, including noise from office activities already on-site. This is a
430 **potentially significant impact.**

431 Land uses within the Monterey Downs Specific Plan area include recreation (i.e.,
432 equestrian park, sports arena/training facility, parks, open space, and a tennis and swim
433 facility), commercial, institutional, retail, office, hotel, veterans cemetery, and residential.
434 Primary noise sources associated with these facilities are due to customer trips, delivery
435 trucks, mechanical equipment, event noise, and outdoor loudspeakers.

Residential Uses

The proposed project would increase the amount of residential dwelling units. Noise that is typical of residential areas includes children playing, pets, amplified music, mechanical equipment, car repair, and home repair. Noise from residential stationary sources would primarily occur during the daytime activity hours. Noise impacts to surrounding uses associated with implementation of the proposed residential uses would be **less than significant**.

Non-Residential Uses

Stationary noise sources associated with the non-residential portions of the project would include noise associated with heating, ventilation, and air conditioning (HVAC) systems installed in or on top of the project buildings and parking lot/structure activities. Noise impacts from these sources associated with the office and commercial uses at the project site would be infrequent and intermittent. The nearest sensitive use to the project site are the residences located approximately 200 feet west of the commercial uses and approximately 1,500 feet west of the sports arena and training facility.

Mechanical Equipment. HVAC systems typically result in noise levels that average between 40 and 50 dBA Leq at 50 feet from the equipment. As the future residential uses would be 200 feet from the closest potential location of the HVAC equipment, potential noise levels would be below the City's limits of 65 dBA for residential uses (City of Seaside Municipal Code Section 17.30.060). Impacts would be **less than significant** in this regard.

Parking Lots/Structures. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. Parking lot noise is considered a "stationary" noise source; however, parking lot noise would not occur on a consistent basis after business hours (approximately 7:00 PM). Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 3.10-8: Maximum Noise Levels Generated by Parking Lots. The project proposes surface parking areas scattered throughout the site. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors (residences) which are located as close as 200 feet to the west. Additionally, parking lot noise currently exists in the project vicinity, and is associated with the United States Defense Department building and the Fort Ord Cleanup buildings located to the west of the project site. Therefore, the proposed surface parking lots would not result in substantially greater noise levels than currently exist at the project site.

Table 3.10-8: Maximum Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels (A-weighted decibels) at 50 Feet from Source
Car door slamming	63 equivalent sound level
Car starting	60 equivalent sound level
Car idling	61 equivalent sound level

The proposed project would also potentially include parking structures. Noise associated with enclosed parking structures are similar to the noise generated by parking lots. As described above, the closest that a parking structure could be located to a sensitive receptor is approximately 200 feet to the west. Similar to the parking lots, noise associated with the parking structures would not occur on a consistent basis after business hours. Therefore, the nearby hotel would not be exposed to excessive noise from parking areas. A **less than significant** impact would occur in this regard.

Public Works Yard and Fire Station. The specific plan includes an area for a new fire station and public works corporation yard for the City of Seaside. These facilities would be located on the intersection of Gigling Road and 8th Street. The closest sensitive receptors to these uses would be future residences that would be located approximately 200 feet to the south. Noise levels from these uses would be primarily from trucks maneuvering on site. These noise levels would typically be relatively low, as the trucks would travel at low speeds on-site.

The noise levels in the project area and at the nearby residences would occasionally increase on a short-term basis if a siren is used when the fire engines leave the project site in response to an emergency. Some of the truck operations could occur late at night or early in the morning. In this case, operation of the fire engines would increase noise levels on a temporary basis when the engine leaves and returns to the fire station. Noise from radios, sirens, horns and bells on police, fire and other emergency response vehicles are exempt from the City's Noise Ordinance, pursuant to Section 9.12.040 of the City's Municipal Code. Therefore, impacts would be **less than significant** in this regard.

Event Noise. Event noise would primarily occur at the proposed sports arena and race track. The sports arena would be located in the northeast portion of the project site. The closest sensitive receptors to the sports arena and race track would be the existing residences located approximately 2,800 feet to the north and the proposed residences that would be approximately 2,500 feet to the west. Noise associated with events includes cheering crowds and loudspeakers. The human voice has a large dynamic range

from approximately 40 dBA to 105 dBA. The noise level associated with cheering crowds would range from 96 dBA to 110 dBA within the arena.[19] Loudspeakers utilized during events average 80 dBA at 50 feet from the source.[20] The actual noise levels would depend on various factors, including the type and specifications of the public address system, the number of loudspeakers, the size of the crowd, the direction that the loudspeakers and crowd would be facing, intervening structures and topography, etc.

Section 9.12.030 (Noise Regulations – Prohibitions) of the City of Seaside Municipal Code prohibits loudspeakers, amplification devices, musical instruments, or other devices between the hours of 10:00 PM and 7:00 AM. The Municipal Code also prohibits such noise in instances where it can be heard two hundred feet from the source. Therefore, Mitigation Measure 3.10-3a would be required to ensure that noise levels associated with events at the arena would comply with the City's Noise Ordinance. Mitigation Measure 3.10-3a requires a noise analysis to be conducted once the details of the public address system and the events conducted at the arena are known. The mitigation measure would require activities at the arena to comply with the City's Municipal Code and provide any necessary control measures to reduce impacts to a less than significant level. With implementation of Mitigation Measure 3.10-3a, impacts would be **less than significant**.

Swim Facility. The tennis and swim facility would be within the commercial area and centrally located within the project area. The closest sensitive receptors would be the proposed hotel that would be located 300 feet to the northeast. Additionally, proposed residential uses would be located 500 feet to the southwest.

Mechanical equipment, such as pool pumps and filters typically produce noise levels of 55 dBA at 50 feet from the source. Since the equipment noise would be a constant noise source, it would require compliance with the City of Seaside Noise Ordinance standard of 65 dBA (exterior) for residential uses.[21] Mitigation Measure 3.10-3b would require the pool equipment to be fully enclosed. Typical enclosures attenuate noise levels by at least 20 dBA. Therefore, the noise level would be reduced to 35 dBA. This noise level is within the City's noise standards and therefore impacts in this regard would be less than significant. However, mitigation measures have been included in order to ensure that noise impacts from mechanical equipment would be below the City's threshold of significance.

[19] Melville C. Branch and R. Dale Beland, *Outdoor Noise in the Metropolitan Environment*, 1970, page 2.

[20] *Ibid.*

[21] Per Section 17.30.060E of the City of Seaside Municipal Code.

The swim facility would also potentially include swim events and would generate spectator noise and pool activity noise. As described above, the closest sensitive receptors would be located 300 to 500 feet away. Various factors would determine the noise levels at the sensitive receptors, including the design of the swim facility, specific pool activities, and the orientation and location of the sensitive receptors. Mitigation Measure 3.10-3c requires a noise assessment to determine specific noise impacts of swim facility on the nearby sensitive receptors. Mitigation Measure 3.10-3c requires the future noise assessment to provide control measures, if necessary, to ensure compliance with the City's Noise Ordinance. With implementation of Mitigation Measures 3.10-3b and 3.10-3c, impacts would be **less than significant**.

Tennis Courts. The tennis courts would be located adjacent to the swim facility and the closest sensitive receptors would be the residences that the project proposes to locate approximately 300 feet to the southwest. Additionally, the proposed hotel would be located approximately 600 feet to the northeast.

The major noise source associated with the tennis courts would be human voices. As previously stated, the human voice can range from approximately 40 dBA to 105 dBA. However, tennis matches are not considered a high volume activity, where random shouts would be the most disruptive noise. If special events are hosted at the tennis courts, loud spectator noise is not anticipated to occur during the tennis matches due to the quiet nature of the sport. In addition, the hours of operation of the tennis courts would limit the effects in compliance with Section 9.12.030 of the City's Noise Ordinance, which prohibits excessive noise after 10:00 PM. Therefore, impacts are considered **less than significant**.

Veterans Cemetery. Periodic noise sources would result from ground maintenance activities, including the use of lawnmowers and leaf blowers. In addition, periodic firearm salutes and bugle playing would take place during ceremonies and events on cemetery property. These salutes would be short in duration (less than 10 minutes) and would occur infrequently. The closest sensitive receptors would be located approximately 400 feet west of the boundary of the Veterans Cemetery. Noise levels from salutes would attenuate substantially over this distance. Additionally, noise associated with such activities would be exempt pursuant to Section 9.12.040 of the City's Noise Ordinance. Impacts would be **less than significant**.

Mitigation Measures

MM 3.10-3a: **Sports Arena Noise Assessment**. Prior to issuance of building permits for the sports arena, a noise assessment shall be developed to analyze the events that would be held at the sports arena (e.g., horse racing events, concerts, etc.) in conjunction with crowd noise and public address/announcement systems. The noise assessment shall determine whether noise generated from the sports arena would exceed the applicable standards identified in the in Seaside Municipal Code Section

9.12 (Noise Regulations) and Section 17.30.060 (Noise Standards). The noise assessment shall identify any noise control measures necessary to comply with the City's Noise Ordinance requirements.

MM 3.10-3b: **Enclosure of Swimming Pool Mechanical Equipment**. Prior to issuance of building permits associated with the proposed swimming pools, the City of Seaside Planning Division shall confirm that all applicable plans and specifications require the mechanical equipment, such as pool pumps and filters to be fully enclosed.

MM 3.10-3c: **Swimming Pool Events Noise Study**. Prior to issuance of building permits associated with the proposed swimming pools, a noise study shall be developed to determine whether noise generated from the swim facility, including swim events, would exceed the applicable standards identified in the in Seaside Municipal Code Section 9.12 (Noise Regulations) and Section 17.30.060 (Noise Standards) and provide mitigation measures, if necessary.

Exposure to Long-Term Mobile Noise

Impact 3.10-4: Traffic generated by the proposed project could result in significant impacts related to existing traffic noise in the area. This is a **less than significant impact**.

Project implementation would result in traffic and associated noise increases on local roadways. Using noise modeling techniques specified by the Federal Highway Administration FHWA-RD-77-108 with updated California Vehicle Noise Emission factors and traffic volumes presented in this report, noise levels changes due to project-related traffic increases on local roadways were estimated and the results are presented below.

Existing and Existing With Project

The "Existing" and "Existing With Project" were compared for future noise conditions. In Table 3.10-10: Existing Roadway Traffic Noise Levels, the noise level (dBA at 100 feet from centerline) depicts what would typically be heard 100 feet perpendicular to the roadway centerline. As indicated in Table 3.10-10 under the "Existing" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 42.0 dBA to 67.5 dBA. The highest noise levels under "Existing" conditions would occur along Highway 68 (east of Highway 218). Similarly, under the "Existing With Project" scenario noise levels at a distance of 100 feet from the centerline would range from approximately 40.3 dBA to 67.7 dBA, with the highest noise levels occurring along the same segment. Table 3.10-10 also compares the "Existing" scenario to the "Existing With Project" scenario.

The proposed project would increase noise levels on the surrounding roadways by a maximum of 6.3 dBA along 7th Avenue (between Gigling Road and Colonel Durham Street) and 5.1 dBA along 8th Street (between Inter Garrison Road and 6th Avenue). Additionally, segments along 8th Avenue and Gigling Road would exceed a 3 dBA increase. However, the resultant noise level along each of these roadway segments would not exceed the City's land use compatibility criteria of 60 dBA. Therefore, noise levels resulting from the proposed project would be **less than significant** under the "Existing With Project" scenario.

621 **Table 3.10-9: Existing Roadway Traffic Noise Levels**

Roadway Segment	Existing					Existing With Project					Difference In dBA @ 100 Feet from Roadway[1]
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
8th Avenue											
Gigling Road to Colonel Durham Street	2,300	51.1	29	13	6	4,750	54.3	46	21	10	**3.2**
Colonel Durham Street to Intergarison Road	3,100	52.4	35	16	8	5,430	54.9	51	23	11	2.5
7th Avenue											
Gigling Road to Colonel Durham Street	600	45.3	12	5	3	2,530	51.6	30	14	7	**6.3**
Colonel Durham Street to Intergarison Road	1,500	49.3	21	10	5	2,590	51.7	31	14	7	2.4
6th Avenue											
Gigling Road to Colonel Durham Street	400	42.0	7	3	2	400	42.0	7	3	2	0
Colonel Durham Street to Inter Garrison Road	1,450	47.6	16	8	4	1,450	47.6	16	8	4	0
Inter Garrison Road to 8th Street	1,650	48.1	18	8	4	1,650	48.1	18	8	4	0
Imjin Road											
8th Street to Imjin Parkway	2,600	53.1	39	18	8	4,780	55.7	58	27	13	2.6
Parker Flats Road											
South of Gigling Road	1,300	47.1	15	7	3	1,300	47.1	15	7	3	0
Malmedy Road											
South of Gigling Road	800	45.1	11	5	2	820	45.2	11	5	2	0.1
General Jim Moore Boulevard											
North of Inter Garrison Road	1,400	47.2	16	7	3	1,530	47.6	17	8	4	0.4
Inter Garrison Road to Divarty Street	3,100	50.7	27	13	6	3,100	50.9	27	13	6	0.2
Divarty Street to Lightfighter Drive	4,550	52.6	35	16	8	4,550	52.6	35	16	8	0
Lightfighter Drive to Gigling Road	10,100	58.6	96	44	21	11,370	59.1	104	48	22	0.5
Gigling Road to Normandy Road	9,300	58.6	91	42	20	9,370	58.6	91	42	20	0
Normandy Road to Eastside Parkway	8,900	57.9	88	41	19	9,270	58.1	90	42	19	0.2
Eastside Parkway to Broadway Avenue	8,700	60.4	128	60	28	10,870	61.4	149	69	32	1.0
South of Broadway Avenue	7,600	59.8	117	54	25	8,180	60.1	123	57	27	0.3
2nd Avenue											
Inter Garrison Road to 8th Street	3,900	54.5	51	24	11	4,110	54.7	53	24	11	0.2
8th Street to Imjin Parkway	4,500	55.1	56	26	12	4,550	55.2	56	26	12	0.1
River Road											
East of Highway 68	13,100	64.7	236	109	51	13,430	64.8	240	111	52	0.1
Reservation Road											
Highway 68 to Davis Road	8,300	59.4	103	48	22	9,790	60.1	115	53	25	0.7
Davis Road to East Garrison	7,150	62.2	157	73	34	12,530	64.6	229	106	49	2.4
East Garrison to Inter Garrison Road	7,150	62.2	157	73	34	12,660	64.6	230	107	50	2.4
Inter Garrison Road to Blanco Road	7,150	63.1	183	85	39	7,300	63.2	186	86	40	0.1
Blanco Road to Imjin Parkway	29,400	67.5	404	187	87	30,310	67.7	412	191	89	0.2
West of Imjin Parkway	14,400	65.2	251	117	54	14,460	65.2	252	117	54	0
Imjin Parkway											
Reservation Road to	22,15	61.0	129	60	28	23,200	61.2	133	62	29	0.2

Roadway Segment	Existing					Existing With Project					Difference In dBA @ 100 Feet from Roadway[1]
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Abrams Drive	0										
Abrams Drive to Imjin Road	19,500	64.4	220	102	47	20,080	64.5	224	104	48	0.1
Imjin Road to California Avenue	18,500	63.7	212	98	46	20,090	64.1	224	104	48	0.4
California Avenue to 2nd Avenue	22,500	64.6	242	112	52	23,260	64.7	247	115	53	0.1
2nd Avenue to Highway 1	27,300	65.2	275	128	59	27,690	65.2	277	129	60	0
8th Street											
Inter Garrison Road to 6th Avenue	1,300	48.7	19	9	4	4,230	53.8	43	20	9	**5.1**
6th Avenue to General Jim Moore Boulevard	2,000	50.4	26	12	6	2,140	50.7	27	13	6	0.3
General Jim Moore Boulevard to 2nd Avenue	0	0	0	0	0	140	40.3	6	3	1	N/A
West of 2nd Avenue	0	0	0	0	0	210	40.6	6	3	1	N/A
Inter Garrison Road											
Reservation Road to Eastside Parkway	0	0	0	0	0	5,980	53.4	42	20	9	N/A
Eastside Parkway to Schooner Road	0	0	0	0	0	1,420	47.5	16	8	4	N/A
Schooner Road to Abrams Drive	1,600	54.7	49	23	11	2,530	56.7	67	31	14	2
Abrams Drive to 8th Avenue	6,900	61.1	131	61	28	6,900	61.1	131	61	28	0
8th Avenue to 7th Avenue	6,000	60.4	119	55	26	8,330	61.9	148	69	32	1.5
7th Avenue to 6th Avenue	3,300	52.7	36	17	8	3,790	53.4	40	19	9	0.7
6th Avenue to General Jim Moore Boulevard	3,900	53.4	41	19	9	4,380	53.9	44	20	9	0.5
General Jim Moore Boulevard to 2nd Avenue	2,300	51.1	29	13	6	2,660	51.8	31	15	7	0.7
Colonel Durham Street											
8th Avenue to 7th Avenue	900	48.6	19	9	4	1,740	51.5	30	14	6	2.9
7th Avenue to 6th Avenue	1,400	50.5	26	12	6	1,400	50.5	26	12	6	0
Parker Flats Road to Malmedy Road	2,900	53.7	42	19	9	3,740	54.8	49	23	11	1.1
Lightfighter Avenue											
General Jim Moore Boulevard to 2nd Avenue	11,500	56.1	65	30	14	14,430	57.1	76	35	16	1.0
Gigling Road											
8th Avenue to 7th Avenue	2,400	52.9	37	17	8	7,490	57.8	78	36	17	**4.9**
7th Avenue to 6th Avenue	2,900	53.7	42	19	9	6,070	56.9	68	32	15	**3.2**
6th Avenue to Parker Flats Road	3,200	54.0	44	21	10	6,370	57.0	70	33	15	3.0
Parker Flats Road to Malmedy Road	5,500	56.4	64	30	14	8,000	58.0	82	38	18	1.6
Malmedy Road to General Jim Moore Boulevard	5,650	56.3	65	30	14	6,980	57.3	75	35	16	1
Normandy Road											
East of General Jim Moore Boulevard	2,300	49.4	22	10	5	3,420	51.1	29	14	6	1.7
West of General Jim Moore Boulevard	2,400	49.6	23	11	5	3,080	50.7	27	13	6	1.1
Eastside Parkway											
Inter Garrison Road to Normandy Road	0	0	0	0	0	7,400	54.6	49	23	11	N/A
Normandy Road to General Jim Moore Boulevard	0	0	0	0	0	2,430	49.8	23	11	5	N/A
Broadway Avenue											
West of General Jim Moore Boulevard	7,000	55.8	60	28	13	8,450	56.6	68	32	15	0.8
East of Noche Buena Street	9,000	57.1	71	33	15	10,140	57.6	77	36	17	0.5

Roadway Segment	Existing					Existing With Project					Difference In dBA @ 100 Feet from Roadway[1]
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
West of Noche Buena Street	8,300	56.7	67	31	14	9,270	57.2	72	34	16	0.5
East of Fremont Boulevard	10,300	57.6	78	36	17	11,030	57.9	81	38	17	0.3
West of Fremont Boulevard	9,500	57.3	73	34	16	9,710	57.4	75	35	16	0.1
Fremont Boulevard											
South of Broadway Avenue	17,000	59.4	108	50	23	17,370	59.5	110	51	24	0.1
Highway 218											
East of Highway 1	19,000	61.2	146	68	31	19,000	61.2	146	68	31	0
North of Highway 68	11,900	62.4	158	73	34	12,440	62.6	163	76	35	0.2
Highway 68											
East of Highway 218	25,750	67.5	370	172	80	26,560	67.7	377	175	81	0.2
West of Highway 218	19,500	66.6	307	143	66	19,750	66.7	310	144	67	0.1
Davis Road											
Blanco Road to Reservation Road	17,000	63.8	200	93	43	20,900	64.7	230	107	50	0.9

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Note:
1. Bold values indicate a potentially significant impact. Roadway segments that experience a noise level increase greater than 3.0 would experience significant impacts only if the "With Project" noise level exceeds the City's land use compatibility standards.

Source: Based on project traffic data from Section 3.13, Transportation and Circulation. Refer to Appendix H for additional details on modeling inputs.

Future and Future With Project

The "Future" and "Future With Project" were compared for future noise conditions. In Table 3.10-10: Future Roadway Traffic Noise Levels, the noise level (dBA at 100 feet from centerline) depicts what would typically be heard 100 feet perpendicular to the roadway centerline. Under the "Future" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 42.0 dBA to 70.3 dBA. The highest noise levels under "Future" conditions would occur along Reservation Road (between Davis Road and East Garrison Road). Similarly, under the "Future With Project" scenario noise levels at a distance of 100 feet from the centerline would range from approximately 40.3 dBA to 67.7 dBA, with the highest noise levels occurring along the same roadway segment. Table 3.10-10: Future Roadway Traffic Noise Levels also compares the "Future" scenario to the "Future With Project" scenario.

The proposed project would increase noise levels on the surrounding roadways by a maximum of 6.4 dBA along 7th Avenue (between Gigling Road and Colonel Durham Street) and 4.7 dBA along Gigling Road (between 7th Avenue and 8th Avenue). Future With Project noise levels along these segments would be less than 60 dBA, which is within the normally acceptable land use compatibility criteria for residences. Therefore, noise levels resulting from the proposed project would be **less than significant** under the "Future With Project" scenario.

643 **Table 3.10-10: Future Traffic Noise Levels**

Roadway Segment	2035 Without Project					2035 With Project					Difference In dBA @ 100 Feet from Roadway[1]
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
8th Avenue											
Gigling Road to Colonel Durham Street	2,300	51.1	29	13	6	4,750	54.3	46	21	10	**3.2**
Colonel Durham Street to Intergarison Road	3,100	52.4	35	16	8	5,430	54.9	51	23	11	2.5
7th Avenue											
Gigling Road to Colonel Durham Street	700	45.3	12	5	3	2,630	51.7	31	14	7	**6.4**
Colonel Durham Street to Intergarison Road	1,700	49.8	23	11	5	2,790	52.0	32	15	7	2.2
6th Avenue											
Gigling Road to Colonel Durham Street	400	42.0	7	3	2	400	42.0	7	3	2	0
Colonel Durham Street to Inter Garrison Road	1,600	48.0	18	8	4	1,600	48.0	18	8	4	0
Inter Garrison Road to 8th Street	1,800	48.5	19	9	4	1,800	48.5	19	9	4	0
Imjin Road											
8th Street to Imjin Parkway	2,800	53.4	41	19	9	4,980	55.9	60	28	13	2.5
Parker Flats Road											
South of Gigling Road	1,500	47.7	17	8	4	1,500	47.7	17	8	4	0
Malmedy Road											
South of Gigling Road	900	45.6	12	6	3	920	45.7	12	6	3	0.1
General Jim Moore Boulevard											
North of Inter Garrison Road	1,500	47.5	17	8	4	1,630	47.9	18	8	4	0.4
Inter Garrison Road to Divarty Street	3,400	51.3	29	13	6	3,400	51.3	29	13	6	0
Divarty Street to Lightfighter Drive	5,000	53.0	38	17	8	5,000	53.0	38	17	8	0
Lightfighter Drive to Gigling Road	11,100	59.0	102	47	22	12,370	59.5	109	51	24	0.5
Gigling Road to Normandy Road	10,300	58.6	91	42	20	10,370	59.0	97	45	21	0.4
Normandy Road to Eastside Parkway	9,700	58.3	93	43	20	10,070	58.4	95	44	21	0.1
Eastside Parkway to Broadway Avenue	19,200	63.8	218	101	47	21,370	64.3	233	108	50	0.5
South of Broadway Avenue	8,400	60.2	125	58	27	8,980	60.5	131	61	28	0.3
2nd Avenue											
Inter Garrison Road to 8th Street	17,700	61.1	139	65	30	17,910	63.5	207	96	45	2.4
8th Street to Imjin Parkway	15,400	60.5	127	59	27	15,450	60.5	127	59	27	0
River Road											
East of Highway 68	14,400	65.1	251	117	54	14,730	65.2	255	118	55	0.1
Reservation Road											
Highway 68 to Davis Road	17,800	62.7	171	79	37	19,290	63.1	181	84	39	0.4
Davis Road to East Garrison	41,200	69.8	506	235	109	46,580	70.3	549	255	118	0.5
East Garrison to Inter Garrison Road	40,500	69.7	500	232	108	46,010	70.2	544	253	117	0.5
Inter Garrison Road to Blanco Road	11,400	65.1	249	116	54	11,550	65.2	252	117	54	0.1
Blanco Road to Imjin Parkway	26,100	67.0	373	173	80	27,010	67.2	381	177	82	0.2
West of Imjin Parkway	12,800	64.7	232	108	50	12,860	64.7	233	108	50	0
Imjin Parkway											
Reservation Road to Abrams Drive	19,200	60.4	117	55	25	20,250	60.6	122	56	26	0.2
Abrams Drive to Imjin	20,200	64.5	225	104	48	20,780	64.7	229	106	49	0.2

Roadway Segment	2035 Without Project					2035 With Project					Difference In dBA @ 100 Feet from Roadway[1]
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Road											
Imjin Road to California Avenue	23,400	64.7	248	115	53	24,990	65.0	259	120	56	0.3
California Avenue to 2nd Avenue	32,800	66.2	311	144	67	33,560	66.3	316	146	68	0.1
2nd Avenue to Highway 1	35,500	66.3	327	152	71	35,890	66.4	330	153	71	0.1
8th Street											
Inter Garrison Road to 6th Avenue	11,700	58.2	84	39	18	14,630	59.2	98	46	21	1.0
6th Avenue to General Jim Moore Boulevard	11,700	58.0	84	39	18	11,840	58.1	85	39	18	0.1
General Jim Moore Boulevard to 2nd Avenue	11,700	59.5	105	49	23	11,840	59.5	106	49	23	0
West of 2nd Avenue	2,000	50.4	26	12	6	2,210	50.8	28	13	6	0.4
Inter Garrison Road											
Reservation Road to Eastside Parkway	33,100	60.9	133	62	29	39,080	61.6	148	69	32	0.7
Eastside Parkway to Schooner Road	15,300	57.8	79	37	17	16,720	58.2	84	39	18	0.4
Schooner Road to Abrams Drive	14,300	64.2	213	99	46	15,230	64.5	222	103	48	0.3
Abrams Drive to 8th Avenue	14,200	64.2	212	98	46	14,200	64.2	212	98	46	0
8th Avenue to 7th Avenue	14,300	64.2	213	99	46	16,630	64.9	235	103	51	0.7
7th Avenue to 6th Avenue	5,100	54.7	49	23	10	5,590	55.1	52	24	11	0.4
6th Avenue to General Jim Moore Boulevard	5,500	54.9	51	24	11	5,980	55.3	54	25	12	0.4
General Jim Moore Boulevard to 2nd Avenue	4,600	54.1	45	21	10	4,960	54.5	48	22	10	0.4
Colonel Durham Street											
8th Avenue to 7th Avenue	1,000	49.1	20	9	4	1,840	51.7	31	14	7	2.6
7th Avenue to 6th Avenue	1,500	50.8	27	12	6	1,500	50.8	27	12	6	0
Parker Flats Road to Malmedy Road	3,200	54.1	44	21	10	4,040	55.1	52	24	11	1.0
Lightfighter Avenue											
General Jim Moore Boulevard to 2nd Avenue	17,400	57.9	86	40	19	20,330	58.6	96	44	21	0.7
Gigling Road											
8th Avenue to 7th Avenue	2,600	53.2	39	18	8	7,690	57.9	80	37	17	**4.7**
7th Avenue to 6th Avenue	3,200	54.1	44	21	10	6,370	57.1	70	33	15	**3.0**
6th Avenue to Parker Flats Road	3,600	54.5	48	22	10	6,770	57.3	73	34	16	2.8
Parker Flats Road to Malmedy Road	6,000	56.8	68	31	15	8,500	58.3	85	40	18	1.5
Malmedy Road to General Jim Moore Boulevard	6,200	56.7	69	32	15	7,530	57.6	79	37	17	0.9
Normandy Road											
East of General Jim Moore Boulevard	2,600	49.9	24	11	5	3,720	51.5	31	14	7	1.6
West of General Jim Moore Boulevard	2,700	50.1	25	12	5	3,380	51.1	29	13	6	1.0
Eastside Parkway											
Inter Garrison Road to Normandy Road	17,800	58.4	88	41	19	25,200	60.0	111	51	24	1.6
Normandy Road to General Jim Moore Boulevard	15,000	57.7	78	36	17	17,430	58.4	86	40	19	0.7
Broadway Avenue											
West of General Jim Moore Boulevard	18,700	60.1	115	54	25	20,150	60.4	121	56	26	0.3
East of Noche Buena Street	20,600	60.7	123	57	27	21,740	60.9	128	59	27	0.2
West of Noche Buena Street	22,400	61.0	130	60	28	23,370	61.2	134	62	29	0.2
East of Fremont	26,400	61.7	145	67	31	27,130	61.8	148	69	32	0.1

Roadway Segment	2035 Without Project					2035 With Project					Difference In dBA @ 100 Feet from Roadway[1]
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Boulevard											
West of Fremont Boulevard	22,400	61.0	130	60	28	22,610	61.1	131	61	28	0.1
Fremont Boulevard											
South of Broadway Avenue	20,500	60.2	123	57	26	20,870	60.3	124	58	27	0.1
Highway 218											
East of Highway 1	20,000	61.5	151	70	33	20,000	61.5	151	70	33	0
North of Highway 68	13,100	62.8	169	78	36	13,640	63.0	173	80	37	0.2
Highway 68											
East of Highway 218	28,300	67.9	394	183	85	29,110	68.1	401	186	86	0.2
West of Highway 218	21,500	67.0	328	152	71	21,750	67.1	330	153	71	0.1
Davis Road											
Blanco Road to Reservation Road	20,500	64.6	227	105	49	24,400	65.4	255	118	55	0.8

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Note:

1. Bold values indicate a potentially significant impact. Roadway segments that experience a noise level increase greater than 3.0 would experience significant impacts only if the "With Project" noise level exceeds the City's land use compatibility standards.

Source: Based on project traffic data from Section 3.13, Transportation and Circulation. Refer to Appendix H for additional details on modeling inputs.

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3.9. Land Use & Planning

This section of the EIR describes the existing land uses at the project site; describes surrounding land uses, and discussed the proposed project within the context of the policies of the City of Seaside, Monterey County, and the Monterey County Local Agency Formation Commission (LAFCo). Specifically, this section analyzes the change in land use characteristics; analyzes potential conflicts between proposed land uses on site and existing and/or proposed land uses in the vicinity of the project area, as well as the relationship of the proposed land use changes to relevant planning policies that guide land use decisions.

Environmental Setting

On-site and Surrounding Land Uses

The project area is essentially undeveloped and predominantly covered in rolling topography and contains a mix of oak woodland, chaparral, grassland, and riparian habitat (Denise Duffy and Associates 2013). The forest cover within the project area is comprised almost entirely of coast live oak (*Querca agrifolia*). There are also a few Monterey pine (*Pinus radiata*) and Monterey Cypress (*Cupressus macrocarpa*) trees. In total, the project area contains approximately 48,456 trees of which, approximately 39,182 trees are located on the Monterey Downs and Horse Park and 9,274 trees are located on the CCVC (Staub Forestry and Environmental Consulting 2010 and 2012).

Existing minor within the project area include several minor outbuildings that were formerly used by the U.S. Army, paved parking lots on a portion of the City's proposed corporation yard site, as well as several paved, gravel, and dirt roads that traverse the project area.

The Monterey Downs and Horse Park component of the proposed project includes the Veterans Cemetery Endowment Parcel, a property that was once identified as the future Corporation Yard (City of Seaside); the original property included in the Horse Park Exclusive Negotiating Agreement (County of Monterey), and a former Monterey-Salinas Transit (MST) parcel, also known as the FOST 11 parcel (County of Monterey). The entire project area has been transferred from the U.S. Army to the Fort Ord Reuse Authority (FORA).

Land Use Designations

The project area is designated Business Park/Light Industrial/Office/R&D, Low Density Residential, and Public Facility/Institutional in the *Fort Ord Base Reuse Plan* (FORA 1997). The *Fort Ord Base Reuse Plan* Land Use Concept Ultimate Development Map shows a Veterans' Cemetery Opportunity site at the City of Seaside/County of Monterey boundary and three locations for an Equestrian Center Opportunity site in the project vicinity.

The portion of the project area located within the City of Seaside is designated High Density Residential and Park and Open Space in the *City of Seaside General Plan* (City of

Seaside 2004) and zoned RH-High Density Residential and OSR – Open Space-Recreation.

The portion of the project area located within the County of Monterey is designated Single Family Residential (SFR)-Low Density Residential, and Business Park/Light Industrial Office/R&D in the *Monterey County General Plan, Fort Ord Master Plan* (Monterey County 2007) and is zoned Public Quasi Public-Design Control with a Site Plan Review Overlay (PQP-D-S). The *Monterey County General Plan, Fort Ord Master Plan* also designates a portion of the project area as Public Facility/Institutional and the southern portion of the proposed Central Coast Veterans' Cemetery parcels as School/University. In addition, the project area is shown as an opportunity site for a hotel, golf course, and equestrian center in the *Monterey County General Plan, Fort Ord Master Plan*.

The portion of the project area located within the County of Monterey is designated Single Family Residential (SFR)-Low Density Residential, and Business Park/Light Industrial Office/R&D in the Monterey County General Plan, Fort Ord Master Plan (Monterey County 2007) and is zoned Public Quasi Public-Design Control with a Site Plan Review Overlay (PQP-D-S). The Monterey County General Plan, Fort Ord Master Plan also designates a portion of the project area as Public Facility/Institutional and the southern portion of the proposed Central Coast Veterans' Cemetery parcels as School/University. In addition, the project area is shown as an opportunity site for a hotel, golf course, and equestrian center in the Monterey County General Plan, Fort Ord Master Plan.

The *California State University Monterey Bay (CSUMB) Master Plan* serves as the blueprint for future development within CSUMB's planning area. Areas north of the project area are located within the CSUMB planning area and are identified within the East Campus Open Space area as the natural open space area east of Eighth Avenue between Inter-Garrison Road and Colonel Durham Street, which connects with the former military housing areas that now serve as faculty-staff-educational partners and student housing south of Imjin and Reservation Roads. The open space framework for the *CSUMB Master Plan* is planned to provide an easily navigated series of open spaces and pedestrian linkages throughout the campus.

Regulatory Setting

State

California Housing Element Law

Housing Element Law (Government Code Section 65580, et seq.) requires Monterey County to adopt a housing element as part of its general plan. In brief, the housing element must identify the housing needs of all economic segments of the community and designate sufficient land with compatible zoning to meet that need. Because meeting the housing need depends upon the private sector, and the economics of housing tends to favor the production of market-rate housing, the most challenging portion of overall housing need to meet is affordable housing (i.e., housing for very low-

income, low-income, and moderate income market segments). Housing Element Law establishes the process by which the County is assigned a portion of the regional housing need, as projected by the State Housing and Community Development Department (HCD) and AMBAG. The housing element is subject to review by HCD to determine its consistency with Housing Element Law.

Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act) establishes procedures for local government changes or organizations, including city incorporations, annexations to a city or special district, and city and special district consolidations.

Local agency formation commissions (LAFCOs), such as the Monterey County LAFCo, have numerous powers under the Act, but those of primary concern are the power to act on local agency boundary changes and to adopt spheres of influence for local agencies. Among the purposes of LAFCOs are the discouragement of urban sprawl and the encouragement of the orderly formation and development of local agencies.

Local

City of Seaside

City of Seaside General Plan

The following policies from the Land Use Element in the *City of Seaside General Plan* are applicable to the proposed project.

Goal LU-1: *Promote a mixture of land uses and a balance of jobs and housing to support a community in which people can live, work, shop, and play.*

Policy LU-1.2: Encourage development that helps the City achieve a jobs/housing ratio of 1.5:1.

Policy LU-1.3: Encourage regional commercial and visitor-serving commercial development that will enhance the identity of Seaside and attract visitors to the community.

Policy LU-1.4: Provide for a variety of housing that complements the employment opportunities in the community.

Policy LU-1.5: Provide for a large-scale commercial recreational facility.

Goal LU-4: *Ensure that new development complements existing land uses and enhances the character of the community and its neighborhoods.*

Policy LU-4.1: Require that all new development: 1) funds its share of community services and facilities (e.g., parks, roads, trails, and utilities); 2) uses quality design and

materials; and 3) is compatible with surrounding uses, the site, and available infrastructure.

Economic Development Element

Goal ED-1: *Establish a diverse and balanced mix of businesses that will generate a stable, long-term stream of revenue to fund city services.*

Policy ED-1.1: Encourage the full and efficient use of vacant and underutilized parcels in appropriately designated areas to support the development and expansion of targeted industrial and commercial facilities.

Policy ED-1.2: Diversify the local economy by targeting business development and attraction efforts toward businesses whose economic cycles are less likely to correspond to those of major retailers in the City.

Goal ED-2: *Maintain a business climate in Seaside that supports the growth and prosperity of businesses that are advantageous to the community.*

Policy ED-4.1: Encourage the development of retail establishments that will reduce leakage of resident spending.

Goal ED-8: *Actively promote a balance between the numbers and types or workers residing in Seaside and the opportunities for employment in the city.*

City of Seaside Municipal Code

The Seaside Zoning Code is adopted as Title 17 of the Seaside Municipal Code and serves to carry out the goals and policies of the City's General Plan. The Zoning Code, Specific Plans, and individual public and private development proposals must be consistent with the goals, policies, and standards of the General Plan.

Fort Ord Reuse Plan

Land Use Element – Residential Land Use

Objective A: Establish a range of permissible housing densities for the former Fort Ord area.

Residential Land Use Policy A-1: The City of Seaside shall provide variable housing densities to ensure development of housing accessible to all economic segments of the community. Residential land uses shall be categorized according to the following densities:

Land Use Designation	Actual Density – Units/Gross Acre
SFD Low Density Residential	up to 5 Du/Ac
SFD Medium Density Residential	5 to 10 Du/Ac
MFD High Density Residential	10 to 20 Du/Ac
Residential Infill Opportunities	5 to 10 Du/Ac
Planned Development Mixed Use District	8 to 20 Du/Ac

Development intensities for residential and other land uses in the City of Seaside are summarized on Table 3.3-3 in the Framework of the Reuse Plan. The full range of permitted uses in each Land Use Designation is described in Table 3.4-1 in the Framework of the Reuse Plan.

Objective B: Ensure compatibility between residential development and surrounding land uses.

Residential Land Use Policy B-1: The City of Seaside shall encourage land uses that are compatible with the character of the surrounding districts or neighborhoods and discourage new land use activities which are potential nuisances and/or hazards within and in close proximity to residential areas.

Objective C: Encourage highest and best use of residential land to enhance and maximize the market value of residential development and realize the economic opportunities associated with redevelopment at the former Fort Ord.

Residential Land Use Policy C-1: The City of Seaside shall provide opportunities for developing market-responsive housing in the Fort Ord planning area.

Objective D: Provide public facilities and services that will support revitalization of existing Army housing and new housing construction on the former Fort Ord.

Residential Land Use Policy D-1: The City of Seaside shall implement the Public Services and Capital Improvement Program in the Fort Ord Reuse Plan to support residential development.

Program D-1.1: The City of Seaside shall cooperate with FORA and provide adequate public facilities and services that will support residential revitalization and new housing construction at the former Fort Ord.

Objective E: Coordinate the location, intensity and mix of land uses with alternative transportation goals and transportation infrastructure.

Residential Land Use Policy E-1: The City of Seaside shall make land use decisions that support transportation alternatives to the automobile and encourage mixed-use

projects and the highest-density residential projects along major public transportation routes.

Program E-1.3: The City of Seaside shall encourage the development of an integrated street pattern for new developments which provides linkages to the existing street network and discourages cul-de-sac's or dead-end streets.

Residential Land Use Policy E-2: The City of Seaside shall encourage convenience/specialty retail land use in residential neighborhoods.

Residential Land Use Policy E-3: In areas of residential development, the City of Seaside shall provide for designation of access routes, street and road rights-of-way, off-street and on-street parking, bike paths and pedestrian walkways.

Program E-3.1: The City of Seaside shall delineate adequate circulation rights-of-way to and within each residential area by creating circulation rights-of-way plan lines.

Program E-3.2: The City of Seaside shall prepare pedestrian and bikeway plans and link residential areas to commercial development and public transit.

Objective G: Improve access for people with disabilities by creating a barrier-free environment.

Residential Land Use Policy G-1: The City of Seaside shall support broad design standards and accessible environments in developing the Fort Ord planning area.

Program G-1.2: The City of Seaside shall review all development plans with the goal of making the community more accessible.

Objective H: Provide General Plan consistency between land use and housing elements.

Residential Land Use Policy H-1: The City of Seaside shall incorporate policies in its Housing Element consistent with Fort Ord policies for residential lands.

Objective I: Provide for Community Design principles and guidelines to ensure quality of life for Fort Ord residents and surrounding communities.

Residential Land Use Policy I-2: The City of Seaside shall adhere to the General Development Character and Design Objectives of the Fort Ord Reuse Plan Framework.

Land Use Element – Commercial Land Use

Objective C: Ensure that various types of commercial land use categories are balanced, and that business and industry enhance employment opportunities in and self-sufficiency of Fort Ord communities.

Commercial Land Use Policy C-1: The City of Seaside shall encourage a strong and stable source of city revenues by providing a balance of commercial land use types on its former Fort Ord land, while preserving the area's community character.

Objective D: Encourage commercial development in close proximity to major residential areas and transportation routes.

Commercial Land Use Policy D-1: The City of Seaside shall allow a mix of residential and commercial uses to decrease travel distances, encourage walking and biking and help increase transit ridership.

Objective E: Provide for adequate access to commercial developments.

Commercial Land Use Policy E-1: The City of Seaside shall coordinate the location and intensity of commercial areas at the former Fort Ord with transportation resources and in a manner which offers convenient access.

Program E-1.1: The City of Seaside shall coordinate with FORA and the Transportation Agency of Monterey County to address existing regional transportation needs and to implement the long-range circulation strategy for the former Fort Ord as specified in the Reuse Plan.

Commercial Land Use Policy E-2: In areas of commercial development, the City of Seaside shall provide for designation of access routes, street and road rights-of-way, off-street and on-street parking, bike paths and pedestrian walkways.

Program E-2.1: The City of Seaside shall delineate adequate circulation rights-of-way to and within each commercial area by creating circulation rights-of-way plan lines.

Program E-2.2: The City of Seaside shall prepare pedestrian and bikeway plans and link commercial development to residential areas and public transit.

Program E-2.3: The City of Seaside shall preserve sufficient land at the former Fort Ord for right-of-ways to serve long-range commercial build-out.

Objective F: Provide for Community Design principles and guidelines for commercial development at the former Fort Ord.

Commercial Land Use Policy F-2: The City of Seaside shall adhere to the General Development Character and Design Objectives of the Fort Ord Reuse Plan Framework for commercial development at the former Fort Ord.

Recreation/Open Space Land Use

Objective A: *Encourage land uses that respect, preserve and enhance natural resources and open space at the former Fort Ord.*

Recreation/Open Space Land Use Policy A-1: The City of Seaside shall protect irreplaceable natural resources and open space at former Fort Ord.

Program A-1.1: The City of Seaside shall identify natural resources and open space, and incorporate it into its General Plan and zoning designations.

Recreation/Open Space Land Use Policy A-2: The City of Seaside shall encourage the provision of public open space lands as part of all types of development including residential, commercial and institutional.

Program A-2.1: As part of review of development projects, the City of Seaside shall evaluate and provide for the need for public open space.

Objective B: Use open space as a land use link and buffer.

Recreation/Open Space Land Use Policy B-1: The City of Seaside shall link open space areas to each other.

Program B-1.2: The City of Seaside shall create an open space plan for the former Fort Ord showing the linkage of all open space areas within the City of Seaside as well as linking to open space and habitat areas outside Seaside.

Recreation/Open Space Land Use Policy B-2: The City of Seaside shall use open space as a buffer between various types of land use.

Program B-2.1: The City of Seaside shall review each development project at the former Fort Ord with regard to the need for open space buffers between land uses.

Program B-2.2: The City of Seaside shall encourage clustering of all types of land uses, where appropriate, to allow for a portion of each project site to be dedicated as permanent open space.

Program B-2.3: The City of Seaside shall designate open space areas, wherever possible, on the perimeter of all development undertaken at the former Fort Ord.

Program B-2.4: The City of Seaside shall designate a fire-resistant buffer between BLM lands and residential land use.

Objective C: *Reserve sufficient lands for community and neighborhood parks and recreation facilities in the Fort Ord area and adjacent communities.*

Program C-1.2: The City of Seaside shall use the following recreation standards established for Fort Ord reuse and based on existing Seaside Community Standards:

- Provide and equip neighborhood parks at the rate of two park acres per 1,000 people and community parks at the rate of one acre per 1,000 people.
- 2015 demand for park area: 24 acres of neighborhood parks, 12 acres of community parks.
- Full build-out demand for park area: 31 acres of neighborhood parks, 16 acres of community parks.

Recreation/Open Space Land Use Policy C-2: *The City of Seaside shall provide sufficient resources to operate and maintain the park facilities at the former Fort Ord.*

Program C-2.1: The City of Seaside shall provide in the annual budget for a minimal recreation program at the time that each park is developed. The city should also provide a budget for a complete recreation and park maintenance program when the population to be served by the park reaches one thousand residents.

Program C-2.2: Each park in Seaside should be developed and recreation equipment should be in place when approximately 50% of the residential dwelling units that will be served by the park have been constructed and occupied.

Recreation/Open Space Land Use Policy C-3: The City of Seaside shall coordinate land use designations for parks and recreation with adjacent uses and jurisdictions.

Monterey County LAFCO

The City of Seaside would initiate proceedings for annexation by petition with the Monterey County Local Agency Formation Commission (LAFCo) for the reorganization of the city of Seaside's boundary and service districts. The Monterey County LAFCO was established in 1963 and is responsible for coordinating logical and timely changes in local government boundaries.

California Government Code Section 56668 identifies factors that must be considered to a proposal for annexation:

(a) Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.

(b) The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.

(c) The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the County.

(d) The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.

(e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Section 56016.

(f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.

(g) A regional transportation plan adopted pursuant to Section 65080, and consistency with city or county general plans and specific plans.

(h) The sphere of influence of any local agency which may be applicable to the proposal being reviewed.

(i) The comments of any affected local agency or other public agency.

(j) The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.

(k) Timely availability of water supplies adequate for projected needs as specified in Section 65352.5.

(l) The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs as determined by the appropriate council of governments consistent with Article 10.6 (commencing with Section 65580) of Chapter 3 of Division 1 of Title 7 of the Government Code.

(m) Any information or comments from the landowner or owners, voters, or residents of the affected territory.

(n) Any information relating to existing land use designations.

(o) The extent to which the proposal will promote environmental justice.

Installation-Wide Multi-species Habitat Management Plan for Former Fort Ord, California (HMP)

The Department of the Army developed the *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California (HMP)* (U.S. Army Corps of Engineers

1997), in compliance with Section 7 of the federal Endangered Species Act (ESA) to provide for incidental take of federally-listed species as will occur with implementation of the *Fort Ord Base Reuse Plan*.

The primary goal of the HMP is to promote preservation, enhancement, and restoration of special status plant and animal species and their habitats at the former Fort Ord, while allowing economic recovery through reuse and redevelopment of the base. The intent of the plan is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at the former Fort Ord and parcels are designated as "development with no restrictions," habitat reserves with management requirements," or "habitat reserves with development restrictions." The HMP sets standards to assure the long-term viability of the former Fort Ord's biological resources in the context of base reuse so that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. This plan has been approved by the U.S. Fish and Wildlife Service; the HMP, deed restrictions and Memoranda of Agreement between the Army and the various land use recipients provide the legal mechanism to assure HMP implementation. It is a legally binding document and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures.

According to the Habitat Management Plan Map for the former Fort Ord, the majority of the project area is located within an area designated "Development with no habitat Restrictions" (U.S. Army Corps of Engineers 2005, Revised Attachment A) with the exception of the "Oak Oval Habitat Area," which is designated as "Habitat Reserve" and only the allowed uses described in the HMP are proposed.

Impacts and Mitigation Measures

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines, as amended, with the exception of a threshold added to consider physical impacts on the environment from potential urban decay or blight (often characterized by property abandonment and/or desolate urban landscapes). For purposes of this EIR, implementation of the proposed project may have a significant adverse land use and planning impact if it would result in any of the following:

- Physical division of an established community;
- 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, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

Methodology

Impacts evaluated within this section were based on adopted policy planning documents that include the project site. These documents include the *City of Seaside General Plan* (City of Seaside 2004), *Fort Ord Base Reuse Plan* (FORA 1997), *Local Agency Formation Commission of Monterey County (LAFCo) Policies and Procedures* (LAFCO 2013), and the *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (1997).

Project Impacts and Mitigation Measures

Division of a Community

Impact 3.9-1 The proposed project would not physically divide an established community. Therefore, impacts are considered a **less than significant impact**.

An example of a project that has the potential to divide an established community includes the construction of a new freeway or highway through an established neighborhood. The proposed project would not divide an existing community. The project area is mostly undeveloped land, but is located at the edge of existing development and the proposed uses would be consistent with the applicable land use plans once a General Plan Amendment is adopted. Therefore, less than significant impacts would occur.

Conflicts with Applicable Land Use Plans

Impact 3.9-2 The proposed project would not conflict with applicable land use plans, policies, or regulations. Therefore, impacts are considered a **less than significant impact**.

Conflict with Applicable Land Use Plans, Policies, or Regulations

In the context of CEQA, impacts relative to *General Plan* consistency occur when a conflict with a *General Plan* goal, objective, policy, or action would result in an adverse physical change in the environment.

As previously stated, the proposed project would require a General Plan Amendment. Once the General Plan Amendment is adopted, the proposed project would be consistent with proposed land uses. Figure 2-12: Land Use Plan, in Chapter 2, *Project Description,* illustrates the general location and relationship of all the primary land use areas within this land use designation. This figure will be used to amend the General Plan Land Use Map and will serve as the main reference to guide future planning work within the project area.

The project's consistency with the *City of Seaside General Plan* and *Fort Ord Base Reuse Plan* are discussed in Table 3.9-1: City of Seaside General Plan and Fort Ord Base Reuse Plan.

419 **Table 3.9-1: City of Seaside General Plan and Fort Ord Base Reuse Plan Policy Consistency Analysis**

City of Seaside General Plan	Policy Consistency Analysis
Land Use Element	
Policy LU-1.2: Encourage development that helps the City achieve a jobs/housing ratio of 1.5:1.	**Consistent.** The proposed project would include many opportunities for job creation, including commercial, office, hotel, and sports park uses. Additionally, the project proposes single and multi-family residential uses. Therefore, the proposed project creates both residential uses and job opportunities.
Policy LU-1.3: Encourage regional commercial and visitor-serving commercial development that will enhance the identity of Seaside and attract visitors to the community.	**Consistent.** The proposed project proposes a 330,000 square foot commercial center that would visitor-serving retail opportunities for patrons of the proposed project, as well as visitors to the adjacent FORHA. Additionally, the proposed project includes a 15,000 square foot sports park and horse track that would attract visitors from around the region.
Policy LU-1.4: Provide for a variety of housing that complements the employment opportunities in the community.	**Consistent.** The proposed project includes up to 1,280 residential units, ranging from apartments to single-family residential units. The variety of housing types would complement the variety of job opportunities that the proposed project would provide.
Policy LU-1.5: Provide for a large-scale commercial recreational facility.	**Consistent.** The project proposes a 330,000 square feet of commercial uses that would provide regional retail opportunities.
Policy LU-4.1: Require that all new development: 1) funds its share of community services and facilities (e.g., parks, roads, trails, and utilities); 2) uses quality design and materials; and 3) is compatible with surrounding uses, the site, and available infrastructure.	**Consistent.** The project applicant would be required to pay its fair share of costs for infrastructure improvements as identified throughout this document. The proposed project is consistent with surrounding uses, and offers land uses similar in nature to the surrounding area.
Economic Development Element	
Policy ED-1.1: Encourage the full and efficient use of vacant and underutilized parcels in appropriately designated areas to support the development and expansion of targeted industrial and commercial facilities.	**Consistent.** The majority of the project area is vacant and currently underutilized. The *Fort Ord Base Reuse Plan* contemplated an equestrian park and cemetery within the project area.
Policy ED-1.2: Diversify the local economy by targeting business development and attraction efforts toward businesses whose economic cycles are less likely to correspond to those of major retailers in the City.	**Consistent.** The proposed project includes a 330,000 square foot commercial center that would provide visitor serving retail opportunities. These retail opportunities are meant to complement existing uses within the City of Seaside.
Policy ED-4.1: Encourage the development of retail establishments that will reduce leakage of resident	**Consistent.** The proposed project includes a 330,000 square foot commercial center that would provide visitor serving retail opportunities. These

City of Seaside General Plan	Policy Consistency Analysis
spending.	retail opportunities are meant to complement existing uses within the City of Seaside and would provide opportunities for visitors to the project area and to the FORHA.
Urban Design Element	
Policy UD-1.1: Enhance the City's image and identity within the region's natural setting.	**Consistent.** The proposed project proposes to integrate natural habitats into the community's open space network. Additionally, the proposed project proposes to create landscape buffers around the community that help transition from the urban habitat/ecosystem to the native habitat/ecosystem.
Policy UD-2.1: Protect the character of single-family neighborhoods by restricting out-of scale buildings, incompatible uses and designs, blocked views and/or access to sunlight, and excessive through traffic.	**Consistent.** The proposed residential neighborhoods are located within a comfortable walking distance of the town center commercial areas and are interconnected by a network of pedestrian-scale streets and landscaped paseos. A variety of housing types are proposed in order to provide a full spectrum of housing opportunities.
Policy UD-2.2: Minimize potential light and sound impacts of new development and redevelopment on surrounding areas.	**Consistent.** The proposed project includes both light and noise reduction design standards that would reduce potential impacts such as ensuring that private and public light fixtures include features that prevent light spillover onto adjacent properties and prevent light pollution of the night sky and ensuring that building illumination and architectural lighting be indirect with no light source visible.
Policy UD-2.3: Ensure projects use design and site planning facilities that reduce potential criminal activities.	**Consistent.** The proposed project would include site design and security design standards that aim to reduce potential criminal activities. These measures include security lighting and orientation of homes toward streets.
Policy UD-4.1: Encourage the provision of civic art into public and private development and redevelopment projects.	**Consistent.** The proposed project would include architectural details that would provide opportunities for placement of civic art.
Policy UD-4.3: Provide attractive community gathering places that meet the social, civic, cultural, and recreational needs of the community.	**Consistent.** The proposed project includes many community gathering places, including parks, horse park, commercial center, and activity nodes that would provide attractive and safe gathering places for the public. The proposed project also includes the CCVC, which would provide a venue for veteran's events .
Conservation/Open Space Element	
Policy COS-1.1: Provide a variety of well-maintained public parks and recreational facilities	**Consistent.** The proposed project includes several parks and open space areas to be used

City of Seaside General Plan	Policy Consistency Analysis
for Seaside residents.	residents. The parks would be maintained by the Home Owner's Association established by the project applicant.
Policy COS-1.3: Maximize pedestrian, transit, and bicycle access to parks and other local and regional activity centers as an alternative to automobile access.	**Consistent.** Neighborhood parks are located within walking distance of the each of the neighborhoods to further enhance the community's recreational experience. The parks and recreation areas vary in size and function, and thus provide a range of amenities, including children's play areas, active and passive turf areas, gathering places, and pedestrian and bicycle pathways. The pedestrian pathways and corridors are designed to create opportunities for active and safe recreation while at the same time interconnecting the proposed residential neighborhoods with the neighborhood commercial services.
Policy COS-2.1: Work with regional and local water providers to ensure that adequate supplies of water are available to meet existing development and future growth.	**Consistent.** A Water Supply Assessment (WSA) was prepared for the proposed project that addresses water use for buildout of the proposed project. The WSA concluded that there is adequate water for Phase I of the proposed project before additional water supplies need to be secured by the MCWD including the District's recycled water program and desalination.
Policy COS-2.2: Encourage the production, distribution, and use of recycled water.	**Consistent.** The proposed project plans to develop a reclaimed water infrastructure system that would provide recycled water services throughout the project area to ensure that the infrastructure is located within the project area once the Marina Coast Water District (MCWD) recycled water project comes online.
Policy COS-2.3: Participate in and implement local and regional programs that promote water conservation as a means of improving water supply and water.	**Consistent.** The proposed project is required to participate in local and regional water conservation measures pursuant to the *City of Seaside Municipal Code* Section ___.
Policy COS-3.1: Eliminate long-term groundwater overdrafting as soon as feasible.	**Consistent.** A Water Demand Study was prepared for the proposed project that requires water rights to be secured prior to development.
Policy COS-3.2: Work with all local, regional, State, and federal agencies to implement mandated water quality programs and regulations to improve surface water quality.	**Consistent.** The project would be required to adhere to Best Management Practices to reduce potential water quality impacts.
Policy COS-4.1: Preserve ecological and biological resources by maintaining these resources as open space.	**Consistent.** The proposed project includes the preservation of 74 acres dedicated to open space in the "Oak Oval" area.
Policy COS-4.2: Protect and enhance the creeks,	**Consistent.** According to the *Biological Resources*

City of Seaside General Plan	Policy Consistency Analysis
lakes, and adjacent wetlands for their value in providing visual amenity, habitat for wildlife, and recreational opportunities.	*Report*, the proposed project includes 0.24 acres of riparian habitat located within the location of the Sports Arena and Equine Training Facility within Phase 4 of the proposed project. The riparian habitat area may also contain jurisdictional wetlands. Mitigation measures are incorporated herein to ensure that there is no loss of wetlands within the project area. The project applicant would be required to restore, establish, enhance or preserve other aquatic resources to replace those impacted by the proposed project.
Policy COS-4.3: Encourage the preservation and enhancement of oak woodland elements in the natural and built environments.	**Consistent.** The proposed project would preserve 73-acres of native Oak woodland habitat in conformance with the *Fort Ord Habitat Management Plan* (HMP) and the *Fort Ord Base Reuse Plan.*
Policy COS-6.1: Integrate air quality planning with land use, economic development, and transportation planning.	**Consistent.** The proposed project is required to adhere to applicable Federal, State, and local policies regarding air quality. Additionally, the project proposes a walkable community that provides opportunities for alternative transportation.
Housing Element	
Policy H-1.1: Maintain a variety of housing types, sizes, and prices throughout the city to increase housing choice and ensure that households of all types and income levels have the opportunity to find suitable ownership or rental housing.	**Consistent.** The project proposes up to 1,280 residential units, ranging from apartments to single-family residential units.
Policy H-1.2: Identify adequate sites and appropriate zoning and development standards to facilitate and encourage housing production commensurate with the projected housing needs of the City.	**Consistent.** The project proposes to develop land uses in phases, consistent with economic need for those services.
Policy H-1.3: Encourage the construction high-density, well designed housing and residential/commercial mixed use projects.	**Consistent.** The 22.9 acre Multi-family Residential Planning Area is located in the central area of the planning area adjacent to the "Country Walk" town center. The Multi-Family Residential Planning Area would contain up to 426 multi-family residential dwelling units.
Policy H-1.4: Maintain a geographic dispersal of units affordable to very low, low- and moderate income households throughout the City.	**Consistent.** The project proposes up to 1,280 residential units, ranging from apartments to single-family residential units.
Policy H-1.7: Ensure that new residential developments are adequately served by infrastructure, including water and sewer, park and recreation areas, libraries, transportation, public safety and other necessary community services.	**Consistent.** The project would be required to have adequate infrastructure in place prior/concurrent with development of each phase.

420

<table>
<tr><th>Fort Ord Reuse Plan, City of Seaside</th><th>Policy Consistency Analysis</th></tr>
<tr><td colspan="2">Land Use Element – Residential Land Use</td></tr>
<tr><td>Residential Land Use Policy A-1: The City of Seaside shall provide variable housing densities to ensure development of housing accessible to all economic segments of the community. Residential land uses shall be categorized according to the following densities:
<table>
<tr><th>Land Use Designation</th><th>Actual Density – Units/Gross Acre</th></tr>
<tr><td>SFD Low Density Residential</td><td>up to 5 Du/Ac</td></tr>
<tr><td>SFD Medium Density Residential</td><td>5 to 10 Du/Ac</td></tr>
<tr><td>MFD High Density Residential</td><td>10 to 20 Du/Ac</td></tr>
<tr><td>Residential Infill Opportunities</td><td>5 to 10 Du/Ac</td></tr>
<tr><td>Planned Development Mixed Use District</td><td>8 to 20 Du/Ac</td></tr>
</table>
Development intensities for residential and other land uses in the City of Seaside are summarized on Table 3.3-3 in the Framework of the Reuse Plan. The full range of permitted uses in each Land Use Designation is described in Table 3.4-1 in the Framework of the Reuse Plan.</td><td>Consistent. The project proposes up to 1,280 residential units, ranging from apartments to single-family residential units. Therefore, the proposed project would provide variable housing densities to serve all economic segments of the community.</td></tr>
<tr><td>Residential Land Use Policy B-1: The City of Seaside shall encourage land uses that are compatible with the character of the surrounding districts or neighborhoods and discourage new land use activities which are potential nuisances and/or hazards within and in close proximity to residential areas.</td><td>Consistent. The project proposes uses that are compatible with existing land uses in the surround area, particularly to the west adjacent to existing development. Existing residential development located to the southwest of the project area would be located adjacent to proposed residential uses and therefore would not cause a potential nuisance or hazard.</td></tr>
<tr><td>Residential Land Use Policy C-1: The City of Seaside shall provide opportunities for developing market-responsive housing in the Fort Ord planning area.</td><td>Consistent. The project proposes to develop land uses in phases, consistent with economic need for those services.</td></tr>
<tr><td>Residential Land Use Policy D-1: The City of Seaside shall implement the Public Services and Capital Improvement Program in the Fort Ord Reuse Plan to support residential development.</td><td>Consistent. A Public Services and Capital Improvement Program has been implemented in the Fort Ord Base Reuse Plan area.</td></tr>
<tr><td>Residential Land Use Policy E-1: The City of</td><td>Consistent. The proposed project includes 426</td></tr>
</table>

Fort Ord Reuse Plan, City of Seaside	Policy Consistency Analysis
Seaside shall make land use decisions that support transportation alternatives to the automobile and encourage mixed-use projects and the highest-density residential projects along major public transportation routes.	multi-family residential units. Additionally, the project proposes a walkable community that provides opportunities for alternative transportation.
Residential Land Use Policy E-2: The City of Seaside shall encourage convenience/specialty retail land use in residential neighborhoods.	**Consistent.** The project proposes a 330,000 square foot commercial center that would serve visitors and residents within the proposed residential neighborhoods of the proposed project.
Residential Land Use Policy E-3: In areas of residential development, the City of Seaside shall provide for designation of access routes, street and road rights-of-way, off-street and on-street parking, bike paths and pedestrian walkways.	**Consistent.** The proposed project proposes an extensive circulation system that includes parking, bike paths, and pedestrian walkways.
Land Use Element – Commercial Land Use	
Commercial Land Use Policy C-1: The City of Seaside shall encourage a strong and stable source of city revenues by providing a balance of commercial land use types on its former Fort Ord land, while preserving the area's community character.	**Consistent.** The project proposes a 330,000 square foot commercial center that would serve both local and regional residents.
Commercial Land Use Policy D-1: The City of Seaside shall allow a mix of residential and commercial uses to decrease travel distances, encourage walking and biking and help increase transit ridership.	**Consistent.** A mixture of destination town center commercial retail uses, recreation, hospitality and business-oriented commercial uses are planned in the geographic center of the Specific Plan area. These centrally located uses are intended to be able to service both visitors and members of the community.
Commercial Land Use Policy E-1: The City of Seaside shall coordinate the location and intensity of commercial areas at the former Fort Ord with transportation resources and in a manner which offers convenient access.	**Consistent.** The project proposes a multitude of alternative transportation, including pedestrian access, bikeways, and additional bus stops for residents.
Commercial Land Use Policy E-2: In areas of commercial development, the City of Seaside shall provide for designation of access routes, street and road rights-of-way, off-street and on-street parking, bike paths and pedestrian walkways.	**Consistent.** The project proposes a multitude of alternative transportation, including pedestrian access, bikeways, and additional bus stops for residents. Additionally, the project would be required to adhere to City of Seaside parking standards for commercial development.
Recreation/Open Space Land Use Policy C-3: The City of Seaside shall coordinate land use designations for parks and recreation with adjacent uses and jurisdictions.	**Consistent.** Neighborhood parks are located within walking distance of the individual neighborhoods to further enhance the community's recreational experience. The parks and recreation areas vary in size and function, and thus provide a range of amenities, including children's play areas, active and passive turf areas, gathering places, and pedestrian and bicycle

Fort Ord Reuse Plan, City of Seaside	Policy Consistency Analysis
	pathways. The pedestrian pathways and corridors are designed to create opportunities for active and safe recreation while at the same time interconnecting the proposed residential neighborhoods with the neighborhood commercial services.

Monterey County LAFCO

Monterey Downs Site Annexation

As discussed above, Government Code section 56668 identifies factors that must be considered to a proposal for annexation. Application of each of these factors to the project site is addressed below.

> *(a) Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.*

The project area contains approximately 710 acres. The site predominantly undeveloped and has rolling topography. No residences currently exist onsite. Portions of the project area were used as part of the former Fort Ord Military Base. The elevation of the project area is between approximately 260 and 400 feet above mean sea level, situated within the gently rolling hills of ancestral dune fields. The ground surface across the project area is mostly variably gently to moderately sloping across small hills and hummocks, punctuated by flat-topped knolls and flat-bottomed closed depressions within the rolling dune topography. Surrounding land uses include vacant land that is proposed for the Monterey Peninsula College Emergency Vehicle Operations Center; Fort Ord Recreational Habitat Area; Bureau of Land Management open space and the Fort Ord National Monument to the south; California State University Monterey Bay open space, an Army maintenance parcel, abandoned military barracks, and the Department of the Defense office building to the north; County and BLM open space to the east; and military housing, Chartwell School and Marshall Elementary School to the west of the project site. The greater surrounding area also includes residential, commercial, and open space uses.

The project area is designated Business Park/Light Industrial/Office/R&D, Low Density Residential, and Public Facility/Institutional in the *Fort Ord Base Reuse Plan* (Fort Ord Reuse Authority 1997). The *Fort Ord Base Reuse Plan* Land Use Concept Ultimate Development Map shows a Veterans' Cemetery Opportunity site at the City of Seaside/County of Monterey boundary and three locations for an Equestrian Center Opportunity site in the project vicinity.

The portion of the project area located within the City of Seaside is designated High Density Residential and Park and Open Space in the *City of Seaside General Plan* (City of

Seaside 2004) and zoned RH-High Density Residential and OSR – Open Space-Recreation.

The portion of the project area located within the County of Monterey is designated Single Family Residential (SFR)-Low Density Residential, and Business Park/Light Industrial Office/R&D in the *Monterey County General Plan, Fort Ord Master Plan* (Monterey County 2007) and is zoned Public Quasi Public-Design Control with a Site Plan Review Overlay (PQP-D-S). The *Monterey County General Plan, Fort Ord Master Plan* also designates a portion of the project area as Public Facility/Institutional and the southern portion of the proposed Central Coast Veterans' Cemetery parcels as School/University. In addition, the project area is shown as an opportunity site for a hotel, golf course, and equestrian center in the *Monterey County General Plan, Fort Ord Master Plan*.

The portion of the project area located within the County of Monterey is designated Single Family Residential (SFR)-Low Density Residential, and Business Park/Light Industrial Office/R&D in the Monterey County General Plan, Fort Ord Master Plan (Monterey County 2007) and is zoned Public Quasi Public-Design Control with a Site Plan Review Overlay (PQP-D-S). The Monterey County General Plan, Fort Ord Master Plan also designates a portion of the project area as Public Facility/Institutional and the southern portion of the proposed Central Coast Veterans' Cemetery parcels as School/University. In addition, the project area is shown as an opportunity site for a hotel, golf course, and equestrian center in the Monterey County General Plan, Fort Ord Master Plan.

The LAFCO statute generally prohibits annexations that result in the creation of one or more "islands" of unincorporated territory within the City (Gov't. Code §56744). The LAFCO may, however, waive these restrictions "if it finds that the application of the restrictions would be detrimental to the orderly development of the community and that the area that would be enclosed by the annexation or incorporation is so located that it cannot reasonably be annexed to another city or incorporated as a new city." Gov't. Code § 56375(m). Application of the restrictions would be detrimental to the orderly development of the community, as the project site cannot reasonably be annexed to another city or incorporated as a new city.

> *(b) The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.*

The project site is adjacent to existing urban development in the City, and the provision of governmental services in the area has been identified through this Environmental Impact Report, concluding that the provision of governmental services is adequate and

the cost of extending such services to the project site will be reasonable. Under controlling law, the developer of the project site shall be responsible for paying its fair share of the costs of providing government services to the project site. This is accomplished by establishing a Community Facilities District for the project site that includes and identifies the project's fair share contribution toward the provision of services.

(c) The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.

The City Council directed City Staff to pursue processing a Specific Plan and annexation with regard to the project site. The City recognizes that annexation of the site implements the City's General Plan for this site. The proposed action (annexation) has been analyzed throughout the EIR; the effects of the annexation and of alternatives have been discussed in terms of land use impacts (land use chapter), and impacts to public service delivery (public facilities chapters). The proposed annexation will provide for orderly expansion of City services. Annexation will not adversely affect the local governmental structure of the County, as all services for the development of the project site will be provided by the City of Seaside, City of Marina, County of Monterey.

(d) The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.

The application of the LAFCO's policies is discussed in Section II.B. below. Even though the project site currently consists of mostly vacant lands, diverting the development intended for the project site to other areas would not promote the planned, orderly, efficient development of the area because the City has made the development of the project site a priority as opposed to lands further from the existing City limits. Government Code section 56377 requires LAFCO to consider certain policies and priorities before approving or disapproving proposals that would convert or lead to the conversion of open space lands to other uses. Annexation of the project site and the conversion of its open space lands to other uses is appropriate because it promotes the planned, orderly, efficient development of the area, as envisioned under the City's General Plan.

(e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Section 56016.

Government Code Section 56016 defines "agricultural lands" as land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program. The project site is not currently being used for commercial agricultural production, nor is it under a crop rotational program, nor is it enrolled in an

agricultural subsidy or set-aside program. Consequently, the annexation has no effect on maintaining the physical and economic integrity of agricultural lands.

(f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.

The boundaries of the project area are definite and certain, and are in conformance with lines of assessment or ownership.

(g) A regional transportation plan adopted pursuant to Section 65080, and consistency with city or county general plans and specific plans.

The Transportation Agency for Monterey County (TAMC) adopts a regional transportation plan to provide a basis for the planning and programming of local, state, and federal transportation funds to transportation projects in Monterey County. The 2010 Regional Transportation Plan identifies existing and future transportation related needs, considers all modes of travel, and identifies what can be completed with anticipated available funding for projects and programs. The Regional Transportation Plan was prepared in consultation with FORA, and it reflects FORA's programs and transportation priorities within the former Fort Ord.

From a planning perspective, the goals and ideals of the proposed project implement the goals and objectives in land planning, architecture, landscape architecture, and urban design, and comply with the design goals of the General Plan.

(h) The sphere of influence of any local agency which may be applicable to the proposal being reviewed.

The City of Seaside is proposing to annex the project area into the City of Seaside. No other sphere of influence changes are proposed.

(i) The comments of any affected local agency or other public agency.

Comments received during the Notice of Preparation phase of the EIR have been incorporated into the EIR.

(j) The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.

The EIR addresses the adequacy of services provision. Prior to annexation, a Municipal Services Plan will be approved by LAFCO addressing the sufficiency of revenues for services.

(k) Timely availability of water supplies adequate for projected needs as specified in Govt. Section 65352.5.

A Water Supply Assessment ("WSA") was prepared for the proposed project. The WSA is included as Appendix I of this EIR and incorporated herein as if set forth in full. All other required information by Govt. Section 65352.5 has been provided.

(l) The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs as determined by the appropriate council of governments consistent with Article 10.6 (commencing with Section 65580) of Chapter 3 of Division 1 of Title 7.

The annexation will help the City meet its allocation of regional housing needs as determined by the Association of Monterey Bay Area Governments. The Regional Housing Needs Allocation ("RHNA") for the City during 2007-2014 is 598 units. According to the General Plan, up to 1,471 residential units could be accommodated within the City due to vacant or underutilized parcels. The proposed project is proposed to be phased over many years. Therefore, the annexation will help the City meet its RHNA by facilitating the development of residential units across a range of densities.

(m) Any information or comments from the landowner or owners, voters, or residents of the affected territory.

The City of Seaside supports the annexation of the project area, as annexation is a prerequisite to the development of the project area.

(n) Any information relating to existing land use designations.

Information regarding the existing land use designations is discussed throughout these findings.

(o) The extent to which the proposal will promote environmental justice.

State law defines environmental justice as "the fair treatment of people of all races, cultures and income with respect to development, adoption and implementation of environmental laws, regulations and policies." Gov't. Code § 65040.12(c). "As the primary agency with responsibility for approving changes in boundaries, LAFCOs play an important role in coordinating growth and ensuring that proposed changes are consistent with environmental justice obligations." LAFCO Municipal Service Review Guidelines (Office of Planning and Research, 2003), p. 29. The proposed annexation will promote the fair treatment of people of all races, cultures and income.

Annexation of the project area complies with, and is supported by, the General Standards for Annexation set forth in the LAFCO's Policies and Procedures (at pp. 12-15). Application of these Standards to the annexation are summarized below:

Annexation of the project area is consistent with the internal planning horizon of the SOI. Annexation of the project site is consistent with the schedule of annexation proposed for the City's SOI. Annexing the project area will promote the LAFCO's policy of radiating growth from the inner toward outer areas.

The boundaries of the annexation will be definite and certain and will conform to lines of assessment or ownership. The annexation will not split existing legal parcels.

The City is capable of meeting the need for services created by the annexation. The territory proposed for annexation is contiguous to the City, and will not create areas that are difficult to serve. The annexation is not intended to merely facilitate the delivery of a few services to the detriment of the delivery of a larger number of services more basic to the public health and welfare.

Finally, annexation of the project area will not create any significant adverse effects upon other service recipients or other agencies serving the area.

A formal LAFCo Annexation Application must be submitted to Monterey County LAFCo. Strict adherence to LAFCo's *Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization* must be demonstrated as part of annexation approval.

As identified above, the project would be consistent with City of Seaside, Fort Ord Reuse Plan, and LAFCo policy planning documents. Less than significant impacts would occur.

Inconsistency with the Habitat Management Plan

Impact 3.9-3 The proposed project would not conflict with applicable habitat conservation plan. Therefore, impacts are considered a **less than significant impact**.

The Department of the U.S. Army developed the *Fort Ord Habitat Management Plan (HMP)* in compliance with Section 7 of the federal Endangered Species Act to provide for the incidental take of federally-listed species as will occur with implementation of the Fort Ord Reuse Plan. The HMP protects habitat within a significant portion of the former Fort Ord while allowing development to occur in other areas with minimal restrictions. The HMP designates the majority of the project areas as "Development" (U.S. Army Corps of Engineers 2005, Revised Attachment A) with the exception of the oak oval, which is designated as "Habitat Reserve." Impacts to biological resources associated with development of these areas are mitigated in the HMP through the set-aside of habitat reserve areas within the boundaries of the former Fort Ord. Because

639 the proposed project would not conflict with the HMP, impacts would be **less than**
640 **significant**.

641

3.8 Hydrology & Water Quality

This section of the EIR discusses the hydrologic and water quality setting of the proposed project and surrounding area. This section also evaluates the potential impacts that the proposed project will have on water resources.

Project-specific information in this section is taken primarily from the *Preliminary Hydrology Study* prepared by Diamond West in September 2012 and peer reviewed by RBF Consulting, as well as the *Preliminary Hydrology Study* prepared for the Central Coast Veterans Cemetery prepared by Whitson Engineers. This section is also based on the Water Supply Assessment that was prepared by Schaaf and Wheeler on behalf of the Marina Coast Water District (MCWD) for the proposed project.

Environmental Setting

Climate

The climate of the Monterey Peninsula is relatively mild throughout the year, with average temperatures ranging from 43 degrees Fahrenheit to 71 degrees Fahrenheit. Rainfall is low with approximately 15 inches per year and evaporation ranges from 36 inches per year, indicating a very dry climate. Typically 90 percent of annual precipitation occurs between November and April, with negligible amounts falling in summer.

Surface Water Drainage

The former Fort Ord, located between the Salinas and Carmel River watersheds, covers approximately 44 square miles.

The topography of former Fort Ord is characterized by stabilized sand dunes in the western half of the base, transitioning to rolling hills and canyons in the eastern half. The sandy soils in the western half of the base are highly permeable and absorb much of the rainfall and runoff without forming distinct creek channels. The streams in the canyons in the eastern part of the base are small and intermittent. A number of creeks drain into the Salinas River. Canyon Del Rey drains the southern portion of the base and empties into Monterey Bay.

The topography of the project area is rolling. Much of the stormwater percolates into the soil before forming significant channels. There are several watersheds located south of the project area. ***[Drainage areas are not described in the report.]***

Soils

Approximately 75 percent of the project area is comprised of Oceano loamy sand, two to 15 percent slopes, which has a very high percolation rate and a slight to moderate runoff potential. The remainder of the project area is comprised of the Arnold-Santa Ynez Complex, which makes up 20 percent of the project area and Baywood Sand, 2 to 5 percent slopes, which makes up five percent of the project area. The erosion control

hazard of the Arnold-Santa Ynez soil is ____ and the erosion control hazard of the Baywood soil is slight to moderate. Percolation rates for these soils.

Flooding

The project area is located on FEMA FIRM 06053C0195G (effective date April 2, 2009). The majority of the project area is located entirely within SFHA Zone X. However, there is a small portion of the CCVC that is located within Zone A. Zone X is defined as areas of minimal flooding or outside of the 500-year flood zone. Zone A is defined as areas subject to inundation by the one percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply to those areas located within Zone A.

Groundwater Basin

The project area is located within the jurisdiction of the Marina Coast Water District (MCWD), which supplies groundwater from the Salinas Valley Groundwater Basin. Potable water for the MCWD's service area comes primarily from wells developed in the Salinas Valley Groundwater basin. This groundwater basin underlies the Salinas Valley from San Ardo to the coast of the Monterey Bay and is divided into five hydrologically linked subareas: Pressure, East Side, Forebay, Arroyo Seco, and Upper Valley. The basin is further divided in the Pressure subarea by distinct aquifers, commonly referred to as the 180-foot, 400 foot, and deep aquifer. Historically, the deep aquifer was thought to be geologically confined in the Marina area, meaning that groundwater did not move between the deep aquifer and the 400-foot and 180-foot aquifers. However, recent stratigraphic analyses have indicated that these aquifers are connected hydraulically with water from the 180-foot and 400-foot aquifers recharging the deep aquifer. Additionally, the deep, or 180-foot aquifer is in reality a series of aquifers, not all of which are hydraulically connected.

The Salinas Valley groundwater basin remains in an overdraft condition with seawater intrusion of about 9,000 acre feet per year (AFY) at its coastal margins. MCWD's groundwater withdrawals, including the former Fort Ord are about 4,670 AFY or less than one percent of the total annual basin withdrawals of about 500,000 AFY. Other than MCWD, only a small number of wells tap the deep aquifer, some of which also draw from the middle aquifer. Prior to receiving recycled water for crop irrigation, there were agricultural lands in the Castroville area that pumped water from the deep aquifer. These agricultural wells are currently used to meet supplemental needs during peak summer

Under the "Agreement between the United States of America and the Monterey County Water Resources Agency concerning Annexation of Fort Ord into Zones 2 and 2A of the Monterey County Water Resources Agency, Agreement No. A-06404", dated September 21, 1993, the MCWD (successor to the United States) may withdraw up to 6,600 acre-feet per year from the Salinas Valley Groundwater Basin for use in the District's Ord Community service area. Under the "Annexation Agreement and Groundwater Mitigation Framework for Marina Area Lands" dated March 1996, by and between the MCWRA, the Marina Coast Water District, J.G. Armstrong Family Members, RMC Lonestar, and the City of Marina, the District may withdraw up to 3,020 AFY from the Salinas Valley Groundwater Basin for use in the District's Central Marina service area. Under that agreement, additional groundwater supply will be made available to the District for use within the Armstrong Ranch and the RMC Lonestar properties north of Marina, if and when the City annexes and develops those areas.

There are three defined aquifers within the MCWD service area, the 180-foot, the 400-foot and the 900-foot or Deep Aquifer. MCWD operates eight wells, with three in Central Marina and five in the Ord community. The service areas are interconnected for reliability, with meters at the points of connection to facilitate managing the two well-fields to ensure each service area remains within its authorized withdrawal limit. Table 4-1 summarizes the existing pumping capacity of the District wells. As can be seen, the District has sufficient well capacity to meet the maximum day demands with the largest well out-of-service.

Table 3.8-1: Existing Pumping Capacity

Location	Well#	Aquifer	Estimated Capacity	
			AFY	GPM
Marina	10	Deep	2,670	1,654
	11	Deep	3,561	2,206
	12	Deep	3,264	2,022
Ord	29	400 foot	2,885	1,787
	30	400 foot	3,624	2,245
	31	400 foot	3,626	2,246
	34	Deep	3,326	2,000
	35	Deep	3,326	2,000

Water Quality

Regulatory Setting

Federal

Clean Water Act

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act (Clean Water Act [CWA]). Originally enacted in 1948, it was amended in 1972 and has remained substantially the same since. The CWA consists of two major parts: provisions that authorize federal financial assistance for municipal sewage treatment plant construction and regulatory requirements that apply to industrial and municipal dischargers. The CWA authorizes the establishment of effluent standards on an industry basis. The CWA also requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses".

National Pollutant Discharge Elimination System

To achieve its objectives, the CWA is based on the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit. The NPDES is the permitting program for discharge of pollutants into surface waters of the United States under Section 402 of the CWA. Thus, industrial and municipal dischargers (point source discharges) must obtain NPDES permits from the appropriate RWQCB (i.e., the Central Valley region). The existing NPDES (Phase I) stormwater program requires municipalities serving more than 1,000,000 persons to obtain a NPDES stormwater permit for any construction project larger than five acres. Proposed NPDES stormwater regulations (Phase II) expand this existing national program to smaller municipalities with populations of 10,000 persons or more and construction sites that disturb more than one acre. For other dischargers, such as those affecting groundwater or from non-point sources, a Report of Waste Discharge must be filed with the RWQCB. For specified situations, some permits may be waived and some discharge activities may be handled through being included in an existing General Permit.

Construction activity subject to a General Permit includes any clearing, grading, stockpiling, or excavation that results in soil disturbances of one acre of total land area or more. Construction activities disturbing less than one acre are still subject to this permit if the activity is part of a large common plan of development or if significant water quality impairment will result from the activity. The General Permit requires all dischargers whose construction activity disturbs one acre or more to:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters;
- Eliminate or reduce non-stormwater discharge to storm sewer systems and other waters of the United States; and

- Inspect all BMPs.

Impaired Waterbodies

CWA Section 303(d) and California's Porter-Cologne Water Quality Control Act (described below) require the State to establish the beneficial uses of its State waters and to adopt water quality standards to protect those beneficial uses. Section 303(d) establishes a Total Maximum Daily Load (TMDL), which is the maximum quantity of a particular contaminant that a water body can maintain without experiencing adverse effects, to guide the application of State water quality standards. Section 303(d) also requires the State to identify "impaired" streams (water bodies affected by the presence of pollutants or contaminants) and to establish the TMDL for each stream.

Federal Flood Insurance Program

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts is to reduce the need for large publicly funded flood control structures and disaster relief by restricting development on floodplains. FEMA administers the NFIP to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development on floodplains. FEMA issues FIRMs for communities participating in the NFIP. FIRMs delineate flood hazard zones in the community.

A Special Flood Hazard Area (SFHA) is an area within a floodplain having a one percent or greater chance of flood occurrence within any given year (commonly referred to as the 100 year flood zone). SFHAs are delineated on flood hazard boundary maps issued by FEMA. The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 make flood insurance mandatory for most properties in SFHAs. A small area in the western portion of the CCVC is located within a designated special flood hazard area. See Figure 3.8-1: Hydrologic Features.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act acts in cooperation with the CWA to establish the SWRCB. The SWRCB is divided into nine regions, each overseen by a RWQCB. The SWRCB, and thus each RWQCB, is responsible for protecting California's surface waters and groundwater supplies. The Porter-Cologne Water Quality Control Act develops Basin Plans that designate the beneficial uses of California's rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

Stormwater Pollution Prevention Plan (SWPPP)

The SWPPP has two major objectives: 1) to help identify the sources of sediment and other pollutants that affect the quality of storm water discharges, and 2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in both stormwater and in non-stormwater discharges.

BMPs include activities, practices, maintenance procedures, and other management practices that reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges. BMPs include treatment requirements, operation procedures, and practices to control site runoff, spillage, leaks, waste disposal, and drainage from raw materials storage. BMP implementation must take into account changing weather conditions and construction activities, and various combinations of BMPs may be used over the life of the project to maintain compliance with the CWA. The General NPDES Permit gives the owner the discretion to determine the most economical, effective, and innovative BMPs to achieve the performance-based goals of the General NPDES Permit.

There are two categories of BMPs: structural and non-structural. Structural BMPs are the specific construction, modification, operation, maintenance, or monitoring of facilities that would minimize the introduction of pollutants into the drainage system, or would remove pollutants from the drainage system. Non-structural BMPs are activities, programs, and other nonphysical measures that help reduce pollutants from non-point sources to the drainage system. In general, nonstructural BMPs are source control measures.

The issue of pollution in stormwater and urban runoff has been recognized by both federal and state agencies, and there has been a growing concern regarding activities that discharge water affecting California's surface water, coastal waters, and groundwater. Discharges of water are classified as either point source or non-point source discharges. A point source discharge usually refers to waste emanating from a single, identifiable point. Regulated point sources include municipal wastewater, oil field wastewater, winery discharges, solid waste sites, and other industrial discharges. Point source discharge must be actively managed to protect the state's waters. A non-point source discharge usually is a waste emanating from diffused locations. As a result, specific sources of non-point source pollution may be difficult to identify, treat, or regulate. The goal is to reduce the adverse impact of non-point source discharges on water resources through better management of these activities. Non-point sources include drainage and percolation from a variety of activities such as agriculture, forestry, recreation, and storm runoff with the latter being the most common in the project area.

Concentrated Animal Feeding Operations (CAFOs)

In December 2002, the Environmental Protection Agency revised the Clean Water Act regulations for Concentrated Animal Feeding Operations (CAFOs) changing the thresholds which a horse stable operation becomes a CAFO. CAFO designations are assigned only by the Regional Water Quality Control Board and not by the Permittees.

Therefore, the Regional Water Quality Control Board enforces the CAFO regulations. A horse stable operation is classified as a "Large CAFO," "Medium CAFO" or a "Designated CAFO. " A "Large CAFO" is an animal feeding operation that has at least 500 horses. A "Medium CAFO" is an animal feeding operation that has at least 150 horses and a manmade ditch or pipe that carries manure or wastewater from the operation or the horses come into contact with surface water running through the area where they're confined. Any size operation can be a "Designated CAFO" if the Regional Water Quality Control Board inspects the operation and determines that it's adding pollutants to the surface waters.

The requirements for all horse CAFO Permits may include: implementing a nutrient management plan, submitting annual reports to the Regional Water Quality Control Board; keeping the permit current until the operation is closed and ensuring that all manure is removed; and keeping nutrient management practices for at least five years.

Nutrient management plans for all horse CAFOs may include provisions for: assuring adequate manure storage and capacity, proper handling of dead animals and chemicals, diverting clean water from the production area; keeping animals out of surface water, using site specific conservation practices, developing ways to test manure and soil; assuring appropriate use of nutrients when spreading manure; and keeping records of nutrient management practices.

Local

City of Seaside General Plan

Conservation/Open Space

Goal COS-3: Protect and enhance local and regional ground and surface water resources.

Policy COS-3.2: Work with all local, regional, State, and federal agencies to implement mandated water quality programs and regulations to improve surface water quality.

> **Implementation Plan COS-3.2.1** NPDES Requirements. To reduce pollutants in urban runoff, require new development projects and substantial rehabilitation projects to incorporate Best Management Practices (BMPs) pursuant to the National Pollutant Discharge Elimination System (NPDES) permit to ensure that the City complies with applicable state and federal regulations.

> **Implementation Plan COS-3.2.2** Adequate Drainage Systems. Apply appropriate development standards and fees to improve present drainage systems and provide adequate stormwater detention basins and sedimentation ponds with new construction. (See also Implementation Plan LU-8.2.1.)

City of Seaside Municipal Code

Chapter 8.46

As described in Chapter 8.46 of the *City of Seaside Municipal Code*, *Urban Strom Water Quality Management and Discharge Control*, the City has adopted a Best Management Practices (BMP) Guidance Series containing recommended activities, practices, and procedures that include, but are not limited to: treatment facilities to remove pollutants from stormwater; operating and maintenance procedures; facility management practices to control runoff, spillage or leaks of non-stormwater, waste disposal, and drainage from materials storage; erosion and sediment control practices; and the prohibition of such other provisions as the city determines appropriate for the control of pollutants. Development applicants will be subject to the BMPs outlined in the *Guidance Series.*

Chapter 15.32, Standards to Control Excavation, Grading, Clearing, and Erosion

Chapter 15.32 of the *City of Seaside Municipal Code* sets forth guidelines, rules, regulations, and minimum standards to control excavation, grading, clearing, erosion control and maintenance, including cut and fill embankments. The Code requires control of all existing and potential conditions of accelerated erosion, establishes administrative procedures for issuance of permits, and provides for approval of plans and inspections during construction and maintenance. Except as exempted in Section 15.32.050 of the Seaside Municipal Code, a permit shall be obtained from the city by the owner(s) of the property, or agent when authorized in writing, for each development site. Approval of a permit for new development shall require the abatement of any existing human-induced or accelerated erosion problems on the property.

Title 15.28, Buildings and Construction

Chapter 15.28, Flood Control addresses the construction of structures within designated flood zones within the City. This chapter includes methods and provisions for: restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities; requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood-waters; controlling filling, grading, dredging, and other development which may increase flood damage; and preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Fort Ord Reuse Plan

Conservation Element

Objective A: Protect and preserve watersheds and recharge areas, particularly those critical for the replenishment of aquifers.

Hydrology and Water Quality Policy A-1: At the project approval stage, the City shall require new development to demonstrate that all measures will be taken to ensure that runoff is minimized and infiltration maximized in groundwater recharge areas.

Program A-1.1: The City shall develop and make available a description of feasible and effective best management practices and site drainage designs that shall be implemented in new development to ensure adequate stormwater infiltration.

Program A-1.2: A Master Drainage Plan should be developed for the Fort Ord property to assess the existing natural and man-made drainage facilities, recommend area-wide improvements based on the approved Reuse Plan and develop plans for the control of storm water runoff from future development, including detention/retention and enhanced percolation to the ground water. This plan shall be developed by the FORA with funding for the plan to be obtained from future development. All Fort Ord property owners (federal, state, and local) shall participate in the funding of this plan. Reflecting the incremental nature of the funding source (i.e., development), the assessment of existing facilities shall be completed first and by the year 2001. This shall be followed by recommendations for improvements and an implementation plan to be completed by 2003.

Objective B: Eliminate long-term groundwater overdrafting as soon as practicably possible.

Hydrology and Water Quality Policy B-1: The City shall ensure additional water to critically deficient areas.

Hydrology and Water Quality Policy B-2: The City shall condition approval of development plans on verification of an assured long-term water supply for the projects.

Objective C: Control nonpoint and point water pollution sources to protect the adopted beneficial uses of water.

Hydrology and Water Quality Policy C-1: The City shall comply with all mandated water quality programs and establish local water quality programs as needed.

Program C-1.1: The City shall comply with the nonpoint pollution control plan developed by the California Coastal Commission and the State Water Resources Control Board (SWRCB), pursuant to Section 6217 of the Federal Coastal Zone Management Act Reauthorization Amendments of 1990, if any stormwater is discharged into the ocean.

Program C-1.2: The City shall comply with the General Industrial Storm Water Permit adopted by the SWRCB in November 1991 that requires all storm drain outfalls classified as industrial to apply for a permit for discharge.

Program C-1.3: The City shall comply with the management plan to protect Monterey Bay's resources in compliance with the Marine Protection, Research, and Sanctuaries Act of 1972, as amended, and its implementing regulations.

Program C-1.4: The City shall develop and implement a surface water and groundwater quality monitoring program that includes new domestic wells, to detect and solve potential water quality problems, including drinking water quality.

Program C-1.5: The City shall support the County in the implementing of a hazardous substance control ordinance that requires that hazardous substance control plans be prepared and implemented for construction activities involving the handling, storing, transport, or disposal of hazardous waste materials.

Program C-1.6: The City shall develop a program to identify wells that contribute to groundwater degradation. The City shall require that these wells be repaired or destroyed by the property owner according to state standards. These actions shall be reviewed and approved by the Monterey County Environmental Health Department (MCEHD).

Hydrology and Water Quality Policy C-2: At the project approval stage, the City shall require new development to demonstrate that all measures will be taken to ensure that on-site drainage systems are designed to capture and filter out urban pollution.

Program C-2.1: The City shall develop and make available a description of feasible and effective measures and site drainage designs that will be implemented in new development to minimize water quality impacts.

Hydrology and Water Quality Policy C-3: The MCWRA and the City shall cooperate with MCWRA and MPWMD to mitigate further seawater intrusion based on Salinas Valley Basin Management Plan.

Program C-3.1: The City shall continue to work with the MCWRA and the MPWMD to estimate the current safe yield within the context of the Salinas Valley Basin Management Plan for those portions of the former Fort Ord overlying the Salinas Valley and Seaside groundwater basins to determine available water supplies.

Program C-3.2: The City shall work with MCWRA and MPWMD to determine the extent of seawater intrusion into the Salinas Valley and Seaside groundwater basins in the context of the Salinas Valley Basin Management Plan, and shall participate in implementing measures to prevent further intrusion.

Hydrology and Water Quality Policy C-4: The City shall prevent siltation of waterways, to the extent feasible.

Hydrology and Water Quality Policy C-5: The City shall support all actions necessary to ensure that sewage treatment facilities operate in compliance with waste discharge requirements adopted by the California Regional Water Quality Control Board.

Hydrology and Water Quality Policy C-6: In support of Monterey Bay's national marine sanctuary designation, the City shall support all actions required to ensure that the bay and intertidal environment will not be adversely affected, even if such actions would exceed state and federal water quality requirements.

Hydrology and Water Quality Policy C-7: The City shall condition all development plans on verification of adequate wastewater treatment capacity.

Relevant Project Characteristics

The proposed project would result in varying levels of ground disturbance including vegetation removal, grading and filling during short-term construction activities on over 605 acres (85 percent) of the project area. The proposed training facility, commercial center, horse park, extended stay hotel, residential housing area, office complex and infrastructural improvements associated with the Monterey Downs and Horse Park would require ground disturbing activities including, but not limited to, vegetation removal, grading, filling and excavation of native soils in advance of construction. The CCVC, with its proposed burial sites, support buildings, memorial plaza, ceremonial entry and landscaping, would also require extensive ground disturbance in the form of vegetation removal, grading, filling and excavation of native soils in advance of construction.

According to the Water Supply Assessment, the proposed project would result in a potable water demand of approximately 550 acre feet per year (AFY) of water (Schaaf and Wheeler 2012).[18]

[Add design features that would reduce water demand]

Impacts and Mitigation Measures

Criteria for Determining Significance

In accordance with the CEQA, *State CEQA Guidelines*, and agency and professional standards, a project impact would be considered significant if the project would:

- Violate any water quality standards or waste discharge requirements;

[18] This estimate assumes the project's compliance with water conservation guidelines and therefore the water demand factors have been adjusted accordingly.

- 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;
- Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- 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;
- Otherwise substantially degrade water quality;
- 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;
- Place within a 100-year flood-hazards area structures which would impede or redirect flood flows;
- 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; and/or
- Inundation by seiche, tsunami, or mudflow.

Methodology

Project Impacts and Mitigation Measures

Inundation by Dam, Seiche, Tsunami, or Mudflow

The proposed project is located more than 4.2 miles from the Monterey Bay. In addition, there are no large water bodies or dams in the project vicinity. Therefore, the proposed project is not anticipated to be impacted by a dam, tsunami or seiche. The project area and surrounding properties are also relatively flat and would not be subject to mudflows. Therefore, no impacts from seiche, tsunami or mudflow are anticipated to occur.

Place Housing or Structures Within a 100-Year Flood-Hazards Area Which Would Impede or Redirect Flood Flows

Impact 3.8-1 Portions of the CCVC are located within a FEMA mapped floodplain. However, this portion of the CCVC is not proposed for development. Therefore, the proposed project would not place structures or housing within a 100-year flood zone. This is considered a **less than significant impact**.

According to the Flood Insurance Rate Maps prepared by FEMA (Panel 0195G), a portion of the CCVC is within the boundaries of Zone A (see Figure X: Hydrologic Features). This portion of the CCVC is proposed as a Habitat Restoration Opportunity Area within the CCVC as shown in Figure 2-15: Illustrative Plan of the Central Coast Veterans Cemetery. Therefore, future development would not occur within this portion of the project area, which would be considered a **less than significant impact**.

Violate Water Quality Standards or Waste Discharge Requirements

Impact 3.8-2 Construction-related and long-term operational activities resulting from implementation of the proposed project may result in the degradation of surface water quality, which is considered a **less than significant impact.**

Short-term Construction

Project implementation will require extensive construction and grading. During these activities, there will be the potential for surface water to carry sediment from onsite erosion and small quantities of pollutants into the storm water system and local waterways. Soil erosion may occur along project boundaries during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of the proposed project would also require the use of gasoline and diesel powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances will be utilized during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

Implementation of the proposed project would result in an area of disturbance of more than one acre. To assure implementation of the proposed project would not adversely affect short-term water quality, the proposed project would be required to comply with NPDES permit requirements. This would require the project to prepare a Storm Water Pollution Prevention Plan (SWPPP), which would incorporate Best Management

Practices (BMPs) to control erosion, siltation, and contaminated runoff from construction sites.

BMPs for storm water quality treatment are classified as structural and nonstructural. Structural measures may include bio-filters, wetlands, infiltration basins, or mechanical structures designed to remove pollutants from storm water. Non-structural measures such as street sweeping, public education, or hazardous substance recycling centers are preventive measures intended to control the source of pollutants. Typical BMPs that are included within NPDES permit requirements include:

- Use of sand bags and temporary desiltation basins during project grading and construction during the rainy season (November through April) to prevent discharge of sediment-laden runoff into storm water facilities;
- Installation of landscaping as soon as possible after completion of grading to reduce sediment transport during storms;
- Hydroseeding of graded building pads if they are not built upon before the onset of the rainy season;
- Incorporation of structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the project design to provide detention and filtering of contaminants in urban runoff from the developed site prior to discharge to storm water facilities; and
- Stenciling of catch basins and other publicly visible flood control facilities with the phrase, "Don't Dump - Pollutes Our Creeks."

Additionally, prior to construction grading, the project applicant must file a Notice of Intent (NOI) to comply with the General Permit and prepare the SWPPP, which addresses the measures that will be included in the project to minimize and control construction and post-construction runoff to the "maximum extent practicable." Moreover, project grading plans would conform to the drainage and erosion standards adopted by the City of Seaside and are subject to approval by the City.

Typical measures, or their equivalent, will be included in the SWPPP, which will be implemented to prevent storm water pollution and minimize potential sedimentation during construction.

- Restrict grading to dry season (April through October) or use BMPs for wet season erosion control;
- Preclude non-storm water discharges to the storm water system;
- Perform monitoring of discharges to the storm water system;
- Construction practices will include the use of stabilized construction entrances and/or wash racks, street sweeping, use of erosion control devices,

including damp sweeping, straw bales and/or silt fences, and storm drain inlet protection to minimize contamination from storm water runoff;

- Provide temporary cover of disturbed surfaces to help erosion control during construction; and
- Provide permanent cover to stabilize the disturbed surfaces after construction has been completed.

Compliance with NPDES permit requirements, as well as the City of Seaside's drainage and erosion standards would reduce impact to less than significant impact, and no mitigation is required.

Long-term Operational

The Rec-1 planning area includes the 111-acre Monterey Downs Horse Park, which would host events of the International Equestrian Federation and would include a collection of sand-based outdoor arenas with supporting infrastructure including approximately 680 permanent horse stalls. The 138.7 acre Rec-2 planning area includes the Equestrian Training Track and Sports Arena that would include a thoroughbred horse training facility and potential racing meet. The facilities within the Sports Arena would include barns for up to 1,500 horses. Horse waste from these facilities could include manure, urine, and soiled bedding, many of their biological and chemical properties can be detrimental to fish, insects and other aquatic life if waste were to get into the water bodies. Many of the nutrients ingested by animals, return to the environment in feces and urine. On land, moisture and atmospheric oxygen support the bacterial conversion of these wastes to nutrients available for plants. However, when carried by stormwater runoff to water bodies (e.g. streams, etc.), excessive amounts of these nutrients can stimulate unwanted algae blooms.

Development applications for commercial equestrian facilities are required to develop an Equestrian Management Plan (EMP) for review and approval by the City of Seaside and the Regional Water Quality Control Board to ensure that the proposed project would prevent horse manure (containing bacteria) from leaving the project area and entering the streets, gutter, storm drains or waterways within the project area. The EMP would be required to describe a commitment to the proper installation and maintenance of the site design; source control and treatment control instilling BMPs that have been proven to be successful. NPDES standards shall also be incorporated where appropriate. The EMP would address the following:

- Erosion Control
  - Pasture management
  - Site Drainage
  - Slope Stabilization
  - Horse Specific BMPs
- Water Quality/Runoff Mitigation

- Roof Runoff
- Facility Runoff

- General Housekeeping
  - Manure Management
  - Pest Management (IPM)
  - Wash Rack Design
  - Trash/Debris Collection
  - Hazardous Waste Disposal
  - Dust Control
  - Winterization
- Emergency/Fire Safety
  - Access
  - Emergency Preparedness

[Note to Project Applicant: Please confirm elements of the EMP.]

Implementation of the Equestrian Management Plan (EMP) would ensure that long-term operational water quality impacts of the proposed project are adequately addressed, which would ensure that the proposed project would have a **less than significant impact**.

Deplete Groundwater Supplies and Groundwater Recharge

Impact 3.8-3 The proposed project would not result in adverse impacts to the amount of available groundwater available, degrade groundwater quality, or decrease groundwater recharge in the project area. This is considered a **less than significant impact**.

[Note: Groundwater section needs to be completed.]

Substantially Alter Existing Drainage Patterns

Impact 3.8-4 Implementation of the proposed project would substantially increase the impervious surface area within the project area, thereby altering the existing drainage pattern and amount of surface runoff resulting in a potential increase in peak storm water flows (i.e., 10- and 100-year storm events). The proposed project includes seven stormwater basins sized to accommodate the 100-year, 24-hour storm to control surface water runoff within the project area. This is considered a **less than significant impact**.

Stormwater runoff for the proposed project would be retained within the project area as required by the *Fort Ord Base Reuse Plan* and the *Marina Coast Water District Storm Water Master Plan*. Storm drains would be constructed to convey runoff into stormwater basins located within each planning area. Stormwater Best Management Practices (BMPs) and erosion control devices would be utilized during construction and post-construction.

According to the *Preliminary Hydrological Study* (Diamond West, Inc. 2012), the proposed project includes approximately seven stormwater basins ***[Note: If the basin identified in the CCVC is included it's not noted in the table]*** sized to accommodate the 100-year, 24-hour storm, while taking into account infiltration rates. Figure 2-18: Backbone Stormwater Infrastructure shows the connection points and Figure 2-19: Stormwater Basins and Drainage Area Boundaries illustrates the location of the stormwater retention basins. Table 2-2: Storm Water Basins summarizes the storage volume, flow volume, infiltration volume and the storage required for each basin.

Table 2-2: Stormwater Basins

Drainage Basin Location	Storage Volume (Acre feet)	Flow Volume (Before Infiltration)	Infiltration Volume	Storage Required
17E/20A Basin/Park	3.3	6.4	4.9	1.4
15A Basins (2)	3.2	6.4	3.2	3.2
9C Basin/Park	2.1	6.4	4.3	2.0
29F Basin	36.5	36.1	19.6	16.5
331 Basin	569.9	1.7	0	1.7
22A Basin (CCVC)				

[Note: To confirm the sizing of the drainage basin at the CCVC. The Preliminary Hydrology study prepared by Diamond West notes Basin 22A, but there is no information provided.]

A large portion of the project area would flow to one basin that is located south of the proposed training track (29F Basin). The southwestern portion of the project area has been directed to approximately four smaller basins (17E/20A Basin Park, 15A Basins, 9C Basin). For the three basins that are located within the residential component of the proposed project, two of the basins would utilize park sites that would be sized to up to a two foot depth with 4:1 slopes. As these basins would also serve as active parks, as well, some underground storage or localized drainage pits may be incorporated into the design in order to ensure that nuisance water does not continually wet the surface. The depth would be shallow enough so that fencing would not be necessary. The basin proposed within the training track (331 Basin) is sized much larger than needed for stormwater storage. However, this basin would collect and store reclaimed water and has been sized for that purpose.

Based upon the preliminary plans for the CCVC, several catch basins would be required in the main cemetery road and would outlet either directly to a drainage basin (22A Basin), or to landscaped roadside ditches. Several other road crossings would be necessary to route runoff originating on the hillside above the cemetery either around the cemetery or to ditches within the cemetery. Runoff within the cemetery itself may be handled with landscaped ditches and culverts.

With implementation of these stormwater detention basins and review by the City of Seaside and the MCWD, the proposed project would have a **less than significant impact.**

3.7. Hazards and Hazardous Materials

This section of the EIR discusses the potential presence of hazards and hazardous materials at or within the project vicinity and analyzes the potential risk of these conditions in the context of existing and proposed development and future human activities within the project area. The information contained within this section is based on the *City of Seaside General Plan* (City of Seaside 2004), *Greater Monterey Peninsula Area* Plan (Monterey County 1984), *Fort Ord Base Reuse Plan* (FORA 2007), and the *2005 Finding of Suitability to Transfer (FOST)* (U.S. Army 2005).

The FOST was prepared to assess the suitability of transfer for parcels at the former Fort Ord. The Administrative Record for the former Fort Ord was also reviewed.[17] The Fort Ord Administrative Record is a specialized file required by the federal Comprehensive Environmental Restoration, Compensation, and Liability Act (CERCLA), and contains all information considered or relied on to select the cleanup remedy at the former Fort Ord. It also contains key technical reports and administrative guidance for the cleanup of this National Priorities List (NPL) site. Contents of the Administrative Record include a variety of written material, such as pieces of correspondence, data reports, assessments, plans, newspaper articles, notices, and fact sheets. Also included, but not limited to, are Archive Search Reports, site photographs and maps, site descriptions and chronologies, reference documents, sampling and analysis data and plans, work plans, site safety and health plans, Applicable or Relevant and Appropriate Requirements, Engineering Evaluation/Cost Analyses, Remedial Investigation/Feasibility Studies, Health and Endangerment Assessments, Proposed Plans for remedial action, Records of Decision, Community Relations Plans, public meeting minutes/transcripts, Environmental Baseline Studies, and Findings of Suitability to Transfer/Lease documents.

Other documents reviewed as part of this analysis include the *Marina Municipal Airport Comprehensive Land Use Plan* (City of Marina 2006) and the *Monterey Peninsula Airport Master Plan* (Monterey Peninsula Airport 1993) in order to determine potential airport hazards within the project area.

Environmental Setting

Regional Setting

Background and History

The project area is located within the boundaries of former Fort Ord. Since it was established in 1917, Fort Ord primarily served as a training and staging facility for infantry troops. From 1947 to 1975, Fort Ord was a basic training center. After 1975, the 7th Infantry Division was based at Fort Ord. The former Fort Ord was selected in

[17] The Administrative Record is available for review at Building 4463 Gigling Road, Ord Military Community, CA 93944-5004.

1991 for base realignment and closure (BRAC), and the base was officially closed in September 1994. The majority of the soldiers were reassigned to other U.S. Army posts in 1993.

As portions of the former Fort Ord were used by infantry units for maneuvers, target ranges, and other purposes, ordnance and explosives were fired into, fired upon, or used on the facility in the form of artillery and mortar projectiles, rockets and guided missiles, pyrotechnics, bombs, and demolition materials. Hazardous and toxic waste materials discovered in soil and groundwater at the former Fort Ord consist of a wide variety of materials including: industrial chemicals, petrochemicals, domestic and industrial wastes from the Fort Ord landfill, asbestos and lead paint in buildings, above- and underground storage units, and ordnance and explosives, including unexploded ordnance.

The environmental clean-up at the former Fort Ord is required by a federal law known as CERCLA (better known as "Superfund"). Fort Ord was placed on the NPL of Superfund sites by the U.S. Environmental Protection Agency (U.S. EPA) on February 21, 1990, due to evidence of contaminated soil and groundwater. A Federal Facility Agreement (FFA) was signed by the U.S. Army, U.S. EPA, Department of Toxic Substances Control (DTSC, at the time referenced as the California Department of Health Services), and the Regional Water Quality Control Board (RWQCB) in June 1990. The FFA established procedures and schedules for conducting Remedial Investigations (RIs) and feasibility studies (FSs) and required remedial actions be completed as expeditiously as possible. In April 2000, an agreement was signed between the U.S. Army, U.S. EPA, and DTSC to evaluate ordnance and explosives at the former Fort Ord subject to the provisions of the FFA. As the federal lead agency, the U.S. Army funds the cleanup at the former Fort Ord. To facilitate transfer and immediate reuse of 3,340 acres, in 2007 the U.S. Army transferred property to FORA as part of an agreement known as the Environmental Services Cooperative Agreement (ESCA).

The FFA and the remedial action record of decision (RA-ROD) identify the U.S. Army's responsibility for long-term monitoring and cleanup, including characterizing and removing the unexploded ordnance. The RA-ROD is a compilation of remedial action plans for the hazardous and toxic sites on the former Fort Ord. Figure 3.7-1: Hazardous and Toxic Waste Sites illustrates the areas of hazardous and toxic waste sites at the former Fort Ord. The RA-ROD defines the clean-up levels and the estimated time to remediate. The highest density of unexploded ordnance and spent ammunition is expected in the central portion of the inland range area. Lower densities of unexploded ordnance are expected in the outer portions of the inland range area and in the training areas to the north and east of the inland range area. Coastal beach firing ranges are also included in the classification of lower density ordnance and explosives and unexploded ordnance.

Ordnance and Explosives

In the 2007 ESCA, FORA committed to completing the evaluation of munitions and explosives of concern and to taking any remedial actions deemed necessary to protect human health and the environment with respect to these munitions and explosives of concern evaluated. The U.S. Army provided funding to complete the munitions cleanup under the ESCA. The cleanup process proceeds on four tracks, which are further described below.

Track 0

Areas that contain no evidence of munitions and explosives of concern and have never been suspected of having been used for military munitions-related activities of any kind.

Track 1

Areas where military munitions were suspected to have been used but no further action is required because investigation has shown that the suspected training did not occur; that training did not occur; that training did not involve explosive items; or that training at these sites involved only for the use of practice and/or pyrotechnic items that are not designed to cause injury.

Track 2

Areas where munitions and explosives of concern were present and have been removed.

Track 3

Areas where munitions and explosives of concern are known to be present, including the impact areas east of Seaside. Extensive removal programs are required in the Track 3 areas. Cleanup levels are determined based on the expected future use of the land, with uses such as residential and school requiring the highest levels of cleanup, and habitat areas where public access is not envisioned receiving lowest levels of cleanup.

Toxic Materials

According to the Administrative Record, other contaminates have been reported in soils and groundwater at the former Fort Ord. However, these contaminates are concentrated in the built portions of the northeastern area of Fort Ord, located greater than 2,000 feet to the north of the project area. Contaminated groundwater plumes (including volatile organic compounds [VOCs], Carbon Tetrachloride, and contaminates associated with the former landfill) have also been reported at the former Fort Ord.

Airport Hazards

The closest airports to the project area are the Marina Municipal Airport, which is located 1.8 miles northwest of the project area and the Monterey Peninsula Airport, which is located four miles to the southwest from the project area. The project area is located outside of any designated airport hazard zones.

Emergency Access

Emergency management includes those facilities, personnel, and activities concerned with the ability to deal with disasters such as earthquake, fire, flood, or other natural crisis situations. The Fort Ord communities emergency management preparedness primarily concerns mobility, being able to respond to emergencies with the fullest extent of their resources. This means providing emergency supplies and equipment in the most effective manner possible. Emergency management programs include: transportation networks, evacuation routes, and emergency management team organization among of the cities of Marina and Seaside, and the County of Monterey, as well as those of the surrounding communities. In the event of wildland fire emergencies, City of Seaside would rely on support services provided by surrounding local jurisdictions, as well as Monterey County and State of California.

Existing road networks on the former Fort Ord are sufficient for current emergency uses; however, as the *Fort Ord Base Reuse Plan* is implemented, many street and emergency access design patterns will need to be upgraded to meet current standards, as represented by the Monterey County standards for emergency road access preparedness.

Wildland Fire Hazards

Fire hazards exist at the former Fort Ord primarily as wildfire potential in open space and habitat areas. These areas contain grassland with many steeper areas containing brush land and wooded slopes. The State of California Department of Forestry rates these areas in Monterey County as extreme wildfire hazard areas. This rating is based on slope characteristics, climate, fuel loading and water availability. As discussed above, fire protection services for these high fire danger areas are provided by the City of Seaside as well as other local jurisdictions, Monterey County, and CalFire through mutual aid agreements.

Project Setting

Ordnance and Explosives

In August 2006, the U.S. Army conducted clean-up at Track 2 MR RI/FS for the Parker Flats Munitions Response Area (MRA) Phase I. Figure 3.7-2: Parker Flats Munitions Response Area includes a mapping of the Parker Flats MRA, including Phase I. The project area is located within portions of the Parker Flats and County North MRAs. The Parker Flats MRA Phase I RS/FS evaluated the risks related to the remaining ordnance and explosives within the Parker Flats MRA Phase I based upon the intended future uses. On August 26, 2008, the U.S. Army and the U.S. EPA, and in consultation

with the DTSC, recorded the final decision in the ROD documenting the preferred remedial alternative of Land Use Controls (LUCs) for managing the risk to future land users from ordnance and explosives that potentially remain in the Parker Flats MRA Phase 1.

The *Remedial Design/Remedial Action, Land Use Controls Implementation, and Operation and Maintenance Plan* (RD/RA LUCI O&M Plan) was prepared as a result of the selection of LUCs as a component of the remedy in accordance with the ROD for Parker Flats MRA Phase 1. In connection with the early transfer of a portion of the former Fort Ord, including the Parker Flats MRA Phase 1, FORA assumed some of the U.S. Army's cleanup obligations under an ESCA grant.

In 2007, the CCVC (including ancillary parcels) was cleaned to a "Non-Residential Development" remediation standard. Approximately 24.0 acres of the 30.4 acre endowment fund parcel was cleaned to a "Residential Development" remediation standard. The northern portion of the endowment fund parcel is "remaining for remedial investigation," but is proposed to be cleaned to "Residential Development" remediation standard and the habitat restoration area is "remaining for remedial investigation," but is scheduled to be remediated to a "Non-Residential" remediation standard. Figure 3.7-3: Veteran's Cemetery Site Cleanup Diagram consists of a mapping of the site cleanup activities at the CCVC site and associated ancillary parcels. This level of cleanup was deemed adequate for the development of the CCVC. As cleanup has been performed for the CCVC, FORA is currently processing the documentation. A deed restriction on the land requires adherence to Monterey County Code Section 16.10.040.

The southern portion of the Monterey Downs and Horse Park (known as Parker Flats I) has been remediated to a "Residential Development" remediation standard. Site remediation for all property located in the City of Seaside and the middle portion of the Monterey Downs and Horse Park component of the proposed project are currently underway. Completion of the remaining site remediation and the associated approval process to allow transfer of the property is anticipated in 2014 (FORA 2013). Cleanup of the MEC within the remaining portions of the project area would comply with the *RD/RA LUCI O&M Plan* or any subsequent changes to that plan required by the ESCA RP Team.

Toxic Materials

As discussed above, contaminated groundwater plumes (including VOCs, Carbon Tetrachloride, and contaminates associated with the former landfill) appear to be flowing generally northwest, away from the project area, these toxic materials are not anticipated to have resulted in an environmental condition within the project area.

Emergency Access

As depicted on Figure 5.6-5, Evacuation Routes in the *City of Seaside General Plan Final EIR* (City of Seaside 2004), evacuation routes that would serve the project area include General Jim Moore Boulevard, Eastside Roadway, and Gigling Road.

Wildland Fire Hazards

According to Figure 5.6-4, Fire Hazards, of the City of *Seaside General Plan Final EIR* (City of Seaside 2004), the project area is located within a wildland fire hazard zone. Primary evacuation routes from the project area are identified as General Jim Moore Boulevard, Eastside Roadway, and Gigling Road. In addition, the project area is located in proximity of the Bureau of Land Management open space lands, which requires incorporation of fire breaks within the site design.

Regulatory Setting

A material is considered hazardous if it has been designated as such by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The California Code of Regulations defines a hazardous material as a substance that, because of physical or chemical properties, its quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed (22 CCR §66260.10 and California Health and Safety Code [HSC] §25501). Based on this definition, "hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment (22 CCR §66260.10).

Regulation of hazardous materials and hazardous wastes occurs at the federal, state, and local levels of government.

Federal and State

The U.S. EPA is the federal agency responsible for the enforcement and implementation of federal legislation and regulations pertaining to hazardous materials. The legislation includes the Resource Conservation and Recovery Act of 1986 (RCRA), the Superfund Amendments and Reauthorization Acts of 1986 (Superfund) and CERCLA.

In 1993, Senate Bill 1082 gave the California Environmental Protection Agency (CalEPA) the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program (Unified Program). The purpose of the

Unified Program is to consolidate and coordinate six different hazardous materials and hazardous waste programs, and to insure that they are consistently implemented throughout the state. The unified program is overseen by CalEPA with support from the DTSC, the State Water Resources Control Board (SWRCB), the Office of Emergency Services, and the State Fire Marshal.

State law requires county and local agencies to implement the Unified Program. The county and local agencies in charge of implementing the program are called the "Certified Unified Program Agency" (CUPA). Monterey County Health Department is the designated CUPA within the geographic boundaries of the County. The Monterey County Health Department is the designated CUPA for the City of Seaside and other incorporated cities in the County.

Local

Monterey County Department of Environmental Health – Local Regulatory Agency

As the CUPA, the Monterey County Department of Environmental Health is responsible, at the local level, for the administrative requirements, permits, inspections, and enforcement activities of six state level environmental and emergency response programs, including those that relate specifically to public safety and hazardous materials. These activities are codified in Title 19 - Public Safety and Title 22, Division 4.5 of the California Code of Regulations, and in Chapter 6.95, Article 1 of the California Health and Safety Code. In its role as a CUPA, the Monterey County Department of Environmental Health administers several programs designed to implement these regulations. The programs include the following:

- Hazardous Material Business Plan and Inventory Program;
- Hazardous Waste Generator Program;
- Hazardous Waste Onsite Treatment: Tiered Permitting Program;
- Underground Storage Tank Program;
- California Accidental Release Prevention Program (Cal-ARP); and
- Aboveground Petroleum Storage Tank Program.

As a fundamental component of several of these programs, facilities which generate any quantity of hazardous waste or which handle hazardous materials in amounts greater than 55 gallons for liquids, 500 pounds for solids, and/or 200 cubic feet for compressed gases must prepare a Business Response Plan. Business Response Plans must include specific information on hazardous materials handled (inventory), emergency contacts, notification procedures, evacuation plans, training procedures and a site map. Facilities which handle extremely hazardous (regulated materials) may also be required to prepare a Risk Management Plan. A Risk Management Plan must addresses several issues including types of substances handled, accidental release and chemical-specific prevention, accident history, emergency response program, etc. Business Response Plan's and Risk Management Plans are among the fundamental reporting tools used by

the Monterey County Department of Environmental Health to track and monitor the activities of facilities which are subject to the regulations noted previously.

Hazardous Materials Oversight

Waste regulated by the federal government under the Resource Conservation and Recovery Act is known as "RCRA waste;" waste regulated by California law alone is known as "non-RCRA" or "California-only" waste. All hazardous waste in California is regulated under state statutes and regulations. A business generating more than one kilogram of RCRA acutely hazardous waste per month or more than 100 kilograms of other RCRA waste per month must have a federal ID number.

The Monterey County Environmental Health Division is designated as the local CUPA, and administers state and federal hazardous waste laws locally. Facilities that generate any amount of a hazardous waste, including waste oil and solvents that are recycled, must complete and submit a Business Response Plan and an inventory of their hazardous wastes. Business Response Plans must include specific information on hazardous wastes generated (inventory), emergency contacts, notification procedures, evacuation plans, training procedures and a site map. Entities that generate, transport or offer for transport, treat, store, or dispose of non-RCRA hazardous waste generally must have an identification number, issued by the DTSC, which is used to identify the hazardous waste handler and to track the waste from its point of origin to its final disposal ("from cradle to grave").

Propane and fuel transport is also regulated by the U.S. Department of Transportation. Storage and handling of significant quantities of hazardous materials is regulated by the Federal Occupational Safety and Hazards Administration.

City of Seaside General Plan

Safety Element

Policy S-2.2: Minimize the risk to the community associated with hazardous materials.

Implementation Plan S-2.2: Hazardous Materials Minimize public health risks and environmental risks from the use, transport, storage, and disposal of hazardous materials by:

- Cooperating with federal, State, and County agencies to effectively regulate the management of hazardous materials and hazardous waste, especially on the former Fort Ord;
- Cooperating with the County of Monterey to reduce the per capita production of household hazardous waste in accordance with the County Hazardous Waste Management Plan;
- Identifying roadway transportation routes for conveyance of hazardous materials (the City does not exercise jurisdiction over transportation of freight along railroad right-of-way or state highways);

- Implementing a Multi-hazard Emergency Plan for accidents involving hazardous materials; and
- Cooperating with the Certified Unified Program Agency (CUPA) for Seaside (the County of Monterey, Environmental Health Division) and the Seaside Fire Department to administer Risk Management Plans for businesses within the City.

Implementation Plan S-2.2.3: Project Mitigation. Protect the community from hazards related to hazardous materials by requiring feasible mitigation to be incorporated into new discretionary development and redevelopment proposals to address hazardous materials impacts associated with those proposals.

Policy S-2.3: Reduce the risks associated with transportation activities, such as aircraft overflight, rail, and roadway systems.

Goal S-4: Provide effective emergency response following a natural or human-caused disaster.

Policy S-4.1: Implement coordinated emergency response planning.

City of Seaside Municipal Code

Chapter 15.34 (Digging and Excavation on the Former Fort Ord) of the *City of Seaside Municipal Code* establishes the regulatory framework for subsequent agreements between the City of Seaside, City of Seaside Redevelopment Agency, FORA, and DTSC related to digging and excavation on the former Fort Ord as a result of ordnance and explosives contamination. The U.S. Army will not transfer parcels until those parcel(s) have been cleared of ordnance and explosives to federal standards. Even following the U.S. Army's completion of ordnance and explosives response activities, it is possible that some ordnance and explosives materials may remain on those parcels. The DTSC has statutory responsibility to oversee cleanup of releases of hazardous substances, which includes hazardous waste. The DTSC cannot certify that all ordnance and explosives has been cleared requires that a land use covenant be recorded with the Monterey County recorder on these parcels to provide additional controls and restrictions to protect the public health and safety. The City will also enter into an agreement with DTSC to provide additional safety measures, reporting, etc.

Per Section 15.34.050, *Excavation and Digging Restrictions*, it is unlawful for any person, including utilities, to engage in any of the following activities, unless that person is acting pursuant to a valid permit issued pursuant to this chapter: excavation, digging, development or ground disturbance of any type involving the displacement of ten cubic yards or more of soil. If any suspected unexploded ordnance are discovered during excavation and digging, soil disturbance activities shall cease immediately and the City of Seaside Police Department, the Directorate of Law Enforcement at the Presidio of Monterey, the U.S. Army, and DTSC shall be notified of any suspected unexploded ordnance.

No later than thirty days following the completion of the permitted soil disturbance activity, the permittee shall prepare and file with the Director of Community Development, the U.S. Army, and DTSC an "After Action Report," which states whether and where ordnance and explosives was detected and the extent and depth of ordnance and explosives response actions undertaken and completed on the property that is the subject of the permit.

Fort Ord Base Reuse Plan

Safety Element

Objective A: *Ensure the timely and complete compliance by the U. S. Army with the Remedial Investigation/Feasibility Study and associated remedial action ROD as part of the land transfer process.*

Hazardous and Toxic Materials Safety Policy A-1: The City shall monitor and report to the public all progress made on the RA-ROD.

Program A-1.1: The City shall perform timely reviews of the RA-ROD implementation progress and maintain a public record of property locations which contain hazardous material, including a timetable for and the extent of remediation to be expected.

Program A-1.3: All construction plans for projects in the City/County shall be reviewed by the Presidio of Monterey, Directorate of Environmental and Natural Resources Management (DENR), to determine if construction is planned within known or potential ordnance and explosives areas unless an alternative mechanism is approved by the City/County and DENR.

Program A-1.4: Before construction activities commence on any element of the proposed project, all supervisors and crews shall attend an Army sponsored ordnance and explosives safety briefing. This briefing will identify the variety of ordnance and explosives that are expected to exist on the installation and the actions to be taken if a suspicious item is discovered.

Objective B: *Protect and ensure public safety during the remediation of hazardous and toxic materials sites on the former Fort Ord including clearance, treatment, transport, disposal, and/or closure of such sites containing ordnance and explosives, landfills, above and below ground storage facilities, and buildings with asbestos and/or lead base paint.*

Hazardous and Toxic Materials Safety Policy B-1: The City shall monitor implementation procedures of the RA-ROD and work cooperatively with the U. S. Army and all contractors to ensure safe and effective removal and disposal of hazardous materials, ensure compliance with all applicable regulations and hazardous materials, and provide for the protection of the public during remediation activities.

Program B-1.3: The City shall develop and make available a list of the locations and timeframe for remediation of those site containing ordnance and explosives and shall work cooperatively with responsible agencies, including the Bureau of Land Management, in notification, monitoring, and review of administrative covenants for the reuse or closure of such ordnance and explosives sites.

Program B-1.4: The City shall require, by resolution, permits from all hazardous remediation contractors for the transport of hazardous material, including ordnance and explosives, through City streets. The permit will require disclosure of the type, volume, risk factor, transport routes and any other such information deemed necessary by the City for protection of the public safety.

Hazardous and Toxic Materials Safety Policy B-2: The City shall monitor implementation procedures of the RA-ROD and work cooperatively with the U. S. Army and all contractors and future users/operators of landfill or hazardous materials storage sites at the former Fort Ord.

Objective C: *Ensure public safety in the future handling of hazardous materials on land at the former Fort Ord.*

Hazardous and Toxic Materials Safety Policy C-1: The City of Seaside shall require hazardous materials management and disposal plans for any future projects involving the use of hazardous materials.

Program C-1.1: The City of Seaside shall review the use of hazardous materials as a part of environmental review and/or include as a condition of project approval a hazardous management and disposal plan, subject to review by the County Environmental Health Department.

Impacts and Mitigation Measures

Methodology

Criteria for Determining Significance

In accordance with CEQA, State CEQA Guidelines, agency and professional standards, a project impact would be considered significant if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;

- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area; and/or
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Project Impacts and Mitigation Measures

Construction-Related Impacts

Impact 3.7-1 The project area is located within the former Fort Ord where known ordnance and explosives are present. Site disturbance activities that would occur with implementation of the proposed project could result in an increased safety risk to construction workers. Therefore, the potential for accidental hazardous conditions during construction would be considered a **potentially significant impact**.

Toxic Materials

According to the Administrative Record, other contaminates have been reported in soils and groundwater at the former Fort Ord including industrial chemicals, petrochemicals, domestic and industrial wastes from the former Fort Ord landfill. However, these contaminates are concentrated in the built portions of the northeastern area of Fort Ord, which is located more than 2,000 feet from the project area. Further, as reported contaminated groundwater plumes (including VOCs, Carbon Tetrachloride, and contaminates associated with the former Fort Ord landfill) appears to be flowing generally northwest, away from the project area, these toxic materials are not anticipated to have resulted in an environmental condition at the project area. Methane gases are emitted from the off-site landfill, but these emissions are monitored and maintained within acceptable levels and are not anticipated to affect the proposed project. This is considered a **less than significant** impact.

Ordnance and Explosives

Although the project area was not specifically used for military training exercises, the potential exists to discover isolated munitions or explosives during tree removal and grading operations associated with the proposed project. Further, the potential for existing underground wastes at the project area exists due to leaching of surface residue from on-site ordnance and explosives. This is considered a **potentially significant impact**. The proposed project is proposing residential and non-residential (including

mixed-use) development in those areas already identified as such in the ESCA remediation program.

Soil land use covenants restricting the use of property exist on certain properties within the former Fort Ord. Soil cannot be moved without a Soil Management Plan. It is possible that soils can be removed from a site if they remain in the same MRA and the parcel accepting the transplanted soil is of a less restrictive munitions cleanup standard than the parcel from which the soil came. However, in special cases, a Soil Management Plan can be prepared for regulatory approval before soil export can occur. Further, as stated in the *RD/RA LUCI O&M Plan*, the following land use controls (LUCs) will exist within the project area:

1. Munitions recognition and safety training for workers that will conduct ground disturbing activities.

2. Construction monitoring support for ground disturbing activities.

3. Annual inspections by Monterey County or the City of Seaside, and annual Monitoring Reports by FORA.

Further, the proposed project will require a substantial amount of earthwork and excavation. For the portions of the proposed project cleaned to a Non-Residential Development remediation Standard, it is anticipated that the proposed grading activities would need to balance the grading on-site, unless another parcel located within the project's MRA (and cleaned to the same level as the project area) is approved to accept any excess, such as those soils from the project area. Conversely, the project area can only accept import soils that approved (cleaned to at least the same level as the project site). Appropriate deed restrictions will also be placed on parcels within the project area that will require certain actions prior to any ground disturbing activities.

Per Section 15.34.050, *Excavation and Digging Restrictions*, of the *City of Seaside Municipal Code*, it is unlawful for any person, including utilities, to engage in excavation, digging, development or ground disturbance, unless a permit approval is obtained from the City. Per the requirements of the permit, should any suspected unexploded ordnance be discovered, appropriate response actions with the U.S. Army and DTSC would be conducted.

By complying with Section 15.34.050 of the *City of Seaside Municipal Code* and, thereby obtaining permits before moving soil, the proposed project would comply with the soil LUC's. Further, per the FFA and the remedial action record of decision (RA-ROD), should any hazardous waste be found within soil in the project area in association with munitions and explosives, it is the U.S. Army's responsibility for long-term monitoring and cleanup of this contamination. With implementation of the following mitigation measures, which would ensure worker safety during site disturbance activities, these impacts would be reduced to a **less than significant level**.

Mitigation Measure

MM HAZ-1 ***Hazards and Hazardous Materials Contingency Plan for Construction Activities.*** Prior to issuance of a notice to proceed for construction activities, the City of Seaside Resource Management Services Department shall review and approve a contingency plan that addresses the potential to encounter on-site unknown hazards or hazardous materials during construction activities. The plan shall indicate that if the construction workers encounter unexploded ordnance, uncontained spills or other unidentified substances, the contractor shall stop work and cordon off the affected area, and notify the County of Monterey Environmental Health Department. The County of Monterey Environmental Health Department shall determine the next steps regarding potential site evacuation, sampling, and disposal of hazardous materials.

MM HAZ-2 ***Munitions and Explosives Safety Briefing.*** Construction supervisors and crews shall attend a U.S. Army sponsored munitions and explosives safety briefing prior to commencement of construction. This briefing shall identify the variety of munitions and explosives that are known to exist on the former Fort Ord and the actions to be taken if a suspicious item is discovered. This requirement for briefing shall be included in construction documents, approved by the City of Seaside Engineer.

Use, Storage and Transport of Hazardous Materials During Project Operations

Impact 3.7-2 Implementation of the proposed project would result in the potential for on-site use, storage, and/or transport of hazardous materials, which could result in the release of hazardous materials into the environment and/or accidental hazardous conditions involving hazardous materials during project operations. This is considered a **potentially significant impact**.

The proposed project would involve the use, storage and/or transport of a variety of hazardous or potentially hazardous materials associated with the proposed project. The City's corporate yard may include the use, storage, and/or transport of petroleum-related substances for the purposes of maintenance/construction equipment. The

CCVC and Monterey Downs and Horse Park may require the use, storage, and/or transport of herbicides/pesticides and fertilizers for landscape maintenance. These hazardous materials, if used/stored/transported in reportable quantities, would be required to comply with existing federal, state, and local laws and regulations pertaining to hazardous materials.

The Monterey County Environmental Health Division is designated as the local CUPA, and administers state and federal hazardous waste laws locally. Facilities that generate any amount of a hazardous waste, including waste oil and solvents that are recycled, must complete and submit a Business Response Plan and an inventory of their hazardous wastes. Business Response Plans must include specific information on hazardous wastes generated (inventory), emergency contacts, notification procedures, evacuation plans, training procedures, and a site map. Entities that generate, transport, or offer for transport, treat, store, or dispose of non-RCRA hazardous waste generally must have an identification number, issued by the DTSC, which is used to identify the hazardous waste handler and to track the waste from its point of origin to its final disposal ("from cradle to grave").

The proposed corporation yard would likely install a new underground storage tank (UST), which, over time, could leak, resulting in potential risks for the general public and the environment. Current regulations require that USTs be installed, monitored, operated, and maintained in a manner that protects public health and the environment. Tanks must be constructed with primary and secondary levels of containment and be designed to protect public health and the environment for the lifetime of the installation. The USTs must be monitored for leaks and built such that a leak from the primary container into the secondary container will be detected. When a UST is proposed to be removed, a detailed permit application must be submitted to the Monterey County Environmental Health Division, which oversees removal activities to identify evidence of a leakage. The SWRCB would maintain an inventory of reported leaking UST incidents should they occur within the project area.

With compliance with existing federal, state, and local laws and regulations, impacts pertaining to the use, storage, and/or transport of hazardous substances during operations of the project would be reduced to **less than significant levels**.

Emit/Handle Hazardous Materials in the Vicinity of a School

Impact 3.7-3 Implementation of the proposed project would result in the potential for the handling of hazardous materials during project construction and operations within 0.25-mile of an existing school. Therefore, this impact would be considered a **potentially significant impact**.

The nearest school to the project area is Chartwell School (located at 2511 Numa Watson Road, Seaside), which is a private school that adjoins the CCVC component of the proposed project to the west. California State University Monterey Bay (CSUMB)

also adjoins the Monterey Downs and Horse Park component of the proposed project to the west.

Construction activities could result in the handling/transport of hazardous waste (ordnance and explosives) and operations of the proposed project could result in the use/storage/transport of hazardous materials (e.g., petroleum-related products, herbicides/pesticides, and/or fertilizers). Future operations associated with the proposed project would not result in the emissions of hazardous materials within a quarter mile of a school site. As discussed above, with implementation of existing federal, state, and local laws and regulations, including Section 15.34.050 of the *City of Seaside Municipal Code* and CUPA regulations, impacts to adjacent schools would be reduced to **less than significant levels**.

Potential for Airport Hazards

Impact 3.7-4 The project area is located within two miles of an airport. However, the project area is not situated within a designated airport hazard zone. Therefore, the potential for airport-related hazards to people within the project area would be considered a **less than significant impact**.

The closest airports to the project area include the Marina Municipal Airport, which is located approximately 1.8 miles northwest of the project area, and the Monterey Peninsula Airport, which is located approximately four miles to the southwest from the project area. However, the project area is located outside of any designated airport hazard zones. Thus, impacts in this regard are **less than significant**.

Interfere with an Emergency Response Plan/Emergency Evacuation Plan

Impact 3.7-5 Development of the proposed project would result in the modification of the City's circulation system. However, these modifications would not result in impacts to designated evacuation routes within the City. Therefore, the potential for the proposed project to interfere with identified evacuation routes would be considered a **less than significant impact**.

As depicted on Figure 5.6-5, Evacuation Routes, of the *City of Seaside General Plan Final EIR* (City of Seaside 2004) evacuation routes that would serve the project area include General Jim Moore Boulevard, Eastside Roadway, and Gigling Road. Implementation of the proposed project would maintain site access along Gigling Road and to General Jim Moore Boulevard and the future Eastside Roadway. In addition, the project's proposed extension of Gigling Road would be constructed to City standards and would further support evacuation of the project area. Therefore, implementation of the proposed project is not anticipated to interfere with the City's Emergency Evacuation Plan. This would be considered a **less than significant impact**.

Risk from Wildland Fire

Impact 3.7-6 The project area is located within a designated wildland fire hazard zone and would increase the number of persons and property within the project area. Therefore, the potential increased risk from wildland fires would be considered a **potentially significant impact**.

According to Figure 5.6-4, Fire Hazards, of the *City of Seaside General Plan Final EIR*, the project area is located within a wildland fire hazard zone. The project area is largely surrounded by oak woodland and chaparral, which could be subject to wildlands fires.

Several factors would reduce the risk of wildland fire upon construction of the proposed project. The proposed project includes a "Firewise Overlay," which is located within 200 feet of the entire Open Space (OS) planning area, the southern and eastern boundary of the Rec-1 planning area and the eastern boundary Rec-2 planning area as shown in Figure 2-13: Land Use Plan. Due to the amount of fuel that can accumulate in the maritime chaparral, no flammable structures are allowed within 200 feet of the habitat area boundary.

The proposed project would be served by the City of Seaside Fire Department or through an agreement with the Monterey County Regional Fire District or the Presidio of Monterey. The proposed project would be required to be constructed in compliance with the California Building Code, Title 24, Part 9, *Fire Code*, which provides minimum standards to increase the ability of a building to resist the intrusion of flame or burning embers being projected by a vegetation fire and contributes to a systematic reduction in conflagration losses through the use of performance and prescriptive requirements. Further, implementation of the following mitigation measures would require future development within the proposed Specific Plan to prepare a fire management plan that considers defensible space, materials and construction methods for exterior wildfire exposure, and vegetation management in order to minimize potential wildland fire risk to persons residing within the project area.

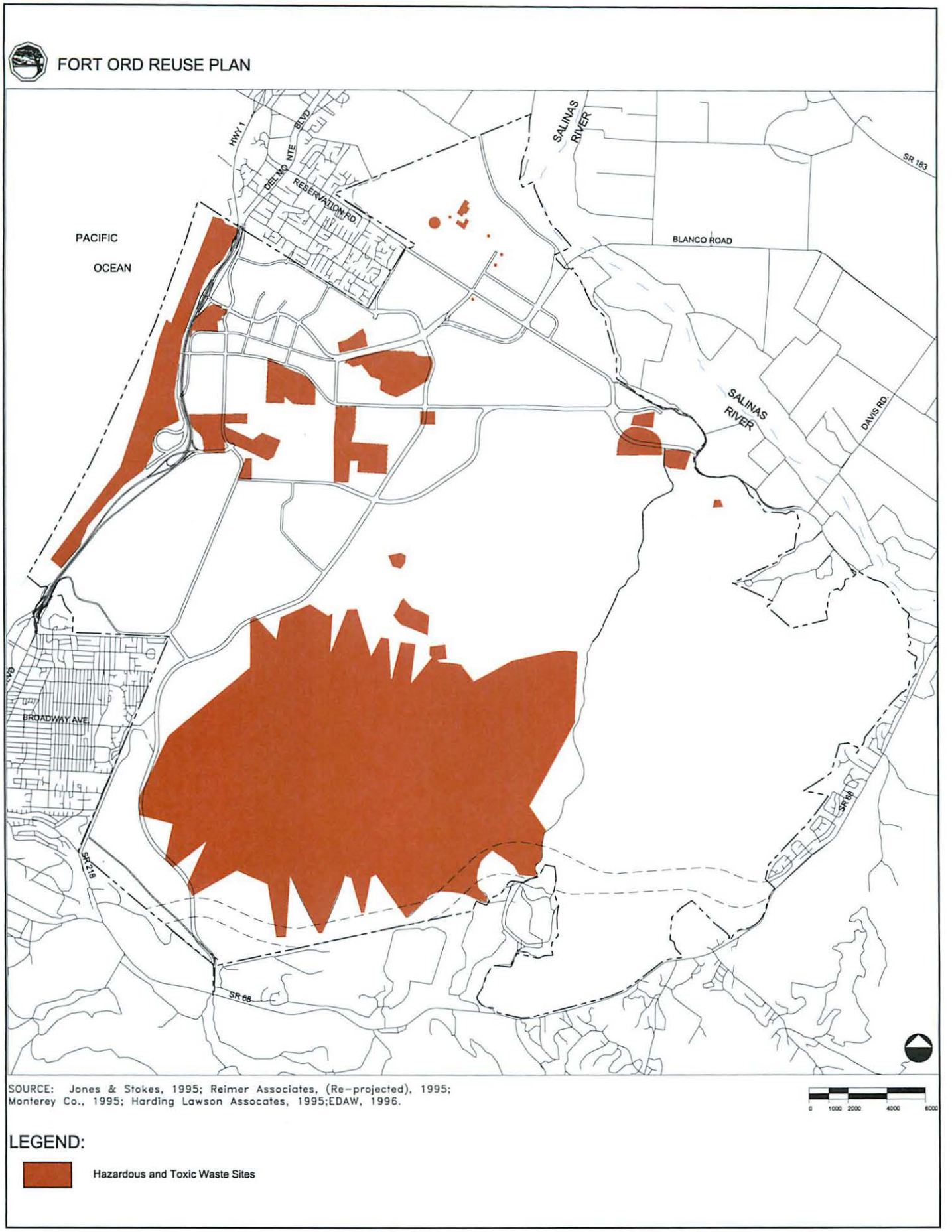
Therefore, compliance with the California Building Code and implementation of the following mitigation measures would ensure that the proposed project does not expose people or structures to significant risk of loss, injury, or death involving wildland fires. Therefore, the impact would be reduced to a **less than significant level**.

Mitigation Measure

MM HAZ-3 ***Fire Management Plan.*** The City of Seaside Fire Department, or other applicable agency as determined by the City of Seaside through agreement(s), shall develop in cooperation with other Fort Ord jurisdictions and the surrounding communities fire protection agencies, a fire management plan to ensure adequate staff levels, response time, and fire suppression operations in fire hazard areas of the former Fort Ord (including the project site). The fire management plan shall also include a

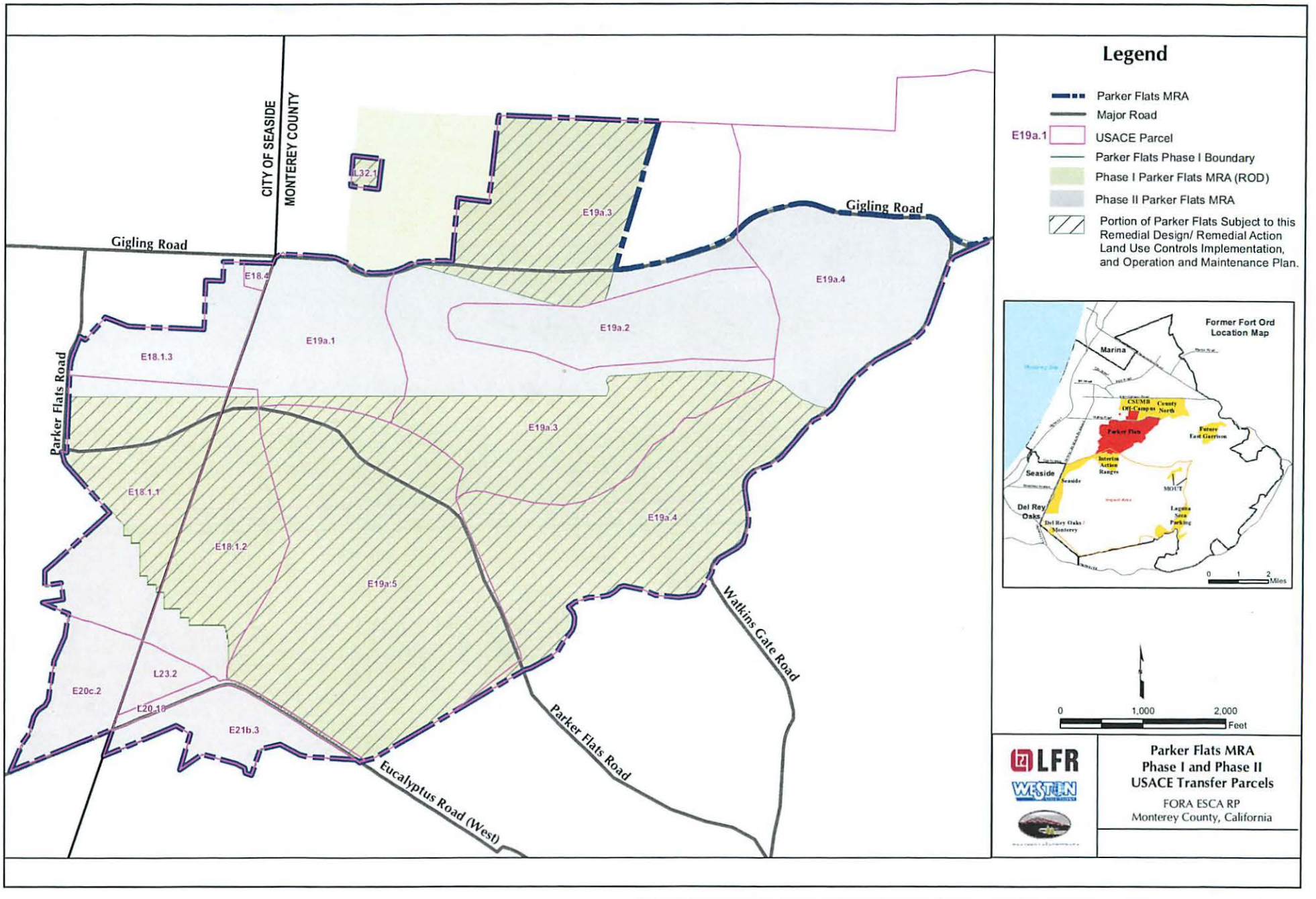
fire "fuel management program" in conjunction with the County of Monterey and the Bureau of Land Management requirements.

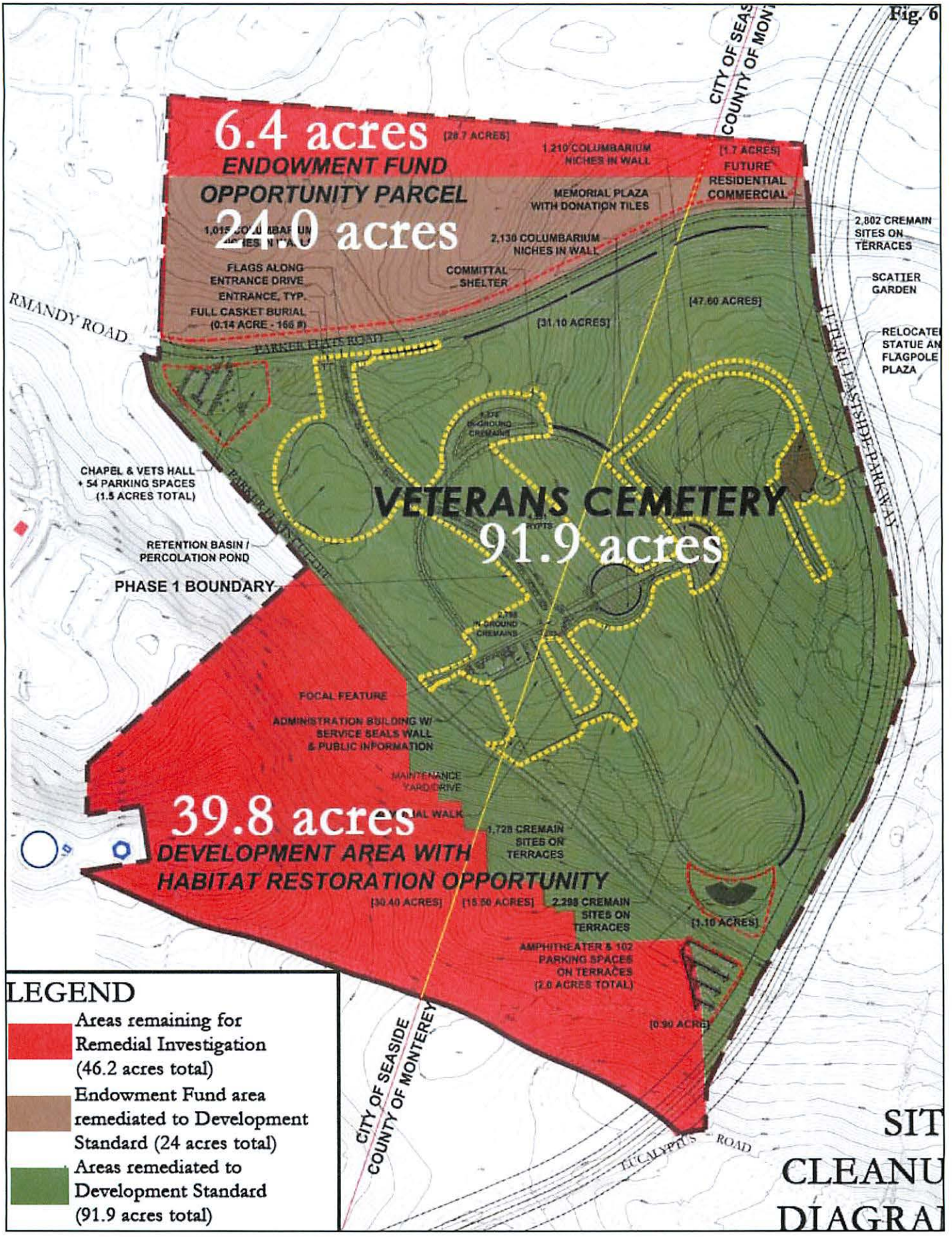
MM HAZ-4 ***Fire Suppression Water System Guidelines.*** The City of Seaside Fire Department shall provide fire suppression water system guidelines and implementation plans for existing and acquired former Fort Ord lands equal to those recommended in the *Fort Ord Base Reuse Plan* (Table 4.1.8) for fire protection water volumes, system distribution upgrades, and emergency water storage.



Hazardous and Toxic Waste Sites

Figure 3.7-1


Legend
Parker Flats MRA
Major Road
E19a.1 USACE Parcel
Parker Flats Phase I Boundary
Phase I Parker Flats MRA (ROD)
Phase II Parker Flats MRA
Portion of Parker Flats Subject to this Remedial Design/ Remedial Action Land Use Controls Implementation, and Operation and Maintenance Plan.
Former Fort Ord Location Map
Marina
Seaside
Del Rey Oaks
Parker Flats
Gigling Road
Parker Flats Road
Watkins Gate Road
Eucalyptus Road (West)
CITY OF SEASIDE
MONTEREY COUNTY
L32.1
E19a.3
E19a.4
E19a.2
E19a.1
E18.4
E18.1.3
E18.1.1
E18.1.2
E19a.5
L23.2
E20c.2
L20.18
E21b.3
0 1,000 2,000 Feet
LFR
WESTERN
Parker Flats MRA
Phase I and Phase II
USACE Transfer Parcels
FORA ESCA RP
Monterey County, California



Veteran's Cemetery Site Cleanup Diagram

Figure 3.7-3

3.6. Greenhouse Gas Emissions and Climate Change

This section of the EIR discusses analyzes the impacts associated with the implementation of the proposed project on greenhouse gas (GHG) emissions and climate change.

Information in this section was derived in part from existing Federal and state regulations, the *2004 City of Seaside General Plan*, and the air quality modeling analysis prepared by RBF Consulting, the latter of which can be found in Appendix B.

Environmental Setting

Global Climate Change Gases

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[4] The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and greenhouse gases (GHGs) in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO_2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation. GHGs normally associated with the proposed project include the following:[5]

GHGs normally associated with the proposed project include the following:

- *Water Vapor (H_2O)*. Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.

[4] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[5] All Global Warming Potentials are given as 100 year GWP. Unless noted otherwise, all Global Warming Potentials were obtained from the Intergovernmental Panel on Climate Change (Intergovernmental Panel on Climate Change, *Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996).

The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a GWP for water vapor.

- *Carbon Dioxide (CO_2).* Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of CO_2 in the atmosphere has increased 39 percent.[6] Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.
- *Methane (CH_4).* Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of CH_4 is 21.
- *Nitrous Oxide (N_2O).* Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N_2O is 310.
- *Hydrofluorocarbons (HFCs).* HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs range from 140 for HFC-152a to 11,700 for HFC-23.[7]
- *Perfluorocarbons (PFCs).* Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi-conductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long

[6] U.S. Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2010*, April 2012.

[7] United States Environmental Protection Agency, *Greenhouse Gas Emissions – Emissions of Fluorinated Gases*, June 14, 2012. http://epa.gov/climatechange/ghgemissions/gases/fgases.html.

atmospheric lifetime (up to 50,000 years).[8] The GWP of PFCs range from 6,500 to 9,200.

- *Sulfur hexafluoride (SF_6)*. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the IPCC with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to CO_2 (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).[9]

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- *Hydrochlorofluorocarbons (HCFCs)*. HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The GWPs of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.[10]
- *1,1,1 trichloroethane*. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 110 times that of CO_2.[11]
- *Chlorofluorocarbons (CFCs)*. CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency's (EPA) Final Rule (57 FR 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the

[8] Ibid.

[9] Ibid.

[10] United States Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, dated November 7, 2006. http://www.epa.gov/EPA-AIR/1996/January/Day-19/pr-372.html.

[11] Ibid.

greenhouse effect. CFCs are potent GHGs with GWPs ranging from 4,600 for CFC 11 to 14,000 for CFC 13.[12]

Regulatory Setting

Federal

The Federal government is extensively engaged in international climate change activities in areas such as science, mitigation, and environmental monitoring. The EPA actively participates in multilateral and bilateral activities by establishing partnerships and providing leadership and technical expertise. Multilaterally, the United States is a strong supporter of activities under the United Nations Framework Convention on Climate Change (UNFCCC) and the IPCC.

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus around the evidence that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

In December 2007, Congress passed the first increase in corporate average fleet fuel economy (CAFE) standards. The new CAFE standards represent an increase to 35 miles per gallon (mpg) by 2020. In March 2009, the Obama Administration announced that for the 2011 model year, the standard for cars and light trucks will be 27.3 mpg, the standard for cars will be 30.2 mpg; and standard for trucks would be 24.1 mpg. Additionally, in May 2009 President Barack Obama announced plans for a national fuel-economy and GHG emissions standard that would significantly increase mileage requirements for cars and trucks by 2016. The new requirements represent an average standard of 39 mpg for cars and 30 mpg for trucks by 2016.

In September 2009, the EPA finalized a GHG reporting and monitoring system that began on January 1, 2010. In general, this national reporting requirement will provide the EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons (MT) or more of CO_2 per year. This publicly available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost-effective emissions reduction strategies. This new program covers approximately 85 percent of the nation's GHG emissions and applies to approximately 10,000 facilities. The reporting system is intended to provide a better understanding of

[12] United States Environmental Protection Agency, *Class I Ozone Depleting Substances*, August 19, 2010. http://www.epa.gov/ozone/ods.html.

where GHGs are coming from and will guide development of the best possible policies and programs to reduce emissions.

The EPA is moving forward with two key climate change regulatory proposals, one to establish a mandatory GHG reporting system and one to address the 2007 Supreme Court decision in *Massachusetts v. EPA* (Supreme Court Case 05-1120) regarding the EPA's obligation to make an endangerment finding under Section 202(a) of the Federal Clean Air Act (FCAA) with respect to GHGs. Under the FCAA, the EPA is now obligated to issue rules regulating global warming pollution from all major sources. In April 2009, the EPA concluded that GHGs are a danger to public health and welfare, establishing the basis for GHG regulation. However, as of April 2012 there are no Federal regulations or policies regarding GHG emissions applicable to the proposed project.

In addition to EPA efforts to implement GHG reporting and monitoring systems, the Obama Administration released The President's Climate Action Plan, June 2013, and is committing itself to promoting efforts to reduce GHG emissions by deploying clean energy solutions, developing and deploying advanced transportation technologies, and cutting energy waste in homes, businesses, and factories. Additionally, a commitment is being made by federal agencies to release Climate Change Adaptation Plans, which promote the construction of stronger and safer communities and infrastructure, protecting the economy and natural resources, and using sound science to manage climate impacts. The Obama Administration also plans to work with other countries to help lead the way toward reduced GHG emissions.

State

Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is occurring, and that there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-13-08. Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy. This will result in consistent guidance from experts on how to address climate change impacts in the State of California.

Executive Order S-14-08. Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-20-04. Executive Order S-20-04, the California Green Building Initiative, (signed into law on December 14, 2004), establishes a goal of reducing energy use in State-owned buildings by 20 percent from a 2003 baseline by 2015. It also encourages the private commercial sector to set the same goal. The initiative places the California Energy Commission (CEC) in charge of developing a building efficiency benchmarking system, commissioning and retro-commissioning (commissioning for existing commercial buildings) guidelines, and developing and refining building energy efficiency standards under Title 24 to meet this goal.

Executive Order S-21-09. Executive Order S-21-09, 33 percent Renewable Energy for California, directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002) which established the California RPS program, requiring 20 percent renewable energy by 2017,

and SB 107 (2006) which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Assembly Bill 1493. AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. When fully phased in, the near-term standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards will result in a reduction of about 30 percent.

Assembly Bill 3018. AB 3018 established the Green Collar Jobs Council (GCJC) under the California Workforce Investment Board (CWIB). The GCJC will develop a comprehensive approach to address California's emerging workforce needs associated with the emerging green economy. This bill will ignite the development of job training programs in the clean and green technology sectors.

Senate Bill 97. SB 97, signed in August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA.

OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible. OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in CEQA Guidelines Section 15064.7 that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

The Natural Resources Agency adopted the CEQA Guidelines Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

Senate Bills 1078 and 107. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Senate Bill 1368. SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed into law in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required the CEC to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

CARB Scoping Plan

December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California will implement to reduce CO_2eq[13] emissions by 174 million metric tons (MMT), or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT of CO_2eq under a business as usual (BAU)[14] scenario (This is a reduction of 42 MMT CO_2eq, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020).

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. At the time CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

Local

City of Seaside General Plan

Circulation Element

Policy C-2.2: Support programs that help reduce congestion and encourage alternative modes of transportation.

Policy C-3.3: Promote mixed use, higher density residential, and employment-generating development in areas where public transit is convenient and desirable.

Policy C-3.4: Support alternative modes of transportation that encourage physical activity, such as biking and walking.

[13] Carbon Dioxide Equivalent (CO_2eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[14] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

Conservation/Open Space Element

Goal COS-1: Provide and maintain a high quality parks and recreation system that meets the varying recreational needs of the community.

Policy COS-1.3: Maximize pedestrian, transit, and bicycle access to parks and other local and regional activity centers as an alternative to automobile access.

Policy COS-2.2: Encourage the production, distribution, and use of recycled water.

Policy COS-2.3: Participate in and implement local and regional programs that promote water conservation as a means of improving water supply and water.

Goal COS-7: Encourage energy conservation.

Policy COS-7.1: Participate in local, regional, and State programs that promote energy conservation.

Policy COS-7.2: Increase public awareness of energy conservation measures and programs.

Fort Ord Reuse Plan

Land Use Element

Objective E: Coordinate the location, intensity and mix of land uses with alternative transportation goals and transportation infrastructure.

Residential Land Use Policy E-1: The City of Seaside shall make land use decisions that support transportation alternatives to the automobile and encourage mixed-use projects and the highest-density residential projects along major public transportation routes.

Residential Land Use Policy E-3: In areas of residential development, the City of Seaside shall provide for designation of access routes, street and road rights-of-way, off-street and on-street parking, bike paths and pedestrian walkways.

Program E-3.2: The City of Seaside shall prepare pedestrian and bikeway plans and link residential areas to commercial development and public transit.

Circulation Element

Objective A: Provide convenient and comprehensive bus service.

Transit Policy A-1: Each jurisdiction with lands at former Fort Ord shall coordinate with MST to provide regional bus service and facilities to serve the key activity centers and key corridors within former Fort Ord.

Objective B: Promote passenger rail service that addresses transportation needs for the former Fort Ord.

Pedestrians and Bicycles Policies and Programs

Objective A: Provide a pedestrian system that supports the needs of Fort Ord residents, employees, students, and visitors.

Objective B: Provide a bicycle system that supports the needs of Fort Ord residents, employees, students, and visitors.

Transportation Demand Management

Objective A: Deemphasize the need for vehicle travel to and within the former Fort Ord.

Transportation Demand Management Policy A-1: TDM programs shall be encouraged.

Program A-1.4: Enforce CMP trip reduction programs.

Association of Monterey Bay Area Governments (AMBAG)

AMBAG has developed regional emission targets in accordance with requirements of SB 375. In collaboration with Pacific Gas and Electric Company, AMBAG is also working with local governments to promote energy efficiency and climate action planning. This collaboration has included the preparation of GHG emissions inventories for cities and counties within their jurisdiction. The AMBAG inventories for local jurisdictions include: Local Government Operations 2005 Baseline GHG Inventories; Community-wide 2005 Baseline; and Community-wide 2009 GHG Inventories.

SB 375 established a basis for transportation and land use regional reduction targets. As identified in the CARB Scoping Plan, the regional transportation-related GHG targets reduction measure is estimated to reduce statewide GHG emissions by 5 million metric tons. This amount is approximately 3 percent of the total statewide GHG emissions reduction identified in the strategies outlined in the Scoping Plan.

In order to achieve these reductions, SB 375 requires metropolitan transportation plans to include a Sustainable Communities Strategy (SCS) to meet GHG reduction targets for vehicle travel set by CARB. SB 375 requires that CARB certify that the SCS will reach these targets by decreasing GHG emissions per capita from automobiles and light trucks for 2020 and 2035. Ultimately, transportation projects that are part of the SCS will have state transportation funding priority and will be eligible for streamlined CEQA processes. In September of 2010, the CARB adopted regional per capita greenhouse gas targets for each of California's eighteen metropolitan planning regions as required under SB 375.

The Monterey Bay Area's specific mandate is to reduce per capita greenhouse gas emissions from cars and light trucks to 2005 levels by 2020 and to reduce per capita

levels to 5 percent below 2005 levels by 2035. This results in a regional per capita GHG emissions target of 14.1 pounds per day per capita for 2020 and 13.4 pounds per day per capita for 2035. Under SB 375, AMBAG is required to adopt a SCS in the next Metropolitan Transportation Plan. This strategy will build previous AMBAG planning studies that describe how the communities of the Monterey Bay area might grow in a sustainable fashion over the next 25 years. Regional and local agencies worked together to evaluate current trends regarding the distribution of population and employment in comparison to: 1) improving mobility; 2) reducing GHG emissions; 3) providing housing and employment opportunities; and 4) protecting natural and cultural resources. The study develops a preferred growth scenario that maximizes the achievement of these outcomes that will serve as the basis for SB 375's Sustainable Communities Strategy that will demonstrate how the region will reduce per capita greenhouse emissions by 5 percent from the automobiles and light trucks by 2035.

Under the Sustainable Growth Patterns scenario developed as an alternative to current growth patterns, the region's urban footprint would increase by 20,000 acres by 2035, which is less than half of the approximately 43,000 acres that are projected to otherwise be developed. Under this scenario, the majority of the region's forecast growth occurs within a comfortable walking distance to transit corridors and neighborhood centers within "Blueprint Priority Areas" identified in the study that are primarily higher density lands within cities in proximity to transit and walking opportunities.

City of Seaside

The City of Seaside has established guiding principles and conducted various actions for sustainability. Anticipated City actions currently under development include a municipal Environmentally Preferable Purchasing Policy, Citywide Green Building Ordinance, Municipal Climate Inventory and Action Strategy, and the realization of the West Broadway Urban Village as a downtown Green District. The City is also a member of the United States Green Building Council (member jurisdiction), Build It Green (certified green building professional staff), and ICLEI-Local Governments for Sustainability. The City's guiding principles for sustainability consist of the following:

- Respond to global problems through local solutions;
- Implement smart, compact development to meet future community growth;
- Accomplish future development objectives while reducing the City's climate and environmental footprint;
- Encourage development of a green community.

Relevant Project Characteristics

All developments within the Specific Plan would be required to incorporate the current Title 24, Part 6, California Energy Efficiency Standards for Residential and Nonresidential Buildings and Title 24, Part 11, California Green Building Standards Code (CALGreen)

requirements for low-rise residential apartments and dwellings. Additionally, all developments would be required to be oriented for active or passive solar exposure, lighting efficiency, and water efficiency, among other measures. For example, this includes incorporating passive solar energy features so that buildings would have adequate solar access and proper building orientation. Outdoor lighting would be prohibited to extend past edge of use or yard setbacks, whichever is more restrictive. Low-pressure sodium lights for parking lot lighting would be utilized except where true-color rendering is desired. Energy Star appliances (dishwashers, refrigerators, etc.) and equipment including computers, printers and other peripherals would be used when offered and commercially practicable. Commercial and multi-family landscaping would use reclaimed water when available and commercial buildings (excluding hotels) would use reclaimed water for toilet flushing and waterless urinals. Single-family residential homes would use reclaimed water for front yard landscaping and 80 percent of single-family lots would be non-turf.

All construction sites would have easy access to well-organized recycling bins for wood, cardboard, metals, glass, and other potential recyclable materials as well as an appropriate number of debris containers.

To reduce mobile source emissions, the Specific Plan is designed to reduce vehicle trips. The Circulation Plan integrates pedestrian, bicycle, and equestrian circulation, into the vehicular network. Neighborhood parks are also located within walking distance of the individual neighborhoods and including playgrounds, active and passive turf areas, gathering places, and pedestrian and bicycle pathways. Public transit would be expanded within the project area. Several bus routes are already located within the Fort Ord area. Existing bus routes are also located adjacent to the project area and additional bus stops would be located within or near the community in order to have all future residents living within 1/2 mile (or a 10-minute walk) of a transit stop.

Impacts and Mitigation Measures

Criteria for Determining Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines, as amended. Would the proposed project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. For the purposes of this EIR, a significant impact will result if a Specific Plan conflicts with or obstructs the implementation of greenhouse gas reduction measures under AB 32; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

At this time, there is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released

advisories and guidance with recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of significance.

Lead agencies may elect to utilize their own significance criteria, so long as such criteria are informed and supported by substantial evidence. Recent amendments to the *CEQA Guidelines*, and specifically the addition of *CEQA Guidelines* Section 15064.4, subdivision (b), support the selection of this significance criterion:

> *"A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:*
>
> *(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
>
> *(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;*
>
> *(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project".*

Monterey County and the City of Seaside are located within the jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD), which has not adopted significance criteria or thresholds for GHGs. Currently, the MBUAPCD recommends utilizing the thresholds established by the San Luis Obispo County Air Pollution Control District (SLOCAPCD)[15]. The SLOCAPCD released their *GHG Thresholds and Supporting Evidence* document on March 28, 2012, which provides their recommended GHG threshold as well as the justification and substantial evidence supporting the thresholds. The SLOCAPCD thresholds include the following options:

- Compliance with a Qualified GHG reduction Strategy;
- Bright-Line Threshold of 1,150 metric tons of carbon dioxide equivalent ($MTCO_2eq$) per year;

[15] Telephone correspondence: Amy Clymo, Supervising Air Quality Planner, Monterey Bay Unified Air Pollution Control District, July 3, 2013.

- Efficiency Threshold of 4.9 $MTCO_2eq$ per service population per year; or
- Industrial (Stationary Source) Threshold of 10,000 $MTCO_2eq$ per year.

As the project involves the development of various land uses within a large specific plan, the efficiency threshold of 4.9 $MTCO_2eq$ per service population per year will be used for this analysis. It should be noted that this threshold is based on the State's overall population and emissions goals and is supported by substantial evidence.

Project Impacts and Mitigation Measures

Greenhouse Gas Emissions

Impact 3.6-1 The proposed project may generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This is considered a **potentially significant impact**.

Direct project-related GHG emissions for "business as usual" conditions include emissions from construction activities, area sources, and mobile sources. Table 3.6-1: Business as Usual Greenhouse Gas Emissions, presents the estimated CO_2, N_2O, and CH_4 emissions.

Table 3.6-1: Business as Usual Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/year[1]	Metric Tons/year[1]	Metric Tons of CO_2eq[2]	Metric Tons/year[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
▪ Construction (amortized over 30 years)	1,457.98	0.08	1.68	0.00	0.00	1,459.62
▪ Area Source	3,601.68	1.51	31.71	0.15	46.50	3,679.62
▪ Mobile Source	29,018.84	2.08	43.68	0.00	0.00	29,062.41
Total Unmitigated Direct Emissions[3]	*34,078.50*	*3.67*	*77.07*	*0.15*	*46.50*	*34,201.65*
Indirect Emissions						
▪ Energy	12,549.34	0.43	9.03	0.22	68.20	12,627.03
▪ Solid Waste	474.55	28.05	589.05	0.00	0.00	1,063.51
▪ Water Demand	891.88	13.45	282.45	0.35	108.50	1,282.08
Total Unmitigated Indirect Emissions[3]	13,915.77	41.93	880.53	0.57	176.70	14,972.62
Total Project-Related Emissions[3]	**49,174.27 $MTCO_2eq$/year**					
Per Capita GHG Emissions[3, 4]	**8.5 $MTCO_2eq$/year**					

Notes:
1. Emissions calculated using CalEEMod computer model.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed June 2013.
3. Totals may be slightly off due to rounding.
4. Per capita emissions are based on a service population of 5,775 (4,032 residents and 1,743 employees).

Refer to Appendix B, *Air Quality and Greenhouse Gas Data*, for detailed model input/output data.

The California Emissions Estimator Model (CalEEMod) computer model the, was used to calculate mobile source, area source, and construction related GHG emissions; refer to *Appendix B – Air Quality and Greenhouse Gas Data*. Operational GHG estimations are

based on energy emissions from natural gas usage and automobile emissions. CalEEMod relies upon construction phasing and project specific land use data to calculate emissions; refer to Appendix B. GHGs associated with area sources and mobile sources would be 3,679.62 $MTCO_2eq$/year and 29,062.41 $MTCO_2eq$/year, respectively. GHG emissions from construction would result in 43,788.47 $MTCO_2eq$ for all construction phases. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[16] Total project-related direct operational emissions would result in 34,201.65 $MTCO_2eq$/year, which would be approximately 8.5 $MTCO_2eq$/year per service population.

Indirect Project Related Sources of Greenhouse Gases

Energy Consumption. Energy Consumption emissions were calculated using the CalEEMod model and project-specific land use data. Electricity would be provided to the project area via Pacific Gas and Electric. The project would indirectly result in 12,627.03 $MTCO_2eq$/year due to energy consumption; refer to Table 3.6-1: Business as Usual Greenhouse Gas Emissions.

Solid Waste. Solid waste associated with operations of the proposed project would result in 1,063.51 $MTCO_2eq$/year; refer to Table 3.6-1.

Water Demand. The Marina Coast Water District (MCWD) would be the main water supply provider to the proposed project. The primary source of water for the MCWD is the Salinas Valley Groundwater Basin, as well as a small desalination plant in the Central Marina Service area. Emissions from indirect energy impacts due to water supply would result in 1,282.08 $MTCO_2eq$/year.

Total Project-Related Sources of Greenhouse Gases. As shown in Table 3.6-1: Business as Usual Greenhouse Gas Emissions, the total amount of project-related "business as usual" GHG emissions from direct and indirect sources combined would total 49,174.27 $MTCO_2eq$/year.

Greenhouse Gas Emission Reduction Features

The Architectural Design Guidelines within the Monterey Downs Specific Plan identifies several sustainability design features that would reduce GHG emissions. The proposed project would incorporate sustainable practices which include transportation, water, energy, solid waste, and land use efficiency measures. A list of the proposed project's GHG reducing design features are provided below.

[16] The MBUAPCD relies on the GHG Thresholds and Supporting Evidence (dated March 28, 2012) established by the San Luis Obispo County Air Pollution Control District (SLOAPCD). The SLOAPCD recommends amortizing construction emissions over the life of a project and adding them to the operational emissions. The project lifetime is based on the standard 30 year assumption (http://www.aqmd.gov/hb/2008/December/08123 1a.htm).

Energy Efficiency

- All development within the proposed project would incorporate the current Title24, Part 6, California Energy Efficiency Standards for Residential and Nonresidential Buildings and Title 24, Part 11, California Green Building Standards Code (CALGreen) requirements for low-rise residential apartments and dwellings.
- Energy Star appliances (e.g., dishwashers, refrigerators etc.) and lighting with compact and other fluorescent lighting would be used. Fluorescent fixtures (Energy Star rated) would have an electronic ballast to eliminate noise and flicker. Energy Star programmable thermostats would also be installed. Any ceiling fans installed would be Energy Star rated.
- The project would use passive solar design and provide shade (within 5 years) on at least 30 percent of onsite impervious surfaces, including parking areas, driveways, walkways, plazas, patios, etc. (excluding roofs).
- Light colored "cool" roofs with high-albedo materials (reflectance of at least 0.3) would be used for 30 percent of the project's non-roof impervious surfaces.
- For apartments and commercial pools and spa uses, the project would provide thermal pool covers and efficient pumps and motors.
- Education on energy efficiency would be provided to residents, customers, and tenants.

Water Conservation and Efficiency

- Commercial and multi-family landscaping would use reclaimed water when available. Any outdoor water features would be designed for low flow pumps and placed where shading can be provided. 70 percent of the landscaping for single-family homes would be non-turf, including hardscape and other types of landscape areas.
- Water efficient irrigation systems would be installed.
- The project would be designed using low-impact development practices. A storm water collection system is designed to include the development of multiple collection basins. Throughout the project site, storm drains would be utilized to convey runoff through the development. The drains would be used as necessary to control flow and direct it towards one of the planned basins. The water that is directed to these basins may then be used for the recycled water program or percolated into the ground to replenish the groundwater basin.
- The project would construct reclaimed water service infrastructure for the eventual availability of recycled water service. To further increase the availability of reclaimed water for the project and surrounding areas, a reclaimed water storage reservoir would be included in the Rec-1 Planning

Area and the interior portions of the equestrian training track (the infield) would be designed to include a reclaimed water reservoir.

- All structures would use low flow plumbing fixtures (e.g., toilets, faucets, etc.), and install water saving dishwashers with the Energy Star rating. Commercial buildings (excluding the hotel) would use waterless urinals or reclaimed water when available for toilets.
- Educational information about water conservation and available programs and incentives would be provided to all residents, customers, and tenants.

Solid Waste Measures

- Reuse and recycling facilities would be integrated into the proposed project.
- Educational information about reducing waste and available recycling services and programs would be provided to all residents, tenants, occupants, employees, and consumers.

Land Use Measures

- The project's circulation plan is designed using "smart growth" principles and places an emphasis on pedestrians, bicycle and equestrian circulation, integrated with the vehicular and bus network. Bike lanes, paseos, pathways, staging areas, and trails are designed to provide healthy, walkable neighborhoods and convenient access to the surrounding open space, parks and trail network. All apartment and flats as well as commercial areas would provide secure bicycle storage.
- Educational information about the benefits of well-designed, higher density development would be provided to all residents, tenants, occupants, employees, and consumers.
- Public transit would be incorporated into the project design. A bus transit stop is proposed to be located on the southeast side of Gigling Road, south of Eastside Roadway, adjacent to the C-2 commercial area where retail uses are planned.
- The 72 acre open space planning area is designated for perpetual habitat preservation and trails. Along both sides of the Eastside Roadway, a portion of the Gigling Extension Road, and the north side of Parker Flats Road is designed as expansive parkways for trails, bikes, and pedestrian use. These dedicated areas would contain a combination of native habitat preservation, native habitat restoration, and multi-use trails. The sidewalks, paseos, multi-use pedestrian, bicycle, and equestrian trails would be linked to the surrounding regional open space and trail network within the Bureau of Land Management (BLM) and Fort Ord Recreational Habitat Area (FORHA) open space lands.
- The proposed project would include off-street multi-use pathways, tree-lined sidewalks, landscaped paseos, preserved open space/recreation areas and

public gathering spaces to encourage walking, cycling, and equestrian travel as an alternative to short auto trips.

- Free or low-cost monthly transit passes for students, employees, residents, and customers would be encouraged to be established with the assistance of commercial and retail owners.
- All apartments and flats as well as commercial areas would provide secured bicycle parking.
- The Country Walk retail area would have a trolley that would be a low- or zero-emission vehicle for customers to use to transport them from the event location to the restaurants and shopping.
- For all events, convenient locations accessible by public transportation would be set up for car sharing and car pools.
- Affordable workforce housing units would be provided for employees of the training facility. The housing would allow for workers to walk to work and thereby decrease vehicle trips.

Mitigated Greenhouse Gas Emissions

Implementation of the project design features and Mitigation Measure 3.6-1 would result in reduced project-related GHG emissions. The GHG reductions were quantified using CalEEMod. Table 3.6-2: Mitigated Greenhouse Gas Emissions, shows the reduced GHG emissions associated with the project design features required by Mitigation Measure GHG-1, which includes water, energy, solid waste, and land use efficiency measures.

Project design features include the following:

- Increase diversity (the project would include more than three land uses);
- Increase transit accessibility;
- Integrate below market rate housing;
- Pedestrian connections within the project site;
- Expand transit network;
- Provide transit subsidies to employees;
- Implement voluntary trip reduction program;
- Install high efficiency lights for public street and area lighting;
- High efficiency lighting, and energy efficient heating and cooling systems;
- Water-efficient irrigation systems;
- Low-flow faucets and toilets;
- Reduce turf by 70 percent for single family homes;

- Interior and exterior storage areas for recyclables and adequate recycling containers located in public areas; and
- Institute recycling and composting services to reduce solid waste by at least 50 percent.

As seen in Table 3.6-2: Mitigated Greenhouse Gas Emissions, despite the implementation of project design features and Mitigation Measure 3.6-1, the project would result in GHG emissions of 7.5 $MTCO_2eq$ per capita per year. Therefore, the project would exceed the 4.9 $MTCO_2eq$ per capita per year project level GHG threshold. Impacts in this regard would be significant and unavoidable despite the implementation of Mitigation Measure 3.6-1.

Table 3.6-2: Mitigated Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/year[1]	Metric Tons/year[1]	Metric Tons of CO_2eq[2]	Metric Tons/year[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
▪ Construction (amortized over 30 years)	1,457.98	0.08	1.68	0.00	0.00	1,459.62
▪ Area Source	3,285.38	0.08	1.68	0.06	18.60	3,305.67
▪ Mobile Source	24,542.54	1.80	37.80	0.00	0.00	24,580.42
Total Mitigated Direct Emissions	*29,285.90*	*1.96*	*41.16*	*0.06*	*18.60*	*29,345.71*
Indirect Emissions						
▪ Energy	12,329.59	0.42	8.82	0.22	68.20	12,405.90
▪ Water Demand	726.34	10.76	225.96	0.28	86.80	1,038.58
▪ Waste	237.28	14.02	294.42	0.00	0.00	531.75
Total Mitigated Indirect Emissions[3]	*13,293.21*	*25.20*	*529.20*	*0.50*	*155.00*	*13,976.23*
Total Mitigated Project-Related Emissions[3]	**43,321.94 $MTCO_2eq$/year**					
Mitigated Per Capita Emissions	**7.5 $MTCO_2eq$/ year**					
Per Capita Threshold	**4.9 $MTCO_2eq$/year**					
Mitigated GHG Emissions Exceed Reduction Target?	**Yes**					

Notes:
1. Mitigated emissions calculated using CalEEMod computer model.
2. CO_2 Equivalent values calculated using the U.S. EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed June 2013.
3. Totals may be slightly off due to rounding.
4. Per capita emissions are based on a service population of 5,775 (4,032 residents and 1,743 employees) calculated within Section 3.9, *Population and Housing*.

Refer to Appendix B, *Air Quality and Greenhouse Gas Data*, for detailed model input/output data.

Conclusion

As shown in Table 3.6-1: Business as Usual Greenhouse Gas Emissions, "business as usual" emissions would be 49,174.27 $MTCO_2eq$/year (8.5 $MTCO_2eq$ per capita per year). The project would implement project design features and Mitigation Measure 3.6-1, which are focused on reducing GHG emissions associated with the transportation, water, energy, solid waste, and land use sectors. Implementation of these measures would reduce GHG emissions to 43,321.94 $MTCO_2eq$/year (7.5 $MTCO_2eq$ per capita per year). However, the project would exceed the 4.9 $MTCO_2eq$

per capita per year project level GHG threshold, and a **significant and unavoidable** impact would result.

Mitigation Measures

MM 3.6-1: The proposed project shall include, but not be limited to, the following list of potential design features. These features shall be incorporated into the project design to ensure consistency with adopted statewide plans and programs. The project applicant shall demonstrate the incorporation of the following project design features prior to the issuance of building or occupancy permits as applicable.

Transportation

- Provide pedestrian connections (e.g., sidewalks, pathways, pedestrian amenities, etc.) and minimize pedestrian barriers to the off-site circulation network (prior to issuance of building permits).
- Bicycle lanes and walking paths shall be incorporated into the street system to provide alternative circulation routes to reach logical points of destinations such as schools, parks, and retail areas (prior to issuance of building permits).
- Implement a trip reduction program, for which all employees shall be eligible to participate. The trip reduction program may include carpooling encouragement, ride-matching assistance, preferential carpooling parking, flexible work schedules for carpoolers, vanpool assistance, bicycle end-trip facilities (parking, showers and lockers) (prior to issuance of occupancy permit). This measure is not applicable to residential uses.
- Provide a ride sharing program, for which all employees shall be eligible to participate (prior to issuance of occupancy permit). This measure is not applicable to residential uses.

Energy Efficiency

- Install Energy Star rated appliances (prior to issuance of building permits).
- Install vinyl frame windows with dual pane low emissivity glass (prior to issuance of building permits).

Water Conservation and Efficiency

- Install low-flow faucets and toilets (prior to issuance of building permits).

Solid Waste

- Provide interior and exterior storage areas for recyclables and adequate recycling containers located in public areas (prior to issuance of occupancy permit).

GHG Plan Consistency

Impact 3.6-2 Implementation of the proposed project would not conflict with an applicable greenhouse gas reduction plan, policy, or regulation. This is considered a **less than significant impact**.

The City of Seaside does not have an applicable plan, policy, or regulation adopted for the purpose of reducing community GHG emissions. As described above, the project would also be subject to all applicable regulatory requirements including the CALGreen building standards (Title 24, Part 6, California Energy Efficiency Standards for Residential and Nonresidential Buildings and Title 24, Part 11). After implementation of Mitigation Measure 3.6-1 and application of regulatory requirements, the project would implement appropriate GHG reduction strategies and would not conflict with or impede implementation of reduction goals identified in AB 32 and other strategies to help reduce GHG emissions. Therefore, the project would not conflict with an applicable GHG reduction plan, policy, or regulation and impacts would be **less than significant**.

3.5 Geology, Soils and Seismicity

The Geology, Soils & Seismicity section of the Draft EIR describes the existing geologic, seismic, and soil conditions present within the project area, and evaluates potential project impacts under these conditions associated with faults, strong seismic ground shaking, seismic-related ground failure such as liquefaction, landslides, and unstable geologic units and/or soils.

The information contained within this section is based on data from the *Soil Survey for Monterey County* (Natural Resources Conservation Service 1978), *Geotechnical Investigation and Percolation Testing, Proposed California Central Coast Veterans Cemetery, State Cemetery Site, Monterey County, California* (Kleinfelder 2010) and the *Phase I Geotechnical Report and Preliminary Geotechnical Hazards Assessment* (Pacific Crest Engineering 2012). The geotechnical reports were peer reviewed by the Michael Baker Corporation in July 2013. A copy of the geotechnical reports can be found in Appendix E.

Environmental Setting

Regional Geologic Setting

The project area is located near the northwestern terminus of the central Santa Lucia Range. The Santa Lucia Range is formed by a series of rugged, linear ridges and valleys following the pronounced northwest to southeast structural grain of central California geology. Underlying most of the Santa Lucia range is a large, elongate prism of granitic and metamorphic basement rocks, known collectively as the Salinian Block. These rocks are separated from contrasting basement rock types to the northeast and southwest, respectively, by the San Andreas and San Gregorio strike slip fault systems.

The Santa Lucia Range was uplifted in the early Pliocene, resulting watersheds that drained southeastward from the range, creating coarse clastic sediments of the Paso Robles Formation of the upper Salinas Valley. Streams draining the northern Santa Lucia Range during the Pliocene to early Pleistocene time deposited gravel, sand, and silt that form the foothills of the modern-day San Benancio Canyon and the southern portion of the former Fort Ord.

The ongoing sea level high stands and low stands throughout the Pleistocene created a dynamic layering of the windborne and oceanic sediments with the sediments shed off of the Santa Lucia Range. Wind-blown sands formed dunes during the multiple sea-level low stands in the Pleistocene in the eastern part of the present-day Monterey Bay and from the vicinity of Fort Ord to the northernmost part of Monterey County.

Throughout the Cenozoic Era, this portion of California has been dominated by tectonic forces associated with lateral or "transform" motion between the Northern American and Pacific lithospheric plates, producing long, northwest trending faults such as the San Andreas and San Gregorio, with horizontal displacement measured in tens to hundreds of miles. Accompanying the horizontal (strike-slip) movement of the plates have been

episodes of comprehensive stress reflected by repeated uplift, deformation, erosion, and deposition (Pacific Crest Engineering 2012).

Seismic and Geologic Hazards

Seismicity

The project area lies within a region with active seismic faults and is therefore subject to risk of hazards associated with earthquakes. Seismic activity poses two primary and secondary types of hazards. Primary hazards include ground rupture, ground shaking, ground displacement, and subsidence and uplift from earth movement. Primary hazards can induce secondary hazards including ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (tsunamis and seiches), movement on nearby faults, dam failure, and fires (Monterey County 2010). Most loss of life and injuries that occur during an earthquake are related to collapse of buildings and structures due to strong ground shaking. According to Figure 4.6-3 in the *Fort Ord Base Reuse Plan EIR*, the project area is located in a moderate high seismic hazard zone.

According to the geotechnical investigations prepared for the proposed project (Pacific Crest Engineering 2012 and Kleinfelder 2010), no known active faults are located within the boundary of the project area and no Alquist Priolo Earthquake Fault Zoning has been identified by the State of California in the project vicinity. The closest known active faults in the project vicinity include: The Rinconada fault, which is approximately three miles northeast of the project area; the Monterey Bay-Tularcitos fault, which is located approximately five miles southwest of the project area; the San Gregorio-Palo Colorado (Sur Region) fault, which is located approximately 14 miles southwest of the project area; the Zayante-Vergeles fault, which is located approximately 14 miles northeast of the project area; and the San Andreas fault (Pajaro), which is located approximately 20 miles northeast of the project area. Faults located in the vicinity of the project area are shown in Figure 3.5-1: Regional Geology.

Surface Rupture

Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active major fault trace. The nearest faults to the project area are considered "potentially active" and there is a low potential for fault rupture in the project area.

Ground shaking

Ground shaking refers to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. Magnitude is a measure of the energy released by the earthquake, which is assessed by seismographs that measure the amplitude of seismic waves.

Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions. Intensity can be quantitatively measured using accelerometers (strong motion seismographs) that record ground acceleration at a specific location, a measure of force applied to a structure under seismic shaking. Acceleration is measured as a fraction or percentage of the acceleration under gravity (g).

The *Seaside Local Hazard Mitigation Plan* estimates that the horizontal acceleration for the City of Seaside at 0.61 and 0.70g. These levels of ground acceleration (between 0.35g and 0.7g) have the potential to cause serious damage to buildings, building collapse, damage to building foundations, and obvious cracks in the ground. The geotechnical reports prepared for the proposed project estimate a high potential for this level of ground shaking within the project area (City of Seaside 2005).

Topography

The elevation of the project area is between approximately 260 and 450 feet above mean sea level, situated within the gently rolling hills of ancestral dune fields. The ground surface across the project area is mostly variably gently to moderately sloping across small hills and hummocks, punctuated by flat-topped knolls and flat-bottomed closed depressions within the rolling dune topography.

Existing grading, which was undertaken when the U.S. Army occupied the former Army base, was mostly confined to the existing roads that cross-cross the project area, predominantly consisting of minor cuts and fills on the respective order of several feet high and thick. Portions of the project area appear to have been cleared of vegetation and scraped with no obvious cuts or associated fill (Pacific Crest Engineering 2012).

Field Exploration

The most recent detailed regional modeling of earth materials depicts the project area straddling a contact between the older dune deposits and older eolian deposits both of which are a blanket of Pleistoncene age wind-blown sand sediments as thick as approximately 150 feet deposited atop the Aromas Formation and the Paso Robles Formation. Utilizing data from a deep monitoring well that was drilled near the northwestern corner of the project area, the depth to Tertiary sedimentary bedrock is approximately 1,000 feet below the project area, (Pacific Crest Engineering 2012).

Most of the borings conducted by geotechnical engineering firms for other projects in the vicinity were shallow (less than 50 feet) and for the most part encountered soil that was classified as loose to very dense, well sorted (poorly graded), fine to medium-grained and containing little to no silt. These findings are consistent with the area being directly underlain by a blanket of sand dune deposits of different vintages (Pacific Crest Engineering 2012). This is also consistent with the subsurface exploration conducted by Kleinfelder for the CCVC, which determined that the project area is comprised of coarse grained soils that are typically loose to very dense (Kleinfelder 2010).

No shallow groundwater was encountered in any of these geotechnical engineering borings (e.g. within 50 feet of the ground surface).

Soil Characteristics

Soils within the project area are listed in Table 3.5-1: Soil Map Units and shown in Figure 3.5-2: Soils

Table 3.5-1: Soil Map Units

Map Unit Symbol	Soil Map Unit Name
OaD	Oceano Loamy Sand, 2 to 15 percent slopes
Ar	Arnold-Santa Ynez Complex
BbC	Baywood Sand, 2 to 5 percent slopes

Source: Natural Resources Conservation Service (NRCS) 1978

The following is a description of the individual soil characteristics within the project area. This soil information is derived from the *Soil Survey of Monterey County* (NRCS 1978).

Oceano loamy sand, 2 to 15 percent slopes

Approximately 75 percent of the project area is comprised of Oceano loamy sand, two to 15 percent slopes. This soil series is comprised of an undulating to rolling soil on eolian dune like hills. Runoff of this soil is slow to moderate, and the erosion hazard is slight to moderate.

Arnold-Santa Ynez Complex

The Arnold-Santa Ynez Complex comprises approximately 20 percent of the project area. The Arnold Santa Ynez Complex is typically located on dissected terrace remnants, hilltops, and wide ridge tops. Arnold soils make up about 40 percent of this complex and Santa Ynez soils make up 25 percent. The rest consists of areas of Elkhorn soils, a loamy sand or sand that is 10 to 20 inches deep to bedrock, a soil that has a sub-soil of sandy loan to sandy clay loam, and areas of strongly sloping to very steep, severely eroded banks or escarpments that have exposed cemented sandy alluvium or sandstone outcrops. Slopes are typically nine to 30 percent. Runoff is medium to rapid and the erosion hazard is moderate to high.

Baywood Sand, 2 to 5 percent slopes

Baywood Sand, 2 to 5 percent slopes comprises approximately five percent of the project area. Baywood Sand, 2 to 5 percent slopes is a gently sloping to rolling soil located on stabilized sand dunes. Included in this soil map unit were areas of Oceano soils and Dune land. Also included were areas of soils that have a surface layer less than 20 inches thick, areas of moderately alkaline sands, and areas of Baywood soils that have

slopes of less than two percent or more than 15 percent. Runoff on this soil is medium and the soil erosion control hazard is slight to moderate.

Erosion Hazards and Expansive Soils

Expansive Soils

Expansive soils shrink or swell significantly with changes in moisture content. Clay content and porosity of the soil also influence the change in volume. The most common cause of changing soil moisture content is seasonal fluctuation due to rainfall; however, improper surface drainage or underground water pipe leaks may cause shrinking or swelling of soil. The shrinking and swelling caused by expansive clay rich soil often results in damage to overlying structures, including foundations, floor slabs, pavements, sidewalks, and other improvements that are sensitive to soil movements. Usually, damage from expansive soils can be minimized or eliminated by using site-specific engineering techniques. According to the *Soil Survey of Monterey County* (NRCS 1978), the soils located within the project area have a low shrink swell potential.

Erosion Potential

Soil erosion is the process by which soil particles are removed from a land surface by wind, water, or gravity. Topsoil is the uppermost layer of soil, usually the top six to eight inches, and has the highest concentration of organic matter and microorganisms. Topsoil erosion is of concern when the topsoil layer is blown or washed away. Most natural erosion occurs at relatively slow rates; however, the rate of erosion increases where the ground surface is steep and when land is cleared and/or left in a disturbed condition, such as may occur during the preparation and excavation phases of site development. According to *the Soil Survey of Monterey County* (NRCS 1978), the soils located within the project area have a slight to moderate erosion potential.

Ground Failure

Ground-surface disturbance or ground failure is a phenomenon associated with seismic shaking. Ground failure can occur as liquefaction, lateral ground spreading, dynamic compaction, or landslides.

Liquefaction

Soil liquefaction is a phenomenon in which saturated, cohesionless soils lose their strength due to the build-up of excess pore water pressure during cyclic loading such as that induced by earthquakes. The primary factors affecting the liquefaction potential of a soil deposit include: 1) intensity and duration of earthquake shaking; 2) soil type and relative density; 3) overburden pressures; and 4) depth to groundwater. Soils most susceptible to liquefaction are clean, loose, fine grained sands, and silts that are saturated and uniformly graded. Silty sands have also been proven to be susceptible to liquefaction.

Groundwater is located at least 50 feet below existing grade at the CCVC and deeper soils were typically dense to very dense, therefore, the potential for liquefaction is considered low at the CCVC portion of the project area (Kleinfelder 2010). For the remainder of the project area, the regional groundwater is likely to occur near sea level based on a review of geotechnical investigations prepared in the project vicinity (Pacific Crest Engineering 2012). Therefore, the potential for liquefaction to occur within the remainder of the project area is considered low.

Lateral Spreading

Lateral spreading is a form of horizontal displacement of soil towards an open channel or excavation boundary. Lateral spreading can result from either the slump of low cohesion unconsolidated material or more commonly from liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. Earthquake shaking leading to liquefaction of saturated soil can result in lateral spreading where the soil undergoes a temporary loss of strength.

The project area has gently sloping topography. Since the potential for liquefaction within the project area is considered low, the potential for lateral spreading is also considered low.

Dynamic Compaction

Dynamic compaction is the densification of granular soils as a result of earthquake shaking. This generally occurs in loose to medium dense sand above groundwater. The potential impact of dynamic compaction is settlement of the ground surface. According to the Geotechnical Investigation for the CCVC, the total and differential ground settlement as a result of dynamic compaction is less than half an inch. Pacific Crest Engineering determined that dynamic compaction is one of the primary geologic hazards that could affect the project area (Pacific Crest Engineering 2012).

Landslide Susceptibility

The topography of the project area is comprised of gently rolling hills of ancestral dune fields with elevations between approximately 260 and 400 feet above mean sea level and generally lacks high or steep slopes that would be susceptible to landslides. According to the *Monterey County Multi-Jurisdictional Hazard Mitigation Plan*, the project area is located in an area with low earthquake induced landslide susceptibility (Monterey County 2008).

Regulatory Setting

Federal

Federal Earthquake Hazards Reduction Act

Passed by Congress in 1977, the Federal Earthquake Hazards Reduction Act is intended to reduce the risks to life and property from future earthquakes. The Act established

the National Earthquake Hazards Reduction Program (NEHRP). The goals of NEHRP are to educate and improve the knowledge base for predicting seismic hazards, improve land use practices and building codes, and to reduce earthquake hazards through improved design and construction techniques.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 (originally enacted as the Alquist-Priolo Special Studies Zones Act and renamed in 1994) and is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as "Earthquake Fault Zones" around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy.

California Building Standards Code (CBC)

The State of California provides minimum standards for building design through the CBC. The CBC is based on the Uniform Building Code (UBC), which is used widely throughout the United States (generally adopted on a state-by-state or district-by district basis), and has been modified for conditions within California. The CBC requires extensive geotechnical analysis and engineering for grading, foundations, retaining walls, and other structures, including criteria for seismic design.

Seismic Hazards Mapping Act

The California Geologic Survey (CGS) provides guidance with regard to seismic hazards under the *Seismic Hazards Mapping Act*. Seismic hazard zones are identified and mapped by the CGS to assist local governments in land use planning. The intent of the Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. In addition, CGS Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, provides guidance for the evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations.

Local

City of Seaside General Plan

The following policies in the Safety Element of the *City of Seaside General Plan* are applicable to the proposed project:

Goal S-1: Reduce the risks to people and property from hazards related to seismic activity, flooding, geologic conditions, and wildfires.

Policy S-1.1: Reduce the risk of impacts from and seismic and geologic hazards.

Implementation Plan S-1.1.1, CEQA. Assess development proposals for potential seismic and geologic hazards pursuant to the California Environmental Quality Act (CEQA). Require studies of soil and geologic conditions by state licensed Engineering Geologists and Civil Engineers where appropriate. When potential geologic impacts are identified, require project applicants to mitigate the impacts per the recommendations contained within the soil and geologic studies. If substantial geologic/seismic hazards cannot be mitigated, require the development to be relocated or redesigned to avoid the significant hazards.

Implementation Plan S-1.1.2, Building Codes. As new versions of building and construction codes are released, adopt and enforce the most recent codes. Specifically, to minimize damage from earthquakes and other geologic activity, implement the most recent State and seismic requirements for structural design of new development and redevelopment.

City of Seaside Municipal Code

Chapter 15.32, Standards to Control Excavation, Grading, Clearing, and Erosion

Chapter 15.32 of the *City of Seaside Municipal Code* sets forth guidelines, rules, regulations, and minimum standards to control excavation, grading, clearing, erosion control and maintenance, including cut and fill embankments. The Code requires control of all existing and potential conditions of accelerated erosion, establishes administrative procedures for issuance of permits, and provides for approval of plans and inspections during construction and maintenance. Except as exempted in Section 15.32.050 of the Seaside Municipal Code, a permit shall be obtained from the city by the owner(s) of the property, or agent when authorized in writing, for each development site. Approval of a permit for new development shall require the abatement of any existing human-induced or accelerated erosion problems on the property.

Fort Ord Base Reuse Plan

The following policies for the City of Seaside in the *Fort Ord Base Reuse Plan* (FORA 1997) are applicable to the proposed project:

Conservation Element

Objective A: Prevent soil transport and loss caused by wind and water erosion and promote construction practices that maintain the productivity of soil resources.

Soils and Geology Policy A-2: The City shall require developers to prepare and implement erosion control and landscape plans for projects that involve high erosion risk. Each plan shall be prepared by a registered civil engineer or certified professional

in the field of erosion and sediment control and shall be subject to the approval of the public works director for the City of Seaside. The erosion component of the plan must at least meet the requirements of Storm Water Pollution Prevention Plans (SWPPPs) required by the California State Water Resources Control Board.

Soils and Geology Policy A-3: Through site monitoring, the City shall ensure that all measures included in the developer's erosion control and landscape plans are properly implemented.

Soils and Geology Policy A-4: The City shall continue to enforce the Uniform Building Code to minimize erosion and slope instability problems.

Soils and Geology Policy A-5: Before issuing a grading permit, the City shall require that geotechnical reports be prepared for developments proposed on soils that have limitations as substrates for construction or engineering purposes, including limitations concerning slope and soils that have piping, low-strength, and shrink-swell potential. The City shall require that engineering and design techniques be recommended and implemented to address these limitations.

> **Program A-5.2:** The City shall designate areas with severe soil limitations, such as those related to piping, low-strength, and shrink-swell potential, for open space or similar use if adequate measures cannot be taken to ensure the structural stability of these soils. This shall be designated at the project-specific level through a geotechnical study.

Soils and Geology Policy A-6: The City shall require that development of lands having a prevailing slope above 30 percent include implementation of adequate erosion control measures.

Objective C: Strive to conserve soils that rare species or plant communities are dependent on or strongly associated with.

Soils and Geology Policy C-2: The City shall consider the compatibility with existing soil conditions of all habitat restoration, enhancement, and preservation programs undertaken within the City.

> **Program C-2.1:** The City shall require that the land recipients of properties within the former Fort Ord implement the Fort Ord Habitat Management Plan.

Safety Element

Objective A: Protect and ensure public safety by regulating and directing new construction (location, type, and density) of public and private projects, and critical and sensitive facilities away from areas where seismic and geologic hazards are considered likely predicable so as to reduce the hazards and risks from seismic and geologic occurrences.

Seismic and Geologic Hazards Policy A-1: The City of Seaside shall develop standards and guidelines and require their use in new construction to provide the greatest possible protection for human life and property in areas where there is a high risk of seismic or geologic occurrence.

Seismic and Geologic Hazards Policy A-2: The City shall use the development review process to ensure that potential seismic or geologic hazards are evaluated and mitigated prior to construction of new projects.

> **Program A-2.1:** The City shall require geotechnical reports and seismic safety plans when development projects or other area plans are proposed within zones that involve high or very high seismic risk. Each plan shall be prepared by a certified geotechnical engineer and shall be subject to the approval of the Planning Director for the City of Seaside.

> **Program A-2.2:** Through site monitoring, the City shall ensure that all measures included in the project's geotechnical and seismic safety plans are properly implemented and a report shall be filed and on public record prepared by the Planning Director and/or Building Inspector confirming such.

> **Program A-2.3:** The City shall continue to updated and enforce the Uniform Building Code to minimize seismic hazards impacts from resulting from earthquake induced effects such as ground shaking, ground rupture, liquefaction, and or soils problems.

Seismic and Geologic Hazards Policy A-3: The City shall designate areas with severe seismic hazard risk as open space or similar use if adequate measures cannot be taken to ensure the structural stability of habitual buildings and ensure the public safety.

> **Program A-3.1:** As appropriate, the City should amend its General Plan and zoning maps to designate areas with severe seismic hazard risk as open space if not other measures are available to mitigate potential impacts.

Objective C: Protect, ensure, and promote public safety through public education regarding earthquake preparedness and post-earthquake recovery practices.

Relevant Project Characteristics

The proposed project would result in varying levels of ground disturbance including vegetation removal, grading and filling during short-term construction activities on over 605 acres (85 percent) of the project area. The proposed training facility, commercial center, horse park, extended stay hotel, residential housing area, office complex and infrastructural improvements associated with the Monterey Downs and Horse Park would require ground disturbing activities including, but not limited to, vegetation removal, grading, filling and excavation of native soils in advance of construction. The CCVC, with its proposed burial sites, support buildings, memorial plaza, ceremonial

entry and landscaping, would also require extensive ground disturbance in the form of vegetation removal, grading, filling and excavation of native soils in advance of construction.

To address grading activities associated with the proposed project, the Specific Plan includes the following development standards:

- Ensure that buildings are clustered in a manner that minimizes the need for grading around the perimeter of the development area creating the Linear Park preserves and paseo pathways.
- Residential subdivision grading plans should create small building pads gradually terracing up and down hillsides where feasible while allowing for pedestrian friendly street grades.
- Hard edges left by mass-graded cut and fill operations should be given a rounded appearance that closely resembles the natural contours of the land.
- The angle of any graded slope should gradually transition to the slope of the natural terrain. Creation of newly graded slopes significantly steeper than existing natural slopes should be avoided.

Impacts and Mitigation Measures

Criteria for Determining Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines, as amended. For purposes of this EIR, implementation of the proposed project may have a significant adverse geology, soils and seismicity impact if it would result in any of the following:

- 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;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse;
- 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; and/or

- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Methodology

Impacts evaluated within this section were based on previously published reports including the following: *Soil Survey for Monterey County* (NRCS 1978), *Geotechnical Investigation and Percolation Testing, Proposed California Central Coast Veterans Cemetery, State Cemetery Site, Monterey County, California* (Kleinfelder 2010) and the *Phase I Geotechnical Report and Preliminary Geotechnical Hazards Assessment* (Pacific Crest Engineering and Zinn Geology 2012). The geotechnical reports were peer reviewed by the Michael Baker Corporation in July 2013. The geotechnical reports are included in Appendix E.

Project Impacts and Mitigation Measures

Fault Rupture

Impact 3.5-1 The project area is not located within a Alquist-Priolo Earthquake Fault Zone and the nearest mapped trace of a potentially active fault is the Reliz-Rinconanda fault, which is located three miles northeast of the project area. In addition, there are no tonal or topographical lineaments that might be relative to active faulting cutting through the project area. Therefore, the potential for fault rupture within the project area is considered low and would be considered a **less than significant impact**.

According to the *Preliminary Geologic Hazards Assessment prepared for the Monterey Downs and Horse Park* (Pacific Crest Engineering 2012) and the *Geotechnical Investigation and Percolation Testing for the Proposed California Central Coast Veterans Cemetery* (Kleinfelder 2010), the project area is located in the seismically active Monterey Bay area, but not within an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act of 1972.

The closest known active faults in the project vicinity include: the Rinconada fault, which is approximately three miles northeast of the project area; the Monterey Bay-Tularcitos fault, which is located approximately five miles southwest of the project area; the San Gregorio-Palo Colorado (Sur Region) fault, which is located approximately 14 miles southwest of the project area; the Zayante-Vergeles fault, which is located approximately 14 miles northeast of the project area; and the San Andreas fault (Pajaro), which is located approximately 20 miles northeast of the project area.

According to Pacific Crest Engineering (2012), the nearest mapped trace of an active fault is the Reliz-Rinconanda fault. However, there are no tonal or topographical lineaments that might be relative to active faulting cutting through the project area. Therefore, the project area is not underlain by an active fault, which corresponds to an "ordinary risk" to future occupants of the proposed project of fault rupture. Therefore,

the proposed project would result in a **less than significant impact** from fault rupture.

Seismic Ground Shaking

Impact 3.5-2 Seismic shaking within the project area would likely be intense during the next major earthquake on the faults located in the vicinity of the project area. Based on the field exploration and investigation of the project area during the geotechnical investigations, the near surface soils within the project area are considered loose and could compress from seismic ground shaking, which would be considered a **potentially significant impact**.

Seismic shaking within the project area would be intense during the next major earthquake along the local fault systems, particularly the San Gregorio-Palo Colorado fault, which is located 14 miles southwest of the project area and the Monterey Bay-Tularcitos fault zone, which is located five miles southwest of the project area. Based on the results of the field exploration and laboratory testing, the near surface soils within the project area are considered loose and could compress under the new building loads with seismic ground shaking, which would be considered a **potentially significant impact** to future occupants within the project area. All final development within the project area shall be designed consistent with the latest edition of the California Building Code (CBC) as adopted by the City of Seaside and its related seismic standards, as well as any additional standards required as a standard condition of approval by the City of Seaside. In addition, implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM GEO-1 ***Preparation of a Design-Level Geotechnical Report.*** Future development associated with the Monterey Downs and Horse Park component of the proposed project shall complete a geotechnical investigation, which includes field mapping and geotechnical borings. Recommendations from the geotechnical investigation shall be incorporated into a design-level geotechnical report in accordance with the CBC subject to review and approval by the City of Seaside Resource Management Services Department.

Future development associated with the CCVC shall prepare a design-level geotechnical report in accordance with the CBC and recommendations contained in the *Geotechnical Investigation and Percolation Testing, Proposed California Central Coast Veterans Cemetery Site, Monterey County, California* (Kleinfelder 2010) including: earthwork, structure foundations, seismic considerations, slabs-on-grade, and pavement recommendations.

Prior to final inspection, the project applicant shall provide certification from a qualified professional that all development has been constructed in accordance with design-level geotechnical reports subject to review and approval by the City of Seaside.

Result in Substantial Soil Erosion

Impact 3.5-3: The soils within the project area have a slight to moderate runoff potential. Implementation of the proposed project may result in soil erosion or the loss of topsoil during short-term construction activities within the project area, which would increase the potential for erosion during the rainy season. This is considered a **potentially significant impact**.

According to the *Soil Survey of Monterey County* (NRCS1978), soils within the project area have a slight to moderate runoff potential. The proposed project would result in varying levels of ground disturbance including vegetation removal, grading and filling during short-term construction activities on over 605 acres (85 percent) of the project area. These activities have the potential to increase erosion during rainstorms if proper sedimentation and erosion control methods are not in place within the project area. The proposed project would require ground disturbing activities including, but not limited to, vegetation removal, grading, filling and excavation of native soils in advance of construction.

The proposed project would be required to comply with Section 15.32, Standards to Control Excavation, Grading, Clearing and Erosion in the *City of Seaside Municipal Code*. In addition, the project applicant would be required to obtain a General Construction Activity Stormwater Permit from the Regional Water Quality Control Board (RWQCB) and carry out measures required to manage and control erosion from the site during construction pursuant to the Clean Water Act and the State Water Resources Control Board. Best Management Practices (BMPs) typically include, but are not limited to, minimizing the migration of sediments off-site, covering sediment/soil stockpiles, sweeping soil from streets or other paved areas, avoiding site preparation during rainy weather, and the planting of vegetation or landscaping in a timely manner. With implementation of these measures, the proposed project would result in a **less than significant impact** from soil erosion.

Located on a Unstable Geologic Unit

Impact 3.5-4: Development activities within the project area would be located on soils that could become unstable if a concentrated flow of water to sandy soils within the project area results in piping and probable collapse of the ground surface. This is considered a **potentially significant impact**.

According to the *Preliminary Geologic Hazards Assessment prepared by the Monterey Downs and Horse Park* (Pacific Crest Engineering 2012) and the *Geotechnical Investigation and Percolation Testing for the Proposed California Central Coast Veterans Cemetery* (Kleinfelder 2010), the proposed project would not be located on an unstable geologic unit and the proposed project is geologically feasible and represents an "ordinary risk to occupants of the structure." However, development activities within the project area would be located on soils that could become unstable if a concentrated flow of water to sandy soils within the project area results in piping and probable collapse of the ground surface.

Development within the project area would likely include grading activities, fills of different thickness and fills adjacent to cut areas that could result in differential settlement. Construction on un-compacted and loose fill, if present, would be subject to varying rates of settlement and structural damage could occur. Implementation of Mitigation Measure GEO-1 would require preparation of a design-level geotechnical report that would identify and mitigate potential geologic and soil-related constraints to development within the project area, which would reduce this impact to a **less than significant level**. No additional mitigation measures are necessary.

Expansive Soils

Impact 3.5-5: Implementation of the proposed project could result in development on expansive soils. With implementation of mitigation measures incorporated herein and adherence to the California Building Code requirements, this would be considered a **less than significant impact**.

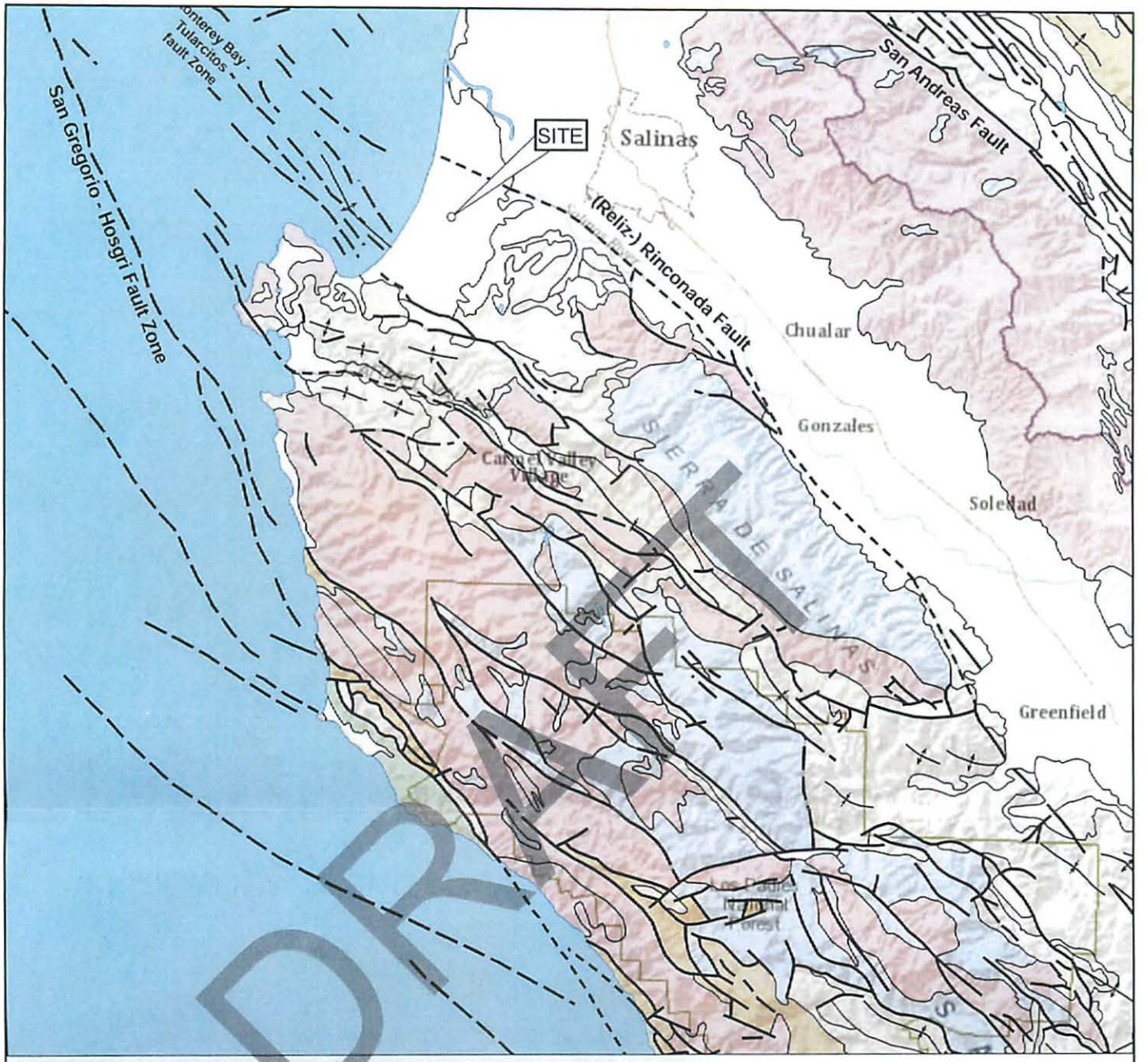
Implementation of the proposed project could result in development on expansive soils subject to shrinking and swelling in response to changes in moisture content. Expansive soils are a major cause of foundation-related property damage in California. According to the *Monterey County Soil Survey* (NRCS 1978), soils within the project area have a low shrink swell potential. Mitigation Measure GEO-1 would require preparation of a design-level geotechnical report that would identify and mitigate potential geologic and soil-related constraints to development including expansive soils. Therefore, impacts as a result of expansive soils would be considered a **less than significant impact**. No additional mitigation measures are necessary.

Septic Tanks or Alternative Wastewater Disposal Systems

Impact 3.5-6: A majority of the proposed project would connect to the existing sewage system. However, the cemetery and ancillary facilities at the CCVC (e.g. Veteran's Hall, cultural history museum, chapel) would use a septic system as they would not be high enough to allow gravity flow to the sewage system. These ancillary facilities would generate less than 0.2 acre feet per year of wastewater and would be required to comply with the Section 15.20.060 of the *Monterey County Municipal Code*, which would

ensure that the septic system meets County standards. Therefore, this would be considered a **less than significant impact.**

Wastewater disposal for the Monterey Downs and Horse Park component of the proposed project, as well as the Chapel and the Veterans' Hall at the CCVC would be provided by Marina Coast Water District or the Seaside Sanitation District. However, the cemetery and ancillary facilities would not be high enough to allow gravity flow to the sewer system and would utilize a septic system. This septic system is expected to generate approximately 0.2 acre feet per year (AFY) and would be required to comply with Section 15.20.060 of the *Monterey County Municipal Code* for the installation of septic tanks, which establishes criteria such location of wells, the capacity of the system, and other factors related to soil suitability in order to minimize landslide risks and potential risks to groundwater. Therefore, the proposed project would have a **less than significant impact** with the installation of septic systems within the CCVC.



Reference: Jennings, C.W., 1977, Geologic Map of California: California Department of Conservation, Division of Mines and Geology, scale 1:750,000.
Digital Data: Saucedo, G.J., Bedford, D.R., Raines, G.L., Miller, R.J., and Wentworth, C.M., 2000, GIS Data for the Geologic Map of California: California Department of Conservation, Division of Mines and Geology, CD-ROM 2000-007, ver. 2.0.

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Legend

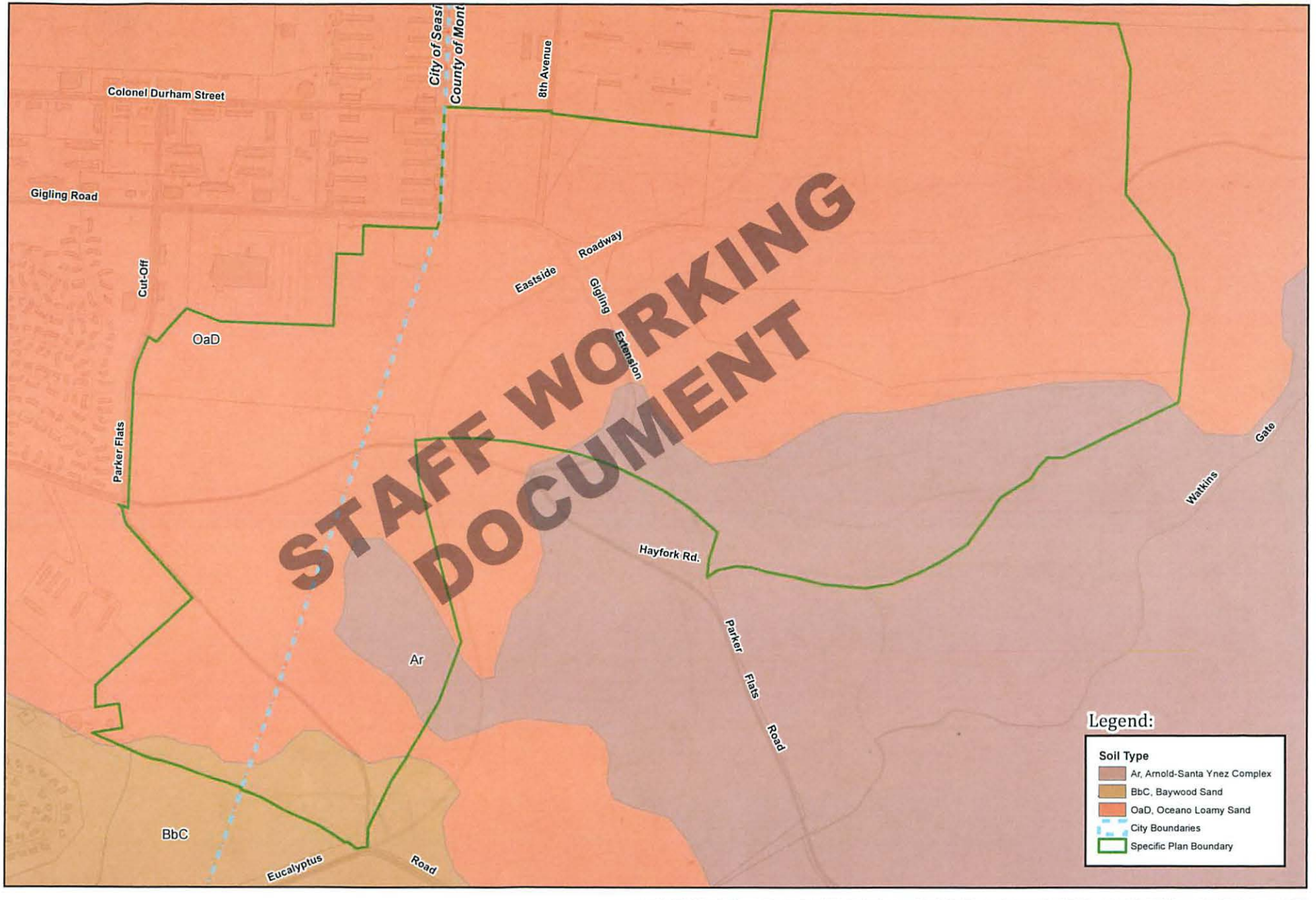
Geologic Units
- Quaternary Deposits
- Quaternary Volcanics
- Tertiary Sedimentary Rocks
- Tertiary Volcanic Rocks
- Pre-Tertiary Sedimentary Rocks
- Pre-Tertiary Volcanic Rocks
- Grantic Intrusive Rocks
- Franciscan Complex
- Ultramafic Rocks
- Pre-Tertiary Metamorphic Rock
- Pre-Cambrian Metamorphic and Igneous Rocks

Symbols
- contact
- fault, certain
- fault,approx. located
- fault, concealed or inferred
- anticline
- monocline
- syncline

RBF A Baker Company

Regional Geology

Figure 3.5-1



RBF A Baker Company

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Soils

Figure 3.5-2

3.4 Cultural Resources

The Cultural Resources subsection of the Draft EIR analyzes potential impacts to archaeological and historical resources that may be present within the project area. The analysis within this section is based on a cultural resources evaluation that was prepared for the proposed project by Pacific Legacy in May 2012, which is incorporated herein, as well as a review of the *City of Seaside General Plan* (City of Seaside 2004) and the *Fort Ord Base Reuse Plan* (FORA 1997).

3.4.1 Introduction

Cultural resources may be defined as any building, structure, object or location of past human activity, occupation or use that may be identified through historical research, inventory or oral evidence. They may encompass archaeological, traditional and/or built environment resources.

Cultural resources include both historical and prehistoric remains. Prehistoric remains may consist of immovable features such as mounds or housepit depressions. More commonly, they comprise scatters or concentrations of flaked stone debris or debitage, rock, ash, animal bone, greasy organic or "midden" soil, charcoal, shell, items of personal adornment (e.g., shell beads, charmstones, etc.), groundstone artifacts (e.g., stone mortars, pestles, handstones, millingstones, etc.), flaked stone artifacts (e.g., projectile points, bifacially worked flakes, awls, etc.) and/or human remains. Historical remains may consist of features in the built environment such as buildings, roads, trails, homesteads, bridges, cemeteries, wells, pits and other structures relating to historical domestic, industrial or commercial activity, occupation or use. Historical remains may also comprise scatters or concentrations of glass, metal, ceramic, wood, brick, bone and/or other items relating to the public or private use of space.

Traditional cultural resources most often include Native American sacred sites, sites of resource procurement or sites of special cultural significance, though they may also comprise areas important to a specific ethnic community that are regarded as seminal to maintaining a community's cultural traditions.

To assess the existing cultural resource existing conditions within the project area as they relate to known and previously undiscovered archaeological, traditional and/or built environment resources, the following data collection methodology was conducted:

- An archival and record search was conducted by Pacific Legacy, Inc. at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University in Rohnert Park, California;
- A review of archival materials for Monterey County on file at the Bay Area Division of Pacific Legacy located in Berkeley, California was examined;
- A search of the Sacred Lands Inventory maintained by the Native American Heritage Commission was undertaken; and

- Potential Native American stakeholders within Monterey County were contacted for further information regarding the project area.

An archaeological survey was conducted for the CCVC by Archaeological Consulting in November 2010. However, no on-site archaeological surveys or inventories were conducted for the Monterey Downs and Horse Park component of the proposed project.

Pacific Legacy conducted an archival and records search at the Northwest Information Center of the California Historical Information System for the project area and a one half mile radius surrounding it. In addition to a review of the available cartographic data, documents consulted included the National Register of Historic Places (*Directory of Determinations of Eligibility,* California Office of Historic Preservation, Volumes I and II, 2001); the *California Inventory of Historic Resources* (State of California 1976); the listing of *California Historical Landmarks* (State of California 1996); the *California Points of Historical Interest* listing (State of California 1992); the Historic Property Data File (State of California 2005); the *CALTRANS State and Local Bridge Survey* listing (State of California 1989); and the *Survey of Surveys* (State of California 1989).

Historical data for Monterey County that was on file at the Bay Area Division of Pacific Legacy in Berkeley, California was also consulted. These data included historical maps, relevant archaeological studies and other resources concerning the local cultural and natural environment.

The results of these archival and record searches revealed that no cultural resources had been previously recorded within the project area, and that only one cultural resource had been previously documented within a one half mile radius. The results also revealed that four cultural resource studies had encompassed portions of the project area, and that five cultural resource studies had been previously conducted within a one half mile radius.

A search of the Sacred Lands Inventory maintained by the Native American Heritage Commission failed to result in the identification of traditional sites significant to Native Americans within the proposed project area. A list of potential stakeholders with knowledge of the project area was provided by the Native American Heritage Commission, and requests for consultation were issued to those tribes or individuals for further information regarding traditional use of the area.

3.4.2 Environmental Setting

This cultural history is presented in three sections. The first section presents the prehistoric occupation of the region. The second section discusses the ethnographic evidence (post European contact). The third section discusses historical period cultural history (from initial Spanish exploration to present day).

Prehistoric Cultural History

Prior to 1970, the cultural history of the Central California coast and inland region remained poorly documented. Since that time, however hundreds of surveys have been conducted and more than 60 archaeological sites have been excavated in Monterey and San Luis Obispo counties, with more than 200 radiocarbon dates reported. Most of this work was undertaken in compliance with State CEQA Guidelines and with the National Environmental Protection Act (NEPA) of 1969.

Regional models of Monterey County prehistoric occupation, culture change and chronology have been presented in contributions by Dietz and Jackson (1981), Breschini (1983), Breschini et al. (1983), Patch and Jones (1984), Dietz (1985), Dietz et al. (1988), Jones and Hylkema (1988), Breschini and Haversat (1992), Jones et al. (1992), Jones and Jones (1992), Jones (1993), Cartier (1993) and Hildebrandt and Mikkelson (1993).

Breschini and Haversat proposed a model that outlines two archaeological patterns for the Monterey Bay Area: the Sur Pattern and the Monterey Pattern (Breschini and Haversat 1992; Breschini 1983). They claimed that the Sur Pattern corresponded with Hokan speakers, ancestors of the Esselen, and that the Monterey Pattern corresponded with Penutian speakers, ancestors of the Costanoan. Breschini and Haversat's model did not include a cultural chronology or an assemblage definition for the two patterns (Dietz et al. 1988; Jones 1993).

According to Breschini and Haversat (1992), the Sur Pattern represented an early forager subsistence strategy, contemporaneous with the Borax Lake Pattern of the North Coast Ranges, the Berkeley Pattern of the San Francisco Bay area and the Windmiller Pattern of the Lower Sacramento Valley. The Sur Pattern, which appeared approximately 3,000 years before ago, represented a more generalized economy. Archaeological sites representative of the Sur Pattern reflect a variety of activities, and inland and coastal sites contain similar artifact assemblages.

The later Monterey Pattern, characteristic of Costanoan speakers, represented a collector subsistence strategy (Breschini 1983). It was hypothesized that this pattern was widely established in the Monterey Bay area after about 2,500 years before present (YBP), and that it was distinguished by more specialized economic strategies. According to Breschini and Haversat (1992), Monterey Pattern coastal sites should typically comprise shell middens, while inland sites should comprise villages containing more diverse assemblages.

Dietz and Jackson's (1981) investigations at 19 sites along the northern shore of the Monterey Peninsula confirmed the existence of two archaeological populations in the area of the ethnographic Rumsen tribelet—the area in which the proposed project is located. Members of the first population were foragers, who used a number of sites as residential bases at least 4,000 YBP. This population moved seasonally among a variety of resources, gathering food within a limited foraging area and returning daily to a

residential base. Dietz and Jackson (1981) suggested that if foraging residences were confined to the coast, they should have high archaeological visibility, a variety of features and diverse material assemblages.

The second population described by Dietz and Jackson (1981) were early Costanoan-speaking collectors who entered the region about 2,000 YBP, displacing the foragers. The subsistence strategy of the collectors included the use of temporary and seasonal residential bases, camps and storage areas during part of the year. Dietz and Jackson (1981) predicted that residential bases with a variety of features, activity areas and artifacts were established in inland areas, while temporary sites along the outer coast were established that would exhibit specialized features and assemblages.

In a somewhat more detailed regional model, Dietz, Hildebrandt and Jones (1988, see also Jones et al. 1989) proposed a series of five culture periods for the Monterey Bay area encompassing the last 10,000 years, and they described some of the artifact forms that appeared to correlate with those periods. Typological analysis and radiocarbon dating of *Olivella* beads has shown that the bead sequence in Central California is broadly similar to that of the Central California and Santa Barbara coasts. More recently, this sequence has been revised and applied to the Monterey Bay (Jones et. al 2007). The proposed revisions (Jones et. al 2007) support a six period cultural chronology spanning the Early, Middle and Late Holocene. This cultural chronology would include the Paleo-Indian (pre-8,000 BC), Millingstone or Early Archaic (8,000 to 3,500 BC), Early (3,500 to 600 BC), Middle (600 BC to AD 1000), Middle-Late Transition (AD 1000 to 1250) and Late (AD 1250-1769) periods. Locally defined archaeological phases within the Monterey Peninsula and Elkhorn Slough areas remain indeterminate until approximately 3,500 BC, with the advent of the Saunders Phase in the Early Period, followed by the Vierra Phase in the Early to Middle Period and finally by the Rancho San Carlos Phase representing the Middle-Late Transition and Late periods.

Ethnographic Evidence

At the time of European contact, the project area was inhabited by the Rumsen tribelet of the Ohlone (Heizer and Whipple 1971: Map 1; Levy 1978:485, Figure 1), known ethnographically as the "Costanoan" from the name first given by Spanish missionaries to aboriginal speakers living along the coast of California between San Francisco and Monterey. The Costanoan language family is a member of the Utian family, which is of the Penutian stock (Shipley 1978:82-84). Costanoan was spoken around the San Francisco Bay Area, southward along the coast to Point Sur and inland to the Diablo Range. The Costanoan group has been divided into eight languages (Shipley 1978). The three southernmost languages, Mutsun, Rumsen and Chalon, were spoken by tribelets occupying the Monterey Bay area around present day Castroville, Marina, Salinas and south to Soledad. Mutsun was spoken by tribelets along the Pajaro River Drainage and lower San Benito River (2,700 speakers); Rumsen was spoken by approximately 800 people living along the lower Carmel and Salinas Rivers; and Chalon (or Soledad) was

spoken by approximately 900 people along the Salinas River from Chualar to King City and across to the upper San Benito River Valley (Breschini et al. 1983, Levy 1978).

Ethnographic information regarding the Ohlone comes from the records of early Spanish explorers, documents maintained by Spanish missionaries, ethnographic and linguistic accounts and from Native American oral and written histories. This information has revealed that the Ohlone were hunter-gatherers, occupying several semi-permanent camps and villages as they traveled and accessed resources in a seasonal cycle. Ohlone tribelets were independent groups of socially and politically linked villages within a recognized territory and typically comprised between 50 and 500 individuals (Milliken 1987). The Ohlone were grouped in clans and were divided into bear and deer moieties (Harrington 1933, 1942).

The Ohlone relied upon the acorn as their primary vegetal food. Other gathered foods included seeds (dock, tarweed and chia), nuts (including buckeye, laurel and hazelnut), berries, grasses, corms, roots and insects. Black-tailed deer, elk, grizzly bear and rabbit were among the terrestrial mammals included in their diet. Levy (1978) has provided an extensive list of mammals hunted by the Ohlone, including antelope, mountain lion, dog, wildcat, skunk, raccoon, tree squirrel, ground squirrel, woodrat, mouse and mole. Marine mammals hunted by the Ohlone included sea otter, sea lion and harbor seal. Avian species included abundant waterfowl, including varieties of geese, widgeon, mallard, teal, shoveler and coot. Fish, including steelhead, salmon, sturgeon and lampreys, were netted, stoned, hooked or drugged. Abalone and mussel were the most important mollusks consumed. The Ohlone also used controlled burning for land management purposes, to preserve grazing areas and to promote the growth of seed-bearing annuals (Levy 1978).

The material culture of the Ohlone included various types of baskets, primarily twined baskets, among the southern groups; flaked stone artifacts made from locally available chert or from obsidian obtained through trade; and ground stone and milling tools including bedrock mortars, portable mortars, hopper mortars, pestles, metates, stone bowls, pipe bowls, sinkers and shaft straighteners. Bone artifacts included awls and wedges. Wooden artifacts consisted of arrow shafts, hafted handles, mortars, pestles, food-stirrers and combs. Rafts of tule reed were reported to have been used by the Ohlone until dugout canoes were introduced in the historical period (Hester 1978a). Some Ohlone wore ornaments made of steatite and serpentine, Olivella shell beads or abalone; many also wore adornments of feathers, grass, flowers or bone. Some Ohlone decorated themselves with pigments and tattoos (Hester 1978a, 1978b; Levy 1978).

The Spanish arrival in Monterey in 1770 and the establishment of both Mission San Carlos Borreméo de Carmelo and the Monterey Presidio profoundly affected Native Californian lifeways and cultures within the area, particularly the Rumsen speakers of the Ohlone. Between 1771 and 1808, Rumsen speakers were moved into the mission or surrounding ranches, baptized and educated to become Catholic neophytes, a practice that only ceased when missions were secularized by the Mexican Government

in 1834. Native practices were discouraged, and native lands were taken over and altered by European colonizers. Also devastating was the introduction of European diseases against which the Ohlone had little resistance; these diseases led to a rapid and dramatic decline in the Ohlone population. The persecution and suppression of Ohlone cultural expressions by Spanish, Mexican and American ruling governments contributed to the decline of traditional Ohlone culture. Today, Ohlone descendants are celebrating a revival of their native culture even as they continue to pursue state and federal tribal recognition (Eidsness 1994; Nason 1994; Yamane 1994).

Currently, there are no federally recognized Native American tribes within the project vicinity. Many groups have recently filed Letters of Intent to Petition with the Bureau of Indian Affairs for federal recognition including the following: the Costanoan Band of Carmel Mission Indians; the Ohlone/Costanoan Muwekma Tribe; the Indian Canyon Band of Costanoan/Mutsun Indians; the Salinan Nation; the Amah Band of Ohlone/Costanoan Indians; the Esselen Tribe of Monterey County; the Ohlone/Costanoan-Esselen Nation; the Salinan Tribe of Monterey County; the Costanoan-Rumsen Carmel Tribe; and the Costanoan Ohlone Rumsen-Mutsun Tribe (National Conference of State Legislatures 2012).

Ethnographic overviews of Costanoan speakers are provided by Milliken (1987, 1991), Levy (1978) and Kroeber (1925). Primary sources of ethnographic information may be found in La Pérouse (1989), Kroeber (1907) and Merriam (1968), as well as in notes from Harrington (1921, 1921-1938). Galvan (1968) and Williams (1890) both provide valuable Native American accounts of Costanoan history.

Historical Period Cultural History

A summary of the history of the greater Monterey Bay area and the project vicinity may be found in Dietz et al. (1988), Zahniser and Roberts (1980), Jackson and Hildebrandt (1985), Pritchard (1968) and in Hoover et al. (1990). These researchers have compiled available historical documents pertaining to land use and events during the Spanish, Mexican and early-American periods. The following discussion reviews the major events of the post-contact period within the project vicinity.

Spanish Period

Spanish exploration of the Monterey Bay area began in 1602 when Sebastián Vizcaíno, who had been commissioned by the Spanish government to complete a detailed chart of the California coast, anchored in what is now Monterey Harbor, dubbing it Puerto de Monterey in honor of the viceroy of New Spain. It was not until over a century later, however, that the Spanish government began to take an active interest in colonizing what was then known as Alta California. In 1769, Captain Gaspar de Portolá led an exploratory land expedition from San Diego to Monterey Bay (Hoover et al. 1990). That expedition was followed by one in 1770 led by Gaspar de Portolá, who was sent to Monterey with the objective of establishing Spain's first military base in Alta California. He reached Monterey on May 24, 1770 by land and was followed by a support vessel

carrying Father Junípero Serra and Captain Juan Pérez. On May 31, 1770, they landed at the foot of what is now Artillery Street at the same spot where Vizcaíno had landed in 1602.

On June 3, 1770, the mission and presidio of San Carlos de Borroméo was founded after ceremonies of "possession and establishment" (Breschini 1993). A temporary church, only partially completed, was blessed on June 14. The mission was soon moved to Carmel Valley in 1771; a lack of arable land surrounding the original location and its proximity to soldiers stationed at the presidio who might have a corrupting influence on the neophytes were cited as reasons (Breschini 2000). The mission in Carmel Valley, which was dedicated in 1797, took the name of San Carlos de Borroméo and became the home of Father Serra in his later years while the abandoned church in Monterey became the Church of the Royal Presidio and eventually the San Carlos Cathedral. In Monterey, the Presidio and surrounding area became the focal point for military and commercial life in the Monterey Bay area. By 1796, a battery had been constructed consisting of fortifications which were known as "El Castillo" (Jackson and Hidebrandt 1985). This site was equipped with several cannons and provided a defense for the bay, the town of Monterey and the Presidio.

Mexican Period

Spanish control of California ended with Mexican independence in 1821, though Monterey was retained as the capital of Alta California. In 1834, the Mexican government secularized the missions, freeing the Native Americans from the control of the missionaries. Returning to their former way of life was difficult, however, since most land holdings had been given over to Mexican settlers and did not revert to Native American ownership. A few Native Americans were granted land, but records show that, for the most part, they quickly lost ownership through land claim disputes and sales. Native people became increasingly marginalized as a result of their decreasing population, the stresses of mission life and the suppression or erosion of traditional knowledge. Some Native Americans returned to their villages and resumed their traditional economy, replacing bows and arrows with guns. Others found jobs as *vaqueros,* or cowboys, on the *ranchos* operated by Mexican settlers. Census records show the number of Native Americans declined steadily into the twentieth century.

A total of 76 land grants were made to Mexican settlers in Monterey County, more than any other county in California (Beck and Haase 1980). The lands adjacent to the Salinas River, located 2.6 miles northeast of the project area, were highly valued and accounted for approximately one half of the total land grants made in Monterey County. Some grantees used their land to establish ranchos with enormous free-ranging herds of horses and Spanish cattle. Cattle hides and tallow were the medium of exchange in business transactions among the Californios (Mexican inhabitants of Alta California), and with many trading ships that came from the American east coast. Monterey was a major shipping point on the West Coast and continued to grow throughout the Mexican period. As the town of Monterey grew, commercial and residential buildings

were erected around Calle Principal and Alvarado, Munras, Pacific and Van Buren Streets and the wharf. Several adobes from this period are still present.

By 1846, the population of Alta California was estimated to have comprised 8,000 non-Native Americans and 10,000 Native Americans, a drastic decline in the Native American population from an estimated 133,500 in 1770 (Breschini and Haversat 1988). Several hundred Americans settled in Alta California while it remained under Mexican control. Some American settlers became citizens by marrying into Mexican families, eventually receiving land grants.

American Period

In 1848, the Treaty of Guadalupe Hidalgo brought Alta California under control of the United States government. News of the Gold Rush that same year sparked a huge migration into California. Due to the rapid influx of settlers into the area, legal determination of ownership of land awarded by Spanish or Mexican authorities was often disputed. In response, the United States government passed the Land Act of 1851. The Land Act placed the burden of proof-of-ownership on grantees, resulting in the loss of land for many Hispanic landholders and for the few Native Americans who had been able to receive grants.

Much of the early-American period within the project vicinity was characterized by three pursuits: cattle and sheep ranching, grain farming and irrigation agriculture. Cattle and sheep ranching remained dominate until the 1880s. During that time, free-ranging Spanish cattle were replaced by American breeds of livestock and dairy cows. Fencing with wooden posts and barbed wire became a prominent feature across the landscape. During the 1880s, Monterey County was California's third largest producer of livestock (Lantis et al. 1963). The development of railroads, including the Southern Pacific and regional lines such as the Monterey and Salinas Valley Railroad and the Pajaro Valley Consolidated Railroad, allowed for distribution and improved marketing for the Central Coast Region. By 1901, the coast route was open and running between San Francisco and Los Angeles. Agriculture became more intensive as farming shifted to wheat and barley cultivation and crops such as sugar beets and alfalfa. The fishing industry, which was largely focused on the procurement and processing of sardines, also flourished at the turn of the century in the Monterey Bay Area.

By 1917, the United States Army post of Fort Ord had been established as a maneuver area and field artillery target range. Originally known as Camp Gigling, the fort was renamed Camp Ord in 1933 and became Fort Ord in 1941, taking its name from American Civil War commander Major General Edward Cresap Ord. It was used primarily as a training area for artillery and cavalry troops stationed at the Presidio of Monterey. No permanent improvements were made to (then) Camp Ord until the late 1930s, when administrative buildings, barracks, mess halls, tent pads and a sewage treatment plant were constructed (California State Military Department 2011). In 1940, the 7th Infantry Division was reactivated and became the first major unit to occupy the

post. It continued to operate as a center for instruction of basic and advanced infantrymen until 1976 when the training area was deactivated and it again became the home of the 7th Infantry Division. In 1988, Base Realignment and Closure (BRAC) legislation was passed by Congress and, in 1994, Fort Ord was officially closed.

The project area straddles the eastern edge of the City of Seaside and unincorporated Monterey County within the Parker Flats area of former Fort Ord. The history of Fort Ord is therefore particularly relevant when examining the project area during the American period, as the area was long dominated by military activity, occupation and use.

3.4.3 Existing Conditions

Previously Conducted Cultural Resource Studies

According to information obtained from the Northwest Information Center of the California Historical Resources Information System, 232.7 acres of the of the project area have been subject to previous cultural resources inventory or reconnaissance survey. Within those 232.7 acres, no prehistoric, historical or ethnographic resources have been discovered or recorded.

As shown in Table 3.4-1: Previous Cultural Resource Studies within Project Area, five cultural resource studies have been previously conducted within one half mile of the project area, four of which have encompassed portions of the project area including the CCVC. The earliest study to include portions of the project area was a reconnaissance survey of Fort Ord that examined 1,047.5 acres or 5.45 percent of the more than 19,000 acres that were made accessible for survey by the United States Army (Swernoff 1982). That investigation, assigned study number S-5210 within the Historical Resources Information System, resulted in the recordation of a single historical rock cairn, located well outside the proposed project area.

The next major study to encompass portions of the proposed project area was S-18372. Completed by GeoMarine, Inc. in 1995, it included the pedestrian survey of 783 acres and resulted in the recordation of one cultural resource and the record updates of four others; no cultural resources were noted within the project area (Waite 1995). Study S-25416 was conducted outside and to the south of the project area (Doane and Haversat 2002), but two other studies conducted by the same cultural resources management firm, Archaeological Consulting, did intersect portions of the project area. Study S-32385 was conducted in 2006 for the Recycled Water Component Pipeline Route for the Marina Coast Water District Regional Urban Water Augmentation Project (Doane and Haversat 2006). The old Monterey and Salinas Valley Railroad route was noted within the S-32385 project area, but it was not evaluated for listing on the National Register of Historic Places or the California Register of Historical Resources.

The second study conducted by Archaeological Consulting that intersected portions of the project area was S-37693. This survey consisted of an archaeological survey for the

proposed CCVC and the Eastside Road Infrastructure project area, 130 acres of which overlapped the project area were treated in this assessment. No prehistoric or historical cultural resources were noted (Doane and Breschini 2010).

362 **Table 3.4-1: Previous Cultural Resource Studies within Project Area**

Study Number	Study	Author	Date	Acreage Covered within One Half Mile of Project Area	Acreage Covered within Project Area
S-5210; S-27949	A Reconnaissance Cultural Resources Survey of Fort Ord, California	Michael Swernoff, Professional Analysts	1982	72.22	37.35
S-18372	A Cultural Resources Survey of 783 Hectares, Fort Ord, Monterey County, California	Philip R. Waite	1995	135.10	76.69
S-25416	Preliminary Archaeological Reconnaissance for the First Tee Project and Two Separate Recreational Facility Sites in the Former Fort Ord, Monterey County, California	Mary Doane and Trudy Haversat	2002	41.69	0
S-32385	Phase I Archaeological Reconnaissance for the Marina Coast Water District Regional Urban Water Augmentation Project, Recycled Water Component, Northern Segment, in Marina and Seaside, Monterey County, California	Mary Doane and Trudy Haversat	2006	28.27	14.80
S-37693	Phase I Archaeological Survey for the Central Coast California Veterans Cemetery and Eastside Road Infrastructure Projects, Seaside, Monterey County, California	Mary Doane and Gary Breschini	2010	155.25	130.30

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364 **Previously Identified Cultural Resources**

365 No cultural resources have previously been recorded within the project area, and only
366 one cultural resource has previously been documented within a one half mile radius of
367 the project area. That resource consists of a 120-foot tall, six-legged water tank
368 identified by the United States Army as Fort Ord structure number 4374. Within the
369 California Historical Resources Information System, the resource has been given the
370 California State Primary number P-27-002717 (Billat 2001). The water tank appeared
371 on a 1948 United States Geological Survey 7.5' topographic map of the area, and it was
372 likely constructed during the early 1940s. The tank is bulb shaped, supported by steel
373 pipe legs and steel cross ties and features a pipe connecting the base of the tank to the
374 ground. Two 2,000,000 gallon water storage tanks and two equipment storage sheds,

constructed within the last twenty years, also lie near the base of the water tank. The water tank and its associated structures are located just outside and to the southwest of the project area.

Though P-27-002717 was not listed on the National Register of Historic Places or the California Register of Historical Resources, it was recommended eligible for the National Register of Historic Places on a California Department of Parks and Recreation (DPR) 523 form filed by L. Billat in 2001. Billat stated that "the structure does not appear to have been extensively modified and thus retains much of its original architectural integrity. It may meet criterion C for type, period, and method of construction as well" (2001). Because it lies outside of the project area, no impacts to P-27-002717 are anticipated.

Contact with the Native American Community

Pacific Legacy, Inc. contacted the Native American Heritage Commission on March 27, 2012 to request a search of the Sacred Lands Inventory for those areas encompassed by the proposed project. Results of this search were negative with respect to Native American religious, cultural or sacred sites. The Native American Heritage Commission provided a list of potential Native American stakeholders who may have additional information regarding traditional use of the project area and recommended that Pacific Legacy contact those individuals or tribal representatives for further consultation.

On April 9, 2012, Pacific Legacy sent certified letters to twelve tribes or individuals to request information on unreported traditional resources or areas of concern within the proposed project area. These letters were sent to:

- Anne Marie Sayers, Chairperson of the Indian Canyon Mutsun Band of Costanoan,
- Jakki Kehl; Tony Cerda, Chairperson of the Coastanoan Rumsen Carmel Tribe,
- Louise Miranda-Ramirez, Chairperson of the Ohlone/Coastanoan-Esselen Nation,
- Romona Garibay, Representative of the Trina Marine Ruano Family,
- Valentin Lopez, Chairperson of the Amah Mutsun Tribal Band,
- Irenne Zwierlein, Chairperson of the Amah Mutsun Tribal Band,
- Christianne Arias, Vice Chairperson of the Ohlone/Coastanoan-Esselen Nation,
- Edward Ketchum of the Amah Mutsun Tribal Band,
- Joseph Mondragon, Tribal Administrator of the Amah Mutsun Tribal Band,
- Melvin Ketchum III, Environmental Coordinator of the Amah Mutsun Tribal Band,

- Pauline Martinez-Arias, Tribal Councilwoman of the Ohlone/Coastanoan-Esselen Nation, and
- Jean-Marie Feyling of the Amah Mutsun Tribal Band.

3.4.4 Regulatory Setting

Federal

Section 106 for the National Historical Preservation Act (NHPA) of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the NHPA of 1966. Section 106 of NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register of Historic Places eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal money.

National Register of Historic Places

The National Register of Historic Places is "an authoritative guide to be used by Federal, State, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." However, the Federal regulations explicitly provide that a listing of private property on the National Register of Historic Places "does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property."

"Historic properties," as defined by the Advisory Council on Historic Preservation, include any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior" (36 CFR 800.16(l)). The eligibility for inclusion on the National Register of Historic Places is determined by applying the following criteria, developed by the National Park Service in accordance with the National Historic Preservation Act:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of persons significant in our past; or

C. That embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

State

State historic preservation regulations affecting the Project include the statutes and guidelines contained in CEQA (Public Resources Code Section 20183.2 and Section 21084.1 and Section 15064.5 of the State CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript, which is historically or archaeologically significant (Public Resources Code Section 5020.1). Section 15064.5 of the State CEQA Guidelines specifies criteria for evaluating the significance or importance of cultural resources, including:

A. The resource is associated with events that have made a contribution to the broad patterns of California history;

B. The resource is associated with the lives of important persons from our past;

C. The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or

D. The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associates and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.

Senate Bill (SB) 18

To aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning, SB 18, effective September 2004, requires local government to notify and consult with California Native American tribes when the local government is considering adoption or amendment of a general or specific plan, which applies to the proposed project.

The City of Seaside Resource Management Services Department sent letters to the tribal contacts as formal invitations for consultation under Senate Bill (SB) 18 for a 90 day review period. The City received one request for additional information from Irenne Zwierlein, Chairperson of the Amah Mutsun Tribal Band on May 3, 2013, which stated that it was her understanding that areas within the project area appear to be located near where artifacts or burials were previously uncovered. The Amah Mutsun Tribal Band recommended that if the proposed project is likely to uncover artifacts and or burials that construction crews be culturally trained in sensitivity and knowledge of potential finds and that if any ground disturbance were to occur in areas likely to uncover something that the construction crews be accompanied by qualified California archaeological, as well as qualified Native American monitors. On behalf of the City of Seaside, Pacific Legacy e-mailed Irenne Zwierlein on May 23, 2013 requesting additional information on potential sensitive locations. Pacific Legacy attempted to contact Irenne Zwierlein by phone on June 20, 2013 and left a voicemail message requesting additional information. Pacific Legacy also phoned Michelle Zimmer with the Amah Mutson Tribal Band on June 20, 2013 and was unable to leave a message. No responses were received from either communication.

California Register of Historical Resources

In 1992, the Governor signed Assembly Bill (AB) 2881 into law, establishing the California Register of Historical Resources. The California Register of Historical Resources is an authoritative guide in California used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The criteria for eligibility for the California Register of Historical Resources are based upon National Register of Historic Places criteria. Certain resources are determined by the statute to be included on the California Register of Historical Resources, including California properties formally determined eligible for, or listed in, the National Register of Historic Places, State Landmarks, and State Points of Interest.

The State Office of Historic Preservation (OHP) has broad authority under Federal and State law for the implementation of historic preservation programs in the State of California. The State Historic Preservation Officer (SHPO) makes determinations of eligibility for listing on the National Register of Historic Places and the California Register of Historical Resources.

The appropriate standard for evaluating "substantial adverse effect" is defined in Public Resources Code §5020.1 (q) and 21084.1. Substantial adverse change means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired. Such impairment of significance would be an adverse impact on the environment.

Cultural resources consist of buildings, structures, objects, or archeological sites. Each of these entities may have historic, architectural, archaeological, cultural, or scientific importance. Under State CEQA Guidelines, a significant impact would result if the significance of a cultural resource would be changed by proposed project activities. Activities that could potentially result in a significant impact consist of demolition, replacement, substantial alteration, and relocation of the resource. The significance of a resource is required to be determined prior to analysis of the level of significance of project activities. The steps required to be implemented to determine significance in order to comply with State CEQA Guidelines are:

- Identify cultural resources;
- Evaluate the significance of the cultural resources based on established thresholds of significance;
- Evaluate the effects of a project on all cultural resources; and
- Develop and implement measures to mitigate the effects of the project on significant cultural resources.

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (CPRA; Government Code Section 6250 et. seq.) and California's open meeting laws (The Brown Act, Government Code Section 54950 et. seq.) protect the confidentiality of Native American cultural place information. The CPRA (as amended, 2005) contains two exemptions that aid in the protection of records relating to Native American cultural places by permitting any state or local agency to deny a CPRA request and withhold from public disclosure:

- "Records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in §5097.9 and §5097.993 of the Public Resources Code maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or a local agency" (GC Section 6254(r)); and
- "Records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency" (GC Section 6254.10).

Likewise, the Information Centers of the California Historical Resources Information System maintained by the Office of Historic Preservation prohibit public dissemination of records search and site location information. In compliance with these requirements, and those of the Code of Ethics of the Society for California Archaeology and the Register of Professional Archaeologists, the locations of cultural resources are considered restricted information with highly restricted distribution and are not publicly accessible.

Any project site located on non-Federal land in California is also required to comply with State laws pertaining to the inadvertent discovery of Native American human remains.

California Health and Safety Code Section 7050.5, Section 7051, and Section 7054

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

Paleontological Resources

Paleontological resources include fossil remains, their respective fossil sites, and the fossil-bearing strata and associated specimen data and corresponding geologic and geographic site data. In California, paleontological resources are protected by State CEQA Guidelines Appendix 4.5c, which addresses impacts on fossil sites; California Administrative Code Title 14, Section 5097.5.

Local

City of Seaside General Plan

Conservation/Open Space Element

Goal COS-5: Protect high sensitivity archaeological resources, architecturally significant buildings, and historic places.

Policy COS-5.1: Identify and conserve archeological, architectural, and historic resources within Seaside.

Implementation Plan COS-5.1.1 Assess and Mitigate Impacts to Cultural Resources. Continue to assess development proposals for potential impacts to sensitive historic, archaeological, and paleontological resources pursuant to the California Environmental Quality Act (CEQA).

a. For structures that potentially have historic significance, require that a study be conducted by a professional archaeologist or historian to determine the actual significance of the structure and potential impacts of the proposed development

in accordance with CEQA Guidelines Section 15064.5. The City may require modification of the project and/or mitigation measures to avoid any impact to a historic structure, when feasible.

b. Assess development proposals for potential impacts to significant paleontological resources pursuant to of the California Environmental Quality Act Guidelines. If the project involves earthworks, the City may require a study conducted by a professional paleontologist to determine if paleontological assets are present, and if the project will significantly impact the resources. If significant impacts are identified, the City may require the project to be modified to avoid impacting the paleontological materials, or require mitigation measures to mitigate the impacts.

Fort Ord Base Reuse Plan

Conservation Element

Objective A: Identify and protect all cultural resources at the former Fort Ord.

Cultural Resources Policy A-1: The City of Seaside shall ensure the protection and preservation of archaeological resources at the former Fort Ord.

Program A-1.1: The City of Seaside shall conduct a records search and a preliminary archaeological surface reconnaissance as a part of environmental review for any development project(s) proposed in a high archaeological resource sensitivity zone.

Program A-1.2: The City of Seaside shall require that all known and discovered sites on the former Fort Ord with resources likely to be disturbed by a proposed project be analyzed by a qualified archaeologist with local expertise, recommendations made to protect and preserve resources and, as necessary, restrictive covenants imposed as a condition of project action or land sale.

Program A-1.3: As a contractor work specification for all new construction projects, the City of Seaside shall include that during construction, upon the first discovery of any archaeological resource or potential find, development activity shall be halted within 50 meters of the find until the potential resources can be evaluated by a qualified professional archaeologist and recommendations made.

Cultural Resources Policy A-2: The City of Seaside shall provide for protection and/or support of Native American cultural properties at the former Fort Ord.

Program A-2.1: The City of Seaside shall coordinate with the California Native American Heritage Commission and California Native American points of contact for this region to identify traditional cultural properties located on former Fort Ord lands.

Program A-2.2: If traditional cultural properties are found to exist on the City's lands at the former Fort Ord, the City of Seaside shall ensure that deeds transferring Native American traditional properties include covenants that protect and allow Native Americans access to these properties. These covenants will be developed in consultation with interested Native American groups, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation. Leases will contain clauses that require compatible use and protection as a condition of the lease.

Objective B: Preserve and protect historically significant resources at the former Fort Ord.

3.4.5 Relevant Project Characteristics

The proposed project would result in varying levels of ground disturbance, which could result in the disturbance of undiscovered cultural resources through site preparation (e.g., vegetation removal, grading and filling) or construction activities on over 605 acres (85 percent) of the project area. The proposed training facility, commercial center, horse park, extended stay hotel, residential housing area, office complex and infrastructural improvements associated with the Monterey Downs and Horse Park would require ground disturbing activities including, but not limited to, vegetation removal, grading, filling and excavation of native soils in advance of construction. The CCVC, with its proposed burial sites, support buildings, memorial plaza, ceremonial entry and landscaping, would also require extensive ground disturbance in the form of vegetation removal, grading, filling and excavation of native soils in advance of construction.

An archival and record search conducted at the Northwest Information Center of the California Historical Resources Information System revealed that no known cultural resources lie within project area; a search of the Sacred Lands Inventory by the Native American Heritage Commission also failed to reveal the presence of Native American religious, cultural or sacred sites within the proposed project area.

According to the archival and record search, approximately 62 percent of the Monterey Downs and Horse Park component of the project area has not been subject to archaeological inventory or reconnaissance surveys due to the site restrictions in the unexploded ordnance (UXO) restricted areas. Based on what is known of the proposed project area's geology, soils (see Section 3.5) and cultural history, the potential to encounter previously undiscovered cultural resources, particularly buried resources may be characterized as moderate. These cultural resources would mostly likely comprise prehistoric or ethnographic resources associated with the region's Coastanoan speakers, or historical resources associated with the later establishment and use of Fort Ord.

3.4.6 Impacts and Mitigation Measures

Criteria for Determining Significance

Defining Significant Cultural Resources

As noted in Section 3.4.4, State CEQA Guidelines require lead agencies to consider the potential effects of a project on historical resources. A cultural resource is considered an "historical resource" if it qualifies as eligible for listing on the California Register of Historical Resources, is included in a local register of historical resources, is determined by the project lead agency to be historically significant or meets the criteria found in Public Resources Code §5024.1(g). The California Register of Historical Resources automatically includes properties listed on the National Register of Historic Places and those formally determined to be eligible for listing; California Historical Landmarks No.770 and above; and California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Resources Commission for inclusion on the California Register of Historical Resources.

To be determined eligible for listing on the California Register of Historical Resources, a prehistoric or historical cultural resource must meet one or more of the following criteria:

1. The resource is associated with events that have made a contribution to the broad patterns of California history;
2. The resource is associated with the lives of important persons from our past;
3. The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or
4. The resource has yielded, or may be likely to yield, important information in prehistory or history.

In addition to one or more of these criteria, an historical resource also must retain integrity, interpreted by the California Register of Historical Resources as the intactness of its character or appearance. Integrity is evaluated by examining the resource's location, design, setting, materials, workmanship, feeling and association. If the resource has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed on the National Register of Historic Places yet still be eligible for listing on the California Register of Historical Resources. If a cultural resource retains the potential to convey significant historical or scientific data, it may be said to retain sufficient integrity for potential listing on the California Register of Historical Resources.

Most significant Native American prehistoric sites are eligible because of their age, scientific potential and/or burial remains. An historical resource also may be one that is

included in a local register of historical resources, as defined in Public Resources Code §5020.1(k) or identified as significant in an historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g). Objects, buildings, structures, sites, areas, places, records or manuscripts may also be considered an historical resource if the lead agency determines that the resource is historically significant. The lead agency is tasked with providing evidence for this determination, generally following the criteria for listing on the California Register of Historical Resources. Subsurface testing of archaeological resources, analysis of recovered data, further archival review and interpretation may be required in order to determine the potential eligibility of a cultural resource for listing on the California Register of Historical Resources.

Defining Significant Impacts to Cultural Resources

Per State CEQA Guidelines, the proposed project would result in a significant impact on cultural resources if it would cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5(a); would directly or indirectly destroy a unique paleontological resource or site; or would disturb human remains, including those interred outside formal cemeteries.

Section 15064.5(b) of State CEQA Guidelines defines a "substantial adverse change" as physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of an historical resource is considered to be materially impaired if a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register of Historical Resources; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to §5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of §5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion on the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Methodology

Per State CEQA Guidelines, lead agencies must consider the potential effects of a project on historical resources, as defined in Section 15064.5. As noted above,

historical resources are those listed or eligible for listing on the California Register of Historical Resource or in a local register, or those identified through a survey that meets the requirements of Section 5020.1(k) and §5024.1(g) of the California Public Resources Code. The identification of historical resources involves several steps, including identifying cultural resources within a project's boundaries; evaluating the resources to determine if they qualify as historical resources; and determining the direct or indirect effects of the project on significant historical resources.

Resources found not to be "historical resources" or otherwise "historically significant" require no further management. In general, effects on significant resources per CEQA may be reduced to less-than-significant levels by applying the proper treatment or management measures, such as avoidance, further documentation, evaluation for eligibility to be included on the California Register of Historical Resources and/or data recovery.

Project Impacts and Mitigation Measures

Archaeological Resources

Impact 3.4-1: Ground disturbing activities associated with construction of the proposed project have the potential to disturb previously undiscovered cultural or historical resources of importance under CEQA and/or eligible for listing under the California Register. This is considered a **potentially significant impact**.

No historical resources have been identified within the project area and only one historical resource has been identified within a one half mile radius of the boundaries of the project area. The proposed project is therefore not anticipated to affect known cultural or historical resources. However, approximately 62 percent of the Monterey Downs and Horse Park component of the project area has not been subject to archaeological inventory or reconnaissance surveys due to the site restrictions in the unexploded ordnance (UXO) restricted areas. Therefore, site preparation and grading activities could disrupt undiscovered cultural or historical resources, which would be considered a **potentially significant impact**. Implementation of the following mitigation measures would reduce this impact to a **less than significant level** per Section 15064.5 of State CEQA Guidelines.

Mitigation Measures

MM CR-1a ***Preconstruction Survey.*** Prior to initiating ground disturbing activities associated with the proposed project, the project applicant shall have an archaeological inventory survey performed for any project components on the Monterey Downs and Horse Park component of the proposed project not yet surveyed due to lack of access or due to modifications in the locations of project components (e.g. relocation of proposed roads, buildings, facilities, etc.). Survey results shall be submitted to the City of Seaside Resource Management Services Department for review.

If resources are discovered during survey, Mitigation Measures CR1-b through CR1-f shall be required.

MM CR-1b ***Avoidance of Cultural Resources.*** Implementation of the proposed project shall avoid any cultural resources that are identified during the preconstruction surveys. To ensure that no inadvertent impacts occur to cultural resources designated for avoidance, cultural resource boundaries shall be marked as exclusion zones both on the ground and on construction maps. This shall include resources within 100 feet of proposed project components.

MM CR-1c ***Construction Personnel Training.*** Construction supervisory personnel shall be notified of the existence of any cultural resources and required to keep personnel and equipment away from these areas. A qualified archeologist shall be notified prior to initiation of construction activities. Periodic monitoring of cultural resources to be avoided shall be completed by a qualified archeologist to ensure that no inadvertent damage to the resources occur as a result of construction or construction-related activities. The timing and frequency of this monitoring shall be at the discretion of the archaeologist. During construction and operations, personnel and equipment shall be restricted to the project work site.

MM CR-1d ***Evaluation for the California Register of Historical Resources.*** If avoidance is determined to be infeasible, the lead agency shall retain a qualified archaeologist to evaluate any cultural resources encountered according to State CEQA Guidelines for their potential eligibility to be listed on the California Register of Historical Resources.

In the case of a prehistoric archaeological site, evaluation may be completed by examining existing records and reports, detailed recording and/or through excavation to determine the data potential of the site. Historical resource mitigation measures may include further study to evaluate the site, detailed recording and/or excavation. Resources determined not to be historically significant by the project lead agency would require no further management.

If cultural resources are considered historically significant per CEQA or eligible for the California Register of Historical Resources, a data recovery program would be implemented to reduce impacts to less-than-significant levels as required by State CEQA Guidelines. Data recovery could include excavation and detailed analysis and/or further research, depending on the nature and type of the resource. Excavated materials would be curated at an appropriate facility, to be identified by the lead agency.

MM CR-1e ***Preparation of a Cultural Resources Management Plan (CRMP).*** If cultural resources are encountered within the project area during Mitigation Measure CR-1a, the lead agency shall develop a Cultural Resources Management Plan (CRMP) for newly discovered cultural resources within areas of direct impact for the proposed project. This CRMP shall include the following:

i. Procedures for protecting and avoiding cultural resources;

ii. Provisions for the evaluation and treatment of unanticipated discoveries, including human remains;

iii. Provisions for Native American consultation;

iv. Reporting requirements to be fulfilled by the selected archaeological contractor;

v. Provisions for curation of any cultural materials collected during the project; and

vi. Requirements specifying that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California OHP.

Implementation of the CRMP shall ensure that known cultural resources would be avoided during ground disturbing activities associated with the proposed project. Specific protective measures shall be defined in the CRMP to reduce potential adverse impacts to any previously undiscovered cultural resources to less-than-significant levels. The CRMP shall define construction procedures for areas near known/recorded cultural resources. Wherever ground disturbing activities are scheduled to occur within 100 feet of a cultural resource eligible or potentially eligible for the California Register of Historical Resources, the resource shall be flagged as an exclusion zone or as an environmentally sensitive area (ESA) (without disclosing the exact nature of the environmental sensitivity). Construction equipment shall be directed away from the area, and construction personnel shall be advised not to enter the ESA. Cultural resource monitoring of ground disturbing activities would be focused on the immediate vicinity surrounding designated ESAs.

MM CR-1f ***Construction Monitoring.*** Cultural resource monitoring shall be conducted by a qualified archaeologist familiar with the types of prehistoric and historical resources that may be encountered within the project area. Monitoring shall occur in all areas of ground disturbing activity that occur within 100 feet of a cultural resource eligible or

potentially eligible for the California Register of Historical Resources. A Native American monitor may be required at culturally or traditionally sensitive locations.

Unanticipated Archaeological Resources

Impact 3.4-2: Unanticipated archaeological discoveries may be damaged or destroyed during construction of the proposed project. Unanticipated potentially significant cultural resources may still be encountered during ground disturbing activities. This is considered a **potentially significant impact**.

The potential to discover unanticipated cultural resources tends to be greater in areas within or in the vicinity of known cultural resources, in areas of poor ground visibility, in areas that have not been subject to previous cultural resource inventory or reconnaissance and/or in areas that have not been subject to previous ground disturbing activity or development. There is also the potential for the inadvertent discovery of human remains, particularly Native American remains, outside the boundaries of an established cemetery. Destruction of potentially significant cultural resources would be considered a significant impact per Section 15064.5(b) of the State CEQA Guidelines.

Implementation of the following mitigation measures shall be applied to all components of the proposed project, which would reduce this impact to a **less than significant level** per Section 15064.5 of State CEQA Guidelines.

Mitigation Measures

MM CR-2a ***Training and Reporting.*** Prior to the initiation of disturbing activities associated with the proposed project, all construction personnel shall be alerted to the potential for encountering buried or unanticipated cultural remains, including prehistoric and/or historical resources. Construction personnel shall be instructed that upon discovery of buried cultural materials, all work within 100 feet of the find shall be halted immediately, and the City of Seaside shall be notified. Once the find has been identified by a qualified archaeologist, the City of Seaside shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the find is found to be an historical resource per State CEQA Guidelines. Application of Mitigation Measure CR-1b would reduce the impact to a less than significant level if the find can be avoided. However, if the find cannot be avoided, Mitigation Measure CR-1d would be implemented.

MM CR-2b ***Discovery of Undiscovered Human Remains.*** If human remains are encountered during ground disturbing activities, all work within approximately 100 feet of the find shall be halted immediately, and the City of Seaside Resource Management Services Department and the

Monterey County Coroner will be notified. If the remains are determined to be Native American, the Native American Heritage Commission shall be notified within 24 hours as required by Public Resources Code Section 5097.94 and Section 5097.98. The Native American Heritage Commission will notify the designated Most Likely Descendant(s), who will in turn provide recommendations for the treatment of the remains within 48 hours of being granted access to the find.

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3.2. Biological Resources

This section describes the existing biological resources on the project site, and the potential adverse biological resource-related impacts associated with implementation of the proposed Monterey Downs Specific Plan. Review and analysis of compliance with all federal, state, and local regulations and policies regarding biological resources have also been conducted.

The *Biological Resources Report*, prepared by Denise Duffy & Associates, Inc. (DD&A) (June 2013) was prepared for the project site and proposed Monterey Downs Specific Plan; refer to Appendix C. The biological investigation characterized the existing biotic resources on and surrounding the project site, identified special-status botanical and wildlife species and sensitive habitats, evaluated impacts to these resources, and provided appropriate mitigation to reduce any potential impacts.

Multiple biological surveys were also conducted at portions of the project site in 2010 and 2011 by DD&A and have been used to supplement this analysis. The survey areas were defined by maps provided by Diamond West, Inc. and Whitson Engineers (for the portion of CCVC located north of Parker Flats Cutoff only) in 2010 and 2011. The dates for each of these surveys are outlined in Table 3.3-1: Biological Survey Methodology.

Table 3.3-1: Biological Survey Methodology

Survey Type	Location	Dates
Reconnaissance-level wildlife and general habitat survey	Seaside Corporation Yard	September 19, 2008
Focused summer-flowering plant species survey	CCVC (north of Parker Flats Cutoff only)	July 20 and 29, 2010
Focused spring-flowering plant species survey	CCVC (north of Parker Flats Cutoff only)	April 11-13, 15, and 18, 2011
Focused spring-flowering plant species, general and sensitive habitats, and reconnaissance-level wildlife surveys	Monterey Downs	April 19-22 and 25-25, and May 9, 2011
Focused summer-flowering plant species survey	Monterey Downs	July 5 and 14, 2011
Wetland Assessment	Monterey Downs	May 9, 2011

Source: Denise Duffy & Associates, Inc., Biological Resources Report, dated June 2013.

Environmental Setting

Habitat Communities

Figure 3.3-1a: Monterey Downs and Seaside Corporation Yard Habitat and Rare Plant Map and Figure 3.3-1b: California Central Coast Veterans Cemetery Habitat and Rare Plant Map include mappings of the nine habitat types within the project site. Table 3.3-2: On-Site Habitats provides the acreages of these habitats.

Table 3.3-2: On-Site Habitats

Habitat	Total Acres of Habitat	Total Area (Acres)					
		Monterey Downs			CCVC		City of Seaside Corporate Yard
		Residential and Commercial	REC-1 and REC-2	Oak Oval Habitat Reserve Area	Development	DAHRO	Development
Coast Live Oak Woodland	410.7	153.0	103.5	67.2	58.5	28.5	0
Central Maritime Chaparral	108.2	1.2	78.7	3.7	13.0	11.6	0
Central Coastal Scrub	38.7	9.7	22.2	0	5.1	0.4	1.3
Non-Native Grassland	71.9	42.5	25.0	1.0	3.4	0	0
Central Maritime Chaparral/ Non-Native Grassland Mix	1.3	0	1.3	0	0	0	0
Central Coastal Scrub/ Non-Native Grassland Mix	28.7	0.6	11.4	0.6	12.1	4.0	0
Riparian	0.2	0	0.2	0	0	0	0
Ruderal	28.8	9.9	7.5	0	0.4	2.7	8.3
Developed	22.2	5.7	3.6	0	4.1	1.3	7.5

Notes: Bold indicates listed sensitive habitat per the California Natural Diversity Data Base (CNDDB) list of high priority and rare natural communities.
Source: Denise Duffy & Associates, Inc., Biological Resources Report, dated June 2013.Source: Denise Duffy & Associates, Inc., Biological Resources Report, dated June 2013.

The following sensitive habitats are listed per the California Natural Diversity Data Base (CNDDB) list of high priority and rare natural communities.

Central Maritime Chaparral. As shown in Table 3.3-2: On-Site Habitats, central maritime chaparral comprises approximately 109.5 acres in the Monterey Downs and CCVC development areas (see Figure 3.3-1a: Monterey Downs and Seaside Corporation Yard

Habitat and Rare Plant Map and Figure 3.3-1b: California Central Coast Veterans Cemetery Habitat and Rare Plant Map). This habitat is not present within the Seaside Corporation Yard development area. It should be noted that in one area in the northern portion of the Monterey Downs development area, the central maritime chaparral shrub species are co-dominant with annual grass species (Central Maritime Chaparral/ Non-Native Grassland Mix). This may be the result of historical disturbance from Department of the Army (Army) activities that created open areas that were invaded by annual grasses or this may be a successional area that is transitioning from non-native annual grassland to central maritime chaparral. The dominant plant species and the common wildlife found that this mixed habitat are the same as those for the central maritime chaparral and non-native grassland habitats.

Riparian. As depicted in Figure 3.3-1a: Monterey Downs and Seaside Corporation Yard Habitat and Rare Plant Map and Table 3.3-2: On-Site Habitats, approximately 0.2 acres of riparian habitat, dominated by arroyo willow, is present within the Monterey Downs development area. This habitat is not present within the CCVC or Seaside Corporation Yard development areas. This habitat type is identified as a sensitive habitat on the CNDDB's working list of high priority and rare natural communities.

Special Status Plant and Wildlife Species

Special status species include those that are listed as rare, threatened, or endangered by either the CDFW or FWS; species that are candidates for either federal or state listing; species designated as "fully protected" or "Species of Special Concern" by CDFW; and other species that are tracked by the CNDDB, but that do not fall into any of the other categories mentioned above. The special status species discussed below are listed as federal or state Endangered or Threatened or California Species of Special Concern. These species have been afforded special recognition by local, state, or federal resource conservation agencies and organizations, principally due to the species' declining or limited population sizes usually resulting from habitat loss. Also discussed are habitats that are unique, of relatively limited distribution, or are of particular value to wildlife.

Special Status Plant Species

The project site and adjacent areas were evaluated and surveyed for the presence or potential presence of a variety of special-status plant species; refer to Appendix C. Table 3.3-3: Surveyed On-Site Special-Status Plant Species depicts the area for each of these plant species on-site. All other species considered in the Biological Resources Report are assumed "not present" based on the results of the focused special-status plant surveys or "unlikely" based on the lack of suitable habitat within un-surveyed portions of the project site.

Table 3.3-3: Surveyed On-Site Special-Status Plant Species

Species	Area			
	Monterey Downs		CCVC	City of Seaside Corporation Yard
	Residential & Commercial	REC-1 & REC-2		
Hooker's Manzanita	0	0.02 acres	25.13 square feet	0
Toro Manzanita	0	0.01 acres	0	0
Sandmat Manzanita	113.10 square feet	9.33 square feet	75.40 square feet	0
Monterey Ceanothus	0	57.44 square feet	12.57 square feet	0
Monterey Spineflower	17.40 acres	28.93 acres	8.85 acres	0.15 acres
Eastwood's Golden Fleece	0	65.97 square feet	0	0
Sand Gilia	0	1.86 acres	0	0
Kellogg's Horkelia	0.01 acres	0	0	0

Notes: The areas presented in this Table only represent the areas of the proposed development areas where focused special-status plant surveys have been completed. Table 3.3-4 does not include the habitat area within the Monterey Downs development area, the DAHRO within the CCVC development area, or the majority of the Seaside Corporation Yard development area.
Bold indicates listed species on the HMP.
Source: Denise Duffy & Associates, Inc., Biological Resources Report, dated June 2013.

Special Status Wildlife Species

The Biological Resources Report evaluated the project site and adjacent areas for the presence or potential presence of a variety of special-status wildlife species. Table 3.3-4: Potential for Special-Status Wildlife Species On-Site outlines the potential for these special-status wildlife species to occur on-site. All other wildlife species considered as part of the Biological Resources Report are assumed "unlikely to occur" or have a low potential to occur but are unlikely to be impacted; refer to Appendix C.

78 **Table 3.3-4: Potential for Special-Status Wildlife Species On-Site**

Species	Location		
	Monterey Downs	CCVC	City of Seaside Corporation Yard
Pallid bat*	Moderate	Moderate	Unlikely
Townsend's big-eared bat*	Moderate	Moderate	Unlikely
Hoary bat*	Moderate	Moderate	Unlikely
Monterey dusky-footed woodrat*	Present	Present	Unlikely
Monterey ornate shrew*	Moderate	Moderate	Moderate
American badger*	High	High	Unlikely
California tiger salamander*	Moderate	Low	Unlikely
California legless lizard*	High	High	High
Coast horned lizard*	High	High	High
California red-legged frog*	Unlikely	Unlikely	Unlikely
Cooper's hawk	Moderate	Moderate	Moderate
Burrowing owl	Moderate	Moderate	Unlikely
White-tailed kite	High	High	Unlikely
California horned lark	High	High	Unlikely

Notes: **Bold** indicates listed species on the HMP.
* indicates moderate or high potential to occur on-site and potential to be impacted by the proposed project.
Source: Denise Duffy & Associates, Inc., Biological Resources Report, dated June 2013.

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80 ## Protected Trees

81 Coast live oak woodland is the dominant habitat type, composing approximately 410.7
82 acres within the Monterey Downs and CCVC development areas (no coast live oak is
83 present in the Seaside Corporate Yard development area). The canopy is quite dense in
84 many areas with an understory dominated by poison oak (*Toxicodendron diversilobum*) or,
85 in some areas, invasive hottentot fig (also referred to as iceplant; *Carpobrotus edulis*).

Additionally, as a result of hazardous materials-related remediation work, portions of the coast live oak woodland understory within the Monterey Downs development area has been mostly cleared and a thick layer of woodchips covers the ground. Trees within these areas have also been limbed up to six feet.

A portion of the proposed Specific Plan area, designated as Open Space (OS), consists of 73 acres of native Oak woodland habitat known as the "Oak Oval Habitat Reserve Area" The Oak Oval Habitat Reserve Area was set-aside as open space as part of the *East Garrison/Parker Flats Land Use Modification Memorandum of Understanding* between FORA, Monterey Peninsula College (MPC), County of Monterey, Bureau of Land Management (BLM), and Army. In the Oak Oval Habitat Reserve Area, a less dense canopy of coast live oak trees with an understory dominated by central maritime chaparral species, such as shaggy-barked manzanita (*Arctostaphylos tomentosa* ssp. *tomentosa*), dwarf ceanothus (*Ceanothus dentatus*), and chamise (*Adenostoma fasciculata*).

Nesting Raptors, Migratory Birds, and Other Protected Avian Species

Raptors and their nests and migratory birds are protected under California Fish and Game Code and the federal Migratory Bird Treaty Act (MBTA). Most raptors are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest habitats, as well as open grasslands, are used most frequently for nesting. Breeding occurs February through August, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges. Various species of raptors (such as red-tailed hawk, red-shouldered hawk [*Buteo lineatus*], great horned owl, American kestrel, and turkey vulture [*Cathartes aura*]) have a potential to nest within any of the large coast live oak trees present within the Monterey Downs and CCVC development areas or within the cypress or pine trees within the Seaside Corporation Yard development area. Additionally, migratory bird species that may be present within the project site include, but is not limited to, common poorwill, blue-gray gnatcatcher, Townsend's warbler (*Setophaga townsendii*), western tanager (*Piranga ludoviciana*), savannah sparrow, ash-throated fly catcher (*Myiarchus cinerascens*), and violet-green swallow (*Tachycineta thalassina*).

Avian species identified as DFW species of special concern or Fully Protected Species (such as the Cooper's hawk, white-tailed kite, burrowing owl, and California horned lark) have the potential to occur within the Monterey Downs and CCVC development areas. Within these portions of the project site, suitable nesting habitat for the white-tailed kite is present within the coast live oak woodland habitat. This species may also forage over any of the undeveloped areas within these development areas. Marginally suitable nesting and foraging habitat for the western burrowing owl and California horned lark is also present within the non-native grassland habitat within these portions of the project site. Habitats and trees within the Seaside Corporation Yard development area do not support suitable habitat for these protected avian species.

Wildlife Movement, Corridors, and Linkages

The terms "wildlife corridors", "wildlife crossings" and "linkages" are based upon fundamental ecological concepts, but can be easily misinterpreted. The following definitions are intended to provide a working understanding of these terms.

Wildlife Corridors

Wildlife corridors are passages which animals can use to move from one area of suitable habitat to another. These areas would be expected to have the least habitat fragmentation relative to surroundings areas. A wildlife corridor establishes connectivity for animals to move, live, reproduce and respond to functional ecological processes during the course of a year to several years. The quality and functionality of a particular wildlife corridor varies from species to species.

Wildlife Crossings

Wildlife crossings are generally small, narrow wildlife passages that allow wildlife to pass through an obstacle or barrier such as a roadway to reach another patch of habitat. Wildlife crossings are manmade and include culverts, drainage pipes, underpasses, tunnels, and, more recently, crossings created specifically for wildlife movement over or under highways.

Both wildlife crossings and wildlife corridors function to prevent habitat fragmentation that would result in the loss of species that require large contiguous expanses of unbroken habitat and/or that occur in low densities.

Linkages

Linkages are areas that provide for long term movement or interaction of wildlife to maintain natural evolutionary and ecological patterns. Linkages are fundamental for gene flow and large scale ecological processes. These areas are usually defined by the zones of "least resistance" for the genes of a given species to move or "flow" between core reserve populations.

Wildlife Movement Within the Project Site

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). Although the nature of each of these types of movement are species specific, large open spaces would generally support a diverse wildlife community representing all types of movement. Each type of movement may also be represented at a variety of scales from nonmigratory movement of amphibians, reptiles, and some birds, on a "local" level to many square mile home ranges of large mammals moving at a "regional" level. The location of the project site supports wildlife movement on some scale.

Movement on a smaller or "local" scale occurs throughout the surrounding vicinity as well as within the project site itself. Data gathered from biological surveys indicate that the project site contains habitat that supports a variety of species of invertebrates, amphibians, reptiles, birds, and mammals. The home range and average dispersal distance of many of these species may be entirely contained within the project site and immediate vicinity. Populations of animals such as insects, amphibians, reptiles, small mammals, and a few bird species may find all their resource requirements within the project site and its immediate vicinity. Occasionally, individuals expanding their home range or dispersing from their parental range would attempt to move outside of the project site. Local movement by larger mammals such as deer, bobcats, and coyote likely occurs throughout the project site due to the presence of a wide variety of native plant communities.

From a regional perspective, the project site is surrounded by developed land to the east. Open space habitat areas surround the remaining portions of the project site. Wildlife movement is impeded to the east due to the urban development. Regional wildlife movement of large mammals (i.e., deer, bobcats, and coyote) and some bird species is likely to occur within the project site since adequate resources are present for cover, foraging, and breeding. These species are likely to utilize the open space within and surrounding the project site for dispersal, seasonal migration, and movements related to home range activities, and are likely to have developed travel routes within the project site. Likely travel routes for large mammals across the project site would include drainages that support oak woodland since these areas provide adequate cover and the topography facilitates movement.

The project site is not considered a "wildlife corridor" per se because it does not represent open space within an otherwise mostly developed area. Instead, the project site is surrounded by open space and only the eastern portion is adjacent to developed land. However, the project site does contribute to a larger, regional expanse of open space within the former Fort Ord and surrounding area.

Jurisdictional Waters

Jurisdictional waters on-site (e.g., creeks, streams, and drainages) are protected by federal and state regulations as administered by the U.S. Army Corps of Engineers (ACOE), California Regional Water Quality Control Board (RWQCB), and CDFW. The ACOE regulates the discharge of dredged material, placement of fill material, or excavation within "waters of the U.S." through Section 404 of the CWA. The RWQCB requires issuance of a Section 401 water quality certification for impacts to jurisdictional waters of the state. The CDFW regulates impacts to beds, channels, or banks of any river, stream, or lake through Section 1602 of the California Fish and Game Code.

A wetland assessment was conducted during field surveys for the Biological Resources Report. This assessment identified the potential for the riparian habitat to support jurisdictional wetlands (Figure 3.3-2: Potentially Jurisdictional Wetlands Map). A formal wetland delineation was not feasible at the time of this EIR. However, ground moisture

was observed on May 9, 2011, approximately two weeks after the last rain event. Additionally, plants within the area were evaluated for wetland indicator status as identified on the *National List of Vascular Plant Species that Occur in Wetlands*. The three dominant species identified within the area have a "facultative wet" (FACW) indicator status: arroyo willow, cottonwood, and sickle-leaved rush.

Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) of 1973 (50 CFR 17) is intended to protect plants and animals that have been identified as being at risk of extinction and classified as either threatened or endangered. FESA also regulates the "taking" of any endangered fish or wildlife species, per Section 9 of the Act. A responsible agency or individual landowners are required to submit to a formal consultation with the FWS to assess potential impacts to listed species as the result of a development project, pursuant to FESA Sections 7 and 10. The FWS is required to make a determination as to the extent of impact to a particular species a project would have. If it is determined that potential impacts to a species would likely occur, measures to avoid or reduce such impacts must be identified.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally drafted to end the commercial trade in bird feathers popular in the latter part of the 1800s. The MBTA makes it illegal to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers, nests, eggs, or other avian products. The FWS is responsible for enforcing the MBTA.

The Clean Water Act

The ACOE maintains regulatory authority over the discharge of dredged or fill material into the waters of the U.S., pursuant to Section 404 of the Clean Water Act (CWA). The ACOE and U.S. Environmental Protection Agency (EPA) defines "fill material" as any "material placed in waters of the U.S. where the material has the effect of: (i) replacing any portion of a water of the U.S. with dry land; or (ii) changing the bottom elevation of any portion of the waters of the U.S." Fill material may include sand, rock, clay, construction debris, wood chips, or other similar "materials used to create any structure or infrastructure in the waters of the U.S." The term "waters of the U.S." includes the following:

- All waters that have, are, or may be used in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide;
- Wetlands;
- All waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows,

playa lakes, or natural ponds; the use, degradation, or destruction of which could affect interstate or foreign commerce;

- All impoundments of water mentioned above;
- All tributaries of waters mentioned above;
- Territorial seas; and,
- All wetlands adjacent to the waters mentioned above.

In the absence of wetlands, the ACOE's jurisdiction in non-tidal waters extends to the ordinary high water mark (OHWM), which is defined as "...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area (33 CFR 328.3(e))."

Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands are jointly defined by the ACOE and EPA as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3(b))."

On January 9, 2001, the U.S. Supreme Court issued the decision, Solid Waste Agency of Northern Cook County v. U.S. Army Corp of Engineers et al. As a result of this case, the scope of the ACOE's Section 404 CWA regulatory permitting program was limited, restricting ACOE's jurisdictional authority over isolated, non-navigable, intrastate waters that are not tributary or adjacent to navigable waters or tributaries (i.e., wetland conditions). The Supreme Court held that Congress did not intend for isolated, non-navigable water conditions to be covered within Section 404 of the CWA, as they are not considered to be true "waters of the U.S."

Section 401

The RWQCB is the primary agency responsible for protecting water quality in California. The RWQCB regulates discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act. The RWQCB's jurisdiction extends to all waters of the State and to all waters of the U.S., including wetlands (isolated and non-isolated conditions).

Through 401 Certification, Section 401 of the CWA allows the RWQCB to regulate any proposed Federally-permitted activity that may affect water quality. Such activities include the discharge of dredged or fill material, as permitted by the ACOE, pursuant to Section 404 of the CWA. The RWQCB is required to provide "certification that there is reasonable assurance that an activity which may result in the discharge to waters of the U.S. will not violate water quality standards," pursuant to Section 401. Water Quality Certification must be based on the finding that proposed discharge will comply with

applicable water quality standards, of which are given as objectives in each of the RWQCB's Basin Plans.

In addition, pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the state, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if a Section 404 does not apply. "Waste" is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

State

California Endangered Species Act

The California Endangered Species Act (CESA) of 1984, in combination with the California Native Plant Protection Act of 1977, regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the state. The State of California also lists Species of Special Concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. The CDFW is given the responsibility by the state to assess development projects for their potential to impact listed species and their habitats. State listed special-status species are also addressed through the issuance of a 2081 permit (a Memorandum of Understanding).

California Department of Fish and Game Code

Within the State of California, fish, wildlife, and native plant resources are protected and managed by the CDFW. The CDFW is responsible for issuing permits for the take or possession of protected species. The following sections of the Code address the protected species: Section 3511 (birds); Section 4700 (mammals); Section 5050 (reptiles and amphibians); and, Section 5515 (fish).

California Department of Fish and Wildlife Lake and Streambed Alteration Agreements

Historically, the State of California regulated activities in rivers, streams, and lakes pursuant to California Fish and Game Code Sections 1600-1607; however, on January 1, 2004, legislation went into effect that repealed Fish and Game Code Sections 1600-1607 and instead, added Fish and Game Code Sections 1600-1616. This action eliminated the separation between private/public notifications (previously 1601/1603). Section 1602 of the Fish and Game Code requires any person, state, or local governmental agency, or public utility to notify the CDFW before commencing any activity that would result in one or more of the following:

- Substantially obstruct or divert the natural flow of a river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or,

- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes within the State of California. While the jurisdictional limits are similar to the limits defined by ACOE regulations, CDFW jurisdiction includes riparian habitat supported by a river, stream, or lake with or without the presence or absence of saturated soil conditions or hydric soils. CDFW jurisdiction generally includes to the top of bank of the stream, or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Any project that occurs within or in the vicinity of a river, steam, lake, or their tributaries typically requires notification of the CDFW, including rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life, and watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.

Local

Fort Ord Habitat Management Plan

There are no adopted Habitat Conservation Plans (HCP) or Natural Community Conservation Plans (NCCP) associated with the project site; however, a Draft HCP is being prepared for the project area as a result of the Fort Ord Reuse Plan. The Army's decision to close and dispose of the Fort Ord military base was considered a major federal action that could affect federally listed species under the federal Endangered Species Act (ESA); therefore, the Army was required under Section 7 of the ESA to consult with the U.S. Fish and Wildlife Service (FWS). The result of the federal consultation was the issuance of a Final Biological Opinion on the disposal and reuse of former Fort Ord from FWS, which required that a Habitat Management Plan (HMP) be developed and implemented to reduce the incidental take of listed species and loss of habitat that supports these species from reuse of the former military base (October 19, 1993). The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss. However, the Army developed the *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California* (HMP), in compliance with Section 7 of the federal Endangered Species Act (ESA) to provide for incidental take of federally-listed species as will occur with implementation of the *Fort Ord Reuse Plan*.

A primary goal of the HMP is to promote preservation, enhancement, and restoration of special status plant and animal species and their habitats at former Fort Ord, while allowing economic recovery through reuse and development of the base. To achieve this goal, some parcels at former Fort Ord are designated for "Development," with no restrictions, others are designated as "Development – with Restrictions" and have certain management guidelines or prescribed setasides, and others are designated as habitat preserves with little or no development allowed.

As depicted on Figure 4-1 of the HMP, the project site is located within an area designated "Development" with the exception of the Oak Oval Habitat Reserve Area, which is designated "Development – with Restrictions". Lands designated "Development" are

designated for development with no restrictions. Lands designated as "Development – with Restrictions" have management restrictions placed upon them as a result of the HMP. Impacts to biological resources associated with development of these areas are mitigated in the HMP through the set-aside of habitat reserve areas within the boundaries of the former Fort Ord. The Biological Opinion (BO) issued on the HMP by the FWS acknowledged development of these parcels, and addressed the impacts to species covered in the HMP. The FWS BO allows for development of these parcels with no additional mitigation required, but it also recommends identification of sensitive biological resources within these parcels that may be salvaged for use in restoration activities within reserve areas.

A Habitat Conservation Plan (HCP) and Implementing Agreement (IA) tiered from the HMP are currently being finalized and, once approved, will replace the HMP and BO. The approved HCP and IA will be signed by the FWS and California Department of Fish and Wildlife (CDFW), respectively. Once the HCP and IA are executed, the need for further consultation with the FWS and CDFW and mitigation requirements for impacts to HMP resources in HMP-designated development areas, such as those affected by the proposed project, would be eliminated. However, until the HCP and IA are finalized, impacts to federal- and state-listed endangered or threatened species must be separately addressed. At the federal level, prior to approval of the HCP, under the federal ESA, an entity that authorizes or carries out an action that could affect a federally-listed species must consult or confer with FWS to ensure that the action is not likely to jeopardize the continued existence of such species. Although the FWS has signed the HMP and would not require further mitigation for projects that are in conformance with the HMP, entities without incidental take authorization would be in violation of the ESA if any of their actions result in the take of a listed species. At the state level, prior to approval of the IA, under Section 2081 of the CESA, parties are directed to obtain authorization for "incidental-take" from the CDFW for actions that could affect state-listed species.

It is important to note that the HMP includes species that are listed as "threatened" or "endangered" under CESA or ESA, and also includes several species that are not listed but are considered "species of special concern" by FWS and/or CDFW. All species addressed in the HMP are collectively known as "HMP species." However, there are also some species that are considered "species of special concern" by FWS and/or CDFW or that are otherwise considered sensitive, such as plant species included on California Native Plant Society special plant lists, that are not addressed in the HMP. Although these species are not protected by CESA or ESA, they are sensitive species that need to be considered during environmental review of proposed projects. Sensitive species that are not addressed in the HMP are collectively known as "non-HMP species."

City of Seaside

City of Seaside General Plan

The following policies in the Conservation/Open Space Element of the *City of Seaside General Plan* address biological resources.

Conservation/Open Space Element

Goal COS-4: Preserve and protect the sensitive habitats and species within the community.

Policy COS-4.1: Preserve ecological and biological resources by maintaining these resources as open space.

Implementation Plan COS-4.1.1 Require Proper Analysis and Mitigation of Biological Resources. Use proper land use planning and environmental review to minimize the impact of urban development on sensitive ecological and biological resources. Where feasible, require open space easements and/or buffers to avoid impacts to sensitive biological resources. Where on-site preservation is not feasible, require habitat replacement at locations and ratios acceptable to the state and federal agencies with jurisdiction over the project.

Policy COS-4.3: Encourage the preservation and enhancement of oak woodland elements in the natural and built environments.

Implementation Plan COS-4.3.1 Oak Tree Retention. Require project developers to retain coast live oak trees within the planning area, including oaks within new development areas. All coast live oak trees should be surveyed prior to construction to determine if any raptor nests are present and active. If active nests are observed, the construction should be postponed until the end of the fledgling.

City of Seaside Municipal Code, Title 8, Health and Safety

Chapter 8.54 of the City of Seaside Municipal Code (Municipal Code) outlines the policies regarding tree removal and alteration. The policies applicable to this project include Sections 8.54.060 (New Construction, development, subdivision, and site plans), 8.54.070 (Replacement of trees), and 8.54.080 (Protection of trees during construction). These policies require that: 1) any trees, six inches or greater in diameter, proposed for removal or alteration shall be specified on the site plan or tentative map, 2) removal or alteration shall be approved by the Board of Architectural Review, or other applicable approving body, and shall try to preserve trees recommended for preservation; and 3) trees shall be replaced with a minimum five-gallon specimen tree of a species and in a location approved by the Board of Architectural Review or other approving body.

Fort Ord Reuse Plan

Conservation Element

Objective A: Preserve and protect the sensitive species and habitats addressed in the Installation-wide Habitat Management Plan (HMP) for Fort Ord in conformance with its resource conservation and habitat management requirements and with the guidance provided in the HMP Implementing/Management Agreement.

Biological Resources Policy A-1: The City shall ensure that the habitat management areas are protected from degradation due to development in, or use of, adjacent parcels within its jurisdiction.

Program A-1.1: The City shall coordinate with BLM in the design and installation of appropriate firebreaks to be required on all parcels that border habitat management areas. Potential firebreaks include greenbelts, fuel reduction zones, fire roads, paved roads, tilled firebreaks, and parking lots. All firebreaks shall be at the development/habitat boundary, not necessarily at the parcel boundary, and shall be installed within the parcel, not on habitat management areas. Firebreaks on adjacent parcels shall be contiguous.

Program A-1.2: The City shall coordinate with BLM in the design and siting of barriers sufficient to prevent unauthorized vehicle access to the habitat management lands from adjacent parcels. Gates shall be installed at appropriate points in the barrier to allow for emergency access and BLM and other appropriate agencies shall be provided keys to the gates. The City shall maintain, repair and replace, or cause to be maintained, repaired or replaced, the barrier as necessary in perpetuity.

Program A-1.3: The City shall require stormwater drainage plans for all developments adjacent to the habitat management areas to incorporate measures for minimizing the potential for erosion in the habitat management areas due to stormwater runoff.

Biological Resources Policy A-4: The City shall encourage the preservation of small pockets of habitat and populations of HMP species within and around developed areas.

Program A-4.1: The City shall require project applicants who propose development in underdeveloped natural lands to conduct reconnaissance-level surveys to verify the general description of resources for the parcel provided in the biological resource documents prepared for the ACOE. The information gathered through these reconnaissance-level surveys shall be submitted as a component of the project application package.

Program A-4.2: The City shall encourage project applicants to incorporate small pockets of habitat containing HMP species and/or habitats amidst the development, where feasible.

Program A-4.3: Where development will replace existing habitat which supports sensitive biological resources, the City shall encourage attempts to salvage some of those resources by collecting seed or cuttings of plants, transplanting vegetation, or capturing and relocating sensitive wildlife species.

Objective B: *Preserve and protect sensitive species and habitats not addressed in the HMP.*

Biological Resources Policy B-1: The City shall strive to avoid or minimize loss of sensitive species listed in Table 4.4-2 that are known or expected to occur in areas planned for development.

Program B-1.1: Where the City has reason to suspect that they may occur on a proposed development site, the City shall require directed, seasonally-timed surveys for sensitive species listed in Table 4.4-2 as an early component of site-specific development planning.

Program B-1.2: If any sensitive species listed in Table 4.4-2 are found in areas proposed for development, all reasonable efforts should be made to avoid habitat occupied by these species while still meeting project goals and objectives. If permanent avoidance is infeasible, a seasonal avoidance and/or salvage/relocation program shall be prepared. The seasonal avoidance and/or salvage/relocation program for these species should be coordinated through the CRMP.

Objective C: Avoid or minimize disturbance to natural land features and habitats through sensitive planning, siting and design as new development is proposed in undeveloped lands.

Biological Resources Policy C-1: The City shall encourage that grading for projects in undeveloped lands be planned to complement surrounding topography and minimize habitat disturbance.

Program C-1.1: The City shall encourage the use of landform grading techniques for 1) projects involving major changes to the existing topography, 2) large projects with several alternative lot and roadway design possibilities, 3) projects with known geological problem areas, or 4) projects with potential drainage problems requiring diverters, dissipaters, debris basins, etc.

Biological Resources Policy C-2: The City shall encourage the preservation and enhancement of oak woodland elements in the natural and built environments. Refer to Figure 4.4-1 for general location of oak woodlands in the former Fort Ord.

Program C-2.2: When reviewing project plans for developments within oak woodlands, the City shall cluster development wherever possible so that contiguous stands of oak trees can be maintained in the non-developed natural land areas.

Program C-2.3: The City shall require project applicants to submit a plot plan of the proposed development which: 1) clearly shows all existing trees (noting location, species, age, health, and diameter; 2) notes whether existing trees will be retained, removed or relocated, and 3) notes the size, species, and location of any proposed replacement trees.

Program C-2.4: The City shall require the use of oaks and other native plant species for project landscaping. To that end, the City shall recommend collection and

propagation of acorns and other plant material from Fort Ord oak woodlands to be used for restoration areas or as landscape material.

Program C-2.5: The City shall provide the following standards for plantings that may occur under oak trees; 1) plantings may occur within the dripline of mature trees, but only at a distance of five feet from the trunk and 2) plantings under and around oaks should be selected from the list of approved species compiled by the California Oak Foundation (see Compatible Plants Under and Around Oaks).

Program C-2.6: The City shall require that paving within the dripline of preserved oak trees be avoided wherever possible. To minimize paving impacts, the surfaces around tree trunks should be mulched, paving materials should be used that are permeable to water, aeration vents should be installed in impervious pavement, and root zone excavation should be avoided.

Biological Resources Policy C-3: Lighting of outdoor areas shall be minimized and carefully controlled to maintain habitat quality for wildlife in undeveloped natural lands. Street lighting shall be as unobtrusive as practicable and shall be consistent in intensity throughout development areas adjacent to undeveloped natural lands.

Program C-3.1: The City shall review lighting and landscape plans for all developments adjacent to undeveloped natural lands to ensure consistency with Policy C-3.

Objective D: Promote awareness and education concerning the biological resources on the former Fort Ord.

Biological Resources Policy D-1: The City shall require project applicants to implement a contractor education program that instructs construction workers on the sensitivity of biological resources in the vicinity and provides specifics for certain species that may be recovered and relocated from particular development areas.

Program D-1.2: The City shall provide project applicants specific information on the protocol for recovery and relocation of particular species that may be encountered during construction activities.

Program D-2.1: The City shall develop interpretive signs for placement in habitat management areas. These signs shall describe resources present, how they are important to the former Fort Ord, and ways in which these resources are or can be protected.

Program D-2.3: Where development will be adjacent to habitat management areas, corridors, oak woodlands, or other reserved open space, the City shall require project applicants to prepare a Homeowner's Brochure which describes the importance of the adjacent land areas and provides recommendations for landscaping, and wildfire protection, as well as describes measures for protecting

wildlife and vegetation in the adjacent habitat areas. (i.e. access controls, pet controls, use of natives in the landscape, etc.).

Objective E: Develop strategies for interim management of undeveloped natural land areas.

Biological Resources Policy E-1: The City shall develop a plan describing how it intends to address the interim management of natural land areas for which the City is designated as the responsible party.

City of Seaside Municipal Code Chapter 8.54 – Trees

Chapter 8.54 of the City's Municipal Code outlines the policies regarding tree removal and alteration. The policies applicable to this project include Sections 8.54.060 (New Construction, development, subdivision, and site plans), 8.54.070 (Replacement of trees), and 8.54.080 (Protection of trees during construction). These policies require that: 1) any trees, six inches or greater in diameter, proposed for removal or alteration shall be specified on the site plan or tentative map, 2) removal or alteration shall be approved by the Board of Architectural Review, or other applicable approving body, and shall try to preserve trees recommended for preservation; and 3) trees shall be replaced with a minimum five-gallon specimen tree of a species and in a location approved by the Board of Architectural Review or other approving body.

Relevant Project Characteristics

The Monterey Downs Draft Specific Plan (September 2012) proposes the following guidelines related to biological resources:

6.3 Sustainability Requirements:

6.3.1. All Developments

Outdoor lighting shall not extend past edge of use or yard setbacks, whichever is more restrictive.

7.2 Landscape Design Principals

Provide plant materials and landscape design features which create long term sustainability: Landscaping shall include predominantly drought tolerant native or naturalized plant materials with proven adaptation to the region's Mediterranean climate, and plant species capable of providing storm water filtration where appropriate.

7.3 Conceptual Landscape Planning:

7.3.1 Streetscapes: Street Tree Planting Program

Neighborhood streets within each residential neighborhood will be planted with a variety of landscape tree specimens. While exact species conformance is not required, the use of plant species not listed below must be proven to have comparable drought tolerance, aesthetic quality, and must not be invasive. In addition, the tree species presented below, and any alternative tree species chosen

during final design, must meet the City of Seaside's Landscape Standards (Section 17.030.040 of the City's Municipal Code. The following trees are permitted along the Specific Plan's boulevards (Gigling Extension Road, Eastside Roadway, Parker Flats Road). Alternative street trees may be approved by the Planning Department as part of the final design review process.

Arbutus (*Arbutus marina/unedo*)

Monterey Cypress (*Cupressus macrocarpa*)

New Zealand Christmas Tree (*Metrosideros excelsus*)

Coast Live Oak (*Quercus agrifolia*)

7.3.2 Parks and Open Space

A variety of public and private recreational amenities are proposed within the Specific Plan's park areas. Native and/or naturalized plant species as part of the park landscape concept would help conserve resources, complement existing on-site and surrounding natural ecosystems, and provide opportunities for natural stormwater treatment systems.

7.4 Landscape Standards

7.4.1 General Guidelines

To the extent practical plant materials should be drought tolerant and on-evasive.

Plant material within the Firewise Overlay shall be fire resistant.

7.4.5 Irrigation

In areas where native or drought tolerant plant materials are utilized, a drip irrigation system shall be installed to achieve the most efficient watering system and utilized the water in a responsible manner.

Impacts and Mitigation Measures

Criteria for Determining Significance

In accordance with CEQA, State CEQA Guidelines, agency and professional standards, a project impact would be considered significant if the project would:

- 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 CDFW or FWS;
- 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 CDFW or FWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool,

coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan; and/or
- Impede the use of native wildlife nursery sites or directly harm nesting species protected under the provisions of the Migratory Bird Treaty Act.

Methodology

CEQA Guidelines Section 15065(a), *Mandatory Findings of Significance*, states that a project may have a significant effect on the environment if it would have "... the potential to substantially 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 an endangered, rare or threatened species ..."

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would substantially diminish, or result in the loss of, an important biological resource or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse but not significant because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

CEQA Guidelines Section 15380, *Endangered, Rare or Threatened Species*, states that a lead agency can consider a non-listed species to be Rare, Threatened, or Endangered for the purposes of CEQA, if the species can be shown to meet the criteria in the definition of Rare, Threatened, or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered according to the definitions for Rare, Threatened, and Endangered listed in CEQA Guidelines Section 15380.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

Project Impacts and Mitigation Measures

Sensitive Vegetation Communities/Habitats

Impact 3.3-1 Implementation of the proposed project would not have an adverse effect on a sensitive vegetation community, including riparian habitat, when taken into account the project's consistency with the HMP/BO (including applicable mitigation to offset impacts) as well as the over 18,500 acres of preserved habitat for these communities within the former Fort Ord area. Thus, impacts in this regard are **less than significant**.

Implementation of the proposed project would result in impacts to approximately 569 acres of habitat, which are known or have the potential to support special-status species. The HMP establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying lands that are available for development, lands that have some restrictions with development, and habitat reserve areas. The intent of the HMP is to establish large, contiguous habitat conservation areas and wildlife corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at former Fort Ord, as each parcel is designated as "development with no restrictions," "habitat reserves with management requirement," or "habitat reserves with development restrictions." The HMP sets the standards to assure the long-term viability of former Fort Ord's biological resources in the context of base reuse such that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. The HMP has been approved by the CDFW; the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure implementation of the HMP. It is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures.

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors as well as the habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP would be obligated to implement those specific measures through the HMP and through deed covenants. Approximately 18,500 acres of the former Fort Ord would be preserved in permanent open space through implementation of the HMP.

All proposed development areas on-site are located within designated "development" parcels, with the exception of the Oak Oval Habitat Reserve Area. The Oak Oval Habitat Reserve Area is designated "habitat reserve area" and only the allowed uses described in the HMP are proposed by the project, which include the construction of new trails. The majority of the project would impact less than one percent of each habitat on the former Fort Ord, with a few exceptions. The CCVC would impact 1.2 percent of coast live oak woodland and 2.6 percent of the central coastal scrub habitat within the former Fort Ord,

but would be less than 0.5 percent of total habitat impacts on the former Fort Ord. The residential and commercial areas of proposed as part of the Monterey Downs development area would impact approximately three percent of coast live oak woodland, 1.5 percent of central coastal scrub, and 1.1 percent of non-native grassland habitat within the former Fort Ord. However, this development area would comprise less than one percent of habitat impacts on the former Fort Ord. The Sports Arena/Equine Training Facility development area would impact approximately 2.2 percent of coast live oak woodland and five percent of central coastal scrub habitat within the former Fort Ord, totaling less than 1 percent of habitat impacts on the former Fort Ord. However, implementation of the HMP would preserve 18,500 acres of habitat within the former Fort Ord. Therefore, the implementation of the proposed project would not have a significant impact on special-status habitat, particularly when taken into context with the 18,500 acres of preserved habitat within the former Fort Ord. Impacts in this regard are **less than significant.**

Riparian and Other Sensitive Natural Communities

Habitats occurring within the project site that are listed as sensitive on the CNDDB working list of high priority and rare natural communities include central maritime chaparral (including central maritime chaparral/non-native grassland mix habitat) and riparian habitat. Within the CCVC development area, 13 acres of central maritime chaparral would be permanently removed as a result of project implementation. Within the proposed project development area, 1.2 acres and 78.7 acres of central maritime chaparral would be permanently removed as a result proposed residential and commercial development and the Sports Arena/Equine Training Facility, respectively. Approximately 0.2 acre of riparian habitat would be permanently removed as a result of development of the Sports Arena/Equine Training Facility. In addition, approximately three acres of central maritime chaparral within the Oak Oval Habitat Reserve Area would be permanently removed as a result of construction of the proposed 150-foot wide cross-country track trail. No sensitive habitats are present within the Seaside Corporation Yard development area.

The implementation of the HMP mitigates for the loss of central maritime chaparral by preserving 9,753 acres of the same habitat within the habitat reserve areas on the former Fort Ord. Therefore, impacts to central maritime chaparral are considered **less than significant** with the implementation of the HMP.

Removal or indirect impacts to 0.2 acre of riparian habitat within the REC-2 Planning Area (Sports Arena/Equine Training Facility) is considered a potentially significant impact. The construction of the Sports Arena and Equine Training Facility is proposed as a component of Phase 4 of Monterey Downs. Phase 4 is anticipated to occur approximately nine years after project approval. As required in Mitigation Measure BIO-1, a formal wetland delineation in accordance with ACOE protocols would be required to determine the presence of jurisdictional wetlands. If present, avoidance, preservation, and protection of these habitats, as feasible, would be required. If impacts are not avoidable, the measure requires the preparation of a habitat mitigation and monitoring plan that includes details for

restoration and preservation in accordance with resources and permitting agencies. Taken into context with the 18,500 acres of preserved habitat within the former Fort Ord, impacts to potentially impacted riparian habitat would be reduced to **less than significant** levels after implementation of the recommended mitigation.

Mitigation Measure

BIO-1: **Impacts to Riparian Habitat.** When designing and drafting the site plan for the Sports Arena and Equine Training Facility (REC-2), the project applicant shall site and design project features to avoid impacts to the delineated riparian habitat (as required by Mitigation Measure BIO-16), including direct habitat removal and indirect hydrology and water quality impacts, to the greatest extent feasible while taking into account site and engineering constraints. To protect this sensitive habitat during construction and project implementation, the following measures shall be implemented:

- Place construction fencing around riparian habitat to be preserved to ensure construction activities and personnel do not impact this area.
- All proposed lighting shall be designed to avoid light and glare into the riparian habitat. Light sources shall not be visible from riparian areas and shall not illuminate riparian areas or cause glare.

In the event that full avoidance is not feasible and a portion, or all, of the riparian habitat will be impacted, the following minimization measures shall be implemented:

- Impacted riparian habitat shall be mitigated at a 1:1 replacement-to-loss ratio; the final mitigation amounts shall be determined during the design phase as required by the California Department of Fish and Wildlife (CDFW). It is expected that the mitigation can occur within the 138-acre REC-2 Planning Area or a different planning area within the Monterey Downs development area. A Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared by a qualified biologist to mitigate for impacts to riparian habitat. The HMMP shall outline the details of a riparian habitat restoration plan, including but not limited to, planting plan, success criteria, monitoring protocols to determine if the success criteria have been met, adaptive management protocols in the case that the success criteria are not met, and funding assurances. The HMMP shall provide sufficient content and information to ensure implementation of restoration measures will reduce identified significant impacts to riparian habitat to a less-than-significant level. Prior to issuance of a grading permit, the project applicant shall comply with all applicable local, state, and federal regulations related to impacting riparian habitat, including local tree removal ordinances, Sections 404 and 401 of the Clean Water Act (CWA), and/or Section 1602 of California Fish and Game Code.

Special Status Species

Impact 3.3-2 Project implementation could have an adverse effect, either directly or indirectly, on species identified as a candidate, sensitive, or special status. Therefore, the project could have a **potentially significant impact** on special-status species.

Implementation of the proposed project would result in direct and indirect impacts to special-status plant and wildlife species. Impacts to special-status species would include impacts associated with heavy equipment and construction activities that could result in the loss of individuals, soil compaction, dust, vegetation removal/loss of habitat, wildlife harassment or mortality, root damage, erosion, destruction or disturbance of nests, and introduction and spread of non-native, invasive species. These are considered potentially significant impacts.

The following analysis has been broken into direct and indirect impacts associated with special status plant species, and direct and indirect impacts associated with special status wildlife species.

Special Status Plant Species

Direct Impacts

HMP Identified Species

Impacts to identified HMP plant species are considered less-than-significant unless take authorization is required from the CDFW and/or DFW. The following is a description of potential project impacts, by development area, for these HMP listed species.

CCVC Development Area. Implementation of the CCVC project would result in impacts to approximately 25 square feet of Hooker's manzanita, 75 square feet of sandmat manzanita, 13 square feet of Monterey ceanothus, and 9 acres of Monterey spineflower.

Monterey Downs Development Area. Focused rare plant surveys identified two HMP special-status plant species within the residential and commercial areas, which do not require take authorization from the CDFW or DFW: sandmat manzanita (113 square feet) and Monterey spineflower (17 acres). Focused rare plant surveys also identified five special-status HMP plant species within the Sports Arena/Equine Training Facility and Horse Park areas, which are all HMP species that do not require take authorization from the CDFW or DFW: Hooker's manzanita (0.02 acre), sandmat manzanita (9.33 square feet), Monterey ceanothus (57.44 acres), Monterey spineflower (23.93 acres), and Eastwood's golden fleece (65.97 square feet). One additional HMP plant species, sand gilia (approximately 1.86 acres), was observed within the Sports Arena/Equine Training Facility area. Sand gilia is a state threatened species and impacts to this species would require take authorization from the DFW.

Seaside Corporation Yard. Focused surveys for annual special-status plants were not conducted within the majority of the proposed Seaside Corporation Yard; a small portion along the eastern edge of the site was surveyed for rare plants as part of the Monterey Downs development area in 2011. Approximately 0.15 acre of Monterey spineflower was observed in this area. Many HMP plant species have the potential to occur within this portion of the project site and could be impacted by future development in this area, including, but not limited to, sandmat manzanita, Monterey spineflower, sand gilia, and seaside bird's beak.

These direct impacts would be considered less-than-significant, as these special-status plant species are HMP species and no take authorization is required from the CDFW or DFW, with the exception of the sand gilia (approximately 1.86 acres within the Monterey Downs development area). The HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas and mitigation has been identified (Mitigation Measures BIO-2 through BIO-7) to further reduce impacts to these HMP species in accordance with the BO and HMP. With implementation of the recommended Mitigation Measures BIO-2 through BIO-5 and BIO-7, the project's impacts to sand gilia would also be reduced through a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, and plant salvage, as well as requiring the preservation and protection of sand gilia through avoiding the impact or providing the appropriate compensatory mitigation in consultation with the appropriate resources and permitting agencies. Thus, impacts in this regard are **less than significant**.

Oak Oval Habitat Reserve Area. Focused rare plant surveys were not conducted within the Oak Oval Habitat Reserve Area. However, many HMP plant species have the potential to occur and could be impacted by the implementation of the proposed 150-foot wide cross-country track. The construction of this track is anticipated to occur in conjunction with the Sports Arena/Equine Training Facility and/or Horse Park development areas. In accordance with the HMP, the track must be sited and designed to minimize vegetation removal and maintain wildlife movement corridors between habitat reserve areas. All other trails and courses through the Habitat Area must use existing or realigned roads and trails. No buildings, grandstands, corrals, parking areas, or other developments are allowed in the Oak Oval Habitat Reserve Area. The siting and design of trails and courses through the Habitat Reserve Area must be approved by the CDFW, DFW, and BLM through the Coordinated Resource Management and Planning Program (CRMP). Impacts to HMP plant species that do not require take authorization from the FWS or DFW are considered less-than-significant. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas and mitigation has been identified to further reduce impacts to these species in accordance with the BO and HMP. Impacts to any state listed plant species (i.e., sand gilia or seaside bird's beak), if present, would require take authorization from the DFW. With implementation of Mitigation Measures BIO-2 through BIO-5, BIO-8, and BIO-9, impacts to these potential HMP and other state-listed species would be reduced to **less than significant** levels.

Other Non-HMP Identified Species

In addition to the special-status HMP plant species identified within these areas, focused rare plant surveys identified one additional special-status plant species (Kellogg's horkelia [0.01 acre]) within the residential and commercial uses of the Monterey Downs development area. This species is a CNPS List 1B species, and does not require take authorization from the CDFW or DFW. Implementation of the recommended Mitigation Measure BIO-10 would require avoidance or preservation and/or restoration of the impacted population, including the requirement for a qualified biologist to prepare and implement a mitigation plan that would include monitoring, success criteria, adaptive management, and identification of a funding mechanism. With implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

Focused rare plant surveys were not conducted within the Oak Oval Habitat Reserve Area or the majority of the Seaside Corporation Yard, but many other non-HMP special-status plant species have the potential to occur within these areas. Potential species within the Habitat Reserve Area include, but not limited to, Hickman's onion, Hutchinson's larkspur, and Kellogg's horkelia. Potential species within the Seaside Corporate Yard include, but are not limited to, the pink Johnny nip and Kellogg's horkelia. Mitigation Measure BIO-6 would require appropriate surveying at the Seaside Corporate Yard prior to ground disturbance activities. Survey results would indicate the level of avoidance, minimization, and/or mitigation that would be required. Implementation of the recommended Mitigation Measure BIO-9 would require pre-construction surveys at the Oak Oval Habitat Reserve Area, preparation of a biological assessment, and implementation of recommended measures, as necessary. With implementation of the recommended mitigation, potential impacts to other non-HMP identified special status plant species would be reduced to **less than significant** levels.

Indirect Impacts

For a discussion of potential on-site habitat loss resulting in indirect impacts to the California tiger salamander, refer to the special-status wildlife species indirect impacts analysis below.

Other HMP Species and Natural Communities

Proposed development adjacent to habitat reserve areas have the potential to adversely affect HMP species and natural communities within the habitat reserve areas. Damaging effects may result from the following activities:

- Vandalism, dumping of trash, trampling, mountain bike use, equestrian use, and off-road vehicle use;
- Runoff from adjacent streets and landscaped areas containing lawn fertilizer, pesticides, and vehicle waste (petroleum byproducts);
- The introduction of invasive non-native species;

- Off-trail activity resulting in habitat destruction and/or fragmentation and spread of invasive species; lights and noise from nearby development;
- Unregulated movement of domestic animals; and
- A lack of barriers to HMP species entering developed areas, which may result in individual mortality.

These adverse effects may be the result of activities occurring within development areas and indirectly affecting the adjacent habitat areas (e.g., runoff), or result of increased public access and use of the habitat reserve areas due to the increase in local population and availability of project amenities. With implementation of the recommended Mitigation Measure BIO-8, the project's impacts to sensitive biological resources in the adjacent habitat reserve areas would be reduced to a **less than significant** level through a combination of fuelbreak maintenance, access controls, non-native species controls, lighting controls, reducing erosion and sedimentation, and education.

Special Status Wildlife Species

Direct Impacts

HMP Identified Species

Impacts to identified HMP wildlife species are considered less than significant unless take authorization is required from the CDFW and/or DFW. Within suitable habitat, there is the potential for three HMP wildlife species to occur within the project site. The following is a description these wildlife species by development area.

- CCVC Development Area. California legless lizard, Monterey ornate shrew, and California tiger salamander.
- Monterey Downs Development Area. California legless lizard, Monterey ornate shrew, and California tiger salamander.
- Seaside Corporation Yard. California legless lizard and California tiger salamander.
- Oak Oval Habitat Reserve Area. California legless lizard, Monterey ornate shrew, and California tiger salamander.

The impacts to the Monterey ornate shrew and California legless lizard would be considered less than significant, as these special-status wildlife species are HMP species and no take authorization is required from the CDFW or DFW. However, the HMP and BO require the identification of sensitive biological resources that may be salvaged for use in restoration activities in reserve areas. Due to its high metabolic rate and cryptic nature, it is unlikely that salvaging individual shrews would be appropriate or successful. Thus, if the Monterey ornate shrew is encountered, implementing Mitigation Measures BIO-2 and BIO-3 would require avoidance and minimization measures, construction best management practices, and monitoring in order to further reduce these impacts to the Monterey ornate shrew to a **less than significant** level.

Salvage of California legless lizards has been proven effective and successful. Therefore, Mitigation Measures BIO-2 through BIO-4 and BIO-11 require the implementation of protective measures during all phases of construction, education, monitoring, invasive species controls, and pre-construction surveys and salvage. With implementation of these mitigation measures, impacts in this regard would be reduced to **less than significant** levels in compliance with the HMP and BO.

Impacts to California tiger salamander may require take authorization from the CDFW and/or DFW, which would be considered a potentially significant impact. Based on the Biological Resources Report, this on-site habitat is anticipated to be too far away from known and potential breeding sites. As a result, California tiger salamander have a low likelihood to occur on-site, with the exception of the Sports Arena/Equine Training Facility and Horse Park and Oak Oval Habitat Reserve Area. However, implementation of the project would disturb potential upland habitat as a result of vegetation removal and other construction activities, which may result in direct impacts to California tiger salamander. Implementation of Mitigation Measures BIO-2 through BIO-4, and BIO-12 would require a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, as well as requiring pre-construction surveys, construction monitoring, construction work limitations, and preservation and protection of California tiger salamander and their habitat through avoiding the impact or providing the appropriate compensatory mitigation in consultation with the appropriate resources and permitting agencies. Thus, impacts in this regard would be reduced to **less than significant** levels.

Due to the distance of the Sports Arena/Equine Training Facility and Horse Park and Oak Oval Habitat Reserve Area to the nearest known and potential breeding site, the California tiger salamander has a moderate likelihood to occur within these portions of the project site. Implementation of the project would disturb potential upland habitat as a result of vegetation removal and other construction activities, which may result in direct impacts to California tiger salamander. Implementation of Mitigation Measures BIO-9 and BIO-12 would require pre-construction surveys, education, construction monitoring, construction work limitations, and preservation and protection of California tiger salamander and their habitat through avoiding the impact or providing the appropriate compensatory mitigation in consultation with the appropriate resources and permitting agencies. Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

A surface-level recycled water storage basin may be constructed in the middle of the Sports Arena/Equine Training Facility [CONFIRM STATUS WITH APPLICANT]. This water feature may result in direct impacts to California tiger salamander by attracting individual adult California tiger salamander to the basin to breed where they could be adversely affected by the water quality or killed by predators. In addition, the water storage basin could provide habitat for non-native species and predators of California tiger salamander, including non-native tiger salamanders, bullfrogs, fish, or other predators, and these invasive species could disperse into adjacent California tiger salamander habitat.

Implementation of Mitigation Measure BIO-8 would require pre-construction surveys, education, construction monitoring, construction work limitations, and preservation and protection of California tiger salamander and their habitat through avoiding the impact or providing the appropriate compensatory mitigation in consultation with the appropriate resources and permitting agencies. Implementation of the recommended mitigation would reduce the project's impacts to California tiger salamander in this regard to a **less than significant** level.

Other Non-HMP Identified Species

Special-Status Bat Species. The project site, with the exception of the Seaside Corporate Yard, contains coast live oak woodland habitat that may provide roosting habitat for special-status species bats, such as the pallid bat, Townsend's big-eared bat, and hoary bat. Removal of mature oak trees may result in direct impacts to special-status bats, if present at the time of removal. The hoary bats breed inland and to the north of their overwintering locations on the coast. As a result, this species would not be breeding within the vicinity of the project site. Implementation of Mitigation Measures BIO-2 through BIO-5, and BIO-13 would require a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, as well as by requiring avoidance, preservation, and protection of bat species as feasible by requiring pre-construction surveys for potential roost sites and replacement of roost sites if avoidance is not feasible. Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

Monterey Dusky-Footed Woodrat and American Badger. The project site, with the exception of the Seaside Corporate Yard, contains suitable habitat for the Monterey dusky-footed woodrat and American badger, and project implementation could result in direct impacts to individuals and loss of habitat. Implementation of Mitigation Measures BIO-2 through BIO-4, BIO-14, and BIO-15 would require a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, as well as by requiring avoidance, preservation, and protection of these special-status mammals as feasible by requiring pre-construction surveys for potential nest and den sites and dismantling woodrat nests or excavation of badger dens if avoidance is not feasible. Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

Coast Horned Lizards. The project site contains suitable habitat for the coast horned lizard. Project implementation could result in direct impacts to individuals and loss of habitat. Implementation of Mitigation Measures BIO-2 through BIO-4 would avoid and minimize impacts through implementation of construction best management practices, monitoring, and invasive species controls. Thus, the project's impact to the coast horned lizard would be reduced to a **less than significant** level.

Refer to Impact Statement 3.3-5, for an analysis of special-status bird species.

Indirect Impacts

California tiger salamander

The proposed project would result in increased traffic and nighttime lighting, which could result in indirect impacts to California tiger salamander. Implementation of Mitigation Measures BIO-2 through BIO-4, BIO-8, BIO-9, and BIO-12, would require a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, as well as requiring pre-construction surveys, construction monitoring, construction work limitations, and preservation and protection of California tiger salamander and their habitat through avoiding the impact or providing the appropriate compensatory mitigation in consultation with the appropriate resources and permitting agencies. Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

Special-Status Bat Species

Construction noise, dust, and vibration within and adjacent to large trees and other potential roosting habitat could cause indirect impacts such as roost abandonment and death of young. Implementation of Mitigation Measures BIO-2 through BIO-4 and BIO-13 would require a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, as well as by requiring avoidance, preservation, and protection of bat species as feasible by requiring pre-construction surveys for potential roost sites and replacement of roost sites if avoidance is not feasible. Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

Mitigation Measure

BIO-2 **Construction Best Management Practices.** The following best management practices shall be implemented during all identified phases of construction (i.e., pre-, during, and post-) to reduce impacts to special-status plant and wildlife species:

- A qualified biologist shall conduct an Employee Education Program for the construction crew prior to any construction activities. A qualified biologist shall meet with the construction crew at the onset of construction at the project site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review of project boundaries; 2) how a biological monitor shall examine the area and agree upon a method which shall ensure the safety of the monitor during such activities, 3) the special-status species that may be present; 4) the specific mitigation measures that shall be incorporated into the construction effort; 5) the general provisions and protections afforded by the California Department of Fish and Wildlife (CDFW) and U.S. Department of Fish and Wildlife (DFW); and 6) the proper

procedures if a special-status species is encountered within the project site.

- Trees and vegetation not planned for removal or trimming, shall be protected prior to and during construction to the maximum extent feasible through the use of exclusionary fencing, such as hay bales for herbaceous and shrubby vegetation, and protective wood barriers for trees. Only certified weed-free straw shall be used to avoid the introduction of non-native, invasive species. A biological monitor shall supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.
- Protective fencing shall be placed prior to and during construction as to keep construction equipment and personnel from impacting vegetation outside of work limits. A biological monitor shall supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.
- Following construction, disturbed areas shall be restored to pre-project contours to the maximum extent feasible and revegetated using locally-occurring native species and native erosion control seed mix, per the recommendations of a qualified biologist.
- Grading, excavating, and other activities that involve substantial soil disturbance shall be planned and carried out in consultation with a qualified hydrologist, engineer, or erosion control specialist, and shall utilize standard erosion control techniques to minimize erosion and sedimentation to native vegetation (pre-, during, and post-construction).
- No firearms shall be allowed on the project site at any time.
- All food-related and other trash shall be disposed of in closed containers and removed from the project area at least once a week during the construction period, or more often if trash is attracting avian or mammalian predators. Construction personnel shall not feed or otherwise attract wildlife to the area.

BIO-3 **Construction-Phase Monitoring.** The applicant shall retain a qualified biologist to monitor all ground disturbing activities (i.e., vegetation removal, grading, excavation, or similar activities) to protect any special-status species encountered. Any handling and relocation protocols of special-status wildlife species shall be determined in coordination with U.S. Department of Fish and Wildlife (DFW) prior to any ground disturbing activities, and conducted by a qualified biologist with appropriate scientific collection permit. After ground disturbing activities are complete, the qualified biologist shall train an individual from the construction crew to act as the

on-site construction biological monitor. The construction biological monitor shall be the contact for any special-status wildlife species encounters, shall conduct daily inspections of equipment and materials stored on site and any holes or trenches prior to the commencement of work, and shall ensure that all installed fencing stays in place throughout the construction period. The qualified biologist shall then conduct regular scheduled and unscheduled visits to ensure the construction biological monitor is satisfactorily implementing all appropriate mitigation protocols. Both the qualified biologist and the construction biological monitor shall have the authority to stop and/or redirect project activities to ensure protection of resources and compliance with all environmental permits and conditions of the project. The qualified biologist and the construction monitor shall complete a daily log summarizing activities and environmental compliance throughout the duration of the project construction phase. The log shall also include any special-status wildlife species observed and relocated.

BIO-4 **Non-Native, Invasive Species Controls.** The following measures shall be implemented to reduce the introduction and spread of non-native, invasive species:

- Any landscaping or replanting required for the project shall not use species listed as noxious by the California Department of Food and Agriculture (CDFA).
- Bare and disturbed soil shall be landscaped with CDFA recommended seed mix or plantings from locally adopted species to preclude the invasion on noxious weeds in the project site.
- Construction equipment shall be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds, before mobilizing to arrive at the construction site and before leaving the construction site.
- All non-native, invasive plant species shall be removed from disturbed areas prior to replanting.

BIO-5 **HMP Plant Species Salvage.** For impacts to the Habitat Management Plan (HMP) plant species within the project site that do not require take authorization from California Department of Fish and Wildlife (CDFW) or U.S. Department of Fish and Wildlife (DFW), salvage efforts for these species shall be evaluated by a qualified biologist in coordination with project applicant, CDFW, and DFW to further reduce impacts per the requirements of the HMP and BO. A salvage plan shall be prepared and implemented by a qualified biologist, in coordination with project applicant, CDFW, and DFW, which shall include, but not be limited to: a description and evaluation of salvage opportunities and constraints; the appropriate methods and protocols of salvage and relocation efforts; identify relocation

and restoration areas; and identify qualified biologists approved to perform the salvage efforts, including the identification of any required collection permits from CDFW and/or DFW. Where proposed, seed collection occurs from plants within the project site and topsoil shall be salvaged within occupied areas to be disturbed. Seeds shall be collected during the appropriate time of year for each species by qualified biologists. At the time of seed collection, a map shall also be prepared that identifies the specific locations of the plants for any future topsoil preservation efforts. The collected seeds shall be used to revegetate temporarily disturbed construction areas and reseeding and restoration efforts on- or off-site, as determined appropriate in the salvage plan.

BIO-6 **Special-Status Plant Species within the Seaside Corporation Yard.** The project applicant shall retain a qualified biologist to conduct protocol-level surveys for special-status plant species within the Seaside Corporation Yard development area prior to any ground disturbing activities. Protocol-level surveys shall be conducted by a qualified biologist at the appropriate time of year for species with the potential to occur within the site. A report describing the results of the surveys shall be provided to the City of Seaside prior to any ground disturbing activities. The report shall include, but not be limited to: 1) a description of the species observed, if any; 2) map of the location, if observed; and 3) recommended avoidance and minimization measures, if applicable. The mitigation strategy shall include the following:

- For all non-listed, Habitat Management Plan (HMP) species observed, the implementation of Mitigation Measures BIO-2 through BIO-5 shall be implemented and no additional mitigation is required.
- For any state listed or non-HMP special-status plant species observed, the following shall be implemented:
- Individuals shall be avoided through project design and modification, to the extent feasible, while taking into consideration other site and engineering constraints; or
- If impacts to state listed plant species cannot be avoided, the project applicant shall comply with the California Endangered Species Act (CESA) and consult with the U.S. Department of Fish and Wildlife (DFW) to determine whether authorization for the incidental take of the species is required prior to issuance of a grading permit. Alternatively, if the impacted state listed plant species is a proposed Habitat Conservation Plan (HCP) species (i.e., sand gilia or seaside bird's beak), the project applicant can wait to implement the project, including any ground-disturbing activities, until the Fort Ord HCP is approved and base-wide state incidental take permits are issued. If the project applicant chooses the base-wide permit alternative, project-specific incidental take permits shall not be necessary;

however, all applicable requirements of the HCP shall be implemented.

- If impacts to non-listed, non-HMP special-status plant species cannot be avoided, the species shall be replaced at a 1:1 ratio for acreage and/or individuals impacted through preservation, restoration, or combination of both. A Rare Plant Restoration Plan, approved by the City of Seaside prior to issuance of a grading permit, shall be prepared and implemented by a qualified biologist. The plan shall include, but not be limited to, the following:

- A detailed description of on-site and/or off-site mitigation areas, salvage of seed and/or soil bank, plant salvage, seeding, and planting specifications, including, if appropriate, increased planting ratio to ensure the applicable success ratio. Specifically, seed shall be collected from the on-site individuals that will be impacted and grown in a local greenhouse, and then transplanted within the mitigation area. Plants shall be transplanted while young seedlings in order to develop a good root system. Alternatively, the mitigation area may be broadcast seeded in fall; however, if this method is used, some seed shall be retained in the event that the seeding fails to produce viable plants and contingency measures need to be employed.

- A description of a three-year monitoring program, including specific methods of vegetation monitoring, data collection and analysis, restoration goals and objectives, success criteria, adaptive management (if the criteria are not met), reporting protocols, and a funding mechanism shall be prepared.

  The mitigation area shall be preserved in perpetuity through a conservation easement or other legally enforceable land preservation agreement. Exclusionary fencing shall be installed around the mitigation area to prevent disturbance until success criteria have been met.

BIO-7 **Impacts to Sand gilia.** When the project applicant initiates the site design phase for the Sports Arena/Equine Training Facility, the following measures shall be implemented:

- Sand gilia individuals and populations shall be avoided through project design and modification, to the extent feasible while taking into consideration other site and engineering constraints; or

- If impacts to sand gilia cannot be avoided, the project applicant shall comply with the California Endangered Species Act (CESA) and consult with the U.S. Department of Fish and Wildlife (DFW) to determine whether authorization for the incidental take of the species is required prior to issuance of a grading permit. If it is determined

that authorization for incidental take is required from the DFW, the project applicant shall comply with the CESA to obtain an incidental take permit at the project-level prior to the issuance of a grading permit. Alternatively, the project applicant can wait to implement the project, including any ground-disturbing activities, until the Fort Ord Habitat Conservation Plan (HCP) is approved and base-wide state incidental take permits are issued. If the project applicant chooses the base-wide permit alternative, project-specific incidental take permits shall not be necessary; however, all applicable requirements of the HCP shall be implemented.

BIO-8 **Implement Borderland Requirements.** The Borderland requirements provided as part of the Coordinated Resource Management and Planning Program (CRMP) program shall be implemented prior to issuance of grading permits for the planning areas within Army Parcel Number E19a.3 (Commercial area C-2, Residential Area RM, Sports Arena/Equine Training Facility REC-2, and Horse Park REC-1). These requirements include, but are not limited to, the establishment and maintenance of fuelbreaks, identification of necessary access controls, the incorporation of non-native species control features into site design, limiting artificial lighting at the urban/wildland interface, design for avoidance/minimization of impacts on local hydrological conditions, and providing educational materials to property owners in Borderland parcels.

BIO-9 **Design proposed trail in the Oak Oval Habitat Reserve Area (OOHRA) to avoid or reduce impacts to special-status species and natural communities.** The following measures shall be implemented to minimize effects of this development on special-status species and natural communities:

- The project applicant shall retain a qualified biologist to conduct a biological assessment for the proposed trail through the OOHRA to determine potential impacts to special-status species and natural communities as part of the design and planning process prior to construction. The assessment shall include conducting focused rare plant and reconnaissance-level wildlife surveys to determine occupied or potential special-status species habitat prior to development of the trail. The assessment shall include, but not be limited to, a description of the baseline habitat conditions, known or potential sensitive biological resources that may be impacted by the trail, potential impacts that may result, and any avoidance and minimization measures necessary. The assessment shall be provided to the California Department of Fish and Wildlife (CDFW), U.S. Department of Fish and Wildlife (DFW), governing jurisdiction, and Coordinated Resource Management and Planning Program (CRMP) program members.

If impacts to listed species requiring take authorization cannot be avoided, the project applicant shall comply with the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA) and consult with the CDFW and/or DFW to determine whether authorization for the incidental take of the species is required prior to issuance of a grading permit. If it is determined that authorization for incidental take is required from the CDFW and/or DFW, the project applicant shall comply with the ESA and CESA to obtain an incidental take permit at the project-level prior to the issuance of a grading permit.

Alternatively, if the listed species is a proposed Habitat Conservation Plan (HCP) species (i.e., sand gilia, seaside bird's beak, and/or California tiger salamander), the project applicant can wait to implement the project, including ground-disturbing activities, until the Fort Ord HCP is approved and base-wide federal and state incidental take permits are issued. If the project applicant chooses the base-wide permit alternative, project-specific, individual incidental take permits shall not be necessary; however, all applicable requirements of the HCP shall be implemented.

- The proposed trail shall be located in the eastern portion of the OOHRA to minimize vegetation removal and maintain wildlife movement corridors between habitat reserves.
- Recreation access in the OOHRA shall be limited to designated trails only. The applicant shall install and maintain signage at trailheads, along designated trails, and trailheads of closed trails to clearly define where these activities are allowed.
- The project applicant shall prepare and implement a trail maintenance program to reduce the potential effects of hiker and equestrian use of the OOHRA on special-status species and natural communities. The program shall emphasize controlling erosion and the potential spread of non-native invasive plants. Trails may be closed and/or rerouted based on the monitoring program. The trail maintenance program shall be submitted to the City of review and approval prior to ground disturbance within the OOHRA. Revisions to the program may be required, as requested by the City, based on evolving conditions and use requirements over time.

BIO-10 **Avoidance of impacts to Kellogg's horkelia within the residential and commercial areas of the Monterey Downs development area.**

- Individuals shall be avoided through project design and modification, to the extent feasible while taking into consideration other site and engineering constraints; or
- If avoidance is not feasible, the species shall be replaced at a 1:1 ratio for area of impact through preservation, restoration, or combination

of both. A Rare Plant Restoration Plan, approved by the City of Seaside prior to issuance of a grading permit, shall be prepared and implemented by a qualified biologist. The plan shall include, but not be limited to, the following:

- A detailed description of on-site and/or off-site mitigation areas, salvage of seed and/or soil bank, plant salvage, seeding, and planting specifications, including, if appropriate, increased planting ratio to ensure the applicable success ratio. Specifically, seed shall be collected from the on-site individuals that will be impacted and grown in a local greenhouse, and then transplanted within the mitigation area. Plants shall be transplanted while young seedlings in order to develop a good root system. Alternatively, the mitigation area may be broadcast seeded in fall; however, if this method is used, some seed shall be retained in the event that the seeding fails to produce viable plants and contingency measures need to be employed.
- A description of a three-year monitoring program, including specific methods of vegetation monitoring, data collection and analysis, restoration goals and objectives, success criteria, adaptive management if the criteria are not met, reporting protocols, and a funding mechanism shall be prepared.
- The mitigation area shall be preserved in perpetuity through a conservation easement or other legally enforceable land preservation agreement. Exclusionary fencing shall be installed around the mitigation area to prevent disturbance until success criteria have been met.

BIO-11 **Preparation of a California Legless Lizard Management Plan.** Prior to the issuance of the first grading permit, the project applicant shall retain a qualified biologist to prepare and implement a legless lizard management plan. This plan shall include, but not be limited to, the protocols for pre-construction surveys, construction monitoring, and salvage and relocation. The legless lizard management plan shall be prepared in close coordination with DFW and the applicant shall provide the City with evidence of concurrence/acceptance of the legless lizard management plan by DFW.

BIO-12 **Avoidance and Minimization Measures for California Tiger Salamander.** For construction activities proposed within potential California tiger salamander upland habitat in Zone 4 of the CCVC development area, Zone 4 of the residential and commercial use areas of the Monterey Downs development area, and all construction activities proposed within the Sports Arena/Equine Training Facility & Horse Park use development area, the following measures shall be implemented:

The project applicant shall comply with the Endangered Species Act (ESA) and California Endangered Species Act (CESA) and consult with the California Department of Fish and Wildlife (CDFW) and U.S. Department of Fish and Wildlife (DFW) to determine whether authorization for the incidental take of California tiger salamander is required prior to issuance of a grading permit. If it is determined that authorization for the incidental take of California tiger salamander is required from the CDFW and/or DFW, the project applicant shall comply with the ESA and/or CESA to obtain an incidental take permit at the project-level prior to the issuance of a grading permit.

Alternatively, the project applicant can wait to implement the project, including ground-disturbing activities, until the Fort Ord Habitat Conservation Plan (HCP) is approved and base-wide federal and state incidental take permits are issued. If the project applicant chooses the base-wide permit alternative, project-specific, individual incidental take permits shall not be necessary; however, all applicable requirements of the HCP shall be implemented.

To avoid and reduce the potential for take of California tiger salamander during construction, the following measures shall be implemented for construction-related activities:

- A qualified biologist approved by the CDFW and DFW shall survey appropriate areas of the project site no more than 48 hours before the onset of ground disturbing activities for the presence of California tiger salamander. The biologist shall be present at the work site until all ground disturbing activities are completed. After ground disturbing project activities are complete, the biologist can train an individual from the construction crew to act as the on-site construction biological monitor to monitor on-site compliance with all avoidance and minimization measures, if determined qualified. The biologist shall ensure that this monitor receives the sufficient training in the identification of California tiger salamander. The monitor or the CDFW-approved biologist can stop work because the avoidance and/or minimization measures are not being followed. Work shall also be stopped if California tiger salamander are encountered. If a California tiger salamander is encountered, the CDFW and DFW shall be notified to determine the appropriate actions in compliance with the ESA and CESA.
- For the CCVC development area, night work is not allowed; work shall terminate 30 minutes prior to sunset and shall not start until 30 minutes after sunrise. For the Zone 4 of the residential and commercial use areas of the Monterey Downs and Sports Arena/Equine Training Facility and Horse Park development areas,

night work is not allowed from October 31 through April 30; work shall terminate 30 minutes prior to sunset and shall not start until 30 minutes after sunrise.

- Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. No maintenance, cleaning or fueling of equipment shall occur within wetland or riparian areas, or within 20 feet of such areas and, at a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills. During construction, all project-related spills of hazardous materials within or adjacent to project sites shall be cleaned up immediately. Spill prevention and clean-up materials shall be onsite at all times during construction. Construction materials/debris shall also be stored within the designated staging areas. No debris, soil, silt, sand, oil, petroleum products, cement, concrete, or washings thereof shall be allowed to enter into, or be placed where they may be washed by rainfall or runoff, into wetland habitats.
- All trash that may attract predators shall be properly contained, removed from the project site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO-13 **Pre-Construction Surveys for Special-Status Bats.** To avoid and reduce impacts to hoary bat and other special-status bat species, the project applicant shall retain a qualified bat specialist or wildlife biologist to conduct site surveys during the reproductive season (May 1 through September 15) to characterize bat utilization of the site and potential species present (techniques utilized shall be determined by the biologist) prior to any vegetation or building removal. Based on the results of these initial surveys, one or more of the following shall occur:

- If it is determined that bats are not present at the site, no additional mitigation is required.
- If it is determined that bats are utilizing the site and may be impacted by the proposed project, pre-construction surveys shall be conducted no more than 30 days prior to any tree or building removal (or any other suitable roosting habitat) within 100 feet of construction limits. If, according to the bat specialist, no bats or bat signs are observed in the course of the pre-construction surveys, tree and building removal may proceed. If bats and/or bat signs are observed during the pre-construction surveys, the biologist shall determine if disturbance will jeopardize a maternity roost or another type of roost (i.e., foraging, day, or night).

- If a single bat and/or only adult bats are roosting, removal of trees, buildings, or other suitable habitat may proceed after the bats have been safely excluded from the roost. Exclusion techniques shall be determined by the biologist and depend on the roost type; the biologist shall prepare a mitigation plan for provision of alternative habitat to be approved by U.S. Department of Fish and Wildlife (DFW).

- If an active maternity roost is detected, avoidance is preferred. Work in the vicinity of the roost (buffer shall be determined by biologist) shall be postponed until the biologist monitoring the roost(s) determines that the young have fledged and are no longer dependent on the roost. The monitor shall ensure that all bats have left the area of disturbance prior to initiation of limbing and/or removal of trees. If avoidance is not feasible and a maternity roost must be disrupted, a depredation permit would be required prior to "take" of the roost.

BIO-14 **Pre-Construction Surveys for Monterey Dusky-Footed Woodrat.** To avoid and reduce impacts to the Monterey dusky-footed woodrat, the project applicant shall retain a qualified biologist to conduct pre-construction surveys in suitable habitat proposed for construction, ground disturbance, or staging within three days prior to construction for woodrat nests within the project area and in a buffer zone 100 feet out from the limit of disturbance. All woodrat nests shall be flagged for avoidance of direct construction impacts, where feasible. All nests within 25 feet of the project site shall be avoided and protected during project activities. Nests that cannot be avoided shall be manually deconstructed prior to land clearing activities to allow animals to escape harm. If a litter of young is found or suspected, nest material shall be replaced, and the nest left alone for 2-3 weeks before a re-check to verify that young are capable of independent survival before proceeding with nest dismantling.

BIO-15 **Pre-Construction Surveys for American Badger.** To avoid and reduce impacts to the American badger, the project applicant shall retain a qualified biologist to conduct focused pre-construction surveys for badger dens in all suitable habitat proposed for construction, ground disturbance, or staging no more than two weeks prior to construction. If no potential badger dens are present, no further mitigation is required. If potential dens are observed, the following measures shall be implemented to avoid potential significant impacts to the American badger:

- If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers from re-using them during construction.

- If the qualified biologist determines that potential dens may be active, the entrances of the dens shall be blocked with soil, sticks, and debris for three to five days to discourage the use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three to five day period. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.

Wetlands and Jurisdictional Waters

Impact 3.3-3 Project implementation could have an adverse effect on federally protected wetlands, which would result in a **potentially significant impact.**

The on-site riparian habitat area may contain jurisdictional wetlands. A formal wetland delineation could not be conducted at the time of the field surveys due to the restrictions outlined in the Right-of-Entry issued by FORA as a requirement of the ESCA Remediation Program (e.g., no intrusive or ground disturbing activities, including digging, were allowed to collect soil and hydrology data).

As required in the mitigation measure below, a formal wetland delineation in accordance with ACOE protocols would be required to be conducted to determine the presence of jurisdictional wetlands (Mitigation Measure BIO-16). If determined present, potentially jurisdictional wetlands would be impacted by the Sports Arena and Equine Training Facility as currently designed and proposed, and permits or authorizations may be required from the ACOE and RWQCB under Section 404 and 401 of the CWA, and the DFW under 1602 of the California Fish and Game Code. These regulations support the national goal of "no overall net loss" of wetlands.

For permitted activities that result in unavoidable losses, these regulatory agencies require replacement wetlands to offset those losses and place a significant emphasis on ensuring that the ecological quality of impacted and replacement wetlands are the same. The project applicant may be required to restore, establish, enhance, or preserve other aquatic resources to replace those impacted by the project. There are three mechanisms for providing compensatory mitigation: permittee-responsible compensatory mitigation, mitigation banks, and in-lieu fee mitigation. Implementation of the recommended mitigation measure BIO-1 would require a formal delineation and avoidance, preservation, and protection of these habitats as feasible. If impacts are not avoidable, Mitigation Measure BIO-1 requires the preparation of habitat mitigation and monitoring plans that includes details for restoration and preservation in accordance with resources and permitting agencies. With implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant** levels.

Mitigation Measure Refer to Mitigation Measure BIO-1 as well as the following:

BIO-16: **Conduct a Wetland Delineation.** A wetland delineation shall be conducted prior to issuance of a grading permit for the Sports Arena and Equine Training Facility (REC-2) to determine the presence and extent of

jurisdictional wetlands and other waters of the U.S. The wetland delineation shall be conducted according to the protocols set forth by the U.S. Army Corps of Engineers (ACOE). If potentially jurisdictional wetlands or other waters of the U.S. are not identified, no further mitigation is required. If potentially jurisdictional wetlands or other waters of the U.S. are identified, the project applicant shall avoid and minimize impacts to the maximum extent feasible while taking into account site and engineering constraints, including incorporating site design revisions to relocate project features and/or reduce water quality impacts. If avoidance is not feasible, the project applicant shall obtain a Section 404 permit under the Clean Water Act (CWA) from the ACOE and a Section 401 permit under the federal CWA from the Regional Water Quality Control Board (RWQCB) prior to issuance of the grading permit. In addition, the project applicant shall comply with Section 1602 of California Fish and Game Code and submit a Streambed Alteration Agreement to the California Department of Fish and Wildlife (CDFW) for approval prior to issuance of the grading permit for the Sports Arena and Equine Training Facility (REC-2).

Wildlife Movement Corridors

Impact 3.3-4 Implementation of the proposed project could result in direct or indirect impacts to wildlife movement; which is considered a **potentially significant impact.**

Wildlife movement corridors are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or man-made factors, such as urbanization. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, and, therefore, adversely affect both genetic and species diversity.

Corridors often partially or largely mitigate the adverse effects of fragmentation by: 1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available; 2) providing escape routes from fire, predators, and human disturbances, thus, reducing the risk that catastrophic events (e.g., fire and disease) that would result in population or species extinction; and 3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

The proposed project is located in the western portion of the former Fort Ord, primarily adjacent to the developed areas to the west and open space to the north, east, and south. Development of the project could restrict local or long-distance wildlife movement of native species by reducing the habitat available and further disconnecting or fragmenting habitat areas, which reduces the size of wildlife populations that those habitat areas can support. However, the proposed development would not disconnect, fragment, or

otherwise impeded wildlife movement in the primary, significant wildlife movement corridors between the former Fort Ord lands and other lands.

Furthermore, the HMP considered conservation area connectivity as an essential component of the design of the conservation areas and corridors within the former Fort Ord. The HMP created conservation areas and corridors with the purpose of linking the plant and animal populations in the northern portion of the former base at the Marina Municipal Airport to the populations in the south to the Fort Ord National Monument and the El Toro Creek undercrossing of Highway 68. The implementation of the HMP preserves over 18,500 acres of a variety of habitats supporting a variety of common and special-status plant species to the east of the project site, and maintains a north-south wildlife corridor across the former Fort Ord lands to connect with the primary, significant wildlife linkages. Due to the regional availability of preserved habitat and the preservation of the significant wildlife movement corridors, implementation of the proposed project would result in a **less than significant** impact on wildlife movement corridors.

Migratory/Special-Status Birds

Impact 3.3-5 Implementation of the proposed project could result in direct or indirect impacts to migratory and/or special status bird species; result in a **potentially significant impact.**

Several common bird species have the potential to nest within the various plant communities on the project site. Construction activities could result in the direct loss of active nests of common bird species or the abandonment of active nests by adult birds. The MBTA protects the majority of migrating birds breeding in the U.S., regardless of their official federal or state listing status under the ESA or CESA. The law applies to the disturbance or removal of active nests occupied by migratory birds during their breeding season. It is specifically a violation of the MBTA to directly kill or destroy an occupied nest of any bird species covered by the MBTA. California Fish and Game Code Section 3503 protects the nest and eggs of native non-game birds. Under this law, it is unlawful to take, possess, or destroy any such birds or to take, possess, or destroy the nests or eggs of any such bird. The California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Most of the birds observed or with the potential to occur within the project site are protected under both the MBTA and California Fish and Game Code Section 3503, and, in addition, birds may be designated as California species of special concern.

Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest would be considered a significant impact. With the exception of the developed areas (e.g., roads) within the CCVC project site, all habitats within the project site provide nesting habitat for protected avian species. The oak woodland habitat provides suitable nesting habitat for tree-nesting raptors and migratory birds. Other ground-nesting birds may nest in non-native grassland, maritime chaparral, or

central coastal scrub. If a raptor or other migratory birds (including species of special concern), regardless of its federal or state status, were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws and would be considered a significant impact under CEQA. Implementation of Mitigation Measures BIO-2, BIO-3, BIO-17, and BIO-18 would require a combination of protective measures during all phases of construction, education, and pre-construction surveys to limit exposure to construction activities. Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced **to less than significant** levels.

Mitigation Measure Refer to Mitigation Measures BIO-2 and BIO-3 as well as the following:

BIO-17 **Pre-Construction Surveys for Protected Avian Species.** Construction activities that may directly (e.g., vegetation removal) or indirectly (e.g., noise/ground disturbance) affect protected nesting avian species shall be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31.

If construction occurs between February 1 and September 15, a qualified biologist shall be retained by the project applicant to conduct pre-construction surveys for nesting raptors and other protected avian species within 500 feet of proposed construction activities. Pre-construction surveys shall be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). As determined necessary by a qualified biologists, surveys for nesting birds may be required to continue during construction to address new arrivals and unique species breeding seasons. The necessity and timing of these continued surveys shall be determined by the qualified biologist based on review of the final construction plans and in coordination with the California Department of Fish and Wildlife (CDFW) and U.S. Department of Fish and Wildlife (DFW), as needed.

If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist shall notify the project applicant and an appropriate no-disturbance buffer shall be imposed within which no construction activities or disturbance shall take place (generally 500 feet in all directions for raptors; other avian species may have species-specific requirements) until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.

BIO-18 **Pre-Construction Surveys for Burrowing Owl.** To avoid impacts to active burrowing owl nests, a qualified biologist shall conduct pre-construction surveys in suitable habitat within the construction footprint and within 250 feet of the footprint no more than 30 days prior to the start of construction. If ground disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the site shall be resurveyed. The survey shall conform to the DFG 1995 Staff Report protocol. If no burrowing owls are found, no further mitigation is required. If it is determined that burrowing owls occupy the site during the non-breeding season (September 1 through January 31), then a passive relocation effort (e.g., blocking burrows with one-way doors and leaving them in place for a minimum of three days) may be necessary to ensure that the owls are not harmed or injured during construction. Once it has been determined that the owls have vacated the site, the burrows can be collapsed, and ground disturbance can proceed. If burrowing owls are detected within the construction footprint or immediately adjacent lands (i.e. within 250 feet of the footprint) during the breeding season (February 1 to August 31), a construction-free buffer of 250 feet shall be established around all active owl nests. The buffer area shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents. After the breeding season, passive relocation of any remaining owls may take place as described above.

Consistency with Local Tree Policy

Impact 3.3-6 Implementation of the proposed project could conflict with a local tree policy, in which case a **potentially significant impact** would result.

Chapter 8.54 of the City's Municipal Code outlines the policies regarding tree removal and alteration. The policies applicable to this project include Sections 8.54.060 (New Construction, development, subdivision, and site plans), 8.54.070 (Replacement of trees), and 8.54.080 (Protection of trees during construction). These policies require that: 1) any trees, six inches or greater in diameter, proposed for removal or alteration shall be specified on the site plan or tentative map, 2) removal or alteration shall be approved by the Board of Architectural Review, or other applicable approving body, and shall try to preserve trees recommended for preservation; and 3) trees shall be replaced with a minimum five-gallon specimen tree of a species and in a location approved by the Board of Architectural Review or other approving body.

Forest Resource Analyses have been prepared for the CCVC and Monterey Downs development areas (as provided in Appendix D) to address impacts to trees in compliance with City's Municipal Code (note that the Seaside Corporate Yard has not been surveyed

for trees at this time). The following summarizes the reported on-site tree conditions in these development areas:

CCVC Development Area. 53.1 acres are mapped as coast live oak woodland within the CCVC development area. Within this area, there are an estimated 9,274 coast live oak trees. Of these trees, seven trees were recorded within the CCVC development area as landmark oaks. Landmark oaks are defined as trees which are 24 inches or more in diameter when measured two feet above the ground, or trees which are visually significant, historically significant, or exemplary of their species.

Monterey Downs Development Area. 324 acres are mapped as coast live oak woodland within the Monterey Downs development area. Within this area, there are an estimated 39,182 coast live oak trees (of which 9,245 are estimated to be located in the preserve areas on-site). Of these trees, fewer than 100 trees were estimated within the Monterey Downs development area as landmark oaks. Of these, 47 landmark oaks are estimated to be located within the preserve areas on-site.

Any tree removal would be required to comply with the City of Seaside's Tree Ordinance. A qualified forester/arborist would be required to provide design recommendations for on-site development in order to assist in preserving, where feasible, the character of the existing on-site trees into future site development. All future on-site development would be required to prepare a Forest Management Plan (Recommended Mitigation Measure BIO-19) prior to property development. In order to assure that recommendations in the Forest Management Plan are consistent with the final site layout, future development planning would be required to be coordinated between the forester/arborist and site architects. A follow-up inventory would also be required to be conducted based on proposed building plans to determine the specific impacts of construction proposals. As the proposed project is anticipated to impact on-site landmark oaks, and the extent of these impacts are unknown at this time, impacts in this regard would remain **significant and unavoidable** despite implementation of the recommended mitigation.

Mitigation Measure

BIO-19 To minimize impacts to Oak woodlands and in the spirit of compliance with PRC 21083.4 [4] the project applicant shall submit a Forest Management Plan(FMP), to be prepared by a qualified forester/arborist, to the City of Seaside Public Works Director, prior to the issuance of any grading permit. The FMP shall demonstrate that tree protection measures are incorporated, to the extent feasible, for both the pre-construction and construction phases of the project. The Forest Management Plan shall be consistent with the City's Tree Ordinance, and shall include measures to avoid tree removal

[4] On January 1, 2005, Senate Bill 1334 established Public Resources Code (PRC) Section 21083.4, the state's first oak woodlands conservation standards for California Environmental Quality Act (CEQA) processes. While the provisions of this code apply only to counties, the requirements are applied to this project given the unique circumstances of the project site and the fact that the property is proposed to be annexed from Monterey County.

and/or transplant trees whenever possible as well as recommend suitable mitigation ratios and planting areas. In addition, a program shall be established within the Forest Management Plan for the applicant to submit a special fee to FORA to fund tree replacement elsewhere within Fort Ord. The Forest Management Plan, at a minimum, shall include the following features:

Tree Protection Measures

- To maximize tree retention and protection, a forester, arborist or other tree care professional shall be involved in review and development of final grading and construction plans wherever trees occur either at project or grading margins.
- Prior to commencement of any grading within 50 feet of retained trees, the contractor shall install protective fencing at the driplines of retained trees to create a Tree Protection Zone (TPZ) that shall not be entered for any reason unless approved by the project forester. The TPZ may extend within the driplines of retained trees where approved by the project forester in order to retain more trees. Grading may not commence until the project forester has inspected and approved the protective fencing installed by the contractor.
- Prior to commencement of any grading within 50 feet of retained trees, the project forester shall identify retained trees needing significant pruning to protect them during grading operations. This protective pruning work shall be completed by a qualified tree contractor, in accordance with current arboricultural standards and practices prior to commencement of operations to balance canopy, provide necessary clearances, remove dead wood, and promote the health of the tree. All pruning shall be completed or supervised by a certified arborist and adhere to the Best Management Practices for Pruning established by the International Society of Arboriculture.
- No grading, construction, demolition, or other work shall occur within the Tree Protection Zone. Any modifications must be approved and monitored by the consulting arborist.
- No soil shall be removed or added within the dripline of a retained tree unless it is part of approved construction and approved by the project forester or arborist.
- Under no circumstances shall fill be placed in contact with the base of a retained tree. Permanent wells shall be constructed as appropriate whenever necessary to prevent fill/trunk contact, never at a distance less than a foot from the trunk, and without causing significant root damage.

- To avoid soil compaction from damaging the roots, heavy equipment shall not be allowed to drive over the root area. If deemed necessary and approved by the forester, equipment may drive across one side of the tree. To reduce soil compaction, wood chips shall be spread 6-12 inches deep to disperse the weight of equipment and plywood sheets shall be placed over the wood chips for added protection.
- Roots exposed by excavation must be pruned and recovered as quickly as possible to promote callusing, closure and healthy re-growth.
- Retained trees shall be watered periodically in accordance with species needs to promote tree health. Transplanted trees and their intended planting areas shall be pre-watered. Post planting watering shall be done as needed to assure establishment.
- Supplemental irrigation shall be applied as determined by the consulting arborist.
- If injury should occur to any tree during construction, it shall be evaluated as soon as feasible by the consulting arborist so that appropriate treatments can be applied.
- No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within the TPZ.
- Any additional tree pruning needed for clearance during construction must be performed or supervised by an Arborist and not by construction personnel.
- As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees shall be designed to withstand differential displacement.

Replacement and Planting Measures

- When the project design is completed, an estimate of the appropriate number of replacement seedlings shall be made based on available planting space. These replacement seedlings shall be planted along boundaries and within detention basins and landscape areas. Planting density for seedlings shall be 10 feet by 10 feet to allow for some unavoidable mortality over time.
- Transplants are encouraged and will be credited on a 3:1 basis. Final replanting numbers may be modified by additional tree retention and should be made part of the final landscaping plan.
- All graded areas that are scheduled for replanting shall be returned to preconstruction soil condition prior to replanting. Tree replacement requirements shall be met promptly after the close of construction

and based on a final tally of trees actually removed in the project area rather than on the estimates contained in the Forest Management Plan.

- Not less than 80 percent of replacement trees shall be small, less than one gallon in size (supercells or D40 treepots). Not more than 20 percent of the replacement trees shall be of five-gallon container size or larger.
- Final landscape planting shall require a post planting watering plan based on the time of planting and size of selected stock.
- Two, five, and eight years following mitigation plantings, the applicant shall arrange for a qualified arborist to inspect replacement tree plantings following project completion. Any trees that have died or are in poor condition in the judgment of the arborist shall be replaced and inspected on a two, five and eight year schedule beginning with the next inspection on the original schedule, and with the same replacement location requirements.

Consistency with Other Local Policies

Impact 3.3-7 Implementation of the proposed would be consistent with the HMP and, if adopted, the HCP for the project site. Thus, a **less than significant** impact would result.

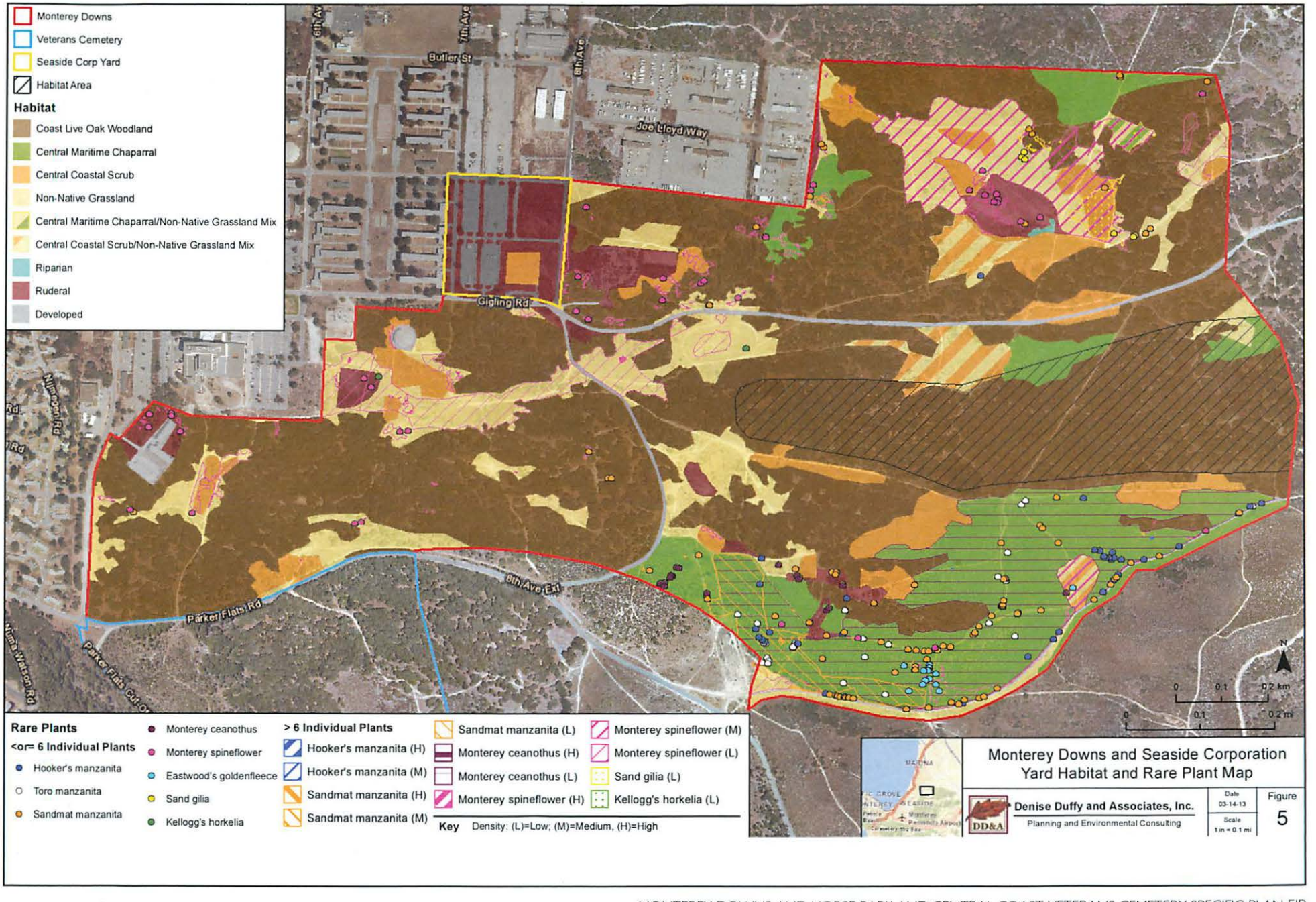
The proposed project is located within areas designated by the HMP as "development" with exception of the Oak Oval Habitat Reserve Area, which is designated as "habitat reserve." Within the Oak Oval Habitat Reserve Area, the HMP allows for the construction and operation of a 150-foot wide cross-country track trail. The construction of this track is anticipated to occur in conjunction with the Sports Arena/Equine Training Facility and/or Horse Park development area. In accordance with the HMP, the new trail must be sited and designed to minimize vegetation removal and maintain wildlife movement corridors between habitat reserve areas. All other trails and courses through the Habitat Area must use existing or realigned roads and trails. No buildings, grandstands, corrals, parking areas, or other developments are allowed in the Habitat Area. The siting and design of trails and courses through the Habitat Area must be approved by the CDFW, DFW, and BLM through the CRMP program. The proposed project does not propose any uses or activities beyond what is identified as permissible by the HMP. With implementation of the recommended Mitigation Measure BIO-8, the project would also be consistent with the Borderland requirements of the CRMP. These requirements include, but are not limited to, the establishment and maintenance of fuelbreaks, identification of necessary access controls, the incorporation of non-native species control features into site design, limiting artificial lighting at the urban/wildland interface, design for avoidance/minimization of impacts on local hydrological conditions, and providing educational materials to property owners in Borderland parcels.

On-site parcels designated as "development" have no habitat management restrictions. However, the BO and HMP require the identification of sensitive biological resources within the designated development parcels that may be salvaged for use in restoration activities in reserve areas. Mitigation Measure BIO-5 has been identified to ensure compliance with the BO and HMP.

The project site is not located within the boundaries of an adopted HCP. However, as discussed above, there is an approved HMP for the former Fort Ord and a Draft HCP is currently being prepared. The HMP species known or with the potential to occur within the proposed project site include Monterey spineflower, sand gilia, sandmat manzanita, Hooker's manzanita, Toro manzanita, Monterey ceanothus, Eastwood's golden fleece, California tiger salamander, California legless lizard, and Monterey ornate shrew. In the HMP and Draft HCP, the project site is designated as a development parcel, and there are no habitat management requirements associated with the site. The project does not conflict with the provisions of either plan.

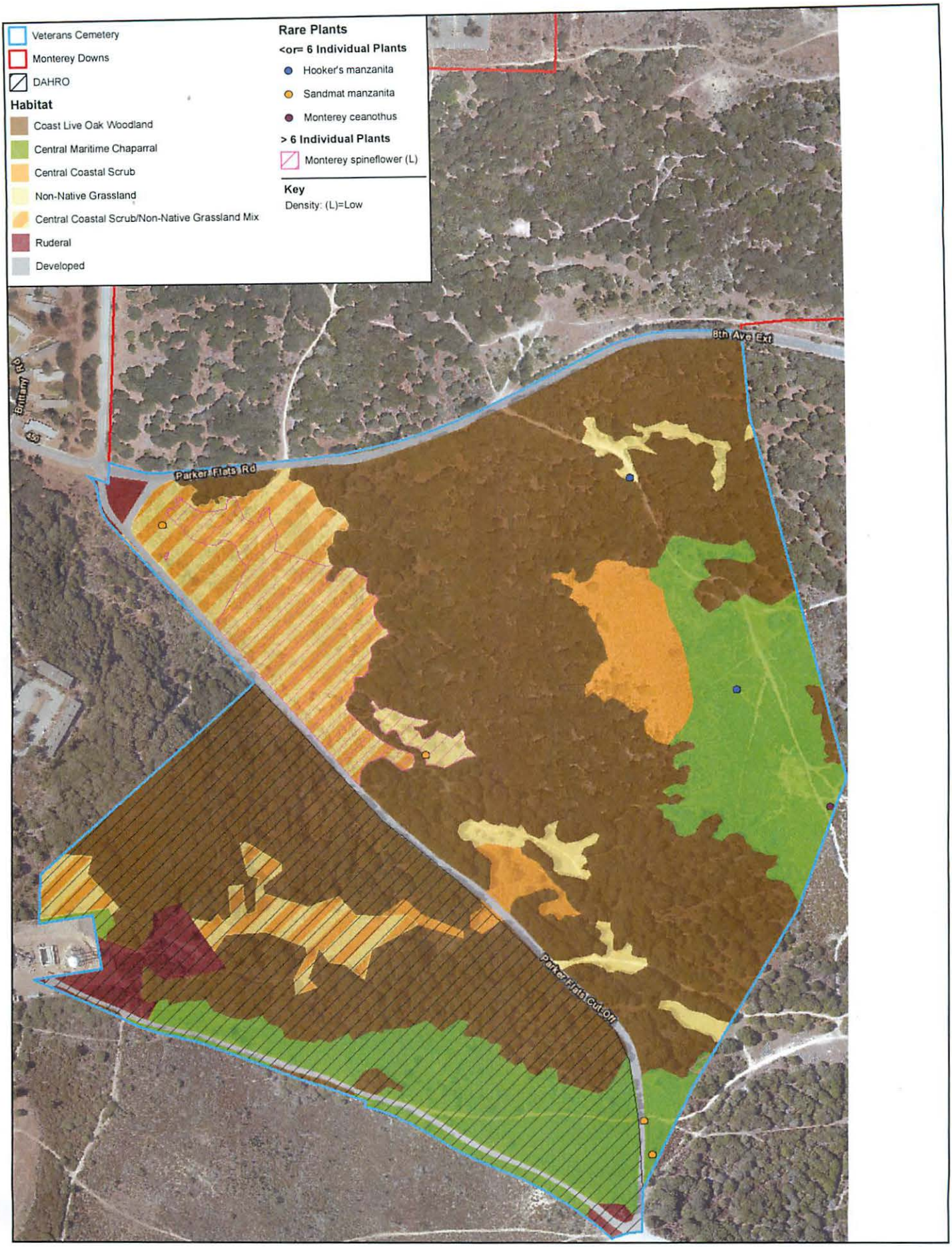
The project site is located within the boundaries of the Draft NCCP/HCP, and specifically within the Draft NCCP/HCP's Central Subarea. Also, the project site is within a Draft NCCP Impact Area. The purpose of an NCCP/HCP is to protect natural communities and species, while allowing a reasonable amount of economic development. The Draft NCCP/HCP Target Habitat and Species, occur on the project site, among other Draft NCCP Identified Habitats and Species. As the project would result in disturbance to these species and their habitats, the Draft NCCP/HCP would require an in-lieu fee payment (Mitigation Measure BIO-4), should the plan be approved prior to development of the project site. Thus, following compliance with the conditions of the approved NCCP/HCP and IA (Mitigation Measure BIO-4), impacts to NCCP/HCP covered species resulting from project development would be considered fully mitigated. Therefore, with implementation of Mitigation Measure BIO-4, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Impacts in this regard would be reduced to **less than significant** levels.

Mitigation Measure Refer to Mitigation Measures BIO-4, BIO-5 and BIO-8.



Monterey Downs and Seaside Corporation Yard Habitat and Rare Plant Map

Figure 3.3-1a



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

California Central Coast Veterans Cemetery Habitat and Rare Plant Map

Figure 3.3-1b

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Potentially Jurisdictional Wetlands Map

Figure 3.3-2

3.2 Air Quality

This section analyzes the potential air quality impacts associated with implementation of the proposed project. Issues addressed include short-term construction emissions, long-term operational impacts, and potential impacts on sensitive receptors.

Information in this section is drawn primarily from the *2012 Air Quality Management Plan for the Monterey Bay Region* and the *CEQA Air Quality Guidelines* (2008) prepared by the Monterey Bay Unified Air Pollution Control District (MBUAPCD), as well as the air quality modeling analysis prepared by RBF Consulting, a copy of which can be found in Appendix B.

Environmental Setting

Regional Setting

North Central Coast Air Basin

Monterey County, along with the Counties of Santa Cruz and San Benito, lies within the North Central Coast Air Basin (NCCAB). Marine breezes from Monterey Bay dominate the climate in this portion of the NCCAB. Westerly winds predominate in all seasons, but are strongest and most persistent during the spring and summer months.

The extent and severity of the air pollution problem in the NCCAB is a function of the area's natural physical characteristics (weather and topography), as well as human created influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall and topography all affect the accumulation and/or dispersion of pollutants throughout the NCCAB area.

In general, the air pollution potential of the coastal areas is relatively low due to persistent winds. However, the NCCAB is subject to temperature inversions that restrict vertical mixing of pollutants.

Topography and Meteorology

A semi-permanent high pressure cell in the eastern Pacific Ocean is the basic controlling factor in the climate of the NCCAB. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the Pacific High pressure cell forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air aloft can inhibit vertical air movement.

The NCCAB is situated with the Diablo Range as its northeast boundary. Along with the southern portion of the Santa Cruz Mountains, this range forms the Santa Clara Valley. The Valley extends into the northeastern tip of the NCCAB. Farther south, the Santa Clara Valley transitions into the San Benito Valley, which runs northwest-southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at the northwest end to

King City at the southeast end. The northwest portion of the NCCAB is dominated by the Santa Cruz Mountains.

These mountain ridges in the NCCAB restrict and channel summer onshore air currents. Hot temperatures in the inland valleys warm the ground and intensify the onshore airflow during the afternoon and evening. In the fall, the surface winds weaken and the marine layer becomes shallow and eventually dissipates. The airflow is occasionally reversed, creating weak offshore winds. The stationary air mass held in place by the Pacific High pressure cell can allow pollutants to build up over a period of days. These conditions also occur when north or east winds cause pollutant transport from the San Francisco Bay area or the Central Valley into the NCCAB. In the winter, the Pacific High moves south and has a lesser influence on the NCCAB. Northwest winds are still dominant in winter, but easterly winds are more frequent. Air quality usually remains good in the winter and early spring due to the absence of deep, persistent inversions and occasional storms. The average annual summer temperature in the project area is 74.5 degrees Fahrenheit with August and September as the hottest months. The average annual winter temperature is 42.7 degrees Fahrenheit with December and January as the coldest time of the year. The average rainfall for the area is approximately 31.0 inches. Annual rainfall is lowest in the coastal plain and inland valleys, higher in the foothills and highest in the mountains. Because of the moderating marine influence, which decreases with distance from the ocean, monthly and annual spreads between temperatures are greatest inland and smallest at the coast.

Sunlight

The presence and intensity of sunlight is another important factor that affects air pollution. Typically, ozone is formed at higher temperatures. In the presence of ultraviolet sunlight and warm temperatures, volatile organic compounds (VOC) and nitrogen oxides (NOx) react to form secondary photochemical pollutants, including ozone. Since temperatures in many of the NCCAB inland valleys are so much higher than near the coast, the inland areas are much more prone to photochemical air pollution.

Temperature Inversions

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). The highest air pollutant concentrations in the NCCAB generally occur during inversions.

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air would be mixed and dispersed into the upper atmosphere. However, the region experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air, is a normal condition in the NCCAB. The cool, damp and hazy sea air capped by coastal clouds is heavier than the warm, clear air that acts as a lid through which the marine layer cannot rise.

Local Ambient Air Quality

Criteria Air Pollutants

The California Air Resources Board (CARB) monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet aboveground level; therefore, air quality is often referred to in terms of ground-level concentrations. The closest monitoring station to the project area is the Salinas #3 Monitoring Station, located approximately nine miles from the project area. However, this station only monitors CO, NO_2, O_3, PM_{10}, and $PM_{2.5}$. Other monitoring stations within the vicinity which monitor SO_X include the San Jose – Jackson Street Monitoring Station, approximately 50 miles from the project area. Local air quality data from 2010 to 2012 is provided in Table 3.2-1: Local Air Quality Levels. This table lists the monitored maximum concentrations and number of exceedances of Federal/State air quality standards for each year.

94 **Table 3.2-1 Local Ambient Air Quality Levels**

Pollutant	Standards (Allowable Amount)		Year	Maximum Concentration[1]	Days (Samples) State/Federal Standards was Exceeded
	California	Federal Primary			
Ozone (O_3) (1-hour) [2]	0.09 ppm for 1 hour	Not Applicable	2010 2011 2012	0.073ppm 0.065 0.071	0/0 0/0 0/0
Ozone (O_3) (8-hour) [2]	0.07 ppm for 8 hours	0.075 ppm for 8 hours	2010 2011 2012	0.062 ppm 0.057 0.055	0/0 0/0 0/0
Carbon Monoxide (CO) (1-hour)[2]	20 ppm for 1 hour	35 ppm for 1 hour	2010 2011 2012	1.30 ppm 1.40 6.40	0/0 0/0 0/0
Carbon Monoxide (CO) (8-hour) [2]	9.0 ppm for 8 hours	9.0 ppm for 8 hours	2010 2011 2012	0.76 ppm 0.99 1.39	0/0 0/0 0/0
Nitrogen Dioxide (NO_2) (1-hour) [2]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2010 2011 2012	0.036 ppm 0.040 0.035	0/Not Applicable 0/Not Applicable 0/Not Applicable
Sulfur Dioxide (SO_2) (24-hour) [3]	0.04 ppm for 24 hours	0.14 ppm for 24 hours	2010 2011 2012	0.002ppm 0.003 0.003	Not Applicable Not Applicable Not Applicable
Particulate Matter (PM_{10}) (24-hour) [2,4,5]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours	2010 2011 2012	39.0 µg/m^3 18.0 Not Measured	0/0 0/0 0/0
Fine Particulate Matter ($PM_{2.5}$) (24-hour)[2,5]	No Separate State Standard	35µg/m^3 for 24 hours	2010 2011 2012	16.2 µg/m^3 19.7 16.2	Not Applicable/0 Not Applicable/0 Not Applicable/0

Notes:
1. Maximum concentrations are measured over the same period as the California standard.
2. Salinas #3 Monitoring Station is located at East Laurel Drive, Salinas, California 93901.
3. San Jose – Jackson Street Monitoring Station is located at 158 East Jackson Street, San Jose, California 95112.
4. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
5. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Source: Aerometric Data Analysis and Measurement System, Summaries from 2010 to 2012 as found at http://www.arb.ca.gov/adam/

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96 *Carbon Monoxide (CO)*

97 CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources
98 as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In
99 cities, automobile exhaust can cause as much as 95 percent of all CO emissions.
100 Individuals with a deficient blood supply to the heart, patients with diseases involving
101 heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia
102 (oxygen deficiency) as seen in high altitudes are the most susceptible to adverse effects
103 of CO exposure. Observed effects involve early onset of chest pain with exercise and
104 reduction of oxygen supply to the heart. At high concentrations, CO exposure can
105 cause headaches, dizziness, unconsciousness and can result in death in confined spaces.

Ozone (O_3)

O_3 occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone) layer extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays (UV-B). "Bad" ozone is a photochemical pollutant, and needs VOCs, NO_X and sunlight to form. Therefore, VOCs and NO_X are ozone precursors. VOCs and NO_X are emitted from various sources throughout the City. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease are considered the most susceptible to the harmful effects of ozone. Short-term ozone exposure, lasting for a few hours can lead to shortness of breath, reduced breathing capacity, increased susceptibility to infections, lung tissue inflammation, and immunological changes. Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to higher O_3 levels.

Nitrogen Dioxide (NO_2)

NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3, and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs, decrease lung function and lower resistance to respiratory infections such as influenza. Individuals with asthma and/or chronic obstructive pulmonary disease may have a greater susceptibility to harmful effects of NO_2 exposure. Short-term exposure to NO_2 may increase resistance to air flow and airway contraction. Continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Course Particulate Matter (PM_{10})

PM_{10} refers to suspended particulate matter, which is smaller than ten microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted

amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (SB 25).

Fine Particulate Matter ($PM_{2.5}$)

Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA's new standards.

On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. Individuals with pre-existing respiratory and/or cardiovascular disease, the elderly and children may be more susceptible to adverse effects of particulate matter exposure. Exposure to varying levels of $PM_{2.5}$ has been associated with increased mortality due to cardiovascular or respiratory diseases, reduction in life-span and hospital admissions for acute respiratory conditions. In children, $PM_{2.5}$ exposure can lead to school absences, decreased respiratory function and increased medication use in those with asthma. Long-term particulate matter exposure has also been connected to reduced lung function growth in children.

Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG])

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Lead (Pb)

In the NCCAB, atmospheric lead is generated almost entirely by the combustion of leaded gasoline and contributes less than one percent of the material collected as total suspended particulate. Atmospheric lead concentrations have been reduced substantially in recent years due to the lowering of average lead content in gasoline. Exceedances of the State air quality standard for lead (monthly average concentration of 1.50 $\mu g/m^3$) now are confined to densely populated areas, where vehicle traffic is greatest. Lead was not monitored at the nearby monitoring locations. The NCCAB has

achieved attainment for lead under both State and Federal standards. Lead exposure primarily affects fetuses, breast-fed babies, infants and children. Low levels of lead exposure can negatively affect the development and function of the central nervous system, resulting in learning disorders, deficits in attention and inability to follow simple commands. In adults, higher levels of lead exposure have been connected to increased blood pressure.

Regulatory Setting

Federal

U.S. Environmental Protection Agency

The principal air quality regulatory mechanism on the Federal level is the Clean Air Act (FCAA) and, in particular, the 1990 amendments to the FCAA and the National Ambient Air Quality Standards (NAAQS) that it establishes. These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are O_3, CO, NO_2 (a form of NO_X), SO_2 (a form of SO_X), PM_{10}, $PM_{2.5}$, and lead (Pb); refer to Table 3.2-2: National and California Ambient Air Quality Standards. The EPA also has regulatory and enforcement jurisdiction over emission sources beyond State waters (outer continental shelf) and those that are under the exclusive authority of the Federal government, such as aircraft, locomotives, and interstate trucking.

207 **Table 3.2-2: National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[3,4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	**Nonattainment**	N/A[5]	N/A
	8 Hour	0.070 ppm (137 ugm^3)	**Nonattainment**	0.075 ppm (147 µg/m^3)	Attainment
Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Attainment	150 µg/m^3	Attainment
	Annual Arithmetic Mean	20 µg/m^3	Attainment	N/A[5]	N/A
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard	**Nonattainment**	35 µg/m^3	Attainment
	Annual Arithmetic Mean	12 µg/m^3	**Nonattainment**	12 µg/m^3	Attainment
Carbon Monoxide (CO)	1 Hour	20 ppm (23 µg/m^3)	Attainment/Unclassified	35 ppm (40 µg/m^3)	Attainment
	8 Hour	9.0 ppm (10 µg/m^3)	Attainment/Unclassified	9 ppm (10 µg/m^3)	
Nitrogen Dioxide (NO_2)[5]	1 Hour	0.18 ppm (339 µg/m^3)	Attainment	0.100 ppm (188µg/m^3)	Attainment
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
Lead (Pb)[7,8]	30 Days Average	1.5 µg/m^3	Attainment	N/A	N/A
	Calendar Quarter	N/A	Attainment	1.5 µg/m^3	Attainment
Sulfur Dioxide (SO_2)[6]	1 Hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
	3 Hour	N/A	N/A	N/A	N/A
	24 Hour	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	Annual Arithmetic Mean	N/A	N/A	0.030 ppm (80 µg/m^3)	Attainment
Visibility-Reducing Particles[9]	8 Hour (10 am to 6 pm, PST)	Extinction Coefficient = 0.23 km@<70% RH	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 µg/m^3	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 µg/m^3)	N/A		

ppm = parts per million; µg/ m^3 = micrograms per cubic meter; mg/ m^3 = milligrams per cubic meter; km = kilometers; RH = relative humidity; PST = Pacific Standard Time; N/A = not applicable; ppb=parts per billion

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, 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 PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, 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. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. 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 standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.
6. 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.
7. CARB 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.
8. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/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.
9. In 1989, CARB 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.

Source: California Air Resources Board and U.S. Environmental Protection Agency, June 14, 2013.

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State

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 3.2-2, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMP's also serve as the basis for the preparation of the State Implementation Plan (SIP) for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment.

State Air Toxics Program

The California Air Toxics program regulates Toxic Air Contaminants (TACs). The statewide comprehensive program was established in the early 1980's along with the Toxic Air Contaminant Identification and Control Act, which was approved in 1983 to reduce exposure to air toxics. The air toxics program is mandated by Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (H&SC Section 39660 et seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment) (H&SC Section 44300 et seq.). CARB, works in conjunction with the Office of Environmental Health Hazard Assessment (OEHHA) to identify TACs. Air toxic control measures are adopted to reduce ambient concentrations of the identified TAC to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology for toxics (T-BACT). The program is administered by the CARB. Air quality control agencies, including the MBUAPCD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Local

Monterey Bay Unified Air Pollution Control District

The proposed project is located within the NCCAB, which is under the jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). The MBUAPCD is responsible for regulating stationary, indirect, and area sources of pollution within the NCCAB. The MBUAPCD's jurisdiction includes Monterey, Santa Cruz and San Benito Counties. As previously noted, the NCCAB is a nonattainment area under the CAAQS for PM_{10} and Ozone. The NCCAB is in attainment of all NAAQS.

Attainment of the PM_{10} CAAQS is addressed in the District's *Senate Bill 656 Implementation Plan*. This plan describes the greater vulnerability of coastal locations within the NCCAB to PM_{10} standards violations, due largely to the contribution from sea salt. It focuses primarily on controlling particulate sources related to fugitive dust and smoke related to combustion, but also addresses NO_X- and ROG-related particulate formation. Consistent with the requirements of SB 656, and with the difficulty in estimating future ambient concentrations of particulate matter substantially influenced by fugitive dust sources (even disregarding unusual burn events), this plan concentrates on identification of and implementation scheduling for available particulate matter emission control measures. Implementation of these measures is currently underway.

CARB has established a state, health-based, air quality standard for ozone. Under the CCAA, areas not in compliance with this standard must prepare an ozone reduction plan. The 1991 AQMP for the Monterey Bay Area was the first plan prepared in response to the CCAA of 1998 that established specific planning requirements to meet the ozone standard. The CCAA requires that the AQMP be updated every three years.

The *Triennial Plan Revision 2009 – 2011* is MBUAPCD's 2012 AQMP and was adopted by the MBUAPCD Board of Directors on April 17, 2013. The 2012 AQMP documents the MBUAPCD's progress toward attaining the state ozone standard and is the update to the 2008 AQMP. Consistency with the AQMP is based on whether a project is consistent with regional development and transportation plans.

The MBUAPCD's primary means of implementing air quality plans and policies is through adoption and enforcement of rules and regulations. Some of the key rules that may be applicable to the proposed project are discussed below:

- Rule 200: Permits Required
- Rule 203: Application
- Rule 206: Standards for Granting Applications
- Rule 207: Review of New or Modified Sources
- Rule 214: Breakdown Conditions

- Rule 216: Permit Requirements for Wastewater and Sewage Treatment Facilities
- Rule 402: Nuisances
- Rule 432: New Source Performance Standards Subpart O, Sewage Treatment Plants
- Rule 439: Building Removals
- Rule 424: National Emissions Standards for Hazardous Air Pollutants (NESHAPS)
- Rule 1000: Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants

The MBUAPCD adopted the *CEQA Air Quality Guidelines* in October 1995, which are intended to facilitate the review and evaluation of air quality impacts for projects subject to CEQA. The advisory document provides lead agencies, consultants and project proponents with standardized procedures for assessing potential air quality impacts associated with a proposed project and prepare the environmental air quality section of environmental review documents.

City of Seaside General Plan

Conservation/Open Space Element

Goal COS-6: Protect and improve local and regional air quality.

Policy COS-6.1: Integrate air quality planning with land use, economic development, and transportation planning.

Fort Ord Reuse Plan

Conservation Element

Objective A: Protect and improve air quality.

Air Quality Policy A-1: Each jurisdiction shall participate in regional planning efforts to improve air quality.

Program A-1.1: Each jurisdiction shall continue to cooperate with the MBUAPCD in carrying out the regional Air Quality Management Plan.

Program A-1.2: Each jurisdiction shall coordinate with the TAMC to carry out the Congestion Management Plan.

Air Quality Policy A-2: Each jurisdiction shall promote local efforts to improve air quality.

Program A-2.1: Each jurisdiction shall use the CEQA process to identify and avoid or mitigate potentially significant project specific and cumulative air quality impacts associated with development. As a Responsible Agency, the MBUAPCD implements rules and regulations for many direct and area sources of criteria pollutants and toxic air contaminants.

Program A-2.2: Each jurisdiction shall use the Transportation Demand Management Ordinance and similar transportation measures to encourage commute alternatives.

Air Quality Policy A-3: Integrate the land use strategies of the California Air Resources Board's The Land Use - Air Quality Linkage - How Land Use and Transportation Affect Air Quality, into local land use decisions.

Program A-3.1: Each jurisdiction shall plan and zone properties, as well as review development proposals to promote the Land Use-Air quality linkage. This linkage includes, but is not limited to, enhancement of Central Business Districts, compact development patterns, residential densities that average above seven dwelling units per acre, clustered employment densities and activity centers, mixed use development, and integrated street patterns.

Program A-3.2: Each jurisdiction shall zone high density residential and employment land uses to be clustered in and near activity centers to maximize the efficient use of mass transit.

Relevant Project Characteristics

The Specific Plan includes various goals that would minimize air emissions and promote pedestrian circulation and alternative transit. An environmental goal of the Specific Plan is to encourage multi-modal transportation opportunities, especially bicycle, pedestrian, equestrian, and public transportation by providing a mix of uses, interconnected streets, and convenient access to public transportation. The residential neighborhoods are located within walking distance of the town center commercial areas and are interconnected by a network of pedestrian-scale streets and landscaped paseos.

Neighborhood parks are also located within walking distance of the individual neighborhoods and including playgrounds, active and passive turf areas, gathering places, and pedestrian and bicycle pathways. The pedestrian pathways and corridors are designed to create opportunities for active and safe recreation while at the same time interconnecting the proposed residential neighborhoods with the neighborhood commercial services. The pedestrian friendly neighborhood streets also provide a direct neighborhood connection to the enhanced Eastside Roadway Linear Park Preserve.

The Circulation Plan places an emphasis on pedestrian, bicycle, and equestrian circulation, integrated with the vehicular network. Bike lanes, paseos, pathways, staging areas, and trails are designed to provide healthy, walkable neighborhoods and convenient access to the surrounding open space and trail network. In addition to

efficient vehicle circulation, streets within the Specific Plan promote safe pedestrian, bicycle and equestrian connections between residential neighborhoods, the Country Walk town center, the equestrian recreation uses, and the parks and open space within and beyond the Specific Plan project area. These features would provide an alternative to short vehicle trips, and would therefore reduce vehicle miles traveled.

The Monterey-Salinas Transit (MST) currently provides bus service to the region, which includes 280 square miles of area between Monterey County and Southern Santa Cruz County. Several bus routes are already located within the Fort Ord area. Existing bus routes are also located adjacent to the project area. It is anticipated that additional bus stops would be located within or near the proposed project. The goal of the expanded transit system is to have all future residents living within 1/2 mile (or a 10-minute walk) of a transit stop.

Impacts and Mitigation Measures

Criteria for Determining Significance

A project impact would be considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan. For purposes of this EIR and based on the *MBUAPCD CEQA Guidelines*, the proposed project must be consistent with the MBUAPCD's *2012 AQMP*;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Create objectionable odors affecting a substantial number of people.

MBUAPCD Significance Threshold Criteria

Operational Air Emission Thresholds

MBUAPCD's thresholds of significance for operational impacts, specific to the NCCAB, are shown in Table 3.2-3: Operational Air Emissions Thresholds.

Table 3.2-3: Operational Air Emissions Thresholds

Criteria Pollutant	Daily Thresholds (lbs.)
Volatile Organic Compounds (VOC)	137
Oxides of Nitrogen (NO_X)	137
Particulate Matter (PM_{10})	82
Carbon Monoxide (CO)	550
SO_X as SO_2	150

Source: Monterey Bay Unified Air Pollution Control District (MBUAPCD), *California Environmental Quality Act (CEQA) Air Quality Guidelines*, February 2008.

The MBUAPCD also uses many of regulations set forth by the EPA and CARB as the basis for determining the significance of air quality impacts under CEQA, including:

- Ambient Air Quality Standards. Exceedance of the NAAQS and CAAQS is considered a significant impact to air quality.
- New Source Review Offset Requirements. New Source Review programs require stationary sources of air pollution to get permits before they start construction. The MBUAPCD uses federal offset thresholds for PM_{10} and CO as criteria for significance (82 and 550 lbs./day, respectively). New or modified stationary sources that would emit 137 pounds per day or more of VOC or NO_X are required to offset their emissions.
- Conformity. Federal regulations requiring that certain general and transportation projects conform with the State Implementation Plan (SIP) are used to help determine the cumulative significance of air quality impacts.
- Air Quality Management Plans. Project emissions that are not accounted for in the AQMP's emissions inventory are considered a significant cumulative impact to regional air quality.

Construction Emissions Thresholds

The MBUAPCD has established screening thresholds analyzing PM_{10} emissions. A construction site with minimal earthmoving activity would have potentially significant PM_{10} impacts when active construction covers 8.1 acres or more per day. A construction site with earthmoving activity would have potentially significant PM_{10} impacts when active construction covers 2.2 acres or more per day. Projects that exceed these screening thresholds would potentially exceed PM_{10} emissions of 82 pounds per day. The MBUAPCD requires larger projects to quantify their emissions and identify applicable mitigation measures for projects that exceed the quantitative threshold of 82 pounds per day. It should be noted that the MBUAPCD does not have construction thresholds for other criteria pollutants. Implementation of construction equipment best management practices would ensure that construction emission of other criteria pollutants would not have a significant impact.

Localized Carbon Monoxide Emissions

According to the MBUAPCD, the following would represent a potentially significant impact to roadway intersections or segments:

- Intersections or road segments that operate at Level of Service (LOS) D or better that would operate at LOS E or F with the project's traffic;
- Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic;
- Intersections or road segments that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic;
- Un-signalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic (this criterion is based on the turning movement with the worst reserve capacity); or
- The project would generate substantial heavy-duty truck traffic, substantial traffic along urban street canyons, or substantial traffic near a major stationary source of CO.

Odors

According to the MBUAPCD, if the proposed project would emit pollutants associated with objectionable odors in substantial concentrations, this could result in significant impacts if odors would cause injury, nuisance, or annoyance to a considerable number of persons or endanger the comfort, health, or safety of the public.

Project Impacts and Mitigation Measures

Short-Term Construction Emissions

Impact 3.2-1 Short-term construction activities associated with the proposed project would result in air pollutant emission impacts or expose sensitive receptors to substantial pollutant concentrations. This is considered a **potentially significant impact**.

Temporary impacts would result from project construction activities. Short-term air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction; and
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.

Potential odors could arise from the diesel construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Additionally, odors generated during construction activities would be temporary and impacts are considered **less than significant**.

The project area consists of 710 acres of predominantly undeveloped land. Portions of the project area are located on the former Fort Ord Military base. The proposed project proposes a mixed use village includes the development of a horse park, equestrian-oriented events center, hotel, tennis and swim center, residential, open space, and commercial uses. The project also includes a Veterans Cemetery and open space. For the purposes of this analysis, the project is assumed to begin construction in mid-2015 and occur over approximately nine years.

Project construction would require excavators, graders, scrapers, and tractors during grading and clearing; pavers, rollers, and paving equipment during paving; tractors, and forklifts during building construction; and air compressors during architectural coating. Emissions for each construction phase have been quantified based upon the phase durations and equipment types. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod). Refer to Appendix B – Air Quality/Greenhouse Gas Data, for the CalEEMod outputs and results. Table 3.2-4: Maximum Daily Pollutant Emissions During Construction, presents the anticipated daily short-term construction emissions.

Table 3.2-4: Maximum Daily Pollutant Emissions During Construction

Emissions Source	Daily Pollutant Emissions (lbs./day)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Year 1 (2015)				
Unmitigated	28.77	220.39	143.56	19.17
Mitigated[2]	20.54	129.22	69.15	12.46
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 2 (2016)				
Unmitigated	137.33	209.26	49.75	14.96
Mitigated[2]	132.58	163.52	36.87	12.39
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 3 (2017)				
Unmitigated	145.35	278.69	72.77	26.95
Mitigated[2]	140.04	215.62	49.32	19.97
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 4 (2018)				
Unmitigated	281.64	261.83	77.42	16.33
Mitigated[2]	279.49	235.45	60.35	15.82
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 5 (2019)				
Unmitigated	265.13	155.90	58.92	7.58
Mitigated[2, 3]	265.13	155.90	47.61	9.14
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 6 (2020)				
Unmitigated	262.76	179.12	85.18	16.80
Mitigated[2, 3]	262.76	168.29	52.63	14.35
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 7 (2021)				

Unmitigated	560.24	164.86	148.65	16.13
Mitigated[2, 3]	560.24	164.18	81.14	14.26
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 8 (2022)				
Unmitigated	643.32	191.99	73.80	12.68
Mitigated[2, 3]	643.32	191.99	59.58	15.08
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 9 (2023)				
Unmitigated	204.57	58.53	28.55	2.91
Mitigated[2, 3]	204.57	58.53	23.46	4.26
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***
Year 10 (2024)				
Unmitigated	203.84	55.20	28.41	2.77
Mitigated[2, 3]	203.84	55.20	23.41	4.20
MBUAPCD Construction Thresholds	*N/A*	*N/A*	*82*	*N/A*
Mitigated Emissions Exceed Thresholds?	***N/A***	***N/A***	***No***	***N/A***

CO = carbon monoxide; VOC = volatile organic compounds; NO_X = nitrogen oxides; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns

Notes:

1. Emissions were calculated using CalEEMod, as recommended by the MBUAPCD.
2. The reduction/credits for construction emission mitigations are based on mitigation included in the CalEEMod model and as typically required by the MBUAPCD *CEQA Guidelines* and through Rule 402 (Nuisance). The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; limit speeds on unpaved roads to 15 miles per hour; and use CARB certified Tier 3 engines.
3. CalEEMod assumes improved off-road equipment fleets (newer engines) in the later construction years (after 2018). Therefore, NO_X and ROG emissions would not decrease with the implementation of CARB certified Tier 3 engines during those years.

Refer to Appendix B, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

Air pollutants would be emitted by construction equipment and fugitive dust would be generated during demolition of the existing structures and improvements as well as during grading of the site. Emissions during the primary phases of construction were calculated using the CalEEMod program. The equipment modeled during each phase was based on the defaults in CalEEMod modified as needed to represent the project specifics. All fugitive dust calculations accounted for watering and other dust control methods as required by the MBUAPCD CEQA Guidelines and Rule 402; refer to Mitigation Measure 3.2-1a.

Fugitive Dust Emissions

Fugitive dust (PM_{10} and $PM_{2.5}$) from grading and construction is expected to be short-term and would cease following completion of the proposed project improvements. Most of this material is composed of inert silicates, which are less harmful to health than the complex organic particulates released from combustion sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. The greatest amount of fugitive dust generated is expected to occur during site grading and excavation. Dust generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular concern is the amount of PM_{10} generated as a part of fugitive dust emissions.

The CalEEMod computer model calculates PM_{10} and $PM_{2.5}$ fugitive dust as part of the site earthwork activity emissions; refer to Table 3.2-5. Maximum particulate matter emissions would occur during the initial stages of construction, when grading activities would occur. With the application of Mitigation Measure 3.2-1a, which requires adherence to MBUAPCD grading limits and Rule 402 and other dust control techniques, the maximum mitigated particulate matter concentration would be 81.14 pounds per day (lbs./day) for PM_{10} in 2021. Therefore, emissions in each year would be below MBUAPCD thresholds of 82 lbs./day for PM_{10} (the MBUAPCD does not have thresholds for $PM_{2.5}$) and impacts would be **less than significant**.

Construction Exhaust Emissions

Exhaust emissions from construction activities are typically associated with the transport of machinery and supplies to and from the project area, on-site construction equipment, and trucks transporting materials to/from the site. The MBUAPCD CEQA Guidelines do not have thresholds that apply to these emissions. Therefore, the impact is considered less than significant if reasonable and feasible measures to reduce emissions are employed. Mitigation Measure 3.2-1b would be implemented to reduce NO_X emissions to the maximum extent practicable. As the MBUAPCD CEQA guidelines do not have construction NO_X thresholds, the impact is considered **less than significant** with the implementation of Mitigation Measure 3.2-1b.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the MBUAPCD, ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. The maximum emissions would be 643.32 lbs./day in 2022. The MBUAPCD CEQA Guidelines do not have thresholds that apply to ROG emissions. Therefore, impacts would be **less than significant**.

Asbestos

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, lead agencies are encouraged to analyze potential impacts related to naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on

unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (dated August 2000), the proposed project is not located in an area where NOA is likely to be present. Therefore impacts would be considered **less than significant**.

Total Daily Construction Emissions

CalEEMod was utilized to model construction emissions for ROG, NO_X, PM_{10}, and $PM_{2.5}$. Mitigation measures selected within CalEEMod allow for certain reduction credits and result in a decrease of pollutant emissions. Reduction credits are based upon studies developed by CARB and other air quality management districts throughout California, and are programmed within the CalEEMod model. As indicated in Table 3.2-5, CalEEMod calculates the reduction associated with Mitigation Measures 3.2-1a and 3.2-1b. Implementation of these mitigation measures would reduce fugitive dust and equipment emissions to a **less than significant** level.

Mitigation Measures

MM 3.2-1a: **Implement Fugitive Dust Control Measures**. The project applicant shall limit areas of active disturbance to no more than 2.2 acres per day for initial site preparation activities that involve extensive earth moving activities (grubbing, excavation, rough grading), or 8.1 acres per day for activities that involve minimal earth moving (e.g., finish grading) during all phases of construction activities. If the proposed project requires that grading and excavation exceed those acreages, the project applicant shall implement the following fugitive dust control measures:

- Water all active construction areas at least twice daily;
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;

- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more);
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.);
- Limit traffic speeds on unpaved roads to 15 mph;
- Install appropriate best management practices or other erosion control measures to prevent silt runoff to public roadways;
- Replant vegetation in disturbed areas as quickly as possible;
- Install wheel washers or track-out devices for all exiting trucks and equipment leaving the site;
- Limit the area subject to excavation, grading and other construction activity at any one time;
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints (the person shall respond to complaints and take corrective action within 48 hours); and
- Ensure that the phone number of MBUAPCD is visible to the public for compliance with Rule 402 (Nuisance).

MM 3.2-1b: **Vehicle Emission Reduction Measures**. Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the grading plan, building plans, and specifications stipulate that all off-road construction vehicles/equipment greater than 100 horsepower that will be used on site for more than one week shall: 1) be manufactured during or after 1996, and 2) shall meet the NO_X emissions standard of 6.9 grams per brake-horsepower hour. Alternatively, the project shall implement a combination of the following emission reduction measures on some or all of the above described vehicles and equipment:

- Use alternative fuels (such as biodiesel blends);
- Require diesel particulate matter filters on equipment;
- Require diesel oxidation catalyst on equipment;
- Install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
- Enforce state required idle restrictions (e.g., post signs). Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks may keep their engines running continuously as long as they were onsite and staged away from residential areas.

- Properly tune and maintain equipment.
- Stage large diesel-powered equipment at least 100 feet from any active land uses (e.g., residences).

Long-Term Operational Emissions

Impact 3.2-2 Development associated with the proposed project would result in significant and unavoidable impacts pertaining to operational air emissions. This is considered a **potentially significant impact.**

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. CalEEMod was used to quantify the ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions from motor vehicle traffic associated with the proposed land uses; refer to Appendix B, Air Quality and Greenhouse Gas Data. According to the Traffic Analysis in Section 3.13, Transportation and Circulation, the proposed project would generate 29,400 net daily trips after buildout. Table 3.2-5: Long-Term Operational Air Emissions, presents the anticipated mobile source emissions.

Table 3.2-5: Long-Term Operational Air Emissions

Emissions Source	Pollutant (pounds/day)[1]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Unmitigated Emissions						
Area	926.69	15.92	1,326.48	1.14	174.77	174.76
Energy	2.91	25.69	16.83	0.16	2.01	2.01
Mobile	208.31	445.40	2,156.27	2.22	267.75	24.47
Total Unmitigated Emissions	**1,137.91**	**487.01**	**3,499.58**	**3.52**	**444.53**	**201.24**
Mitigated Emissions						
Area[2]	119.26	1.52	130.18	0.01	2.55	2.53
Energy	2.91	25.69	16.83	0.16	2.01	2.01
Mobile	191.78	398.47	1,968.04	1.91	229.68	21.19
Total Mitigated Emissions	**313.95**	**425.68**	**2,115.05**	**2.09**	**234.24**	**25.73**
MBUAPCD Threshold	*137*	*137*	*550*	*150*	*82*[3]	*N/A*
Is Threshold Exceeded? (Significant Impact?)	***Yes***	***Yes***	***Yes***	***No***	***No***[3]	***N/A***

Notes:
1. Based on CalEEMod modeling results, worst-case seasonal emissions for area and mobile emissions have been modeled.
2. Area source excludes the use of fireplaces and wood burning stoves.
3. The MBUAPCD PM_{10} threshold only applies to on-site (area source) emissions.
4. Refer to Appendix B, *Air Quality and Greenhouse Gas Data*, for assumptions used in this analysis.

Stationary Source Emissions

Stationary source emissions would be generated due to an increased demand for electrical energy and natural gas with the development of the proposed project; refer to Table 3.2-5: Long-Term Operational Air Emissions. This assumption is based on the supposition that those power plants supplying electricity to the site are utilizing fossil fuels. Electric power generating plants are distributed throughout the Basin and western United States, and their emissions contribute to the total regional pollutant burden. The primary use of natural gas by the proposed land uses would be for combustion to produce space heating, water heating, other miscellaneous heating, or air conditioning, consumer products, and landscaping.

Conclusion

Mitigation Measure 3.6-1 (refer to Section 3.6, Greenhouse Gas Emissions) requires the project to provide pedestrian connections to the off-site circulation network, implement a trip reduction program, and provide a ride sharing program in order to reduce mobile source emissions. Furthermore, Mitigation Measure 3.6-1 requires the project to implement various energy efficiency measures that would reduce stationary source emissions. However, as shown in Table 3.2-5: Long-Term Operational Air Emissions, the operational mitigated emissions would remain above MBUAPCD thresholds for ROG, NO_X, and CO. Therefore, impacts in this regard would be **significant and unavoidable**.

Exposure to Odorous Emissions

Impact 3.2-3 Project implementation would not create objectionable odors affecting a substantial number of people. This is considered a **less than significant impact**.

Potential odors generated during construction operations would be temporary and are concluded to result in less than significant impacts. Note that emissions produced during grading and construction activities are short-term, as they occur only for the duration of construction.

Additionally, the proposed horse park and training facility could be considered as a potential source of odors. The horse park and training facility are located on the east side of the project area and are buffered from residences and sensitive receptors by open space and commercial uses. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to violate the MBUAPCD standards. Compliance with MBUAPCD rules and regulations related to permitting of permit and nuisance rules related to odors would help to control odorous

emissions from the proposed horse park. For instance, MBUAPCD Rule 402 (Nuisances) prohibits the discharge of air contaminants or other materials, which cause injury, detriment, nuisance, or annoyance to any considerable numbers of persons.

Additionally, horse facility owners are required to develop a water management plan to ensure clean and safe facilities, protect creeks and groundwater, and reduce odors and insect breeding opportunities. The Environmental Protection Agency (EPA) and the Regional Water Quality Control Board (RWQCB) have regulations related to water quality and Concentrated Animal Feeding Operations (CAFOs).

NPDES regulations Section 122.23 title 40 of the Code of Federal Regulations1 define CAFOs as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area during the normal growing season. CAFOs are defined by the federal Clean Water Act (CWA) as point sources, and are subject to NPDES permitting requirements. Additional discussion regarding potential hydrology and water quality impacts is discussed in Section 3.8 Hydrology and Water Quality.

Mitigation Measure 3.2-3 provides manure management measures to control objectionable odors created by animal waste generated from the proposed project. With implementation of MBUAPCD rules and regulations and implementation of Mitigation Measure 3.2-3, odor impacts would be reduced to a **less than significant** level.

Mitigation Measures

MM 3.2-3: ***Preparation of an Equestrian Management Plan.*** Prior to the issuance of occupancy permits for any equestrian related facility, the project applicant shall submit an equestrian management plan (EMP) to the City of Seaside Planning Division that addresses, among other issues, measures to control objectionable odors. The EMP shall include the identification of best management practices that discuss the collection, storage, drainage control, utilization and disposal of manure associated with operation of the proposed project. These may include the following:

Collection

- Clean-up manure from stalls and paddocks daily; scrape (or otherwise clean out) turn-outs and corrals regularly.

Storage

- Manure must be properly stored to maintain good condition, be easy to handle, and avoid leaching nutrients to ground or surface water.

- Locate the storage facility away from creeks, ponds and wells.
- Storage facilities may be covered bins; sheds of concrete or lumber, piles covered with tarps, dumpsters, or covered garbage cans. The type and size of the storage facility depends on how much manure will be stored and the method of disposal or utilization.
- The storage facility may require a concrete base depending on the permeability of the soil.
- Be sure the area is convenient for loading and unloading. If motorized equipment will be used, construct the facility large enough and strong enough for the equipment.
- Clear out manure storage areas before the winter rains.

Control Drainage

- Use drainage improvements to protect stored manure from rainfall, surface runoff and flooding.
- Use a cover to prevent stored manure and liquid drainage from manure piles (leachate) from entering creeks and waterways.
- Locate the storage facility on an impervious surface such as concrete, compacted clay, or plastic to reduce the potential for seepage into groundwater.
- Divert any runoff that does leave the storage site to a grass filter strip.

Utilization

- Manure can be applied to land as a fertilizer and soil amendment. Composed horse manure decreases the risk of spreading internal parasites and weed seeds.
- Composting manure and bedding materials reduces bulk, eliminates odor, improves handling qualities, and produces a valuable product that can be given away or used on the property. Composting requires sufficient nearly level space, equipment, labor, and a source of water.

Disposal

- Local or regional "green waste" composters will accept manure for a fee.
- CALMAX (California Materials Exchange program) lists horse stables that have manure to give away.
- Hauling manure off-site may be required and given the number of agricultural practices, particularly mushroom farmers, may be a via option and should be considered.

- NOTE: Applicant has indicated their intention to haul manure off-site. Is this something that can be firmed up via the DA or in the Specific Plan?

Localized Air Quality Impacts

Impact 3.2-4 Project implementation would not expose sensitive receptors to substantial pollutant concentrations. This is considered a **less than significant impact**.

Localized CO Hotspots

Local air quality is a major concern along roadways. Carbon monoxide is a primary pollutant, and unlike ozone, is directly emitted from a variety of sources. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of its impacts upon the local air quality. Comparisons of levels with State and Federal CO standards indicate the severity of the existing concentrations for receptors in the City.

An impact is considered potentially significant if the project produces emissions levels that exceed the State (1- and 8-hour standard of 20.0 ppm and 9.0 ppm) or Federal (1- and 8-hour standards of 35.0 and 9.0 ppm, respectively) AAQS. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create "pockets" of CO called "hot spots." These pockets have the potential to exceed the State 1-hour standard of 20.0 ppm and/or the 8-hour standard to 9.0 ppm. Note that federal levels are based on 1- and 8-hour standards of 35.0 and 9.0 ppm respectively.

To identify CO hotspots, the MBUAPCD criterion recommends performing a CO hotspot analysis when a project increases the volume to capacity ratio (also called the intersection capacity utilization) by 0.05 (5 percent) for any intersection with an existing level of service (LOS) D or worse. In addition, CO hotspot modeling is recommended when intersection or road segments that operate at LOS D or better would operate at LOS E or F with the proposed project's traffic. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. Typically, the level of service (LOS) at an intersection producing a hot spot is at D or worse during the peak hour. Table 3.2-6: Year 2035 CO Concentrations, include the intersections within the study that required CO hotspot modeling.

782 **Table 3.2-6: Year 2035 CO Concentrations**

Intersection	1-Hour CO (ppm)		8-Hour CO (ppm)	
	State Standard	Year 2030	State Standard	Year 2030
Inter-Garrison Road/2nd Avenue	20	6.5	9	4.55
Reservation Road/Inter-Garrison Road	20	6.7	9	4.69
Coe Avenue/Gen. Jim Moore Boulevard	20	6.6	9	4.62
Broadway Avenue/Gen. Jim Moore Boulevard	20	6.7	9	4.69
Broadway Avenue/Fremont Boulevard	20	6.6	9	4.62
Highway 1 Northbound Ramps/Highway 218	20	6.6	9	4.62
Reservation Road/Davis Road	20	6.7	9	4.69
Blanco Road/Davis Road	20	6.7	9	4.69
Reservation Road/Highway 1 Northbound Ramps	20	6.6	9	4.62
Eastside Parkway/Inter-Garrison Road	20	6.5	9	4.55

Notes:
1. As measured at a distance of 10 feet from the corner of the intersection predicting the highest value. Presented 1-hour CO concentrations include a background concentration of 6.4 ppm. Eight-hour concentrations are based on a persistence of 0.7 of the 1-hour concentration
2. The State 1-hour standard is 20 ppm. The Federal standard is 35 ppm. The most stringent standard is reflected in the Table.
3. The State 8-hour and Federal 8-hour standard is 9 ppm.

783

784 The projected traffic volumes were modeled using the BREEZE ROADS dispersion
785 model. The resultant values were then added to an ambient concentration. A receptor
786 height of 1.8 meters was used in accordance with the EPA's recommendations. The
787 calculations assume a meteorological condition of almost no wind (0.5 meters/second), a
788 flat topological condition between the source and the receptor and a mixing height of
789 1,000 meters. A standard deviation of five degrees was used for the deviation of wind
790 direction. The suburban land classification was used for the aerodynamic roughness
791 coefficient. This follows the BREEZE ROADS user's manual definition of suburban as
792 "regular coverage with large obstacles, open spaces roughly equal to obstacle heights,
793 villages, mature forests." All of the above parameters are based on the standards stated
794 in the *Transportation Project-Level Carbon Monoxide (CO Protocol)*, December 1997.

795 For the purposes of this analysis, the ambient concentration used in the modeling was
796 the highest one-hour measurement (the highest concentration of the last three years
797 data was available) of monitoring data at the Salinas #3 Monitoring Station. Actual
798 future ambient CO levels may be lower due to emissions control strategies that would
799 be implemented between now and the proposed project build out date. Due to
800 changing meteorological conditions over an eight-hour period which diffuses the local
801 CO concentrations, the eight-hour CO level concentrations have been found to be

typically proportional and lower than the one-hour concentrations, where it is possible to have stable atmospheric conditions last for the entire hour. Therefore, eight-hour CO levels were calculated using the locally derived persistence factor as stated in the CO Protocol. The local persistence factor is derived by calculating the highest ratio of eight-hour to one-hour maximum locally measured CO concentrations from the most recent three years of data. Of the most recent three years of data, the highest eight-hour to one-hour ratio was 0.7.

As indicated in Table 3.2-6: Year 2035 CO Concentrations, CO concentrations would be well below the State and Federal standards. The modeling results are compared to the CAAQS for CO of 9 ppm on an eight-hour average and 20 ppm on a one-hour average. Neither the one-hour average nor the eight-hour average would be equaled or exceeded. Impacts in regards to CO hotspots would be **less than significant**.

Toxic Air Contaminants

No major existing stationary or area sources of toxic air contaminants (TACs) were identified in the project vicinity. The proposed project includes the construction of mixed-use community, which does not usually emit TAC sources of potential concern. However, the proposed project includes construction of a new City of Seaside Fire Station and Public Works Corporate Yard and provides a new reclaimed winter water storage facility that would expand water supply to the area. As a result, implementation of the proposed project may result in increased exposure of sensitive land uses to localized concentrations of TACs that would exceed MBUAPCD's recommended significance thresholds. However, the proposed project would be required to comply with MBUAPCD rules and regulations, including Rule 1000: Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants. Compliance with the MBUAPCD rules and regulations would ensure that this impact would be considered **less than significant** and no mitigation measures are necessary.

Air Quality Plan Consistency

Impact 3.2-4 Construction-related and operational criteria pollutant emissions could conflict with or obstruct implementation of the applicable Air Quality Plan. This is considered a **less than significant impact**.

The *Triennial Plan Revision 2009 – 2011* is MBUAPCD's *2012 Air Quality Management Plan* (AQMP) and was adopted by the MBUAPCD Board of Directors on April 17, 2013. The 2012 AQMP documents the MBUAPCD's progress toward attaining the state ozone standard and is the update to the 2008 AQMP. Consistency with the AQMP is determined based on a project's consistency with other regional development and transportation plans upon which the assumptions in the AQMP is based. Consistency

838 determinations with the AQMP are used by the MBUAPCD to address a project's
839 cumulative impact on regional air quality (i.e., ozone levels).[3]

840 As described in Section 3.11, Population and Housing, the projected population
841 associated with the proposed project would be within the City's projected population,
842 as well as the projected population for the City of Seaside on the former Fort Ord.
843 Additionally, the project would be consistent with the *City of Seaside General Plan* and
844 the *Fort Ord Reuse Plan*; refer to Section 3.9, Land Use and Planning. Therefore, the
845 proposed project would not induce substantial population growth within the project
846 area.

847 The project area is designated Business Park/Light Industrial/Office/R&D, Low Density
848 Residential, and Public Facility/Institutional in the *Fort Ord Reuse Plan* (Fort Ord Reuse
849 Authority 1997). The *Fort Ord Reuse Plan* Land Use Concept Ultimate Development
850 Map shows a Veterans' Cemetery Opportunity site at the City of Seaside/County of
851 Monterey boundary and three locations for an Equestrian Center Opportunity site in
852 the project vicinity.

853 The portion of the project area located within the City of Seaside is designated High
854 Density Residential and Park and Open Space in the *City of Seaside General Plan* (City of
855 Seaside 2004) and zoned RH-High Density Residential and OSR – Open Space-
856 Recreation.

857 The portion of the project area located within the County of Monterey is designated
858 Single Family Residential (SFR)-Low Density Residential, and Business Park/Light
859 Industrial Office/R&D in the *Monterey County General Plan, Fort Ord Master Plan*
860 (Monterey County 2007) and is zoned Public Quasi Public-Design Control with a Site
861 Plan Review Overlay (PQP-D-S). The *Monterey County General Plan, Fort Ord Master Plan*
862 also designates a portion of the project area as Public Facility/Institutional and the
863 southern portion of the proposed Central Coast Veterans' Cemetery parcels as
864 School/University. In addition, the project area is shown as an opportunity site for a
865 hotel, golf course, and equestrian center in the *Monterey County General Plan, Fort Ord*
866 *Master Plan*.

867 The proposed project would require a General Plan Amendment to include the Specific
868 Plan area. Once the General Plan Amendment is adopted, the project would be
869 consistent with proposed land uses. As the project is consistent with the growth
870 projections in the region, impacts in this regard would be **less than significant**.

[3] Monterey Bay Unified Air Pollution Control District (MBUAPCD), *California Environmental Quality Act (CEQA) Air Quality Guidelines*, February 2008.

3.13 Transportation and Circulation

This section presents the transportation impact analysis for the proposed project. The purpose of this section is to evaluate potential transportation impacts, identify short-term and long-term roadway and circulation needs, determine potential mitigation measures, and identify critical transportation issues that should be addressed in the on-going planning process. The analysis also evaluates impacts to public transit operations, traffic hazards, bicycle facilities, site access, circulation and parking.

The information contained within this section is based on data from the *Fort Ord Reuse Plan* (FORA May 1997), *Fort Ord Reuse Plan EIR* (FORA June 1997), *Fort Ord Reuse Authority Capital Improvement Program Fiscal Year 2013 through 2012/22* (FORA June 8, 2012) *TAMC Regional Development Impact Fee Joint Powers Agency Regional Fee Implementation Guidelines* (TAMC 2009), *2010 Monterey County Regional Transportation Plan* (TAMC 2010), *Transportation Agency for Monterey County Bicycle and Pedestrian Master Plan* (TAMC 2011), *City of Marina Development Impact Fee Study – 2010 Update* (City of Marina April 25, 2011), *California State University Monterey Bay 2007 Master Plan EIR* (CSUMB 2007), *East Garrison Specific Plan EIR* (Monterey County 2004), *University Villages Specific Plan EIR* (City of Marina 2005), *West Broadway Specific Plan EIR* (City of Seaside July 2009).

The following scenarios were evaluated to determine project related impacts:

- ***Existing Conditions***: Existing Conditions analyzes Current Year 2013 traffic volumes within the study area based on the existing roadway network, roadway capacity, intersection geometry and traffic control.
- ***Existing with Project Conditions:*** Existing with Project Conditions analyzes Current Year 2013 traffic volumes and the project generated traffic volumes based on the existing roadway network, roadway capacity, intersection geometry and traffic control.
- ***Cumulative without Project Conditions:*** Cumulative without Project Conditions analyses Cumulative Year 2035 traffic volumes obtained from the Association of Monterey Bay Area Governments (AMBAG) Regional Travel Demand Model (RTDM). Daily traffic volumes calculated by the model were post processed to reflect Current Year traffic patterns and changes in traffic patterns anticipated to occur with future development in the region. Cumulative Year 2035 traffic volumes were analyzed with the future year roadway network that included local and regional transportation projects that are planned and fully funded.
- **Cumulative with Project Conditions:** Cumulative with Project Conditions analyzes the Cumulative Year 2035 traffic volumes and the project generated traffic volumes based on the future year roadway network that included local and regional transportation projects that are planned and fully funded.

3.13.1 Environmental Setting

Existing Roadway Network

The project is located in the City of Seaside in Monterey County in the former Fort Ord site. Regional access to the site is from a system of highways including U.S. Highway 101, State Routes (SR) 1, 68, 156, 183, and 218. These highways provide the major means of travel throughout Monterey County and beyond. The location of the project is bounded by Gigling Road, 8th Avenue, Parker Flats Road and Eucalyptus Road. The project area and off-site study intersections are shown on Figure 3.13-1: Site Location and Off-Site Study Intersections.

Under short term, or Existing plus Project conditions, the project would be accessible via project driveways constructed on Gigling Road, Parker Flats Road, and 8th Avenue.

Under long term, Cumulative (Year 2035) conditions, the project would construct a portion of the Eastside Parkway with the project boundaries. Access to the project would be provided at the following intersections:

- Monterey Downs Driveway 1 & Eastside Parkway
- Monterey Downs Driveway 2 & Eastside Parkway
- Monterey Downs Driveway 3 & Eastside Parkway
- Monterey Downs Driveway 4 & Eastside Parkway
- Monterey Downs Driveway 5 & Gigling Road
- Monterey Downs Driveway 6 & Parker Flats Road
- Monterey Downs Driveway 7 & Parker Flats Cut-Off
- Veterans Cemetery Driveway 1 & Parker Flats Cut-Off
- Veterans Cemetery Driveway 2 & Parker Flats Cut-Off

A description of the street system providing direct access and circulation to the project site is included below. Figure 3.13-2 Existing Intersection Geometry, shows existing intersection geometry and control type for the following streets:

Highway 101 (US-101)

US-101 is a four lane freeway that connects Monterey County to San Benito County and the Bay Area to the north, and the Salinas Valley and Southern California to the south. This highway is the main corridor through Monterey County running in a northwest-southeast direction. The most recent data published by Caltrans indicates the average daily traffic volume on US-101 ranges from 90,000 vehicles per day (vpd) north of SR-156 to 67,000 to 78,000 vpd between SR-156 and SR-68. Volumes continue to decrease south of SR-68 with daily volumes ranging from 41,000 to 60,000 vpd.

State Route 1 (SR-1)

SR-1 is a north-south state highway within Monterey County, providing access to Santa Cruz County to the north and San Luis Obispo County to the south. In the vicinity of the project, SR-1 varies from a four-lane to six-lane freeway with a posted speed limit of 65 miles per hour (mph). The most recent data published by Caltrans indicates the average daily traffic volume on SR-1 ranges from 32,000 to 38,000 vpd between Moss Landing and SR-156 to about 48,000 vpd between SR-156 and Marina. Between Marina and Monterey, daily traffic volumes on SR-1 increase and range from 59,000 to 86,000 vpd.

State Route 68 (SR-68)

SR-68 connects to SR-1and US-101, providing east-west access between Salinas and the Monterey Peninsula. SR-68 is a four lane-freeway between Salinas and Toro Park and becomes a two-lane highway with at-grade intersections closer to the Monterey Peninsula. Project traffic would access SR-68 at the Reservation Road / River Road interchange. The most recent data published by Caltrans indicates the average daily traffic volume on SR-68 ranges from 22,300 to 26,500 vpd between SR-1 and Reservation Road (Caltrans, 2008).

State Route 156 (SR-156)

SR-156 is a predominantly two-lane highway connecting U.S. 101 with SR-1 near Castroville. It widens to four lanes at Castroville Road, where it becomes a freeway, with interchanges at SR-183 (Merritt Street) and SR-1. The most recent data published by Caltrans indicates the average daily traffic volume on SR-156 ranges from 30,700 to 32,000 vpd between SR-1 and US-101.

State Route 218 (SR-218)

SR-218 (Canyon del Rey Boulevard) is a surface highway connecting SR-1 (at a freeway interchange) with SR-68. It has four lanes, plus turn lanes, through Seaside, narrowing to two lanes east of Fremont Street. The most recent data published by Caltrans indicates the average daily traffic volume on SR-218 ranges from 20,000 to 25,600 vpd between SR-1 and Del Rey Oaks, and from 13,600 to 15,300 vpd between Del Rey Oaks and SR-68.

The project area is served by a network of roads that serve various purposes, namely "arterials" that are designed to carry traffic through an area, "collectors" that are designed to connect arterials to local roads and land uses, and "local roads" that provide direct access to land uses. Local access to the site is provided via the following roadways:

Reservation Road

Reservation Road is a two-lane, arterial roadway from Beach Road to Del Monte Boulevard and a four-lane, arterial roadway from Del Monte Boulevard to Inter-Garrison Road and Imjin Parkway running east-west in the City of Marina. From Inter-Garrison Road to SR-68, Reservation Road is a two-lane, arterial, county facility.

Imjin Parkway

Imjin Parkway is a four-lane, expressway from SR-1 to Imjin Road and a two-lane arterial from Imjin Road to Reservation Road, running east-west. A Class I bike facility is provided on Imjin Parkway from SR-1 to Imjin Road.

Inter-Garrison Road

Inter-Garrison Road is a two-lane, arterial roadway running east-west from Ord Avenue to 2nd Avenue. Inter-Garrison Road is the main roadway through the CSUMB campusand has a posted speed limit of 30 miles per hour (mph) within the project limits.

Colonel Durham Street

Colonel Durham Street is a two-lane, local roadway, running east-west from Lightfighter Drive to 8th Avenue. No bike facilities are provided on Colonel Durham Street. The posted speed limit is 35 mph.

8th Street

8th Street is a two-lane, local roadway, running east-west from 5th Avenue to Inter-Garrison Road. The posted speed limit on 8th Street is 30 mph.

Lightfighter Drive

Lightfighter Drive is a four-lane, divided arterial, running east-west from SR11 to Colonel Durham Street. No bike facilities are provided on Lightfighter Drive, however sidewalk is provided on both sides of the roadway. The posted speed limit is 35 mph.

Gigling Road

Gigling Road is a two-lane, undivided arterial, running east-west from Noumea Road to 8th Avenue. No bike facilities are provided on Gigling Road, however sidewalks are provided intermittently on one or both sides of the road. The posted speed limit is 35 mph.

Coe Avenue

Coe Avenue is a two-lane, undivided arterial, running east-west from Monterey Road to General Jim Moore Boulevard. Class II bike facilities and sidewalks are provided on Coe Avenue. The posted speed limit is 25 mph.

Broadway Avenue

Broadway Avenue is a four-lane, undivided arterial, running east-west from Del Monte Boulevard to General Jim Moore Boulevard. Class II bike facilities are provided on Broadway Avenue between Mescai Street and General Jim Moore Boulevard. Sidewalks are also provided on both sides of the roadway. The posted speed limit ranges from 25 mph to 30 mph.

Blanco Road

Blanco Road within the project limits is a two-lane arterial, running east-west from Reservation Road to Davis Road. No bike facilities or sidewalks are provided on Blanco Road. The posted speed limit is 55 mph.

Davis Road

Davis Road within the project limits is a two-lane arterial, running north-south from Reservation Road to Blanco Road. No bike facilities are provided on Davis Road. The posted speed limit is 45 mph.

General Jim Moore Boulevard

General Jim Moore Boulevard is a two-lane, undivided arterial roadway, running north-south from Divarty Street to Lightfighter Road and a four-lane, divided, arterial roadway from Lightfighter Road to SR-218. A Class I and Class II bike facility are provided on the northbound and southbound sides respectively from Normandy Road to Eucalyptus Road. A Class II bike facility is provided from Normandy Road to S Boundary Road in both directions. The posted speed limit is 35 mph.

1st Avenue

1st Avenue is a two-lane, local roadway, running north-south from 4th Street to Gigling Road. No bike facilities and narrow, intermittent asphalt sidewalks are provided on 1st Avenue. There is no posted speed limit on 1st Avenue within the project study area, thus it is assumed to be a prima facie speed limit of 25mph.

2nd Avenue

2nd Avenue is a two-lane, arterial roadway, running north-south from just north of Imjin Parkway to Lightfighter Drive. A Class II bike facility is provided on 2nd Avenue along with parkways and sidewalks. The posted speed limit on 2nd Avenue is 35 mph.

California Avenue

California Avenue is a two-lane, collector roadway from Reservation Road to Reindollar Avenue and a two-lane, arterial roadway from Reindollar Avenue to 8th Street, running north-south. A Class II bike facility is provided on California

Avenue along with sidewalks on both sides of the street. The posted speed limit on California Avenue ranges from 30 to 35 mph.

Imjin Road

Imjin Road is a two-lane, local roadway, connecting Imjin Parkway to 8th Street. In its current condition, there are no bicycle lanes and no sidewalks along this segment of Imjin Road. The posted speed limit is 35 mph.

Abrams Drive

Abrams Drive is a two-lane, local collector running north-south from Imjin Road and Inter-garrison Road. South of Imjin Road, there are sidewalks and no bicycle facilities. The posted speed limit on Abrams Drive is 30 mph.

8th Avenue

8th Avenue is a two-lane, local roadway, running north-south from Inter-Garrison Road to Gigling Road. There are no sidewalks or bicycle facilities along 8th Avenue.

7th Avenue

7th Avenue is a two-lane, local roadway, running north-south from Inter-Garrison Road to Gigling Road. Sidewalks are provided intermittently along one side of 7th Avenue, however bicycle facilities are not provided.

6th Avenue

6th Avenue is a two-lane, local roadway, running north-south from 8th Street to Gigling Road. From 8th Street to Inter-Garrison, there are no sidewalks or bicycle facilities. South of Inter-Garrison, 6th Avenue has sidewalks on both sides of the street and occasional marked crosswalks along the corridor.

4th Avenue

4th Avenue runs north-south from immediately north of Inter-Garrison Road to Divarty Street where it becomes General Jim Moore Boulevard. 4th Avenue is a two-lane local roadway with narrow bicycle lanes and sidewalk on one side of the street.

Malmedy Road

Malmedy Road is a two-lane, local roadway that has a sidewalk on one side of the street, but no bicycle facilities. It runs north-south from north of Gigling Road to Normandy Road.

Normandy Road

Normandy Road is a two-lane, local roadway, running east-west from west of Monterey Road to Parker Flats Road. Throughout most of the corridor, sidewalks are provided on both sides of the street. Bicycle facilities are not provided.

Parker Flats Road

Parker Flats Road is a two-lane, local roadway, running north-south from Colonel Durham Street to south of Normandy Road. Neither sidewalks nor bicycle facilities are provided along Parker Flats Road.

Butler Street

Butler Street is a two-lane, local roadway, running east-west from 6th Avenue to 8th Avenue. Sidewalk is provided on at least one side of the street along this corridor. Bicycle facilities are not provided.

B Street

B Street is a two-lane, local roadway, running east-west from 6th Avenue to 8th Avenue. Neither sidewalks or bicycle lanes are provided on B Street.

Divarty Street

Divarty Street is a two-lane, local roadway, running east-west from 1st Avenue to the roundabout located at 5th Avenue and A Street. The posted speed limit is 25 mph along Divarty Street and sidewalks are provided on both sides of the street. No bicycle facilities are provided.

Schoonover Road

Schoonover Road is a two-lane, local roadway, running north-south from Abrams Drive to Inter-Garrison Road. Sidewalks are provided on both sides of the street. No bicycle facilities are provided.

Noche Buena Street

Noche Buena Street is a two-lane, collector, running north-south from Military Avenue to Pumas Avenue. North of Military Avenue, Noche Buena Street transitions into Ord Avenue. A combination of asphaut and concrete sidewalks are provided along the corridor. No bike facilities are provided on Noche Buena Street. The posted speed limit is 25 mph.

Fremont Boulevard

Fremont Boulevard is a four-lane, divided arterial that runs north-south from the southerly connection with SR-1 to Broadway Avenue and from Trinity Avenue to the northerly connection with SR-1. Between Broadway Avenue to Trinity

Avenue, Fremont Boulevard is a four-lane undivided arterial. No bike facilities are provided on Fremont Boulevard. Sidewalks are provided on both sides of the street. The posted speed limit is 30 mph.

Project Access

The project is bounded by Gigling Road to the north, 8th Avenue to the south, Parker Flats Road to the west and Eucalyptus Road to the east. The project area and off-site study intersections are shown on Figure 3.13-1: Site Location and Off-Site Study Intersections. Figure 3.13-2 Existing Intersection Geometry, shows existing intersection geometry and control for all study locations.

Under short term, or Existing plus Project conditions, the project would be accessible via project driveways constructed on Gigling Road, Parker Flats Road, and 8th Avenue. No new roadways are anticipated to be constructed under the Existing plus Project conditions.

Under long term, Cumulative Year (2035) conditions, the project would construct a portion of the Eastside Parkway within the project boundaries. Access to the project would be provided at the following intersections and on Figure 3.13-6: Existing plus Project On-Site Roadway Networks.

- Monterey Downs Driveway 1 & Eastside Parkway
- Monterey Downs Driveway 2 & Eastside Parkway
- Monterey Downs Driveway 3 & Eastside Parkway
- Monterey Downs Driveway 4 & Eastside Parkway
- Monterey Downs Driveway 5 & Gigling Road
- Monterey Downs Driveway 6 & Parker Flats Road
- Monterey Downs Driveway 7 & Parker Flats Road
- Veterans Cemetery Driveway 1 & Parker Flats Cut-Off
- Veterans Cemetery Driveway 2 & Parker Flats Cut-Off

Pedestrian and Bicycle Circulation

The existing pedestrian and bicycle facilities in the vicinity of the project area are described below and shown on Figure 3.13-3: Existing and Proposed Pedestrian and Bicycle Facilities. Sidewalks are provided on at least one side of the road on most arterial and local roadways. Sidewalk conditions vary from new concrete and ADA compliant curb ramps to discontinuous asphalt sidewalks with no curb ramps.

Bicycle facilities within the project area range from dedicated bicycle paths to striped bicycle lanes. Most local roadways do not provide designated bicycle facilities, but the

25 mph speed limit makes the streets bicycle and auto compatible. A brief description of the bicycle facility classifications are as follows:

Class I Bikeway (Bike Path)
Class I Bikeway is physically separated bike path that does not share the roadway with motorized vehicles. They can be separated by either open space or physical barrier and are generally two-way facilities.

Class II Bikeway (Bike Lane)
A Class II Bikeway is a bike lane that shares a portion of the roadway with motorized vehicles. They are separated by striping and are signed and marked for exclusive use by bicycle traffic. Class II Bikeways provide service for one-way bicycle traffic and are located outside of the through lanes for motorized vehicles.

Class III Bikeway (Bike Route)
A Class III Bikeway is a bike route that shares the roadway with motorized vehicles. They are identified by signs and not separated by striping. Class III Bikeways are utilized in locations that do not have Class I or Class II facilities or to connect Class II Bikeways to provide continuous bikeway system.

Class I facilities are provided on Imjin Parkway and 2nd Avenue. The Imjin Parkway bicycle path extends from 2nd Avenue to Imjin Road. The 2nd Avenue bicycle path extends from north of Llghtfighter to Imjin Road.

Class II bicycle facilities are located throughout the study area. Key bicycle corridors include Inter-Garrison Road which currently has Class-II bicycle lanes in both directions between 7th Avenue and the East Garrison community. Inter-Garrison currently provides the only direct connection between CSUMB and the housing areas to the east, and is used by pedestrians and cyclist between the two points.

Class II facilities are planned on Imjin Road. Inter-Garrison Road is proposed as part of a realigned multi-modal corridor envisioned in the Fort Ord Reuse Plan to follow 9th Street, Inter-Garrison Road and Davis Road. The corridor is planned to ultimately include BRT or rail transit and a Class-I shared bicycle/pedestrian path.

As stated in the project description, the project site is located near the Fort Ord National Monument which offers 86 miles of trails for hikers, mountain bikes, horseback riders, and nature enthusiasts. These areas are located east and south of the project site.

Transit Service

Figure 3.13-4: Existing and Proposed Transit Facilities shows the existing transit service in the study area. The Monterey-Salinas Transit (MST) agency currently provides regular transit service throughout Monterey County and in the vicinity of the project

site. Two standard transit routes and one specialized transit route (e.g. paratransit) currently provide transit services along the project frontage on Gigling Road.

Route 12 connects the Dunes Shopping Center / CSUMB with the City of Monterey and travels in a circuitous flow along Gigling Road, 8th Avenue, Colonel Durham Street, and 6th Avenue. Route 12 operates on weekdays only and includes eight daily runs between 7:00 to 9:30 AM and 12:45 to 5:00 PM.

Route 74 provides transit service between the City of Monterey, CSUMB and the Toro Park Community and travels along Gigling Road, 7th Avenue, and Inter-Garrison Road near the project site. Route 74 operates on weekdays only and includes two runs between 6:00 and 8:00 AM and two runs from 4:15 to 6:00 PM.

Several routes operate along Inter-Garrison Road north of the project site including Routes 16, 25, 26, and 74. These routes provide transit services between the Cities of Monterey, Marina, and Salinas. There are no bus stops directly adjacent to the project site. The nearest bus stop is located on Gigling Road between Parker Flats Cut-Off Road and 6th Avenue.

Amtrak provides passenger rail service in Monterey County, with the Coast Starlight (daily departures in each direction between Seattle and Los Angeles) serving Salinas with a daily northbound and southbound train. The Union Pacific Railroad (UPRR) provides freight service in Monterey County.

The Transportation Agency of Monterey County (TAMC) owns a 13-mile segment of railroad right-of-way (ROW) between Castroville (where it connects with the UPRR) and Monterey (where it terminates at Cannery Row). Known as the Monterey Branch Line, the ROW passes through the cities of Marina and Seaside, and Fort Ord. Several portions of the ROW have been paved over within Seaside and Monterey to accommodate trails for recreational purposes.

3.13.2 Traffic Analysis Methodology

This section describes the methods and information used to evaluate traffic conditions and impacts from the proposed project and includes data requirements, analytic methodologies, and applicable level of service standards for the various jurisdictions.

Study Roadway Segments

Operations of 36 roadway segments in the vicinity of the project area were evaluated during the weekday morning and evening peak commute periods. The roadway segments analyzed were determined in consultation with city staff and requests received from California Department of Transportation (Caltrans), Transportation Agency for Monterey County (TAMC), California State University Monterey Bay (CSUMB), County of Monterey and the City of Marina.

1. SR-1 NB – SR-156 to Molera Road / Nashua Road

2. SR-1 SB – SR-156 to Molera Road / Nashua Road
3. SR-1 NB – Molera Road / Nashua Road to Del Monte Boulevard
4. SR-1 SB – Molera Road / Nashua Road to Del Monte Boulevard
5. SR-1 NB – Del Monte Boulevard to Reservation Road
6. SR-1 SB – Del Monte Boulevard to Reservation Road
7. SR-1 NB – Reservation Road to Del Monte Boulevard
8. SR-1 SB – Reservation Road to Del Monte Boulevard
9. SR-1 NB – Del Monte Boulevard to Imjin Parkway
10. SR-1 SB – Del Monte Boulevard to Imjin Parkway
11. SR-1 NB – Imjin Parkway to Lightfighter Drive
12. SR-1 SB – Imjin Parkway to Lightfighter Drive
13. SR-1 NB – Lightfighter Driveto New Interchange
14. SR-1 SB – Lightfighter Drive to New Interchange
15. SR-1 NB – New Interchange to Fremont Boulevard
16. SR-1 SB – New Interchange to Fremont Boulevard
17. SR-1 NB – Fremont Boulevard to SR-218
18. SR-1 SB – Fremont Boulevard to SR-218
19. SR-1 NB – SR-218 to Del Monte Boulevard
20. SR-1 SB – SR-218 to Del Monte Boulevard
21. SR-1 NB – Del Monte Boulevard to Casa Verde Way
22. SR-1 SB – Del Monte Boulevard to Casa Verde Way
23. SR-1 NB – Casa Verde Way to SR-68 East
24. SR-1 SB – Casa Verde Way to SR-68 East
25. SR-1 NB – SR-68 East to Aquajito Road
26. SR-1 SB – SR-68 East to Aquajito Road
27. SR-1 NB – Aquajito Road to Soledad Drive
28. SR-1 SB – Aquajito Road to Soledad Drive
29. SR-1 NB – Soledad Drive to Munras Avenue
30. SR-1 SB – Soledad Drive to Munras Avenue
31. SR-1 NB – Munras Avenue to SR-68 West
32. SR-1 SB – Munras Avenue to SR-68 West
33. Davis Road – Blanco Road to Reservation Road
34. Reservation Road – Davis Road to Inter-Garrison Road
35. Inter-Garrison Road – Davis Road to East Garrison Road

Study Intersections

Operations of 53 key intersections in the vicinity of the project area were evaluated during the weekday morning and evening peak commute periods. The intersections analyzed were determined in consultation with city staff and requests received from California Department of Transportation (Caltrans), Transportation Agency for Monterey County (TAMC), California State University Monterey Bay (CSUMB), County of Monterey, the City of Seaside, and the City of Marina.

1. Gigling Road and 8th Avenue
2. Gigling Road and 7th Avenue

3. Gigling Road and 6th Avenue
4. Gigling Road and Parker Flats Road
5. Gigling Road and Malmedy Road
6. Gigling Road and General Jim Moore Boulevard
7. 8th Avenue and Colonel Durham Street
8. Colonel Durham Street and 7th Avenue
9. Colonel Durham Street and Malmedy Road
10. Lightfighter Drive and General Jim Moore Boulevard
11. Lightfighter Drive and 2nd Avenue
12. Lightfighter Drive and 1st Avenue
13. 8th Avenue and Butler Street
14. 8th Avenue and B street
15. Inter-Garrison Road and 8th Avenue
16. 7th Avenue and Inter-Garrison Road
17. 6th Avenue and Inter-Garrison Road
18. General Jim Moore Boulevard and Divarty Street
19. General Jim Moore Boulevard (4th Avenue) and Inter-Garrison Road
20. 2nd Avenue and Divarty Street
21. 2nd Avenue and Inter-Garrison Road
22. Imjin Road and 8th Street
23. California Avenue and 8th Street
24. 2nd Avenue and 8th Street
25. Imjin Parkway and Imjin Road
26. Imjin Parkway and California Avenue
27. Imjin Parkway and 2nd Avenue
28. Imjin Parkway and Abrams Drive
29. Inter-Garrison Road and Abrams Drive
30. East Garrison Road and Schoonover Road
31. Reservation Road and Imjin Road
32. Reservation Road and Inter-Garrison Road
33. Reservation Road and East Garrison Road
34. Normand Road and Parker Flats Road
35. Normandy Road and General Jim Moore Boulevard
36. Coe Avenue and General Jim Moore Boulevard
37. SR-1 NB Ramps and Reservation Road
38. SR-1 SB Ramps and Reservation Road
39. Broadway Avenue and General Jim Moore Boulevard
40. Broadway Avenue and Noche Buena Street
41. Broadway Avenue and Fremont Boulevard
42. SR-218 and SR-1 NB Ramps
43. SR-218 and SR-1 SB Ramps
44. SR-68 and SR-218
45. Reservation Road and Davis Road
46. SR-68 WB Ramps and Reservation Road
47. SR-68 EB Ramps and Reservation Road

48. Blanco Road and Davis Road
49. SR-1 NB Ramps and Reservation Road
50. SR-1 SB Ramps and Reservation Road
51. Eastside Parkway and Inter-Garrison Road
52. Eastside Parkway and Gigling Road / Monterey Downs Road
53. Eastside Parkway and Parker Flats Road

Level of Service Methodology

Traffic conditions within the study area were evaluated using the 2000 Highway Capacity Manual methodology which reports a level of service (LOS) for each facility. Level of Service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or congested conditions with excessive delays. The various analysis methods used to assess the existing and future operating conditions are described in the following sections:

Definitions

Certain terms used throughout this section are defined below to clarify their intended meaning:

- **Average Daily Traffic (ADT):** The total-two directional traffic volumes passing a given point on a roadway over a 24-hour period.
- **Level of Service (LOS):** A scale used to evaluate operational conditions within a traffic stream, generally in terms of speed, travel time, traffic interruptions, and comfort and conveniences. Six LOS are defined for each type of facility. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst.
- **Delay:** The time stopped at an intersection or along a roadway segment, reported in seconds, experienced by a driver, passenger, or pedestrian.
- **Volume-to-Capacity Ratio (V/C):** This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a roadway segment or intersection.
- **Volume Density:** Method utilized by Caltrans to depict operating conditions on freeways segments based on the number of passenger cars per hour per lane (pcphpl)

Signalized Intersection Operational Methodology

The level of service methodology is based on the 200 Highway Capacity Manual (HCM) method for signalized intersections. The TRAFFIX software was used to determine the HCM LOS at each of the project study intersections. The 2000 HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Control delay is the amount of delay that is attributed to the particular traffic control device at the intersection, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Table 3.13-1

(HCM Level of Service Criteria for Signalized Intersections) summarizes the relationship between the control delay and LOS for signalized intersections.

Table 3.13-1: HCM Level of Service Criteria for Signalized Intersections

Level of Service	Description	Volume / Capacity Ratio	Control Delay (seconds /vehicle)
A	Free flow conditions, unimpeded ability to maneuver and pass, very little delay, no platoons, highest average travel speeds.	≤ 0.60	0 – 10
B	Mostly free flow conditions, presence of other vehicles beings to be noticeable. Passing is required to maintain speeds, slightly less average travel speeds than Level of Service "A'.	0.61 – 0.70	>10 – 20
C	Traffic density clearly affects the ability to pass and maneuver within the stream. Speeds are reduced to about 50 mph on highways and about 50% of the average on urban arterials.	0.71 – 0.80	>20 – 35
D	Unstable flow. Speeds are reduced from 40% to 60% of normal. Passing demand is high although mostly impossible on 2-land highways. Traffic disruptions usually cause extensive queues.	0.81 – 0.90	>35 – 55
E	Very unstable flow at or near capacity. Passing and maneuvering virtually impossible. Extensive platooning on highways and queuing on arterials. Speeds range from 20 mph to less on arterials and 2 lane highways, and up to 50 mph on multi-lane highways.	0.91 – 1.00	>55 – 80
F	Forced or breakdown flow. Demand exceeds capacity. Vehicles experience short spurts of movement followed by stoppages. Intersection congestion, long queues and delays are common.	> 1.00	>80

Source: 2000 *Highway Capacity Manual* (Transportation Research Board)

Signal warrant analysis was conducted based upon the methodology recommended in the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD) (California Department of Transportation, 2012). This analysis requires that an engineering study be performed before traffic signals are installed. Recommendations to provide signals are based on limited planning level data for the peak hour signal warrants only and may not be sufficient for installing signals. Furthermore, the decision to install a traffic signal should not be based solely upon the warrants, since the installation of traffic signals can lead to certain types of accidents. The relevant local or state agency should undertake regular monitoring of actual traffic conditions and accident data, and perform re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

Unsignalized Intersection Methodology

Level of service at unsignalized intersections is based on the *2000 Highway Capacity Manual* (2000 HCM; Transportation Research Board, 2000) method using the TRAFFIX software. This method is applicable for both side-street stop and all-way stop-controlled intersections. For side-street stop stop-controlled intersections, delay is calculated for each stop-controlled movement and for the uncontrolled left turns, if any, from the main street. The overall average delay and LOS were reported as well as the delay and LOS for the worst intersection movement. Both are reported in this study because traffic on the minor street approaches has the lowest priority of right-of-way at the intersection and is the most critical in terms of delay. Generally, an LOS operation on the side street approach is the threshold that warrants improvements. For all-way stop controlled intersections, the overall intersection average delay and LOS are reported.

The evaluation of signalized, all-way stop (AWS), and side-street stop (SSS) controlled intersection operations was performed using the TRAFFIX analysis software which utilizes the 2000 HCM methodologies as described above. The new *2010 Highway Capacity Manual* (2010 HCM; Transportation Research Board, 2010) is available at the time of this report; however, few jurisdictions have adopted the 2010 HCM in their analysis, as many LOS software programs have only recently released updated software programs that incorporate the 2010 HCM methodologies.

However, the roundabouts included in the analysis were evaluated using the 2010 HCM methodology. The 2010 HCM provides a new procedure for analysis of roundabouts that is based on research conducted on roundabouts in the United States. Roundabouts were analyzed using the SIDRA 5.1 software, which is based on the 2010 HCM methodology. California calibration factors recommended in the Caltrans document *Roundabout Geometric Design Guidance* (Caltrans, 2007) were also applied to the SIDRA model to reflect local driver behavior at roundabouts. This is the most up to date recognized software tool available for roundabout analysis and is also being utilized by Caltrans. These methodologies are consistent with City of Marina, City of Seaside, and Monterey County standards for traffic analysis.

Table 3.13-2: HCM Level of Service (LOS) Criteria for Signalized and Unsignalized Intersections summarizes the relationship between delay and LOS for signalized and unsignalized intersections.

Table 3.13-2: HCM Level of Service Criteria for Signalized and Unsignalized Intersections

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)	
		Signalized	Unsignalized
A	Little or no delays	0.0-10.0	0.0-10.0
B	Short traffic delays	> 10.0 to 20.0	> 10.0 to 15.0
C	Average traffic delays	> 20.0 to 35.0	> 15.0 to 25.0
D	Long traffic delays	> 35.0 to 55.0	> 25.0 to 35.0
E	Very long traffic delays	> 55.0 to 80.0	> 35.0 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 80.0	> 50.0

Source: 2000 & 2010 Highway Capacity Manual, (Transportation Research Board)

Freeway Segments

The level of service for a freeway section is based on the 2000 HCM Freeway Mainline analysis method and performed using the HCS+ software. The level of service for freeway segments is estimated based on vehicle density (passenger cars/ lane/ mile) and travel speed (miles per hour [MPH]). Freeway LOS is a qualitative description of traffic flow based on speed, travel time, delay, and freedom to maneuver. Table 3.12-3 Level of Service Criteria for Freeway Segments presents a summary of the relationship between LOS, density, and travel speed for freeway sections.

549 **Table 3.13-3 Level of Service Criteria for Freeway Segments**

Level of Service	Description	Maximum Density (Passenger Cars / Mile / Lane)	Maximum Speed (MPH)
A	Free flow	11	70
B	Free to stable flow, light to moderate volumes	18	70
C	Stable flow, moderate volumes, freedom to maneuver noticeably restricted	26	68.2
D	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.	35	61.5
E	Extremely unstable flow, maneuverability and psychological comfort extremely poor	45	53.3
F	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go and/or gridlock conditions	>45	<53.3

Source: 2000 Highway Capacity Manual (Transportation Research Board).

551

552 ## Freeway Interchange Merge (Off-Ramp) Analysis

553 The freeway merge analysis is based on the 2000 HCM Ramps and Ramp Junctions
554 analysis method and performed using HCS+ software. The results (reported in
555 passenger car/mile/lane) are calculated based on the existing number of travel lanes at
556 the off ramps at the analysis junction and at upstream and downstream locations (if
557 applicable) and acceleration/deceleration lengths at each merge point. Table 3.13-4:
558 Level of Service (LOS) Criteria for Ramp Merge Areas presents the thresholds for each
559 density range utilized in this analysis.

560 **Table 3.13-4 Level of Service Criteria for Ramp Merge Areas**

Level of Service	Density Range (Passenger Cars / Mile / Lane)
A	≤ 10
B	> 10 - 20
C	> 20 - 28
D	> 28 - 35
E	> 35
F	Demand Exceeds Capacity

Source: 2000 Highway Capacity Manual (Transportation Research Board)

561 ## Roadway Segments

562 The methodologies outlined in the *Highway Capacity Manual (HCM) 2000* were used to
563 perform roadway segment levels of services (LOS) using the Urban Arterial
564 methodology. The LOS concept uses a grading scale of "LOS A" through "LOS F" with
565 "LOS A" representing free flowing conditions and "LOS F" representing forced flow
566 conditions. Street segment LOS is based upon planning level threshold volumes as
567 provided in Table 3.13-5: HCM Level of Service (LOS) Criteria for Roadway Segments.

568

569 **Table 3.13-5: HCM Level of Service (LOS) Criteria for Roadway Segments**

Functional Roadway Classification Type	Maximum Two-Way Average Daily Traffic (ADT) Volume-Carrying Capacity for each LOS Designation				
	LOS A	LOS B	LOS C	LOS D	LOS E
6-Lane Divided Arterial (w/ left-turn lane)	32,000	38,000	43,000	49,000	54,000
4-Lane Expressway	18,000	27,000	36,000	45,000	50,000
4-Lane Divided Arterial (w/ left-turn lane)	22,000	25,000	29,000	32,500	36,000
4-Lane Undivided Arterial (w/ left-turn lane)	16,000	19,000	22,000	24,000	27,000
2-Lane Arterial (w/ left-turn lane)	11,000	12,500	14,500	16,000	18,000
2-Lane Collector	6,000	7,500	9,000	10,500	12,000
2-Lane Local	1,200	1,400	1,600	1,800	2,000

The above threshold volumes for preliminary planning purposes only. If available, the results of detailed level of service analyses will typically have priority over the levels of service derived from this table. In that case this table can be used by the analyses for providing additional considerations for recommending the appropriate general roadway type for the specific condition being analyzed.

All above facilities assume a 60%/40% peak hour directional split, with the peak hour representing approximately 10% of the Average Daily Traffic (ADT).

Based on *Highway Capacity Manual*, Transportation Research Board, 2000.

Freeway thresholds are consistent with conditions utilizing a .95 peak hour factor, with 2% trucks and slightly over a one-mile average interchange spacing.

Expressways are consistent with the average of a multi-lane highway (with no signals) and Class I arterial (with an average signal spacing of 0.8 signals per mile and 0.45 G/C ratio).

Arterial thresholds are consistent with the average Class I and Class 2 arterials with an assumed signal density of two signals per mile. This assumes a divided arterial with left-turn lanes. Thresholds for four-lane undivided arterials assume approximately two-thirds the capacity of a four-lane divided arterial due to the impedance in traffic flow resulting from left-turning vehicles waiting in the inside through lane, thus significantly reducing the capacity of the roadway.

Rural highways are generally consistent with the *2000 Highway Capacity Manual* rural highway, assuming 8% trucks, 4% RV's, 20% no-passing, and level terrain. The greatest difference is that it assumes a maximum capacity (upper end of LOS E) of 25,000 rather than 28,000 calculated using the new *Highway Capacity Manual.*

Two-lane collectors assume approximately three-fourths of the capacity of a two-lane arterial with left-turn lane. This is based on the assumption that left-turn channelization is not provided on a two-lane collector.

Local street level service thresholds are based upon "Neighborhood Traffic Related Quality-of-Life Considerations" which assumes a standard suburban neighborhood, 40-foot roadway width and 25 mile per hour speed limit with normal speed violation rates.

571 Source: 2000 Highway Capacity Manual (Transportation Research Board).

Existing Traffic Volumes

The existing lane configurations at the study intersections were determined by observations in the field and reviewed by City staff. Current Year peak hour turning movement traffic volumes were obtained on March 8, 2012 and April 9, 2013 between AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) at the 49 intersections. The existing peak hour turning movement volumes can be seen in Figure 3.13-5: Existing Peak Hour Intersection Volumes.

Current Year roadway segment traffic volumes on state facilities were determined using California Department of Transportation (Caltrans) traffic volumes. All other roadway segment traffic volumes were obtained on April 9, 2013.

Existing Levels of Service

Table 3.13-6: Existing Conditions Intersection Level of Service provides a summary of the existing conditions level of service results. TRAFFIX analysis software program, which uses the 2000 HCM methodologies, was used to determine the LOS for Existing Conditions during the AM and PM peak hour at each of the study intersections. The level of service calculation sheets are included in Appendix H of the Draft EIR.

All study intersections currently operate at an acceptable LOS, except the following:

- SR-1 SB Ramps and Imjin Parkway
- SR-1 SB Ramps and Reservation Road

Highway 1(SR-1) SB Ramps and Imjin Parkway operates at a LOS F, during both the AM and PM peak periods, under Existing Conditions. Highway 1(SR-1) SB Ramps and Reservation Road also operate at a LOS F, during the AM peak hour. During the PM peak hour the intersection operates at an acceptable LOS A.

Table 3.13-6: Existing Conditions Intersection Level of Service

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions			
						AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS
1	Gigling Road and 8th Avenue	Stop Sign (AWS)	County	C	Overall	7.6	A	7.7	A
2	Gigling Road and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	2.2	A	1.7	A
				E	*Worst Approach*	*10.8*	B	*9.1*	A
3	Gigling Road and 6th Avenue	Stop Sign (AWS)	Seaside	C	Overall	11.0	B	9.1	A
4	Gigling Road and Parker Flats Road	Stop Sign (SSS)	Seaside	C	Overall	2.0	A	3.6	A
				E	*Worst Approach*	*20.2*	C	*15.0*	B
5	Gigling Road and Malmedy Road	Stop Sign (SSS)	Seaside	C	Overall	2.3	A	1.7	A
				E	*Worst Approach*	*23.4*	C	*14.9*	B
6	Gigling Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	25.4	C	19.6	B
7	8th Avenue and	Stop Sign	County	C	Overall	0.7	A	2.2	A

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions			
						AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS
	Colonel Durham Street	(SSS)		E	*Worst Approach*	*11.7*	B	*10.9*	B
8	Colonel Durham Street and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	5.5	A	6.4	A
				E	*Worst Approach*	*10.7*	B	*10.3*	B
9	Colonel Durham Street and Malmedy Road	Stop Sign (AWS)	Seaside	C	Overall	8.1	A	8.3	A
10	Lightfighter Drive and General Jim Moore Boulevard	Signal	Seaside	C	Overall	22.1	C	22.7	C
11	Lightfighter Drive and 2nd Avenue	Signal	Seaside	C	Overall	13.5	B	13.0	B
12	Lightfighter Drive and 1st Avenue	Signal	Seaside	C	Overall	15.1	B	13.2	B
13	8th Avenue and Butler Street	Stop Sign (SSS)	County	C	Overall	0.1	A	0.5	A
				E	*Worst Approach*	*10.6*	B	*10.6*	B
14	8th Avenue and B street	Stop Sign (SSS)	County	C	Overall	0.0	A	0.6	A
				E	*Worst Approach*	*0.0*	A	*10.6*	B
15	Inter-Garrison Road and 8th Avenue	Stop Sign (SSS)	County	C	Overall	3.1	A	3.5	A
				E	*Worst Approach*	9.2	A	*14.8*	B
16	7th Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	10.5	B	9.2	A
17	6th Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	8.7	A	10.0	A
18	General Jim Moore Boulevard and Divarty Street	Stop Sign (AWS)	Marina	D	Overall	9.6	A	10.0	A
19	General Jim Moore Boulevard (4th Avenue) and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	8.3	A	9.5	A
20	2nd Avenue and Divarty Street	Stop Sign (AWS)	Marina	D	Overall	10.0	A	8.8	A
21	2nd Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	9.7	A	8.9	A
22	Imjin Road and 8th Street	Stop Sign (AWS)	Marina	D	Overall	16.7	C	8.9	A
23	5th Avenue and 8th Street	Future Intersection Only							
24	2nd Avenue and 8th Street	Stop Sign (AWS)	Marina	D	Overall	12.3	B	10.2	B
25	Imjin Parkway and Imjin Road	Signal	Marina	D	Overall	12.7	B	9.5	A
26	Imjin Parkway and California Avenue	Signal	Marina	D	Overall	31.0	C	19.0	B
27	Imjin Parkway and 2nd Avenue	Signal	Marina	D	Overall	18.1	B	26.3	C
28	Imjin Parkway and Abrams Drive	Signal	Marina	D	Overall	27.1	C	26.8	C
29	Inter-Garrison Road and Abrams Drive	Stop Sign (SSS)	County	C	Overall	11.7	B	6.8	A
				E	*Worst Approach*	*16.8*	C	*9.3*	A
30	East Garrison Road and Schoonover Road	Stop Sign (SSS)	*County*	*C*	*Overall*	*8.6*	A	*7.4*	A
				E	*Worst Approach*	*9.1*	A	*8.5*	A
31	Reservation Road and Imjin Road	Signal	Marina	D	Overall	25.7	C	30.7	C
32	Reservation Road and East Garrison Road	Future Intersection Only							
33	Reservation Road and Inter-Garrison Road	Future Intersection Only							
34	Normandy Road and Parker Flats Road	Stop Sign (SSS)	Seaside	C	Overall	3.4	A	5.3	A
				E	*Worst Approach*	*9.1*	A	*8.8*	A

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions			
						AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS
35	Normandy Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	17.5	B	15.1	B
36	Coe Avenue and General Jim Moore Boulevard	Stop Sign (AWS)	Seaside	C	Overall	23.5	C	12.8	B
37	SR-1 NB Ramps and Imjin Parkway	Stop Sign (SSS)	Caltrans	C/D	Overall	0.0	A	0.2	A
				E	*Worst Approach*	*13.4*	B	*33.6*	D
38	SR-1 SB Ramps and Imjin Parkway	Stop Sign (SSS)	Caltrans	C/D	Overall	**>200**	**F**	**>200**	**F**
				E	*Worst Approach*	***>200***	**F**	***>200***	**F**
39	Broadway Avenue and General Jim Moore Boulevard	Signal	Seaside	C	Overall	13.9	B	11.2	B
40	Broadway Avenue and Noche Buena Street	Signal	Seaside	C	Overall	19.4	B	17.9	B
41	Broadway Avenue and Fremont Boulevard	Signal	Seaside	C	Overall	26.5	C	27.4	C
42	SR-218 and SR-1 NB Ramps	Stop Sign (SSS)	Caltrans	C/D	Overall	5.9	A	6.6	A
				E	*Worst Approach*	*27.9*	D	*26.8*	D
43	SR-218 and SR-1 SB Ramps	Signal	Caltrans	C/D	Overall	24.9	C	21.1	C
44	SR-68 and SR-218	Signal	Caltrans	C/D	Overall	19.0	B	15.8	B
45	Reservation Road and Davis Road	Signal	County	C	Overall	10.7	B	12.0	B
46	SR-68 WB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	21.0	C	24.2	C
47	SR-68 EB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	16.5	B	18.3	B
48	Blanco Road and Davis Road	Signal	Salinas	D	Overall	38.9	D	43.0	D
49	SR-1 NB Ramps and Reservation Road	Stop Sign (SSS)	Caltrans	C/D	Overall	1.4	A	8.6	A
				E	*Worst Approach*	*12.4*	B	*23.2*	C
50	SR-1 SB Ramps and Reservation Road	Stop Sign (SSS)	Caltrans	C/D	Overall	**144.2**	**F**	6.4	A
				E	*Worst Approach*	**>200**	**F**	*11.6*	B
51	Eastside Parkway and Inter-Garrison Road	Future Intersection Only							
52	Eastside Parkway and Gigling Road / Monterey Downs Road	Future Intersection Only							
53	Eastside Parkway and Parker Flats Road	Future Intersection Only							

Notes:
1. Analysis performed using HCM 2000 methodologies
2. Delay indicated in seconds

Source: RBF Consulting 2013

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598

599 **Highway Mainline Level of Service Analysis**

600 Table 3.13-7: Existing Conditions Freeway Mainline LOS Operations shows a summary
601 of the weekday AM and PM peak hour freeway mainline operations under existing
602 conditions. Detailed HCM mainline analysis worksheets are included in Appendix H.
603 According to the analysis, the following freeway mainline segments operate at an

unacceptable LOS E or F during either the AM or PM peak hours under existing conditions:

- SR-1 Southbound through Seaside and Monterey between Fremont Boulevard and Del Monte Boulevard and Fremont Street (AM Peak Hour)
- SR-1 Northbound through Seaside and Monterey between Fremont Boulevard and Del Monte Boulevard in Marina (PM Peak Hour)
- SR-1 Northbound through Monterey between Fremont Street and SR-68 East Ramps (PM Peak Hour)

Table 3.13-7: Existing Conditions Freeway Mainline Segment LOS Operations

Freeway	Segment Location	Direction	# of Lanes	Existing Conditions							
				AM Peak Hour				PM Peak Hour			
				Volume	LOS	Speed	D	Volume	LOS	Speed	D
SR-156	SR-183 to Castroville Blvd	NB	2	870	A	70.0	7.2	2,103	B	70.0	17.4
		SB	2	1,616	B	70.0	13.3	1,132	A	70.0	9.3
	SR-1 to SR-183	NB	2	787	A	70.0	6.5	2,213	C	70.0	18.3
		SB	2	1,701	B	70.0	14.0	1,192	A	70.0	9.8
SR-1	SR-156 to Molera Rd / Nashua Rd	NB	2	916	A	70.0	7.6	2,351	C	70.0	19.4
		SB	2	1,451	B	70.0	12.0	1,054	A	70.0	8.7
	Molera Rd / Nashua Rd to Del Monte Blvd North	NB	2	1,100	A	70.0	9.1	2,288	C	70.0	18.5
		SB	2	1,367	B	70.0	11.3	1,001	A	70.0	8.1
	Del Monte Blvd North to Reservation Rd	NB	2	1,017	A	70.0	8.2	2,179	B	70.0	17.6
		SB	2	1,569	B	70.0	12.7	996	A	70.0	8.1
	Reservation Rd to Del Monte Blvd South (1)	NB	2	1,017	A	70.0	8.2	2,319	C	70.0	18.8
		SB	2	2,843	C	69.4	23.2	1,706	B	70.0	13.8
	Del Monte Blvd South (1) to Imjin Pkwy	NB	3	1,648	A	70.0	8.9	3,644	C	70.0	19.7
		SB	3	4,117	C	69.6	22.3	2,416	B	70.0	13.0
	Imjin Pkwy to Lightfighter	NB	3	2,283	B	70.0	12.3	4,762	D	67.9	26.5
		SB	3	4,994	D	66.7	28.3	3,108	B	70.0	16.8
	Lightfighter to	NB	3	2,530	B	70.0	13.7	4,819	D	67.6	26.9

Freeway	Segment Location	Direction	# of Lanes	Existing Conditions							
				AM Peak Hour				PM Peak Hour			
				Volume	LOS	Speed	D	Volume	LOS	Speed	D
	Fremont Blvd	SB	3	5,061	D	66.4	28.8	3,472	C	70.0	18.7
	Fremont Blvd to	NB	2	2,258	C	70.0	18.2	**4,157**	**E**	**55.0**	**42.8**
	SR-218	SB	2	**4,435**	**F**	-	-	2,969	C	68.9	24.4
	SR-218 to	NB	2	2,258	C	70.0	18.2	**3,928**	**E**	**59.3**	**37.5**
	Del Monte Blvd South (2)	SB	2	**4,473**	**F**	-	-	3,118	C	68.2	25.9
	Del Monte Blvd South (2) to	NB	2	2,086	B	70.0	16.8	3,476	D	65.6	29.9
	Casa Verde Way	SB	2	**3,858**	**E**	**60.8**	**35.8**	2,727	C	69.7	22.1
	Casa Verde Way to	NB	2	2,054	B	70.0	16.5	3,395	D	66.3	28.9
	SR-68 East	SB	2	**3,817**	**E**	**61.4**	**35.0**	2,697	C	69.7	21.8
	SR-68 East to	NB	2	1,994	B	70.0	16.1	**4,795**	**F**	-	-
	Fremont St	SB	2	**5,389**	**F**	-	-	3,513	D	65.2	30.4
	Fremont St to	NB	2	1,228	A	70.0	9.9	3,306	D	67.1	27.8
	Munras Ave/Soledad Dr	SB	2	3,526	D	65.1	30.5	2,368	C	70.0	19.1
	Munras Ave/Soledad Dr to	NB	2	1,540	B	70.0	12.4	3,544	D	64.9	30.8
	SR-68 West	SB	2	3,381	D	66.4	28.7	1,933	B	70.0	15.6

Notes:
1. *Analysis performed using HCM 2000 Methodologies*
2. *LOS = Level of Service*
3. *Speed is provided in Miles Per Hour (MPH)*
4. *D = Density (Passenger Cars / Mile / Lane)*
5. *NB = Northbound, SB = Southbound*
6. *Assumed Passenger-Car Equivalent (PCE) value of 1.5*
7. *Highlighted Values indicate locations operating at an unacceptable LOS*

Source: RBF Consulting 2013

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616 **Highway On-Ramp Level of Service Analysis**

617 Table 3.13-8: Existing Conditions Freeway On-Ramp LOS Operations shows a summary
618 of the weekday AM and PM peak hour freeway on-ramp operations under existing
619 conditions. Detailed HCM mainline analysis worksheets are included in Appendix H.
620 According to the analysis, the following freeway on-ramps operate at an unacceptable
621 LOS E or worse during either the AM or PM peak hours under existing conditions:

- SR-1 & Fremont Boulevard Southbound On-Ramp in Seaside (AM Peak Hour)
- SR-1 & SR-218 (Canyon Del Rey Boulevard) Southbound On-Ramp in Seaside (AM Peak Hour)
- SR-1 & SR-218 (Canyon Del Rey Boulevard) Northbound On-Ramp in Seaside (PM Peak Hour)
- SR-1 & Del Monte Boulevard Southbound On-Ramp in Monterey (AM Peak Hour)
- SR-1 & SR-68 East Southbound On-Ramp in Monterey (AM Peak Hour)
- SR-1 & Fremont Street Southbound On-Ramp in Monterey (AM Peak Hour)
- SR-1 & Fremont Street Northbound On-Ramp in Monterey (PM Peak Hour)
- SR-1 & SR-68 West Northbound On-Ramp (PM Peak Hour)

635 **Table 3.13-8: Existing Conditions Freeway On-Ramp LOS Operations**

On-Ramp Location	Direction	# of Ramp Lanes	Existing Conditions							
			AM Peak Hour				PM Peak Hour			
			Volume	LOS	Speed	Density	Volume	LOS	Speed	Density
SR-1 at Molera Rd / Nashua Rd	NB	1	86	B	61.0	13.7	139	C	59.0	26.6
	SB	1	49	B	61.0	16.3	35	B	62.0	13.0
SR-1 at Del Monte Blvd North	NB	1	158	B	61.0	14.1	199	C	60.0	24.7
	SB	1	66	B	61.0	18.0	71	B	62.0	12.8
SR-1 at Reservation Rd	NB	1	188	B	62.0	12.7	300	C	61.0	23.0
	SB	1	424	D	59.0	28.8	239	B	61.0	18.8
SR-1 at Del Monte Blvd South (1)	NB	-	-	-	-	-	-	-	-	-
	SB	2	1,340	D	58.0	31.2	720	C	60.0	20.5
SR-1 at Imjin Pkwy	NB	1	192	B	61.0	15.8	278	D	58.0	31.7
	SB	1	1,230	D	56.0	34.9	773	C	60.0	23.8
SR-1 at Lightfighter	NB	1	207	B	60.0	17.9	432	D	58.0	32.2
	SB	1	467	D	57.0	33.3	536	C	60.0	25.2
SR-1 at Fremont Blvd	NB	1	688	C	60.0	20.6	1,322	D	56.0	34.3
	SB	1	**425**	**F**	**45.0**	**43.6**	472	D	58.0	30.7
SR-1 at SR-218 (Canyon Del Rey Blvd)	NB	1	426	C	60.0	24.2	**726**	**F**	**50.0**	**40.8**
	SB	1	**551**	**F**	**47.0**	**39.7**	626	C	60.0	27.7
SR-1 at Del Monte Blvd South (2)	NB	1	330	B	66.0	15.4	918	D	58.0	29.8
	SB	1	**378**	**E**	**54.0**	**37.2**	200	C	60.0	27.3
SR-1 at Casa Verde Wy	NB	1	147	C	61.0	22.1	295	D	57.0	34.3
	SB	1	235	D	57.0	33.0	169	C	63.0	23.1
SR-1 at Hwy 68 East	NB	1	147	C	61.0	21.7	237	D	57.0	33.5
	SB	1	**1,838**	**F**	**17.0**	**44.6**	1,679	D	60.0	28.1
SR-1 at Fremont St	NB	2	1,194	B	64.0	15.8	**1,846**	**F**	**40.0**	**40.2**
	SB	2	**331**	**E**	**55.0**	**36.5**	455	C	59.0	26.2
SR-1 at Munras Ave/Soledad Dr	NB	1	526	B	61.0	16.1	938	D	56.0	34.2
	SB	1	830	D	60.0	28.5	1,325	B	64.0	15.4
SR-1 at SR-68 West	NB	1	806	B	60.0	18.7	**1,117**	**E**	**55.0**	**36.2**
	SB	1	605	D	59.0	29.4	523	B	61.0	16.2

Notes:
1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service
3. Speed is provided in Miles Per Hour (MPH)
4. Density = Passenger Cars / Mile / Lane
5. NB = Northbound, SB = Southbound
6. Assumed Passenger-Car Equivalent (PCE) value of 1.5

: Source: RBF Consulting 2013

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Roadway Segment Level of Service Analysis

The study evaluated conditions for roadway segments in the project area. Table 3.13-9: Existing Conditions Roadway Segment LOS Operations lists the roadway segments analyzed under existing conditions. As shown in Table 3.13-9, all study roadway segments currently operate at an acceptable LOS.

Table 3.13-9: Existing Conditions Roadway Segment LOS Operations

Roadway	Jurisdiction	Location	Roadway Type	# of Lanes	Existing	
					ADT	LOS
Davis Rd	MC	Blanco Rd / Reservation Rd	2-Lane Collector	2	8,700	C
Reservation Rd	MC	Inter-Garrison Rd / East Garrison Rd	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	7,150	A
	MC	East Garrison Rd / Davis Rd	2-Lane Collector	2	7,150	B
Gigling Rd	MC / FORA	Monterey Downs Rd / 8th Ave	2-Lane Collector	2	0	A
	MC / FORA	8th Ave / 7th Ave			2,400	A
	Seaside / FORA	7th Ave / 6th Ave			2,900	A
	Seaside / FORA	6th Ave / Parker Flats Rd			3,200	A
	Seaside / FORA	Parker Flats Rd / Malmedy Rd			5,500	A
	Seaside / FORA	Malmedy Rd / Gen. Jim Moore Blvd			5,650	A
7th Avenue	Seaside / FORA	Gigling Rd / Colonel Durham St	2-Lane Collector	2	600	A
	Seaside / FORA	Colonel Durham St / Inter-Garrison Rd		2	1,500	A
8th Avenue	MC / FORA	Gigling Rd / Colonel Durham St	2-Lane Collector	2	2,900	A
	MC / FORA	Colonel Durham St / Inter-Garrison Rd		2	3,200	A

Analysis performed using HCM 2000 Methodologies
Notes / Abbreviations:
ADT = Average Daily Traffic
MC = Monterey County

Source: RBF Consulting 2013

3.10.3 Regulatory Framework

This section describes the regulatory setting associated with transportation and circulation. No federal regulations directly apply to this section.

State

California Department of Transportation

According to the California Department of Transportation's (Caltrans') *Guide for the Preparation of Traffic Impact Studies* (Caltrans, 2002), Caltrans aims to maintain a target level of service (LOS) at the transition between C and D on state highway facilities. However, Caltrans acknowledges that this may not always be feasible and recommends that the Lead Agency consult with Caltrans to determine the appropriate target LOS. If an existing state highway facility is operating below the appropriate target LOS, the existing LOS should be maintained.

Caltrans' *Transportation Concept Report for State Route 1 in District 5* (TCR; California Department of Transportation 2006) identifies long-range improvements and establishes the concept (desired) LOS for specific corridor segments. The report identifies long-range improvements needed to bring an existing facility up to expected standards needed to adequately serve 20-year traffic forecasts. Additionally, it identifies the ultimate design concept for conditions beyond the immediate 20-year design period. The TCR establishes LOS D as the acceptable threshold for SR-1 in Monterey County.

Transportation Agency for Monterey County (TAMC)

TAMC's *2010 Monterey County Regional Transportation Plan* (RTP) provide a basis for the planning and programming of local, state, and federal transportation funds to transportation projects in Monterey County. The *2010 Regional Transportation Plan* identifies existing and future transportation related needs, considers all modes of travel, and identifies what can be completed with anticipated available funding for projects and programs. The Regional Transportation Plan was prepared in consultation with FORA, and it reflects FORA's programs and transportation priorities within the former Fort Ord.

One objective of the RTP is to "design facilities included in TAMC's expenditure plan program of regional transportation projects to operate at LOS C, achieve at least LOS D on the regional roadway network by 2020, and maintain at least LOS D on regional roadways thereafter."

The RTP also introduces the Regional Development Impact Fee Program (Fee Program), which applies to development project throughout the county based on their impact on the regional transportation system.

The *Regional Impact Fee Nexus Study Update* (Transportation Agency for Monterey County 2008), which is included as Appendix C of the RTP, provides an update of the

2004 Nexus Study for a regional development impact fee. The report outlines a development fee program for Monterey County. A complete analysis was performed for the update, beginning with the new region-wide model and culminating with the adoption of new development fees. This 2008 Nexus Study provides the necessary technical and legal basis under CEQA for implementing the updated Fee Program as mitigation for cumulative impacts on the regional transportation system. It was approved by the TAMC Board of Directors. The Fee Program's expected revenues, collected from new development in Monterey County, will total $235 million (2007 dollars): $223 million for transportation improvement projects, $10 million for transit expansion, and $2 million for administrative costs over the 22-year life of the program. This funding mechanism only represents part of the required funding for each proposed project. The share of funding corresponding to existing traffic and out-of county traffic is planned to come from other sources.

The program includes more than $1 billion of transportation improvements, spread over identified projects, and an additional $10 million in transit capital improvements. The projects included in the program are listed below:

- County Road G-12 South Widening (along San Miguel Canyon Road).
- County Road G-12 North Widening (along Hall Road and Elkhorn Road).
- Del Monte—Lighthouse Corridor Improvements.
- Harris Road/Eastside Connector (Salinas).
- Marina—Salinas Corridor Widening.
- Westside Bypass (Salinas).
- SR 1—Sand City/Seaside Widening.
- SR 68—Community Hospital of Monterey Peninsula Widening.
- SR 68 Commuter Improvements.
- U.S. Highway 101 (US 101)—San Juan Road Interchange.
- US 101—South County Frontage Roads.
- US 101—Gloria Road Interchange.

TAMC's *Regional Transportation Improvement Program* (RTIP) is a 4-year program of transportation projects for Monterey County that includes federally funded transportation projects, and projects nominated for inclusion in the State Transportation Improvement Program (STIP). The RTIP is adopted by TAMC and is submitted to Caltrans and the California Transportation Commission by December 15 of every odd year. Projects in the RTIP must be consistent with the adopted RTP to be programmed into the STIP.

Fort Ord Reuse Authority

The *Fort Ord Reuse Plan* was adopted in June 1997. The following transportation policies are applicable to the proposed project.

Streets and Roads

- Objective A: An efficient regional network of roadways that provides access to the former Fort Ord.
- Streets and Roads Policy A-1: Fort Ord Reuse Authority (FORA) and each jurisdiction with lands at former Fort Ord shall coordinate with and assist TAMC in providing funding for an efficient regional transportation network to access former Fort Ord and implement FORA's Development and Resource Management Plan (DRMP).
- Program A-1.1: Each jurisdiction through FORA's DRMP, shall fund its "fair share" of "on-site," "off-site" and "regional" roadway improvements based on the nexus analysis of the TAMC regional transportation model. The nexus is described in the Public Facilities Improvement Plan, Volume 3 of the Reuse Plan, as amended from time to time. The nexus has been updated to reflect TAMC's re-prioritizing of improvements in the network and is reported in the *Fort Ord Regional Transportation Study*, prepared by TAMC, January 6, 1997.
- Program A-1.2: FORA will retain the flexibility to build roadway improvements to the "on-site" and "off-site" network, as described in the Reuse Plan to serve development activities at the former Fort Ord. FORA will participate in reimbursement programs to recover expenses beyond Fort Ord's fair share when alternative programs for financing roadway and transit improvements are established.
- Program A-1.3: Each jurisdiction, through FORA's DRMP shall participate in a regional transportation financing mechanism if adopted by TAMC, as provided in 3.11.5.3(a) of the DRMP. If not, FORA will collect and contribute Fort Ord's "fair share" to construction of a roadway arterial network in and around the former Fort Ord. FORA's participation in the regional improvements program constitutes mitigation of FORA's share of cumulative impacts.

- Program A-1.4: In order for FORA to monitor the transportation improvements and to prevent development from exceeding FORA's level of service standards, each jurisdiction shall annually provide information to TAMC and FORA on approved projects and building permits within their jurisdiction (both on the former Fort Ord and outside the former base), including traffic model runs, traffic reports, and environmental documents.
- Objective B: Provide direct and efficient linkages from former Fort Ord lands to the regional transportation system.
- Streets and Roads Policy B-1: FORA and each jurisdiction with lands at former Fort Ord shall design all major arterials within former Fort Ord to have direct connections to the regional network (or to another major arterial that has a direct connection to the regional network) consistent with the Reuse Plan circulation framework.
- Program B-1.1: Each jurisdiction shall coordinate with FORA to design and provide an efficient system of arterials consistent with Figures 4.2-2 (in the 2015 scenario) and Figure 4.2-3 (in the buildout scenario) in order to connect to the regional transportation network.
- Program B-1.2: Each jurisdiction shall identify and coordinate with FORA to designate local truck routes to have direct access to regional and national truck routes and to provide adequate movement of goods into and out of former Fort Ord.
- Objective C: Provide a safe and efficient street system at the former Fort Ord.
- Streets and Roads Policy C-1: Each jurisdiction shall identify the functional purpose of all roadways and design the street system in conformance with Reuse Plan design standards.
- Program C-1.1: Each jurisdiction shall assign classifications (arterial, collector, local) for each street and design and construct roadways in conformance with the standards provided by the Reuse Plan (Table 4.2-4 and Figure 4.2-4).
- Program C-1.2: Each jurisdiction shall preserve sufficient right-of-way for anticipated future travel demands based on buildout of the FORA Reuse Plan.
- Program C-1.3: Each jurisdiction shall assign an appropriate threshold performance standard for its roadway system in order to measure the impacts of future growth on the system.
- Program C-1.4: Each jurisdiction shall design and construct the roadway network consistent with the phasing program identified in the Fort Ord Business and Operations Plan (Appendix B of the Reuse Plan).
- Program C-1.5: Each jurisdiction shall designate arterials and roadways in commercially zoned areas as truck routes.

- Streets and Roads Policy C-2: Each jurisdiction shall provide improvements to the roadway network to address high accident locations.
- Program C-2.1: Each jurisdiction shall collect accident data, identify and assess potential remedies at high accident locations and implement improvements to lower the identified high accident rates.
- Objective D: Provide an adequate supply of on-street parking
- Streets and Roads Policy D-1: Each jurisdiction shall provide a program of on-street parking.
- Program D-1.1: Each jurisdiction shall provide on-street parking, as appropriate, with design and construction of all urban roadways.
- Program D-1.2: Each jurisdiction shall provide adequate parking in urban areas for persons with disabilities, either as on-street parking on urban roadways or as on-site parking.
- Program D-1.3: Each jurisdiction shall evaluate all new development proposals for the need to provide on-street parking as a part of the overall on-street parking program.

Transit Policies and Programs

- Objective A: Provide convenient and comprehensive bus service.
- Transit Policy A-1: Each jurisdiction with lands at former Fort Ord shall coordinate with MST to provide regional bus service and facilities to serve the key activity centers and key corridors within former Fort Ord.
- Program A-1.1: Each jurisdiction shall identify key activity centers and key corridors, coordinate with MST to identify bus routes that could serve former Fort Ord and support MST to provide service responsive to the local needs.
- Program A-1.2: Each jurisdiction shall develop a program to identify locations for bus facilities, including shelters and turnouts. These facilities shall be funded and constructed through new development and/or other programs in order to support convenient and comprehensive bus service.
- Objective B: Promote passenger rail service that addresses transportation needs for the former Fort Ord.
- Transit Policy B-1: Each jurisdiction shall support TAMC and other agencies to provide passenger rail service that addresses transportation needs for former Fort Ord.
- Objective C: Promote intermodal connections that address the transportation needs for the former Fort Ord.

- Transit Policy C-1: Each jurisdiction shall support the establishment of inter-modal centers and connections that address the transportation needs at former Fort Ord.
- Program C-1.1: Each jurisdiction shall coordinate with and support TAMC and MST to identify the need, location, and physical design of inter-modal centers and regional and local transportation routes to connect with the inter-modal centers.

Pedestrians and Bicycles Policies and Programs

- Objective A: Provide a pedestrian system that supports the needs of Fort Ord residents, employees, students, and visitors.
- Pedestrian and Bicycles Policy A-1: Each jurisdiction shall provide and maintain an attractive, safe and comprehensive pedestrian system.
- Program A-1.1: Each land use jurisdiction shall prepare a Pedestrian System Plan that includes the construction of sidewalks along both sides of urban roadways, sidewalks and pedestrian walkways in all new developments and public facilities, crosswalks at all signalized intersections and other major intersections, where warranted, and school safety features. This plan shall be coordinated with adjacent land use jurisdictions, FORA, and appropriate school entities.
- Objective B: Provide a bicycle system that supports the needs of Fort Ord residents, employees, students, and visitors.
- Pedestrian and Bicycles Policy B-1: Each jurisdiction shall provide and maintain an attractive, safe and comprehensive bicycle system.
- Program B-1.2: Each jurisdiction shall review new development to provide bicycle system facilities consistent with the Reuse Plan and the Bicycle System Plan concurrently with development approval.

Transportation Demand Management

- Objective A: Deemphasize the need for vehicle travel to and within the former Fort Ord.
- Transportation Demand Management Policy A-1: TDM programs shall be encouraged.
- Program A-1.1: Promote TDM programs at work sites. Specific measures that can be pursued at the work site include: compressed work weeks, staggered/flexible work hours, telecommuting, on-site ridesharing, public transit subsidies, guaranteed ride home, bicycle facilities, and parking pricing.
- Program A-1.2: Promote TDM programs in residential developments, retail centers, and other activity centers.

- Program A-1.3: Require new development to incorporate design features that will strengthen TDM programs.
- Program A-1.4: Enforce CMP trip reduction programs.

Land Use and Transportation Policies and Programs

- Objective A: A transportation system that supports the planned land use development patterns.
- Land Use and Transportation Policy A.1: Each jurisdiction with lands at former Fort Ord shall coordinate land use and transportation planning both internally and with adjacent jurisdictions consistent with the Reuse Plan circulation framework.
- Program A-1.2: Each jurisdiction with lands at former Fort Ord shall require new developments to conduct a traffic analysis to determine impacts on traffic conditions require measures such as TDM programs and traffic impact fees to mitigate these impacts.
- Land Use and Transportation Policy A.2: The transportation system to serve former Fort Ord lands shall be designed to reflect the needs of surrounding land uses, proposed densities of development, and shall include streets, pedestrian access, bikeways and landscaping as appropriate.
- Program A.2-1: Each jurisdiction with lands at former Fort Ord shall develop transportation standards for implementation of the transportation system, including but not limited to, rights-of-way widths, roadway capacity needs, design speeds, safety requirements, etc. Pedestrian and bicycle access shall be considered for all incorporation in all roadway designs.

Monterey County

The Circulation Element of the *2010 Monterey County General Plan* (County of Monterey, 2010) provides policy direction for the transportation systems that serve the unincorporated lands of Monterey County and describes how the County intends to serve transportation needs for the next 20 years as its population grows.

According to Policy C-1.1, the acceptable LOS for county roads and intersections will be LOS D, except as follows:

a. Acceptable level of service for County roads in Community Areas may be reduced below LOS D through the Community Plan process.

b. County roads operating at LOS D or below at the time of adopting this General Plan shall not be allowed to be degraded further except in Community Areas where a lower LOS may be approved through the Community Plan process.

c. Area Plans and Land Use Plans may establish an acceptable level of service for County roads other than LOS D. The benefits which justify less than LOS D shall be identified in the Area Plan. Where an Area Plan does not establish a separate LOS, the standard LOS D shall apply."

Policy C-1.8 states that "the County, in consultation with TAMC and Monterey County cities, shall, within 18 months of adoption of the General Plan, develop a County Traffic Impact Fee that addresses impacts of development in cities and unincorporated areas on major County roads. From the time of adoption of the General Plan until the time of adoption of a County Traffic Impact Fee, the County shall impose an ad hoc fee on its applicants based upon a fair share traffic impact fee study." This County Traffic Impact Fee program has not been adopted yet.

City of Seaside General Plan

The City of Seaside General Plan was adopted in August 2003. The Circulation Element includes the vision for the buildout of the City including roadway classifications, bicycle and pedestrian treatments and access to transit. The following transportation policies are applicable to the proposed project.

Circulation Element

Goal C-1: Provide and maintain a City circulation system that promotes safety and satisfies the demand created by new development and redevelopment in Seaside.

Policy C-1.1: Design roadway capacities and ensure transportation facilities that adequately serve planned land uses.

Policy C-1.2: Improve the Seaside circulation system in concert with public and private land development and redevelopment projects to maintain the City standard of Level of Service "C".

Implementation Plan C-1.2.1 Traffic Studies and Impact Assessments. Review development proposals for potential impacts to the transportation system. Require a traffic study for projects that generate 100 or more peak hour trips or that have the potential to impact adjacent roadway segments and intersections. The Level of Service Standards established in the Circulation Element will be used to determine the significance of impacts. Intersection level of service will be determined by the Vehicle Delay and the Highway Capacity Manual calculations. Mitigation in the form of physical improvements and/or impact fees will be required for significant impacts. Adequate right-of-way along new roadways will be required to permit pedestrian and bicycle facilities. Proper roadway drainage must be provided to ensure a safe system. The Seaside Public Works Director, upon consultation with the California Department of Transportation, may require a traffic study for a project that generates additional trips on the State highway or Congestion Management Plan (CMP) system.

Implementation Plan C-1.2.2 Transportation Financing and Traffic Fee Ordinance. Identify available funding sources and establish a financing plan to guide construction and funding of transportation system improvements. Require new development projects to construct and/or fund in whole or in part necessary traffic improvements associated with the proposed project. Transportation improvements should include both automotive, as well as alternative means of transportation. Consider adopting a Traffic Fee Ordinance to reflect projected circulation needs and apply the ordinance to applicable developments. Consider including alternative modes of transportation (bicycle and pedestrian) and public parking as projects eligible for use of Traffic Impact Fees. Consider the improvements identified in the City of Seaside *General Plan Traffic Study* (Higgins Associates 2003) when developing the Traffic Fee Ordinance.

Policy C-1.3: Coordinate improvements to and maintenance of the City circulation system with other major transportation and infrastructure improvement programs.

Implementation Plan C-1.3.1 During development of the CIP and prior to implementation of any major transportation project, coordinate with Caltrans, TAMC, MST, water and sewer service providers, the fire department, and developers to ensure all major infrastructure improvements are constructed efficiently and simultaneously, with as little delay and traffic and environmental disruption as possible.

Policy C-1.4: Provide adequate access to the University, golf courses, and other uses in North Seaside.

Implementation Plan C-1.4.1 North Seaside Transportation Improvements. Require public and private development projects to install or pay their fair share of the improvements in North Seaside identified on Figure C-4 and Table C-1. Major improvements (per Figure C-4 and Table C-1) that will improve access in North Seaside include:

- A-7: SR-1/Fremont Boulevard Interchange
- A-8: Fremont Boulevard/Del Monte Boulevard/Military Avenue
- A-9: General Jim Moore Boulevard/ Coe Avenue-Eucalyptus Road
- A-13: 1st Avenue/Lightfighter Drive
- A-14: 2nd Avenue/Lightfighter Drive
- A-15: 2nd Avenue/Campus Soccer Field Driveway
- A-16: 2nd Avenue/1st Street
- B-4: Lightfighter Drive
- B-5: Second Avenue north of Lightfighter Drive
- B-6: Gigling Road
- B-7: Eucalyptus Road
- D-1: SR-1 from SR-218 to Fremont Boulevard
- D-2: 8th Street

Policy C-1.5: Use traffic calming methods within residential and mixed use areas where necessary to create a pedestrian-friendly circulation system.

Implementation Plan C-1.5.1 Pedestrian-Friendly Circulation. Implement pedestrian friendly traffic improvements and development projects such as the Broadway Avenue Improvement Plan and Pedestrian Improvement C-1 as identified on Figure C-4 and Table C-1 of this Element.

Policy C-1.6: Apply creative approaches to increase safety and reduce congestion in areas with unique problems, such as: neighborhoods with narrow, one-way streets; areas around schools; neighborhoods with non-essential alleys, businesses with drive-through access; and other special situations.

Policy C-1.7: Reduce impacts on residential neighborhoods from truck traffic and related noise.

Goal C-2: Provide a local circulation system that is integrated with the larger regional transportation system to ensure the economic well-being of the community.

Policy C-2.2: Support programs that help reduce congestion and encourage alternative modes of transportation.

Policy C-3.1: Support the provision and expansion of regional transit services and support facilities to serve the City.

Implementation Plan C-3.1.1 Improved Bus Service. Work with MST to enhance transit service and encourage ridership through the following actions:

- Encourage MST to improve existing transit service by providing more bus stop locations and more frequent stops
- Coordinate with MST to expand transit routes to North Seaside
- Work with MST to identify and receive additional funding sources for expanded transit services.

Policy C-3.3: Promote mixed use, higher density residential, and employment-generating development in areas where public transit is convenient and desirable.

Implementation Plan 3.3.1 Transit-Oriented Development. Through the Specific Plan process, encourage transit-oriented development in the Gigling Specific Plan area (near CSUMB), the Broadway Corridor, the North and South Gateways, and other appropriate areas.

Policy C-3.4: Support alternative modes of transportation that encourage physical activity, such as biking and walking.

Policy C-4.1: Require off-street parking in new development and redevelopment projects.

Implementation Plan C-4.1.1 Zoning Ordinance Parking Requirements. Require all public and private projects to provide adequate parking facilities and meet the parking standards contained within the Zoning Ordinance.

Policy C-4.2: Support the development of well-designed and aesthetically pleasing parking facilities in areas where current parking deficiencies exist or where substantial traffic-generating uses are planned.

Policy C-4.3: Ensure well-landscaped parking lots that facilitate pedestrian movement and screen unattractive structures.

Implementation Plan C-4.3.1 Parking Lot Landscaping Standards. Require parking areas that facing streets or adjoining properties to be landscaped per specific requirements in the Zoning Ordinance and/or through the Specific Plan process.

City of Marina General Plan

The City of Marina General Plan (City of Marina, 2000) guides daily and long-term land use planning and development decisions in the City, and provides clear documentation of the City's goals and commitments for private developers, homeowners, businesses, investors, and other public entities involved in planning and development activities within the City. The purpose of the General Plan is to enable private developers, homeowners, businesses, investors, public entities, and other organizations to coordinate their actions with each other and with the City, and to undertake their programs in a manner that complements and promotes overall City goals. The General Plan was adopted in October 2000, and was most recently amended in September 2009. Listed below are a few key transportation goals and policies from the General Plan.

- Major Roadways 3.9 A peak period Level of Service (LOS) "D" shall be maintained for all highway segments and major roads within the Marina Planning Area, except that where existing roads and highways are operating a lower LOS standard at the time of plan adoption, the existing LOS will be maintained or improved. (2005-82)
- Vehicular trip reduction 3.22 In addition to the land use and transportation provisions of this chapter, trip reduction measures for major new employers, expansion if existing businesses or relocation of existing businesses within Marina shall be required in order to achieve a minimum 10 percent reduction in estimated peak hour vehicular traffic volume. The threshold at which this trip reduction shall apply is to be determined during preparation and adoption of ordinances required to implement this plan.
- Transit Facilities and Services 3.23 All future development shall be designed to help promote cost-effective local and regional transit service and minimize dependency on the private automobile for work, shopping, recreation, and other trip purposes.

Mitigation Fee Programs

The following section describes the development impact fee programs applicable to the proposed project.

Fort Ord Reuse Authority (FORA)

FORA collects development impact fees on projects built within the former Fort Ord. The fees provide funding for various traffic infrastructure improvements, both on the former army base and regionally. Payment of the impact fees would mitigate the proposed project's share of impacts on regional roadways within the former Fort Ord. Examples of former Fort Ord roadways that would have improvements funded by the FORA fee include General Jim Moore Boulevard and South Boundary Road. Payment of the fees would also mitigate the project's cumulative impacts towards regional improvements, such as State Route 1, State Route 68, and State Route 156. The FORA project list and fee schedule were updated based on a 2005 nexus study. The following current FORA capital improvement program projects are located near the project site:

Fully Funded Improvements:

- Widening of Davis Road from two to four lanes between Reservation Road and Blanco Road, including reconstruction of the existing bridge over the Salinas River;
- Widening of Reservation Road from two to four lanes between the East Garrison development and Davis Road;
- Widening Inter-Garrison Road from two to four lanes between the future Eastside Parkway and Reservation Road;
- Widening Gigling Road from two to four lanes between General Jim Moore Boulevard and the future Eastside Parkway;
- Construct Eastside Parkway between Eucalyptus Road and Inter-Garrison Road; and

It should be recognized that the FORA capital improvement program focuses on improvements to the higher order access and mobility routes as listed above. The specific local network improvements will be identified with each of the FORA project developments. The FORA capital improvement program also contributes some money towards, but does not fully fund, other regional improvements, specifically the following:

Partially Funded Improvements:

- Widening of State Route 1 to three lanes in each direction between Fremont Boulevard and Del Monte Avenue in Seaside/Sand City;

- Construction of the State Route 1/Monterey Road interchange, to be located between the
- Light Fighter Drive and Fremont Boulevard interchanges;
- State Route 68 improvements at the intersections of Laureles Grade, San Benancio Road, and Corral De Tierra Road, including left turn lanes and signal timing improvements; and
- State Route 156 widening to a four-lane freeway and construction of new interchanges.

TAMC / Monterey County

TAMC established a development impact fee in August 2008. Through agreement between TAMC and FORA, development projects that are subject to the FORA transportation fee are exempt from the TAMC development impact fee because the FORA fee covers regional impacts outside Fort Ord (TAMC 2009). Monterey County does not have a separate traffic impact fee.

City of Marina

The City of Marina has established a traffic capital improvement program and development impact fee that funds roadway and intersection improvements. Improvements funded include the widening of Imjin Parkway to four lanes between Imjin Road and Reservation Road and signalization of the Third Avenue/Imjin Parkway intersection. The proposed project would be responsible for payment of its applicable City of Marina traffic impact fees if it would impact operations at locations where the fee funds improvements.

City of Seaside

The City of Seaside does not have a traffic impact fee. Any necessary monetary contributions towards impacts in the City of Seaside would involve fair-share payments towards the implementation of necessary improvements.

Caltrans

Caltrans does not have a traffic impact fee. Any necessary monetary contributions towards impacts to the state highway system would need to go through another funding mechanism, such as FORA.

Impacted roadway facilities not covered by any fee program may be subject to a fair-share contribution towards needed improvements.

3.10.4 Relevant Project Characteristics

The proposed project is located in the geographic center of the former Fort Ord at the intersection of Gigling Road and 8th Avenue. As a result, a number of existing roadways currently provide local access to the proposed project site as shown in Figure 3.13-6 Existing plus Project On-Site Roadway Network. The proposed project would generate

a significant number of trips to the region including 29,400 daily, 2,821 AM peak hour, and 2,563 PM peak hour net new trips. Regional access to the site is provided by SR-1 that runs north/south along the coast of California, and General Jim Moore Boulevard that runs parallel to SR-1 providing a local alternative north/south connection. Primary east/west routes to the proposed project site include Colonel Durham Street (via Lightfighter Drive), Gigling Road and Normandy Road / Parker Flats Road. The proposed project also includes an extensive pedestrian circulation and trail plan that will help improve access to the preserved recreation areas within the Fort Ord Recreational Habitat Area.

Project Street Network Changes

The proposed project would change the transportation systems as part of the proposed project under Existing plus Project conditions, as described below and in Chapter 2, Project Description and as shown in Figure 3.13-6 Existing plus Project On-Site Roadway Network.

Primary access to the project site under Existing plus Project conditions would be provided via Gigling Road from the west, and via Parker Flats Road via Normandy Road to the east. Existing roadways within the Specific Plan site are currently closed to vehicle access and include Gigling Road, Parker Flats Road, Parker Flats Cut-Off Road, and 8th Avenue.

As identified in the FORA CIP, Gigling Road would be realigned to connect the intersection of Gigling Road and 8th Avenue connecting to the primary project driveway at Monterey Downs Road. The remaining portion of Gigling Road west of the project site to General Jim Moore Boulevard will be improved along its current alignment to a two lane arterial with left turn lanes including the installation of streetlights, sidewalks, and an 8-foot wide bike path on the southern side of the roadway. Improvements to Gigling Road have been identified in the Fort Ord Base Reuse Plan CIP and therefore these roadway improvements will be completed by FORA.

The project would also improve Parker Flats Road and Parker Flats Cut-Off from Normandy Road to the project site to include two travel lanes, new bike lanes, and sidewalks.

On-Site Project Roadway Improvements

The proposed project would construct a portion of Eastside Parkway between the project driveway #4 and Parker Flats Road. The remaining portion of Eastside Parkway from driveway 104 to Inter-Garrison Road to the north and Parker Flats Road to General Jim Moore Boulevard to the south, is not anticipated to be constructed until 2035 Cumulative conditions.

The proposed project would have nine access points to the existing roadway network along Eastside Parkway, Gilging Road, 8th Avenue, Parker Flats Road and Parker Flats Cut-off. The following section describes each of the intersection configurations at each

of the nine project access points as shown on Figure 3.13-6 Existing plus Project On-Site Roadway Network.

The proposed project would construct two new driveways with access onto the future Eastside Parkway under Existing plus Project conditions as follows:

- Intersection #52: Monterey Downs Road (8th Avenue) and Eastside Parkway would include a four-leg signal controlled intersection that will provide access from Eastside Parkway and Monterey Downs Road / 8th Avenue to the central project area including the Horse Park, "Country Walk" shopping area, residential development, trail lands, RV parking lots, and horse trail staging areas.
- Intersection #104: Project Driveway 4 and Eastside Parkway is a four-leg two-way stop controlled intersection (northbound / southbound driveways stop). The north driveway would provide access to the hotel, office, and recreational facilities to the north. The south driveway would provide access to the "Country Walk" shopping area and Open Space / Trail Lands. The Project would construct Monterey Downs Road, which is a planned two-lane collector roadway with divided median including on-street parking, sidewalks, and Class-II bicycle lanes. Monterey Downs Road would provide primary access to the center of the project site from Gigling Road and Eastside Parkway.

The project would construct one new driveway connection onto 8th Avenue between Gigling Road and Colonel Durham Street, the configuration of this new intersection is as follows:

- Intersection #105: Project Driveway 5 and 8th Avenue is a three-leg one-way stop controlled intersection (westbound stop) that would provide access to the project's hotel, office, and recreational facilities.
- The project would construct one new driveway connection onto Gigling Road between 7th Avenue and 8th Avenue, the configuration of this new intersection is as follows:
- Intersection #106: Project Driveway 6 and Gigling Road is a three-leg one-way stop controlled intersection (northbound stop) that would provide access to residential development.

The project would improve Parker Flats Road and Parker Flats Cut-Off between Normandy Road and the project site with the addition of new bike lanes, sidewalks, and landscaping. The project would construct five new driveways between Normandy Road and Eastside Parkway that would provide access to the Monterey Downs Site and the Central Coast Veterans Cemetery. These new driveway intersections are as follows:

- Intersection #107: Project Driveway 7 and Parker Flats Road is a three-leg one-way stop controlled intersection (southbound stop) that would provide access to residential development.
- Intersection #108: Project Driveway 8 and Parker Flats Road is a four-leg two-way stop controlled intersection (northbound/southbound stop) that would provide access to residential development to the north and the proposed Central Coast Veterans Cemetery to the south.
- Intersection #109: Project Driveway 9 and Parker Flats Road is a three-leg one-way stop controlled intersection (northbound stop) that would provide access to the proposed Central Coast Veterans Cemetery to the south.
- Intersection #110: Project Driveway 10 and Parker Flats Cut-Off is a three-leg one-way stop controlled intersection (westbound stop) that would provide access to the proposed Central Coast Veterans Cemetery to the east.
- Intersection #111: Project Driveway 11 and Parker Flats Cut-Off is a three-leg one-way stop controlled intersection (westbound stop) that would provide access to the proposed Central Coast Veterans Cemetery to the east.

Project Transit Improvements

The proposed project would facilitate the establishment of additional bus routes and/or bus stops within the project area. It is anticipated that project would include a transit stop within ½ mile (or a 10-minute walk) of all future residents. At a minimum, a bus stop is planned on Monterey Downs Road to the south of Gigling Road and 8th Avenue. This location is within the geographical center of the project and within walking distance of the shopping area. Other stops would be planned in consultation with MST as future bus routes are developed for the area.

Project Bicycle and Pedestrian Network Improvements

The project Specific Plan contains several additional pathways for bikes and pedestrians that would connect to the existing and proposed bike lane and trail network as shown in Figure 3.13-7: Proposed Bicycle and Pedestrian Trail Locations. Off-street multi-use pathways, tree-lined sidewalks, landscaped paseos, preserved open space/recreation areas and public gathering spaces are proposed to encourage walking, cycling, and even equestrian travel as an alternative to short auto trips. The project would provide connections to the proposed Class-II bike lanes on Eastside Parkway, Gigling Road, 8th Avenue, and Parker Flats Road. The Fort Ord National Monument located to the east and south of the project would be accessible from the site and surrounding areas via the project's network of multi-use trails

Project Trip Generation

Peak-hour trip generation estimates were calculated using the trip generation equations and rates presented in Institute of Transportation Engineers' (ITE) *Trip Generation, 9th*

Edition (ITE 2013). The estimate of vehicle trips to be generated by the proposed project is shown in Table 3.13-10: Project Trip Generation. In addition, socio and economic data for the region was incorporated into the AMBAG travel demand model. A comparison between the trip generation generated by the *ITE Trip Generation, 9th Edition* and the AMBAG travel demand model were made to determine a realistic trip distribution for the project. The project is forecast to generate 29,400 daily, 2,821 AM peak hour, and 2,563 PM peak hour net new trips. The resulting peak hour turning movements generated by the project are shown in Figure 3.13-8: Project Peak Hour Trip Assignment.

1261 **Table 3.13-10: Project Trip Generation**

ITE #	Land Use	Size	Units	Total Generated Trips[1]						
				Daily	AM Pk Hr.	PM Pk Hr.	AM In	AM Out	PM In	PM Out
566	**Cemetery[2]**	**78.7**	**Acres**	**373**	**14**	**68**	**10**	**4**	**23**	**45**
--	**Training Facility[3]**	**6,500**	**Seats**	**2,060**	**35**	**206**	**32**	**3**	**136**	**70**
Country Walk (330,000 SF Commercial Center)										
826	Specialty Retail	230	S.F.	9,954	1,478	618	709	769	272	346
310	Hotel	200	Rooms	1,634	106	120	62	44	62	58
Country Walk Subtotal				**11,588**	**1,584**	**738**	**771**	**813**	**334**	**404**
Horse Park (15,000 SF Horse Park)										
710	General Office	7	S.F.	78	12	11	10	2	2	9
640	*Animal Hospital/Vet[4]*	*3*	*S.F.*	*142*	*13*	*15*	*9*	*4*	*6*	*9*
	Animal Hospital/Vet (90% Internal Trips)[5]			*-127*	*-11*	*-13*	*-8*	*-3*	*-5*	*-8*
	Animal Hospital/Vet Subtotal			15	2	2	1	1	1	1
--	Public Stables[6]	680	Stables	1,503	90	191	62	28	89	102
1605	Affordable Extended Stay[7]	--	--	--	--	--	--	--	--	--
Horse Park Subtotal				**1,596**	**104**	**204**	**73**	**31**	**92**	**112**
Residential (1,280 D.U.)										
220	Apartment	200	D.U.	1,336	102	128	20	82	83	45
--	Student Housing[8]	400	Beds	1,032	48	88	4	44	44	44
210	SFDR[9]	936	D.U.	7,959	619	781	155	465	492	289
Residential Subtotal				**10,327**	**769**	**997**	**179**	**590**	**619**	**378**
Office Park / Hotel / Tennis and Swim										
710	General Office	100	S.F.	1,313	192	191	169	23	32	159
310	Hotel	200	Rooms	1,634	106	120	62	44	62	58
491	Racquet/Tennis Club[10]	9	Courts	349	13	31	6	7	18	13
Office Park / Hotel / Tennis and Swim (Subtotal)				**3,296**	**311**	**342**	**237**	**74**	**112**	**230**
412	**County Park**	**70**	**Acres**	**160**	**4**	**8**	**2**	**2**	**4**	**4**
Total Project Trip Generation				***29,400***	***2,821***	***2,563***	***1,305***	***1,517***	***1,321***	***1,243***

Notes:

1262 (1) Source: Institute of Transportation Engineers' (ITE) Trip Generation, 9th Edition
1263 (2) The CCVC veterans' hall, cultural history museum, chapel, and amphitheatre are assumed to be generating
1264 trips during special occasions only; therefore are assumed to not generate any peak hour or daily trips.
1265 (3) Trip generation for the Training Facility was developed using the results of the AMBAG travel demand
1266 model. Employment estimates were provided by Wildan Fincancial Economic Consulting Services, 2012
1267 and included in the AMBAG travel demand model. Trip entering and exiting were determined from the ITE
1268 ITE Trip Generation. PM peak hour trips were assumed to be 10% of daily trips and AM trips were derived
1269 based on AM and PM rates (0.06 and 0.01) from the ITE ITE Trip Generation.
1270 (4) PM peak hour trips were assumed to be 10% of daily trips.
1271 (5) Ninety percent of the vet clinic trips are assumed to be associated with users of the horse training facilities
1272 located on site.

(6) Rates for stables are based on empirical trip generation data contained in the Sycamore Trails Stables Trip Generation Study (Linscott, Law & Greenspan Engineers, December 24, 2008)
(7) Description for Horse Track land use includes trips generated by ancillary uses, grand stand, and worker housing; therefore the trips are already included in Training Facility land use.
(8) It is assumed that 200 units out of the 400 units (50 %) of the apartment units would be occupied by students of CSUMB. The trip generation assumes 100 of this units to be single bedroom and the remaining 100 to be two-bedroom units. Each of the 200 apartment unit is assumed to house an average of approximately 2 students. Trip generation rates were taken from AMCAL Multi-Housing Traffic Analysis Report.
(9) SFDR = Single-Family Detached Residential
(10) Assumes 9 Tennis Courts per Site Plan. Peak hour splits are based on Health/Fitness Club land use in ITE Trip Generation.

Using the AMBAG travel demand model, an internal capture rate was determined for the project trip generation. An estimate of the project external and internal trip generation is shown in Table 3.13-11: Project Internal / External Trip Generation Calculation. Based on the land uses included in the project site, the model forecast an internal trip capture rate of approximately 28%. These trips are anticipated to stay within the project site and would not affect traffic operations on regional and local roads surround the site.

Table 3.13-11: Project Internal / External Trip Generation Calculation

	Total Generated Trips						
	Daily	**AM Pk Hr.**	**PM Pk Hr.**	**AM In**	**AM Out**	**PM In**	**PM Out**
Internal	8,238	750	682	347	404	351	331
External	21,162	2,071	1,881	958	1,113	969	912
Total	**29,400**	**2,821**	**2,563**	**1,305**	**1,517**	**1,321**	**1,243**

Source: RBF Consulting 2013

Project Trip Assignment and Distribution

The distribution of project trips on the roadways system is based on the origins and destinations of all trips to and from the project site. The following are the trip distribution observed by destinations under Existing plus Project conditions:

- Regional traffic travels to and from the site along Gigling Road and Colonel Durham Street to Lightfighter Road to SR-1.
- Traffic traveling to the origins and destinations south of the project travels on General Jim Moore Boulevard to Broadway Avenue.
- Traffic traveling to the origins and destinations south of the project travels on 7th and 8th Avenue to Imjin Parkway to Reservation Road to Blanco Road.

Project trip distribution was primarily based on the information from the AMBAG travel demand model and existing turning movements at each of the study intersections. As stated previously, 28% of the project generated traffic was assumed to remain within the

project site (internal trip capture). The remaining 72% of the project forecast trips were assigned to the roadway network per the distribution pattern shown on Figure 3.13-9: Project Trip Distribution. The distribution of traffic external to the project site depends on the time period and direction of travel.

Existing plus Project Traffic Volumes

The project trips were added to the Existing Conditions traffic volumes to develop daily and peak hour traffic volumes for Existing plus Project Conditions. The resulting volumes are shown on Figure 3.13-10: Existing plus Project Peak Hour Intersection Volumes.

Special Event Traffic

The project would hold a maximum of 13 special events per year including equestrian events, music concerts, and festivals. These events would be staged in sports arena and the adjacent sports area parking area.

The project applicant anticipates providing a contracted shuttle bus connection between off-site parking areas within the former Fort Ord when needed during major special events. Special event traffic and parking management activities would include:

- Promotional materials
- Wayfinding signage
- Shuttle buses
- Coordination with MST
- Traffic and parking control using the California Highway Patrol, Monterey County Sheriff's office and trained staff

3.13.4 Impacts and Mitigation Measures

Criteria of Determining Significance

CEQA Guidelines

In accordance with the California Environmental Quality Act (CEQA), *State CEQA Guidelines,* agency and professional standards, a project impact would be considered significant if the project would:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards

established by the county congestion management agency for designated roads or highways?

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

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Caltrans Level of Service Standards

The proposed project would have a significant effect within the jurisdiction of Caltrans if it would:

- Result in a level of service lower than the transition between LOS C and LOS D; or
- Add new trips to an intersection that is already operating at LOS F.

County of Monterey Level of Service Standards

The County of Monterey Department of Public Works indicates that a project may have a significant effect on the environment if, for intersections under the jurisdiction of Monterey County, it would:

- Decrease the level of service at a signalized intersection to LOS D, E, or F from a better level of service;
- Add 0.010 or more to the critical movements volume to capacity ratio of a signalized intersection already operating at an unacceptable LOS D and E during the peak hour;
- Add any traffic to an intersection operating at LOS F;
- Cause an un-signalized intersection to meet or exceed traffic signal warrants;
- Decrease the level of service on any roadway segment from LOS A, B, or C to LOS D, E, or F; from LOS D to LOS E or F; or from LOS E to LOS F;
- Add any traffic during the peak hour to a roadway segment operating at LOS F; or
- Severely impact traffic operations due to either the creation of or exacerbation of vehicle queues at an otherwise acceptably-operating intersection.

City of Marina Level of Service Standards

The proposed project would have a significant effect in the City of Marina if it would:

- Cause pre-project operations at a signalized intersection to deteriorate from an acceptable level (LOS A, B, C, or D) to an unacceptable level (LOS E or F);
- Increase the pre-project average delay at a signalized intersection by more than 1.0 second at intersections operating at LOS E or F;
- Cause side-street operations ("worst approach") at any unsignalized intersection to deteriorate from an acceptable level (LOS A, B, C, D, or E on side street) to an unacceptable level (LOS F on side street); or
- Add traffic to any un-signalized intersection movement that results in an increase to the delay for any approach operating at LOS F pre-project;
- Meet the Caltrans peak-hour volume signal warrant at any un-signalized intersection.
- Cause pre-project operations to deteriorate at an all-way stop controlled intersection from an acceptable level (LOS A, B, C, or D) to an unacceptable level (LOS E or F); or
- Add traffic to an all-way stop controlled intersection operating at LOS E or F that results in an increase to the overall intersection delay, or
- Cause a roadway segment operating at an acceptable level (LOS A, B, C, or D) to deteriorate to an unacceptable level (LOS E or F); or
- Cause a roadway segment operating at LOS E to deteriorate one service level; or
- Add one trip to a segment operating at LOS F.
- Severely impact traffic operations due to either the creation of or exacerbation of vehicle queues at an otherwise acceptably-operating intersection.

City of Seaside Level of Service Standards

The proposed project would result in a significant impact in the City of Seaside if it would:

- Cause operations at signalized intersections to deteriorate from an acceptable level (LOS A, B, or C) to an unacceptable level (LOS D, E, or F); or
- Increase the average delay by more than 2.0 seconds at signalized intersections operating at LOS D; or
- Increase the average delay by more than 1.0 seconds at signalized intersections operating at LOS E or F.

- Cause operations to deteriorate at any un-signalized intersection from an acceptable level (LOS A, B, or C) to an unacceptable level (LOS D, E, or F); or
- Add any traffic to an un-signalized intersection operating at LOS F and the Caltrans peak hour signal warrant is met.
- Severely impact traffic operations due to either the creation of or exacerbation of vehicle queues at an otherwise acceptably-operating intersection.

Existing plus Project Intersection Level of Service Analysis

Intersection levels of service were calculated with the net Existing Plus Project traffic to evaluate the operating conditions of the intersections and to identify potential project impacts to the roadway system. The Existing plus project analysis scenario also includes eight new study intersections introduced as a result of the new internal roadways that are planned to run throughout the project area. These intersections do not exist on the current roadway network and would be constructed by the project, as included in the project description.

- Intersection 52: Eastside Parkway and Gigling Road / Monterey Downs Road
- Intersection 53: Eastside Parkway / Parker Flats Road
- Intersection 104: Driveway 4 / Eastside Parkway
- Intersection 105: Driveway 5 / Eastside Parkway
- Intersection 106: Driveway 6 / Eastside Parkway
- Intersection 107: Driveway 7 / Eastside Parkway
- Intersection 108: Driveway 8 / Eastside Parkway
- Intersection 109: Driveway 9 / Eastside Parkway
- Intersection 110: Driveway 10 / Eastside Parkway
- Intersection 111: Driveway 11 / Eastside Parkway

The results of the LOS analysis for Existing plus Project conditions are shown in Table 3.13-12: Existing plus Project Conditions Intersection Level of Service. The results of Existing Conditions LOS are included for comparison purposes. The corresponding calculation sheets are in Appendix H.

The results of the LOS calculations show that nine project intersections are anticipated to operate at an unacceptable level of service during the AM and PM peak hours under Existing plus Project conditions, including the following:

- Intersection 1: 8th Avenue and Gigling Road

- Intersection 2: 7th Avenue and Gigling Road
- Intersection 5: Malmedy Road and Gigling Road
- Intersection 8: 7th Avenue and Colonel Durham Road
- Intersection 15: 8th Avenue and Inter-Garrison Road
- Intersection 22: Imjin Road and 8th Street
- Intersection 36: General Jim Moore Boulevard and Coe Avenue
- Intersection 28: SR-1 SB Ramps and Imjin Boulevard
- Intersection 50: SR-1 SB Ramps and Reservation Road

As required, unsignalized intersections forecast to operate at deficient LOS require a traffic signal warrant assessment. The results of this analysis show that all nine intersections would meet peak hour signal warrants. Traffic signal warrant worksheets for Existing plus Project conditions are provided in Appendix H.

Table 3.13-12: Existing plus Project Conditions Intersection LOS Operations

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions				Existing Conditions Plus Project			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Gigling Road and 8th Avenue	Stop Sign (AWS)	County	C	Overall	7.6	A	7.7	A	**>200**	**F**	**160.3**	**F**
2	Gigling Road and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	2.2	A	1.7	A	**53.1**	**F**	**33.0**	**D**
				E	*Worst Approach*	*10.8*	B	*9.1*	A	**>200**	**F**	**122.8**	**F**
3	Gigling Road and 6th Avenue	Stop Sign (AWS)	Seaside	C	Overall	11.0	B	9.1	A	23.9	C	11.6	B
4	Gigling Road and Parker Flats Road	Stop Sign (SSS)	Seaside	C	Overall	2.0	A	3.6	A	4.6	A	4.9	A
				E	*Worst Approach*	*20.2*	C	*15.0*	B	*39.5*	E	*21.3*	C
5	Gigling Road and Malmedy Road	Stop Sign (SSS)	Seaside	C	Overall	2.3	A	1.7	A	9.8	A	4.3	A
				E	*Worst Approach*	*23.4*	C	*14.9*	B	***85.4***	**F**	*28.4*	D
6	Gigling Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	25.4	C	19.6	B	30.6	C	21.4	C
7	8th Avenue and Colonel Durham Street	Stop Sign (SSS)	County	C	Overall	0.7	A	2.2	A	3.9	A	5.5	A
				E	*Worst Approach*	*11.7*	B	*10.9*	B	*30.0*	D	26.2	D
8	Colonel Durham Street and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	5.5	A	6.4	A	15.0	B	17.7	C
				E	*Worst Approach*	*10.7*	B	*10.3*	B	*45.3*	E	***58.7***	***F***
9	Colonel Durham Street and Malmedy Road	Stop Sign (AWS)	Seaside	C	Overall	8.1	A	8.3	A	11.1	B	24.6	C
10	Lightfighter Drive and General Jim Moore Boulevard	Signal	Seaside	C	Overall	22.1	C	22.7	C	25.9	C	33.1	C
11	Lightfighter Drive and 2nd	Signal	Seaside	C	Overall	13.5	B	13.0	B	14.8	B	13.4	B

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions				Existing Conditions Plus Project			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
	Avenue												
12	Lightfighter Drive and 1st Avenue	Signal	Seaside	C	Overall	15.1	B	13.2	B	26.2	C	16.1	B
13	8th Avenue and Butler Street	Stop Sign (SSS)	County	C	Overall	0.1	A	0.5	A	0.2	A	0.5	A
				E	*Worst Approach*	*10.6*	B	*10.6*	B	*13.6*	B	*13.9*	B
14	8th Avenue and B street	Stop Sign (SSS)	County	C	Overall	0.0	A	0.6	A	0.6	A	1.0	A
				E	*Worst Approach*	*0.0*	A	*10.6*	B	*13.7*	B	*12.6*	B
15	Inter-Garrison Road and 8th Avenue	Stop Sign (SSS)	County	C	Overall	3.1	A	3.5	A	**113.2**	**F**	**70.0**	**F**
				E	*Worst Approach*	9.2	A	*14.8*	B	**>200**	**F**	**>200**	**F**
16	7th Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	10.5	B	9.2	A	23.5	C	18.9	C
17	6th Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	8.7	A	10.0	A	10.5	B	12.6	B
18	General Jim Moore Boulevard and Divarty Street	Stop Sign (AWS)	Marina	D	Overall	9.6	A	10.0	A	9.5	A	9.9	A
19	General Jim Moore Boulevard (4th Avenue) and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	8.3	A	9.5	A	3.4	A	6.1	A
20	2nd Avenue and Divarty Street	Stop Sign (AWS)	Marina	D	Overall	10.0	A	8.8	A	10.1	B	8.8	A
21	2nd Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	9.7	A	8.9	A	3.6	A	2.8	A
22	Imjin Road and 8th Street	Stop Sign (AWS)	Marina	D	Overall	16.7	C	8.9	A	***122.8***	***F***	21.9	C
23	5th Avenue and 8th Street	Stop Sign (SSS)	Marina	C	Overall	3.1	A	2.0	A	2.8	A	2.5	A
				E	*Worst Approach*	*3.6*	A	*3.6*	A	*4.4*	A	*4.7*	A
24	2nd Avenue and 8th Street	Stop Sign (AWS)	Marina	D	Overall	12.3	B	10.2	B	12.5	B	10.3	B
25	Imjin Parkway and Imjin Road	Signal	Marina	D	Overall	12.7	B	9.5	A	19.9	B	19.1	B
26	Imjin Parkway and California Avenue	Signal	Marina	D	Overall	31.0	C	19.0	B	37.2	D	21.5	C
27	Imjin Parkway and 2nd Avenue	Signal	Marina	D	Overall	18.1	B	26.3	C	18.1	B	26.0	C
28	Imjin Parkway and Abrams Drive	Signal	Marina	D	Overall	27.1	C	26.8	C	45.7	D	42.3	D
29	Inter-Garrison Road and Abrams Drive	Stop Sign (SSS)	County	C	Overall	11.7	B	6.8	A	6.3	A	3.0	A
				E	*Worst Approach*	*16.8*	C	*9.3*	A	*10.3*	B	*3.9*	A
30	East Garrison Road and Schoonover Road	Stop Sign (SSS)	*County*	*C*	*Overall*	*8.6*	A	*7.4*	A	*6.3*	A	*5.5*	A
				E	*Worst Approach*	*9.1*	A	*8.5*	A	*9.5*	A	*8.8*	A
31	Reservation Road and Imjin	Signal	Marina	D	Overall	25.7	C	30.7	C	34.7	C	37.9	C

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions				Existing Conditions Plus Project			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
	Road					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
32	Reservation Road and East Garrison Road	Signal	County	D	Overall	Cumulative Conditions Intersection Only							
33	Reservation Road and Inter-Garrison Road	Signal	County	D	Overall	Cumulative Conditions Intersection Only							
34	Normandy Road and Parker Flats Road	Stop Sign (SSS)	Seaside	C	Overall	3.4	A	5.3	A	14.8	B	13.3	B
				E	*Worst Approach*	*9.1*	A	*8.8*	A	*20.4*	C	*15.2*	C
35	Normandy Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	17.5	B	15.1	B	21.2	C	18.7	B
36	Coe Avenue and General Jim Moore Boulevard	Stop Sign (AWS)	Seaside	C	Overall	23.5	C	12.8	B	**37.2**	**E**	15.4	C
37	SR-1 NB Ramps and Imjin Parkway	Stop Sign (SSS)	Caltrans	C/D	Overall	0.0	A	0.2	A	0.0	A	0.2	A
				E	*Worst Approach*	*13.4*	B	*33.6*	D	*13.4*	B	*34.3*	D
38	SR-1 SB Ramps and Imjin Parkway	Stop Sign (SSS)	Caltrans	C/D	Overall	**>200**	**F**	**>200**	**F**	**>200**	**F**	**>200**	**F**
				E	*Worst Approach*	***>200***	***F***	***>200***	***F***	***>200***	***F***	***>200***	***F***
39	Broadway Avenue and General Jim Moore Boulevard	Signal	Seaside	C	Overall	13.9	B	11.2	B	14.9	B	12.0	B
40	Broadway Avenue and Noche Buena Street	Signal	Seaside	C	Overall	19.4	B	17.9	B	19.8	B	18.3	B
41	Broadway Avenue and Fremont Boulevard	Signal	Seaside	C	Overall	26.5	C	27.4	C	26.8	C	27.9	C
42	SR-218 and SR-1 NB Ramps	Stop Sign (SSS)	Caltrans	C/D	Overall	5.9	A	6.6	A	5.9	A	6.7	A
				E	*Worst Approach*	*27.9*	D	*26.8*	D	*27.5*	D	*27.0*	D
43	SR-218 and SR-1 SB Ramps	Signal	Caltrans	C/D	Overall	24.9	C	21.1	C	24.0	C	20.7	C
44	SR-68 and SR-218	Signal	Caltrans	C/D	Overall	19.0	B	15.8	B	18.8	B	15.5	B
45	Reservation Road and Davis Road	Signal	County	C	Overall	10.7	B	12.0	B	11.5	B	11.9	B
46	SR-68 WB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	21.0	C	24.2	C	22.0	C	24.6	C
47	SR-68 EB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	16.5	B	18.3	B	19.6	B	19.3	B
48	Blanco Road and Davis Road	Signal	Salinas	D	Overall	38.9	D	43.0	D	39.1	D	43.5	D
49	SR-1 NB Ramps and Reservation Road	Stop Sign (SSS)	Caltrans	C/D	Overall	1.4	A	8.6	A	1.7	A	9.4	A
				E	*Worst Approach*	*12.4*	B	*23.2*	C	*13.5*	B	*25.2*	D
50	SR-1 SB Ramps and Reservation Road	Stop Sign (SSS)	Caltrans	C/D	Overall	**144.2**	**F**	6.4	A	**155.0**	**F**	6.4	A
				E	*Worst Approach*	**>200**	**F**	*11.6*	B	**>200**	**F**	*12.0*	B
51	Eastside Parkway	Signal	County	D	Overall	Cumulative Conditions Intersection Only							

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions				Existing Conditions Plus Project			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
	and Inter-Garrison Road												
52	Eastside Parkway and Gigling Road / Monterey Downs Road	Signal	County	D	Overall	Project Intersection Only				34.4	C	30.3	C
53	Eastside Parkway / Parker Flats Road	Stop Sign (SSS)	County	D	Overall	Project Intersection Only				6.4	A	5.6	A
					Worst Approach					11.8	B	11.6	B
101	Driveway 1 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Cumulative Conditions Intersection Only							
				E	*Worst Approach*								
102	Driveway 2 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Cumulative Conditions Intersection Only							
				E	*Worst Approach*								
103	Driveway 3 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Cumulative Conditions Intersection Only							
				E	*Worst Approach*								
104	Driveway 4 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				9.7	A	7.0	A
				E	*Worst Approach*					*18.6*	C	*16.7*	C
105	Driveway 5 and 8th Avenue	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				0.8	A	1.8	A
				E	*Worst Approach*					*16.8*	C	*16.1*	C
106	Driveway 6 and Gigling Road	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				1.7	A	1.4	A
				E	*Worst Approach*					*18.9*	C	*17.3*	C
107	Driveway 7 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				1.6	A	1.2	A
				E	*Worst Approach*					*12.7*	B	*12.3*	B
108	Driveway 8 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				11.5	B	11.1	B
				E	*Worst Approach*					*12.9*	B	*12.8*	B
109	Driveway 9 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				0.0	A	0.3	A
				E	*Worst Approach*					*9.5*	A	*10.1*	B
110	Driveway 10 and Parkers Flats Road	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				1.3	A	4.2	A
				E	*Worst Approach*					*8.3*	A	*8.4*	A
111	Driveway 11 and Parker Flats Cut-Off	Stop Sign (SSS)	County	C	Overall	Project Intersection Only				0.0	A	1.7	A
				E	*Worst Approach*					*0.0*	A	*8.3*	A

Notes:
1. Analysis performed using HCM 2000 methodologies
2. Delay indicated in seconds
3. Signalized and all-way stop controlled intersection levels of service and delays reported are for overall average delay.
4. Side-street stop controlled intersections levels of service and delays reported are for overall average delay and worst approach movement delay.

Abbreviations:
Juris. = Jurisdiction
SSS = Side-Street Stop Control
AWS = All-Way Stop Control

Source: RBF Consulting 2013

Existing plus Project Highway Mainline Level of Service Analysis

Table 3.13-13: Existing plus Project Conditions Freeway Mainline LOS Operations shows a summary of the weekday AM and PM peak hour freeway mainline operations under Existing plus Project conditions. Detailed HCM mainline analysis worksheets are

included in Appendix H. According to the analysis, the following freeway mainline segments operate at an unacceptable LOS E or F during either the AM or PM peak hours under existing conditions:

- SR-1 Southbound through Seaside and Monterey between Fremont Boulevard and Del Monte Boulevard and Fremont Street (AM Peak Hour)
- SR-1 Northbound through Seaside and Monterey between Fremont Boulevard and Del Monte Boulevard in Marina (PM Peak Hour)
- SR-1 Northbound through Monterey between Fremont Street and SR-68 East Ramps (PM Peak Hour)

Existing plus Project Highway On-Ramp Level of Service Analysis

Table 3.13-14: Existing plus Project Conditions Freeway On-Ramp LOS Operations shows a summary of the weekday AM and PM peak hour freeway on-ramp operations under Existing plus Project conditions. Detailed HCM mainline analysis worksheets are included in Appendix H. According to the analysis, the following freeway on-ramps operate at an unacceptable LOS E or worse during either the AM or PM peak hours under existing conditions:

- SR-1 & Fremont Boulevard Southbound On-Ramp in Seaside (AM Peak Hour)
- SR-1 & SR-218 (Canyon Del Rey Boulevard) Southbound On-Ramp in Seaside (AM Peak Hour)
- SR-1 & SR-218 (Canyon Del Rey Boulevard) Northbound On-Ramp in Seaside (PM Peak Hour)
- SR-1 & Del Monte Boulevard Southbound On-Ramp in Monterey (AM Peak Hour)
- SR-1 & SR-68 East Southbound On-Ramp in Monterey (AM Peak Hour)
- SR-1 & Fremont Street Southbound On-Ramp in Monterey (AM Peak Hour)
- SR-1 & Fremont Street Northbound On-Ramp in Monterey (PM Peak Hour)
- SR-1 & SR-68 West Northbound On-Ramp (PM Peak Hour)

1501 **Table 3.13-13: Existing Plus Project Conditions Freeway Mainline Segment LOS Operations**

FREEWAY	SEGMENT	Direction	# of Lanes	Existing Conditions								Existing Plus Project							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
				Volume	LOS	Speed	D	Volume	LOS	Speed	D	Volume	LOS	Speed	D	Volume	LOS	Speed	D
SR-156	SR-183 to	NB	2	870	A	70.0	7.2	2,103	B	70.0	17.4	898	A	70.0	7.4	2,148	B	70.0	17.7
	Castroville Blvd	SB	2	1,616	B	70.0	13.3	1,132	A	70.0	9.3	1,667	B	70.0	13.8	1,163	A	70.0	9.6
	SR-1 to	NB	2	787	A	70.0	6.5	2,213	C	70.0	18.3	827	A	70.0	6.8	2,300	C	70.0	19.0
	SR-183	SB	2	1,701	B	70.0	14.0	1,192	A	70.0	9.8	1,766	B	70.0	14.6	1,236	A	70.0	10.2
SR-1	SR-156 to	NB	2	916	A	70.0	7.6	2,351	C	70.0	19.4	989	A	70.0	8.2	2,411	C	70.0	19.9
	Molera Rd / Nashua Rd	SB	2	1,451	B	70.0	12.0	1,054	A	70.0	8.7	1,513	B	70.0	12.5	1,117	A	70.0	9.2
	Molera Rd / Nashua Rd	NB	2	1,100	A	70.0	9.1	2,288	C	70.0	18.5	1,177	A	70.0	9.7	2,352	C	70.0	19.0
	to Del Monte Blvd North	SB	2	1,367	B	70.0	11.3	1,001	A	70.0	8.1	1,433	B	70.0	11.8	1,068	A	70.0	8.6
	Del Monte Blvd North to	NB	2	1,017	A	70.0	8.2	2,179	B	70.0	17.6	1,094	A	70.0	8.9	2,243	C	70.0	18.2
	Reservation Rd	SB	2	1,569	B	70.0	12.7	996	A	70.0	8.1	1,635	B	70.0	13.2	1,063	A	70.0	8.6
	Reservation Rd to	NB	2	1,017	A	70.0	8.2	2,319	C	70.0	18.8	1,112	A	70.0	9.0	2,398	C	70.0	19.4
	Del Monte Blvd South (1)	SB	2	2,843	C	69.4	23.2	1,706	B	70.0	13.8	2,925	C	69.4	24.0	1,789	B	70.0	14.5
	Del Monte Blvd South (1)	NB	3	1,648	A	70.0	8.9	3,644	C	70.0	19.7	1,778	A	70.0	9.6	3,739	C	70.0	20.2
	to Imjin Pkwy	SB	3	4,117	C	69.6	22.3	2,416	B	70.0	13.0	4,229	C	69.4	23.0	2,529	B	70.0	13.6
	Imjin Pkwy to	NB	3	2,283	B	70.0	12.3	4,762	D	67.9	26.5	2,399	B	70.0	12.9	4,762	D	67.9	26.5
	Lightfighter	SB	3	4,994	D	66.7	28.3	3,108	B	70.0	16.8	5,094	D	66.2	29.1	3,209	B	70.0	17.3
	Lightfighter to	NB	3	2,530	B	70.0	13.7	4,819	D	67.6	26.9	2,716	B	70.0	14.7	5,007	D	66.7	28.4
	Fremont Blvd	SB	3	5,061	D	66.4	28.8	3,472	C	70.0	18.7	5,277	D	65.0	30.7	3,649	C	70.0	19.7
	Fremont Blvd to	NB	2	2,258	C	70.0	18.2	**4,157**	**E**	**55.0**	**42.8**	2,413	C	70.0	19.4	**4,314**	**F**	-	-
	Hwy 218	SB	2	**4,435**	**F**	-	-	2,969	C	68.9	24.4	**4,615**	**F**	-	-	3,117	C	68.2	25.9
	Hwy 218 to	NB	2	2,258	C	70.0	18.2	**3,928**	**E**	**59.3**	**37.5**	2,406	C	70.0	19.4	**4,078**	**E**	**56.6**	**40.8**
	Del Monte Blvd South (2)	SB	2	**4,473**	**F**	-	-	3,118	C	68.2	25.9	**4,645**	**F**	-	-	3,260	D	67.3	27.4
	Del Monte Blvd South (2) to	NB	2	2,086	B	70.0	16.8	3,476	D	65.6	29.9	2,174	B	70.0	17.5	3,565	D	64.7	31.1
	Casa Verde Way	SB	2	**3,858**	**E**	**60.8**	**35.8**	2,727	C	69.7	22.1	**3,959**	**E**	**59.5**	**37.7**	2,812	C	69.5	22.8
	Casa Verde Way to	NB	2	2,054	B	70.0	16.5	3,395	D	66.3	28.9	2,130	B	70.0	17.2	3,471	D	65.6	29.8
	Hwy 68 East	SB	2	**3,817**	**E**	**61.4**	**35.0**	2,697	C	69.7	21.8	**3,904**	**E**	**60.1**	**36.6**	2,770	C	69.6	22.4
	Hwy 68 East to	NB	2	1,994	B	70.0	16.1	**4,795**	**F**	-	-	2,046	B	70.0	16.5	**4,847**	**F**	-	-
	Fremont St	SB	2	**5,389**	**F**	-	-	3,513	D	65.2	30.4	**5,448**	**F**	-	-	3,563	D	64.7	31.1
	Fremont St to	NB	2	1,228	A	70.0	9.9	3,306	D	67.1	27.8	1,280	A	70.0	10.3	3,358	D	66.6	28.4
	Munras Ave/Soledad Dr	SB	2	3,526	D	65.1	30.5	2,368	C	70.0	19.1	3,585	D	64.4	31.4	2,418	C	70.0	19.5
	Munras Ave/Soledad Dr to	NB	2	1,540	B	70.0	12.4	3,544	D	64.9	30.8	1,584	B	70.0	12.8	3,588	D	64.4	31.4
	Hwy 68 West	SB	2	3,381	D	66.4	28.7	1,933	B	70.0	15.6	3,431	D	66.0	29.3	1,976	B	70.0	15.9

Notes:
1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service
3. Speed is provided in Miles Per Hour (MPH)
4. D = Density (Passenger Cars / Mile / Lane)
5. NB = Northbound, SB = Southbound
6. Assumed Passenger-Car Equivalent (PCE) value of 1.5

Source: RBF Consulting 2013

1503 **Table 3.13-14: Existing Plus Project Conditions Freeway On-Ramp LOS Operations**

SR-1 ON-RAMP LOCATION	Direction	# of Lanes	Existing Conditions								Existing Plus Project Conditions							
			AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
			Volume	LOS	Speed	Density	Volume	LOS	Speed	Density	Volume	LOS	Speed	Density	Volume	LOS	Speed	Density
Molera Rd / Nashua Rd	NB	1	86	B	61.0	13.7	139	C	59.0	26.6	86	B	61.0	14.3	139	C	59.0	27.1
	SB	1	49	B	61.0	16.3	35	B	62.0	13.0	53	B	61.0	16.9	39	B	62.0	13.6
Del Monte Blvd North (Marina)	NB	1	158	B	61.0	14.1	199	C	60.0	24.7	158	B	61.0	14.8	199	C	60.0	25.3
	SB	1	66	B	61.0	18.0	71	B	62.0	12.8	66	B	61.0	18.5	71	B	62.0	13.4
Reservation Rd (Marina)	NB	1	188	B	62.0	12.7	300	C	61.0	23.0	188	B	62.0	13.4	300	C	61.0	23.5
	SB	1	424	D	59.0	28.8	239	B	61.0	18.8	440	D	59.0	29.5	255	B	61.0	19.5
Del Monte Blvd South (Marina)	NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB	2	1,340	D	58.0	31.2	720	C	60.0	20.5	1,370	D	57.0	32.0	750	C	60.0	21.2
Imjin Pkwy	NB	1	192	B	61.0	15.8	278	D	58.0	31.7	206	B	61.0	16.7	290	D	57.0	32.5
	SB	1	1,230	D	56.0	34.9	773	C	60.0	23.8	**1,230**	**E**	**55.0**	**35.4**	773	C	60.0	24.3
Lightfighter Dr	NB	1	207	B	60.0	17.9	432	D	58.0	32.2	323	B	60.0	18.8	527	D	57.0	33.5
	SB	1	467	D	57.0	33.3	536	C	60.0	25.2	**683**	**E**	**56.0**	**35.2**	713	C	59.0	26.8
Fremont Blvd	NB	1	688	C	60.0	20.6	1,322	D	56.0	34.3	719	C	60.0	21.7	**1,353**	**E**	**55.0**	**35.4**
	SB	1	**425**	**F**	**45.0**	**43.6**	472	D	58.0	30.7	**425**	**F**	**41.0**	**45.2**	472	D	58.0	32.0
Hwy 218 (Canyon Del Rey Blvd)	NB	1	426	C	60.0	24.2	**726**	**F**	**50.0**	**40.8**	433	C	60.0	25.5	**733**	**F**	**47.0**	**42.2**
	SB	1	**551**	**F**	**47.0**	**39.7**	626	C	60.0	27.7	**551**	**F**	**43.0**	**41.2**	626	C	60.0	28.9
Del Monte Blvd (Seaside)	NB	1	330	B	66.0	15.4	918	D	58.0	29.8	390	B	66.0	16.6	**979**	**F**	**56.0**	**31.1**
	SB	1	**378**	**E**	**54.0**	**37.2**	200	C	60.0	27.3	**378**	**E**	**53.0**	**38.1**	200	C	60.0	27.3
Casa Verde Wy	NB	1	147	C	61.0	22.1	295	D	57.0	34.3	159	C	61.0	22.1	**308**	**E**	**56.0**	**35.1**
	SB	1	235	D	57.0	33.0	169	C	63.0	23.1	235	D	56.0	33.7	169	C	62.0	23.7
Hwy 68 East	NB	1	147	C	61.0	21.7	237	D	57.0	33.5	171	C	61.0	22.3	261	D	57.0	34.1
	SB	1	**1,838**	**F**	**17.0**	**44.6**	1,679	D	60.0	28.1	**1,838**	**F**	**13.0**	**45.1**	1,679	D	60.0	28.5
Fremont St (Monterey)	NB	2	1,194	B	64.0	15.8	**1,846**	**F**	**40.0**	**40.2**	1,194	B	64.0	16.2	**1,846**	**F**	**39.0**	**40.6**
	SB	2	**331**	**E**	**55.0**	**36.5**	455	C	59.0	26.2	**331**	**E**	**55.0**	**37.0**	455	C	59.0	26.6
Munras Ave/Soledad Dr	NB	1	526	B	61.0	16.1	938	D	56.0	34.2	534	B	61.0	16.5	946	D	56.0	34.7
	SB	1	830	D	60.0	28.5	1,325	B	64.0	15.4	830	D	60.0	28.9	1,325	B	64.0	15.8
Hwy 68 West	NB	1	806	B	60.0	18.7	**1,117**	**E**	**55.0**	**36.2**	820	B	60.0	19.0	**1,132**	**E**	**55.0**	**36.6**
	SB	1	605	D	59.0	29.4	523	B	61.0	16.2	605	D	58.0	29.7	523	B	61.0	16.5

Notes:
1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service
3. Speed is provided in Miles Per Hour (MPH)
4. Density = Passenger Cars / Mile / Lane
5. NB = Northbound, SB = Southbound
6. Assumed Passenger-Car Equivalent (PCE) value of 1.5

Source: RBF Consulting 2013

1505

Existing plus Project Roadway Segment Level of Service Analysis

The study evaluated conditions for roadway segments in the project area that could be potentially impacted by the proposed project. Table 3.13-15: Existing plus Project Conditions Roadway Segment LOS Operations lists the roadway segments analyzed under Existing plus Project conditions. As shown in Table 3.13-15: Existing plus Project Conditions Roadway Segment LOS Operations, all study roadway segments are forecast to continue to operate at an acceptable LOS under existing conditions, except for Gigling Road between 7th Avenue and Monterey Downs Road.

Table 3.13-15: Existing Plus Project Conditions Roadway Segment LOS

Roadway	Location	Jurisdiction	Roadway Type	# of Lanes	Existing		Existing Plus Project	
					ADT	LOS	ADT	LOS
Davis Rd	Blanco Rd / Reservation Rd	MC	2-Lane Collector	2	8,700	C	9,373	D
Reservation Rd	Inter-Garrison Rd / East Garrison Rd	MC	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	7,150	A	9,960	A
	East Garrison Rd / Davis Rd	MC	2-Lane Collector	2	7,150	B	9,960	D
Gigling Rd	Monterey Downs Rd / 8th Ave	MC / FORA	2-Lane Collector	2	0	A	**14,121**	**F**
	8th Ave / 7th Ave	MC / FORA			2,400	A	**10,735**	**E**
	7th Ave / 6th Ave	Seaside / FORA			2,900	A	6,174	B
	6th Ave / Parker Flats Rd	Seaside / FORA			3,200	A	5,527	A
	Parker Flats Rd / Malmedy Rd	Seaside / FORA			5,500	A	7,418	B
	Malmedy Rd / Gen. Jim Moore Blvd	Seaside / FORA			5,650	A	8,219	C
7th Ave.	Gigling Rd / Colonel Durham St	Seaside / FORA	2-Lane Collector	2	600	A	5,644	A
	Colonel Durham St / Inter-Garrison Rd	Seaside / FORA		2	1,500	A	6,977	B
8th Ave.	Gigling Rd / Colonel Durham St	MC / FORA	2-Lane Collector	2	2,900	A	10,072	D
	Colonel Durham St / Inter-Garrison Rd	MC / FORA		2	3,200	A	7,652	C

Source: RBF Consulting 2013
Analysis performed using HCM 2000 Methodologies
Notes / Abbreviations:
ADT = Average Daily Traffic
MC = Monterey County

Source: RBF Consulting 2013

Project Impacts and Mitigation Measures

This section evaluates the potential impacts of the project on the surrounding transportation system based on the guidelines set forth by Caltrans, Monterey County, TAMC, FORA, the City of Seaside, and the City of Marina. A combination of fee payments and construction of specific improvements have been determined to be appropriate mitigation for the identified traffic impacts. In this section, all traffic impacts are presented then followed by the applicable mitigation measure.

Intersection Impacts:

Impact 3.13-1: Unacceptable Intersection LOS: The proposed project would result in additional trips and increased delays at intersections already operating at an unacceptable LOS under Existing plus Project conditions. This is considered a **potentially significant impact**. The affected intersections and the improvements necessary to achieve acceptable levels of service would be:

- Intersection #1 – 8th Avenue and Gigling Road – Install traffic signal or roundabout. Widen and restripe eastbound approach and westbound approaches. Eastbound approach would include an exclusive left-turn lane and a through lane. Westbound approach would include a through lane and an exclusive right-turn lane.
- Intersection #2 – 7th Avenue and Gigling Road – Install traffic signal or roundabout.
- Intersection #5 – Malmedy Road and Gigling Road – Install traffic signal.
- Intersection #8 – 7th Avenue and Colonel Durham Road – Install traffic signal or roundabout.
- Intersection #15 – 8th Avenue and Inter-Garrison Road – Install traffic signal or roundabout.
- Intersection #22 – Imjin Road and 8th Street – Install traffic signal or roundabout.
- Intersection #36 – General Jim Moore Boulevard and Coe Avenue – Install traffic signal.
- Intersection #38 – SR-1 SB Ramps and Imjin Parkway – Install traffic signal and widen the SR-1 SB on-ramp at Imjin Parkway to two lanes.
- Intersection #50 – SR-1 SB Ramps and Reservation Road – Install traffic signal.

Table 3.13-16: Existing plus Project Intersection LOS (without and with Mitigation Measures) summarizes the expected LOS with implementation of the above mitigation measures. Implementation of Mitigation Measures 13.13-1 and 13.13-2 would reduce this impact to a **less than significant** level.

Table 3.13-16: Existing plus Project Intersection LOS (Without and With Mitigation Measures)

#	Intersection	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Existing Conditions Plus Project Without Mitigation				Existing Conditions Plus Project With Mitigation			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Gigling Road and 8th Avenue	Stop Sign (AWS)	County	C	Overall	**>200**	**F**	**160.3**	**F**	18.7	B	15.5	C
2	Gigling Road and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	**53.1**	**F**	**33.0**	**D**	23.9	C	16.3	C
				E	*Worst Approach*	***>200***	**F**	***122.8***	**F**	–	--	–	--
5	Gigling Road and Malmedy Road	Stop Sign (SSS)	Seaside	C	Overall	9.8	A	4.3	A	21.5	C	16.7	C
				E	*Worst Approach*	***85.4***	***F***	*28.4*	D	–	--	–	--
8	Colonel Durham Street and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	15.0	B	17.7	C	22.2	C	15.7	C
				E	*Worst Approach*	*45.3*	E	***58.7***	**F**	–	--	–	--
15	Inter-Garrison Road and 8th Avenue	Stop Sign (SSS)	County	C	Overall	**113.2**	**F**	**70.0**	**F**	12.6	B	10.9	B
				E	*Worst Approach*	**>200**	**F**	**>200**	**F**	–	--	–	--
22	Imjin Road and 8th Street	Stop Sign (AWS)	Marina	D	Overall	**122.8**	**F**	21.9	C	9.6	A	7.1	A
36	Coe Avenue and General Jim Moore Boulevard	Stop Sign (AWS)	Seaside	C	Overall	**37.2**	**E**	15.4	C	13.8	B	8.8	A
38	SR-1 SB Ramps and Imjin Parkway	Stop Sign (SSS)	Caltrans	C/D	Overall	**>200**	**F**	**>200**	**F**	52.6	D	8.0	A
				E	*Worst Approach*	**>200**	**F**	**>200**	**F**	–	--	–	--
50	SR-1 SB Ramps and Reservation Road	Stop Sign (SSS)	Caltrans	C/D	Overall	**155.0**	**F**	6.4	A	11.1	B	13.5	B
				E	*Worst Approach*	***>200***	***F***	*12.0*	B	–	--	–	--

SR-1 and Imjin Parkway On-Ramps

Impact 3.13-2: Unacceptable LOS at the SR-1 southbound on-ramps and Imjin Parkway: The proposed project would result in additional trips and increased delays at the SR-1 southbound on-ramp and Imjin Parkway. The addition of project trips would cause this on-ramp to deteriorate from an acceptable LOS D under Existing Conditions to an unacceptable LOS E during the AM peak hour under Existing plus Project conditions. This is considered a **potentially significant impact**.

Implementation of Mitigation Measure 13.13-3 would improve operating conditions to LOS B during the AM peak hour. Therefore, this improvement would reduce this impact to a **less than significant** level.

SR-1 Mainline and Ramp Impacts:

Impact 3.13-3: Increased trips on the SR-1 Mainline Freeway Segments and Interchanges LOS: The project would result in additional trips and increased delays at SR-1 freeway mainline and on-ramps already operating at an unacceptable LOS D or worse. This is considered a **potentially significant impact**. The affected mainline freeway segments and on-ramp locations include:

Impacted SR-1 Freeway Mainline Segments:

i. SR-1 Southbound through Seaside and Monterey between Fremont Boulevard and Del Monte Boulevard and Fremont Street (AM Peak Hour)
ii. SR-1 Northbound through Seaside and Monterey between Fremont Boulevard and Del Monte Boulevard in Marina (PM Peak Hour)
iii. SR-1 Northbound through Monterey between Fremont Street and SR-68 Eastbound Ramps (PM Peak Hour)

Impacted SR-1 On-Ramps:

iv. SR-1 & Fremont Boulevard Southbound On-Ramp in Seaside (AM Peak Hour)
v. SR-1 & SR-218 (Canyon Del Rey Boulevard) Southbound On-Ramp in Seaside (AM Peak Hour)
vi. SR-1 & SR-218 (Canyon Del Rey Boulevard) Northbound On-Ramp in Seaside (PM Peak Hour)
vii. SR-1 & Del Monte Boulevard Southbound On-Ramp in Monterey (AM Peak Hour)
viii. SR-1 & SR-68 East Southbound On-Ramp in Monterey (AM Peak Hour)
ix. SR-1 & Fremont Street Southbound On-Ramp in Monterey (AM Peak Hour)
x. SR-1 & Fremont Street Northbound On-Ramp in Monterey (PM Peak Hour)
xi. SR-1 & SR-68 West Northbound On-Ramp (PM Peak Hour)

The improvements necessary to mitigate these impacts to a less than significant level would require the approval of Caltrans, and implementation of the improvements may not be feasible. Until such time that major improvement are undertaken, mitigation at these locations are infeasible and the SR-1 mainline and interchanges would continue to operate at an unacceptable LOS E or F. Therefore, this impact should be considered a **significant and unavoidable impact**.

Roadway Segment Impacts:

Impact 3.13-4: Unacceptable Roadway Segment LOS on Gigling Road between Monterey Downs Road (Future) and 7th Avenue. The roadway segment of Gigling Road between the future Monterey Downs Road and 7th Avenue would degrade from LOS A under Existing Conditions to an unacceptable LOS F under Existing plus Project conditions. This is considered a **potentially significant impact**.

Mitigation Measure 13.13-4, includes the widening of Gigling Road to a four-lane roadway. With implementation of this mitigation measure, the roadway segment of Gigling Road between Monterey Downs Road and 7th Avenue would operate at LOS A. Therefore, this improvement would reduce this impact to a **less than significant** level.

Construction Impacts:

Impact 3.13-5: Project construction would occur over an estimated time period of twelve years and has the potential to result in hundreds of construction staff on-site at one time. However, given the fact that a specific construction schedule has not yet been determined, it is difficult to estimate the amount of construction traffic that may take place during the peak traffic volumes periods. The construction phase also would increase the number of daily truck trips in the project vicinity while the site is graded and materials are delivered. All truck movements to and from the site during construction would likely occur on Gigling Road, with secondary construction access on Normandy Road, and Parker Flats Road. Large numbers of heavy vehicles trips on the area road network during the project construction phase may result in a **potentially significant impact**.

Implementation of Mitigation Measure 3.13-5 would require the project to prepare and submit a Construction Traffic Mitigation Plan and reduce this impact to a **less than significant** level.

Impact 3.13-6: The project applicant has proposed holding up to 13 special events per year. While temporary in nature, these events would attract a potentially significant number of vehicles and depending on the timing, could temporarily cause traffic congestion local and regional roadways. This is considered a **potentially significant short-term impact**.

The proposed project would include a 6,500 seat sports arena and other facilities that would be used for a variety of special events including trade shows, car shows, dog shows, veteran's events, and graduation ceremonies. The applicant has proposed a maximum limit of up to 13 such events per year. These events could potentially attract a large number of vehicles, depending on the type of event.

Similar types of special events occur throughout the year in the Monterey Peninsula. Examples include the Big Sur Marathon, the AT&T Pro Am and Concourse d'Elegence at Pebble Beach, and numerous racing and entertainment events at the Mazda Raceway Laguna Seca. Each one of these events requires coordination with the California Highway Patrol, as well as police and emergency services support from local jurisdictions and agencies to coordinate traffic management and to provide adequate emergency support services.

As defined in Section 5.52 of the Municipal Code, the City of Seaside requires a permit for entertainment event from the special license and permit board. This board is comprised of the city manager, police chief, fire chief, chief building inspector and the planning director, or their designates. The board may approve a license or permit subject to reasonable conditions necessary to protect the health, safety, peace, morals, and general welfare of the public. Each of the proposed 13 special events would be required to apply for a permit from the special license and permit board. However, this permit would not address the boarder issues associated with traffic management and emergency incident management.

Implementation of Mitigation Measure 3.13-6 requires the project applicant to prepare an annual special events traffic and emergency services management plan, which would reduce this impact to a **less than significant** level.

Change in Air Traffic Patterns

The closest airport to the project site is the Marina Municipal Airport, which is approximately 1.5 miles north of the project area. The proposed project would not increase in traffic levels nor cause a change in location that would result in substantial safety risks, and therefore **no impact** would occur.

Increase Hazards Due to a Roadway Design Features or Inadequate Emergency Access

Impact 3.13-7: The project would reconfigure several roadways including Gigling Road (a public roadway) and add new internal project roadways that have the potential to increase pedestrian and vehicular hazards both on and off the project site. However, the proposed would be subject to applicable zoning regulations, design guidelines, and design review to reduce these impacts. This is considered a **less than significant impact**.

All on- and off-site improvements would be carefully designed to minimize the potential for vehicular and non-vehicular conflicts and would be designed consistent with all City regulations including emergency access requirements as identified by the City of Marina and Seaside Police and Fire departments. Given the characteristics of the project design to encourage a safe circulation network and the requirement to adhere to existing City design regulations, the project is not anticipated to cause an increase in hazards due to new roadway design features or inadequate emergency access and therefore impacts would be **less than significant**.

Conflict with Public Transit, Bicycle, or Pedestrian Facilities

The project would not alter existing public transit, bicycle or pedestrian facilities and would provide a beneficial impact in that it would help facilitate public transit use. Additionally, pedestrian and bicycle facilities would be incorporated into the site design and thereby encourage biking to and from the project site. Therefore, because there

would be no altering of public transit, bicycle or pedestrian facilities and in fact there would be some benefits, **no impacts** would occur.

Mitigation Measures:

MM 3.13-1 ***Payment of FORA and City of Marina Impact Fees.*** Prior to issuance of building permits, the project applicant shall submit to the City of Seaside, evidence of payment of the fees listed below (fair share costs for project-level impacts based on estimated 2013 project costs to be adjusted annually on July 1 by the Engineering Record's Construction Cost Index).

- FORA development impact fees for improvements to:
  - Intersection #1: Gigling Road / 8th Avenue
  - Intersection #2: Gigling Road / 7th Avenue
  - Intersection #5: Gigling Road / Malmedy Road
  - Intersection #15: Inter-Garrison Road / 8th Avenue
  - Intersection #36: Coe Avenue and General Jim Moore Boulevard
- City of Marina traffic impact fees for improvements to:
  - Intersection #22: Imjin Road / 8th Street
  - Intersection #38: SR-1 Southbound Ramps / Imjin Parkway
  - Intersection #50: SR-1 Southbound Ramps / Reservation Road

MM 3.13-2 ***Construct a traffic signal or roundabout at Intersection #8: Colonel Durham Street and 7th Avenue.*** Prior to issuance of building permits, the project applicant shall construct a traffic signal or roundabout at the intersection of Colonel Durham Street and 7th Avenue. The applicant and the City of Seaside should enter into a reimbursement agreement for the remaining portion of the improvement costs that are not the project applicant's fair share. This improvement would be triggered when the project generates 2,487 or more PM peak hour trips at the intersection and require implementation of the intersection mitigation.

For each of the impacted intersections, additional analysis was performed to determine the "trigger point" for when the impact is forecast to occur. The "trigger point" analysis is conducted by adding project related trips to the intersection until the additional traffic results in a change in LOS from acceptable to unacceptable LOS. The "trigger point" volume as a percent of total traffic, mitigation measures and resulting LOS are provided in Table 3.13-17: Existing plus Project Mitigation Phasing.

In terms of when the above improvements would need to be constructed, as part of the application process for the site-specific development under the Specific Plan, the applicant would submit a Trip Generation Study (TGS) to the City of Seaside for review and approval. The TGS will be used to determine when the relevant trip generation thresholds have been met, taking into account past project trip generation studies and the running cumulative total. The City may also take actual traffic counts and operations at the mitigation locations into account (funded by the applicant), in determining when specific improvements need to be constructed.

Table 3.13-17: Existing plus Project Mitigation Phasing

#	Intersection	Total Peak Hour Trips		% of Project Total Project Trips	Mitigation Measure
		AM	PM		
1	Gigling Road and 8th Avenue	**1,524**	1,385	54%	3-12.1a: Payment of FORA Impact Fee
2	Gigling Road and 7th Avenue	**1,975**	1,795	70%	3-12.1a: Payment of FORA Impact Fee
5	Gigling Road and Malmedy Road	**2,003**	1,820	71%	3-12.1a: Payment of FORA Impact Fee
8	Colonel Durham Street and 7th Avenue	2,736	**2,487**	97%	3-12.1b: Project to Construct a Traffic Signal at this Intersection
15	Inter-Garrison Road and 8th Avenue	**1,665**	1,513	59%	3-12.1a: Payment of FORA Impact Fee
22	Imjin Road and 8th Street	**1,552**	1,410	55%	3-12.1a: Payment of Marina Impact Fee
36	Coe Avenue and General Jim Moore Boulevard	**2,567**	2,333	91%	3-12.1a: Payment of FORA Impact Fee
38	SR-1 SB Ramps and Imjin Parkway[1]	**1**	**1**	<1%	3-12.1a: Payment of Marina Impact Fee
50	SR-1 SB Ramps and Reservation Road[2]	**1**	1	<1%	3-12.1a: Payment of Marina Impact Fee

Notes: **Bold** indicates the peak period which produces an unacceptable LOS at the lowest percent of project buildout
[1] The intersection of SR-1 SB Ramps and Imjin Parkway would be impacted with the additional of a single project trip during both the AM and PM peak hours.
[2] The intersection of SR-1 SB Ramps and Reservation Road would be impacted with the additional of a single project trip during both the AM peak hour.

Source: RBF Consulting 2013

MM 3.13-3 ***Payment of Marina Impact Fee to Widen the SR-1 Southbound On-Ramp at Imjin Parkway to a two-lane ramp.*** Widening the southbound on-ramps to two lanes would improve on-ramp merge operations to LOS B during the AM and PM peak hours. This improvement has already been identified in the City of Marina's CIP as part of the Marina University Villages EIR and in the Project Study Report (PSR) for the SR-1 / Imjin Parkway interchange. Because the impact is caused by the proposed project but is already identified in the Marina CIP, the project applicant shall make a fair share monetary contribution toward this improvement. Payment of the Marina Impact Fee would reduce the project impact to less than significant.

This mitigation would be triggered when the proposed project generates 2,527 AM peak hour trips (90% of total project trips).

MM 3.13-4 ***Payment of FORA Impact Fee to Widen Gigling Road to a 4-lane Arterial between General Jim Moore and Monterey Downs Road.*** This improvement is identified in the FORA CIP. Because the impact is caused by the proposed project but is already identified in the FORA CIP, the project applicant shall make a fair share monetary contribution toward this improvement. Implementation of this improvement would result in LOS A roadway segment operations.

Payment of the FORA impact fee would reduce the project impact to less than significant. This mitigation would be triggered when the proposed project generates 10,500 daily trips (36% of total project trips).

MM 3.13-5 ***Construction Traffic Mitigation Plan(s).*** Prior to the issuance of any grading permit or any permit that authorizes construction activities on the Specific Plan site or construction of off-site improvements relating to the Specific Plan, the project applicant(s) shall prepare a Construction Traffic Mitigation Plan(s) for review and approval by the City of Seaside as part of the permit application. The Construction Traffic Mitigation Plan(s) shall include measures to minimize the construction traffic entering the roadway system during periods of peak traffic volumes (i.e. AM and PM Peak Hour). The Construction Traffic Mitigation Plan(s) shall also include measures to minimize the number of truck trips on Normandy Road and route heavy vehicle traffic to driveways on Gigling Road and at Monterey Downs Road to access the site during the construction phase of the project to the extent feasible. At a minimum, the Construction Traffic Mitigation Plan(s) should include the following implementation measures:

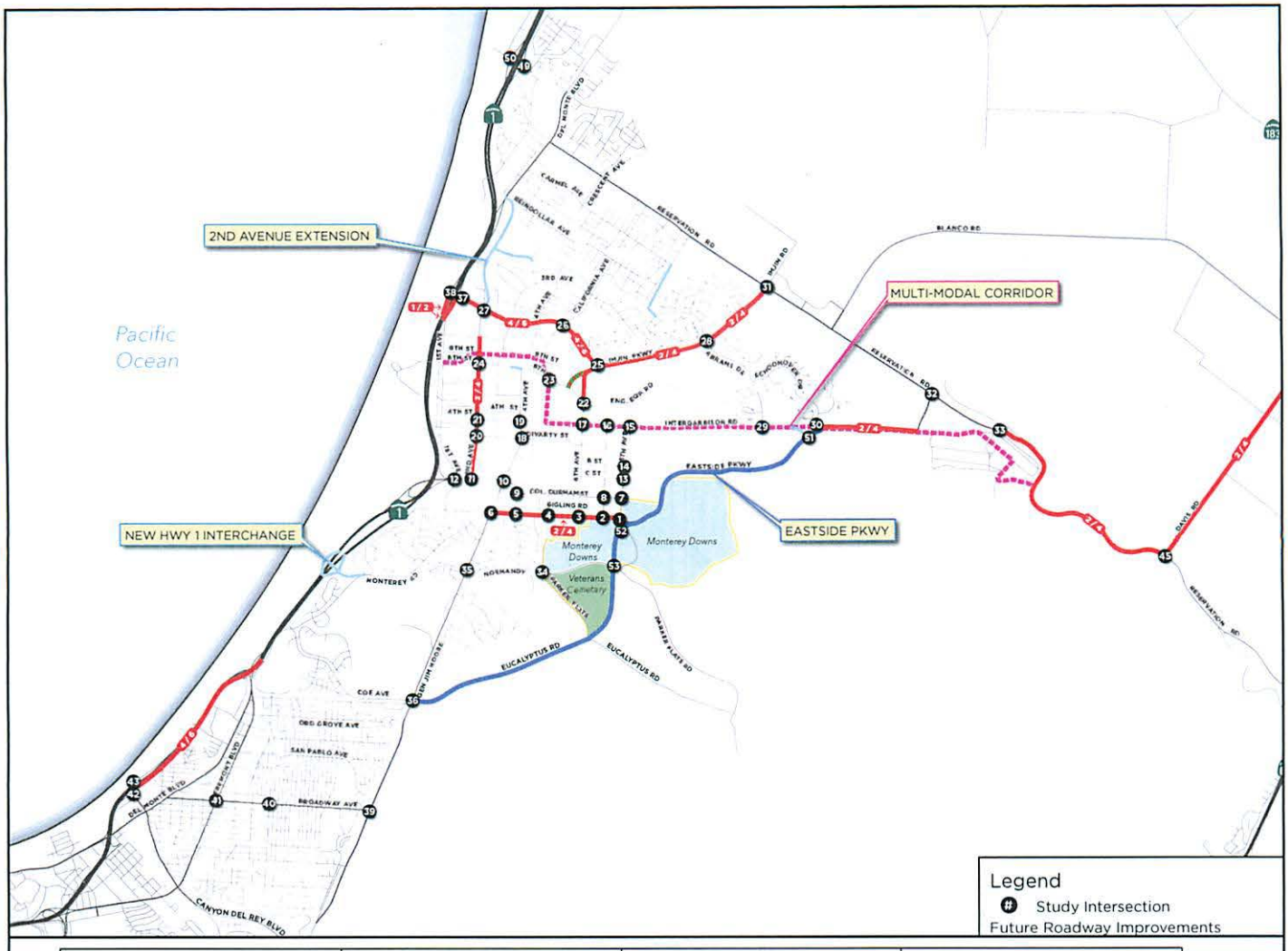
- Construction truck routes shall be prepared to designate principal haul routes for trucks delivering materials to and from the construction site.
- Should a temporary road and/or lane closure be necessary during construction, the project applicant shall provide traffic control activities and personnel, as necessary, to minimize traffic impacts. This may include detour signage, cones, construction area signage, flagmen, and other measures as required for safe traffic handling in the construction zone.
- The project applicant shall be required to keep a minimum of one lane in each direction free from encumbrances at all times on perimeter roads accessing the project site. In the event a full road closure is required, the contractor shall coordinate with the City of Seaside and

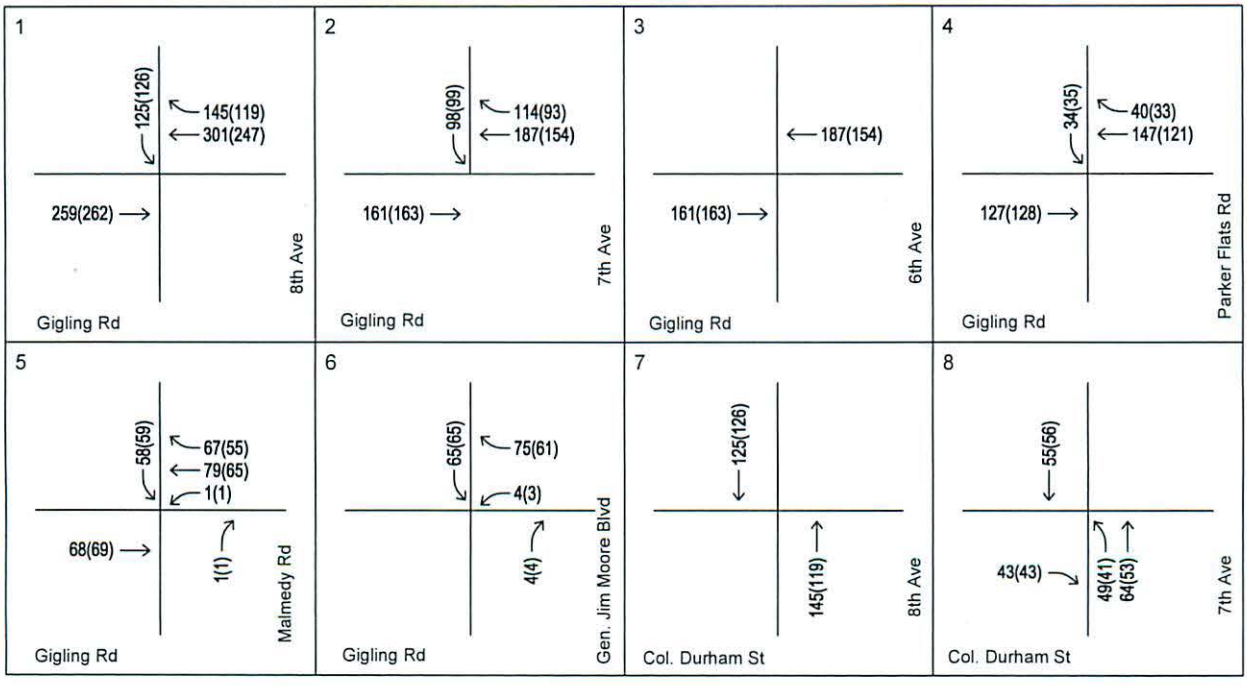
other affected jurisdictions (i.e. City of Marina, CSUMB, FORA, Caltrans, County of Monterey) to designate proper detour routes and signage to appropriate proper access routes.

MM 3.13-6 ***Preparation of an Annual Special Events Traffic and Emergency Services Management Plan***. Prior to the first special event, the project applicant shall prepare an annual special events traffic and emergency services management plan (Events Management Plan) for review and approval by the City of Seaside. The Events Management Plan shall identify the proposed dates for the special events, an event routing plan in ingress and egress, an off-site parking management plan (if necessary), and plans for the coordinated support for emergency services including police, fire, and emergency services. The Events Management Plan shall be prepared in coordination with other relevant state and local agencies including the California Highway Patrol, the Monterey County Office of Emergency Services, the Bureau of Land Management (?), CSUMB, and the City of Marina.

Note: This mitigation measure to be refined. I have a call into Pebble Beach to get more information on process, protocols, existing plans, etc. We need to also discuss with City and applicant.- BW

Note: Given the technical nature of this section, below is the Cumulative Traffic Analysis as well.





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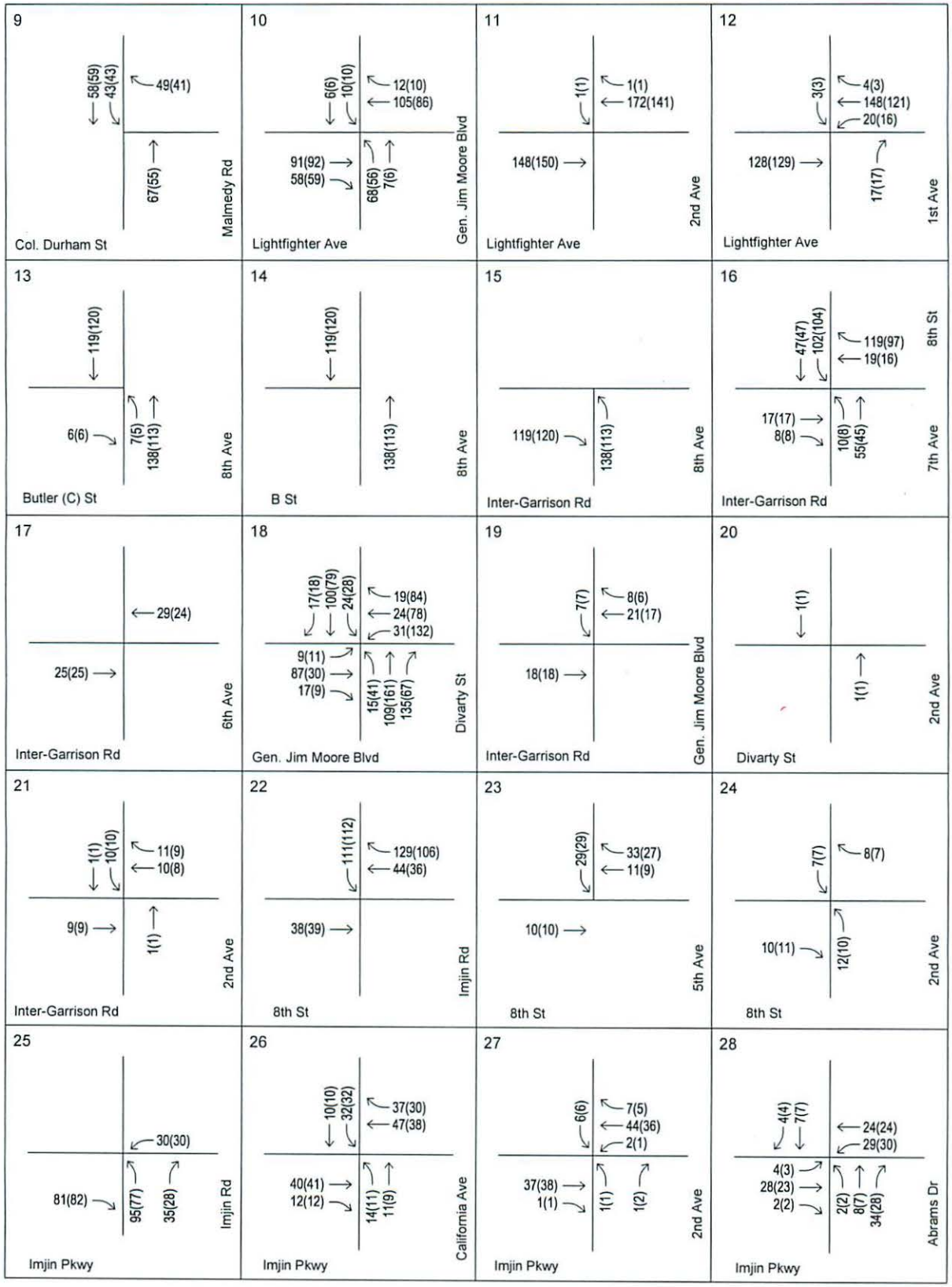
XX(XX) AM/PM PEAK HOUR VOLUME

Cumulative Year (2035) Project Trip Assignment

Figure 4.10-6a



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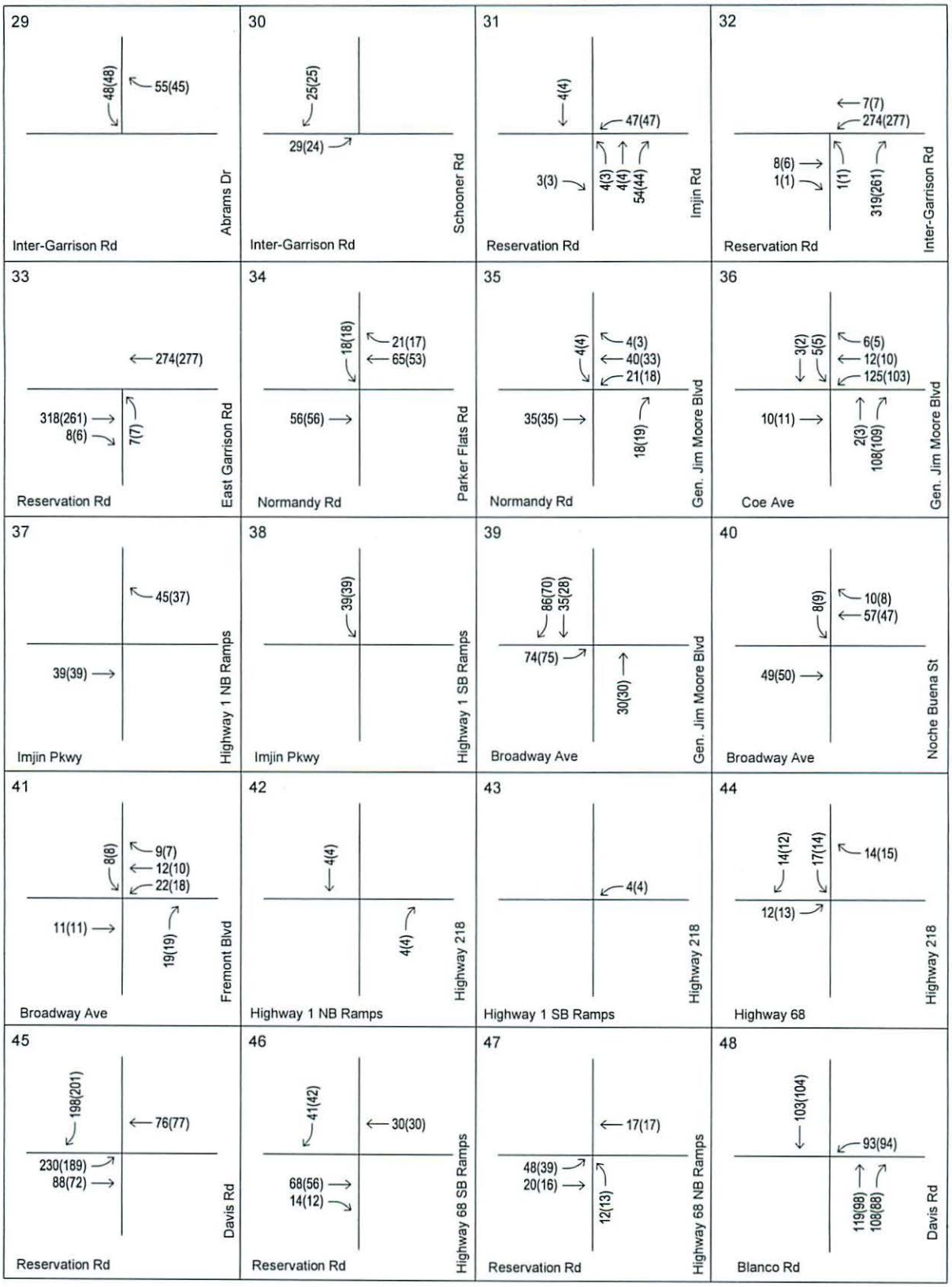
XX(XX) AM/PM PEAK HOUR VOLUME



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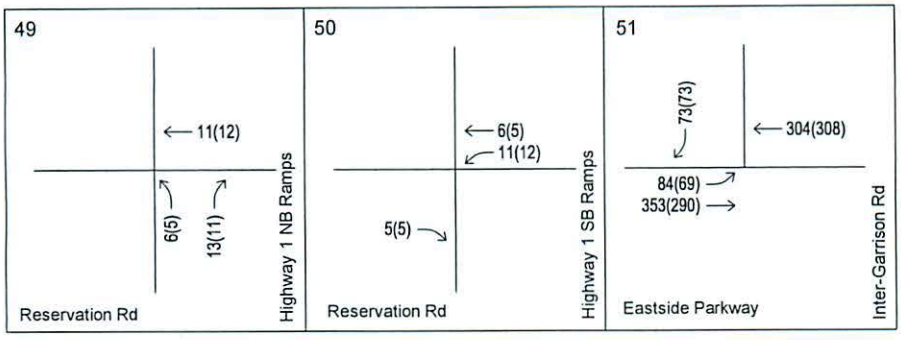

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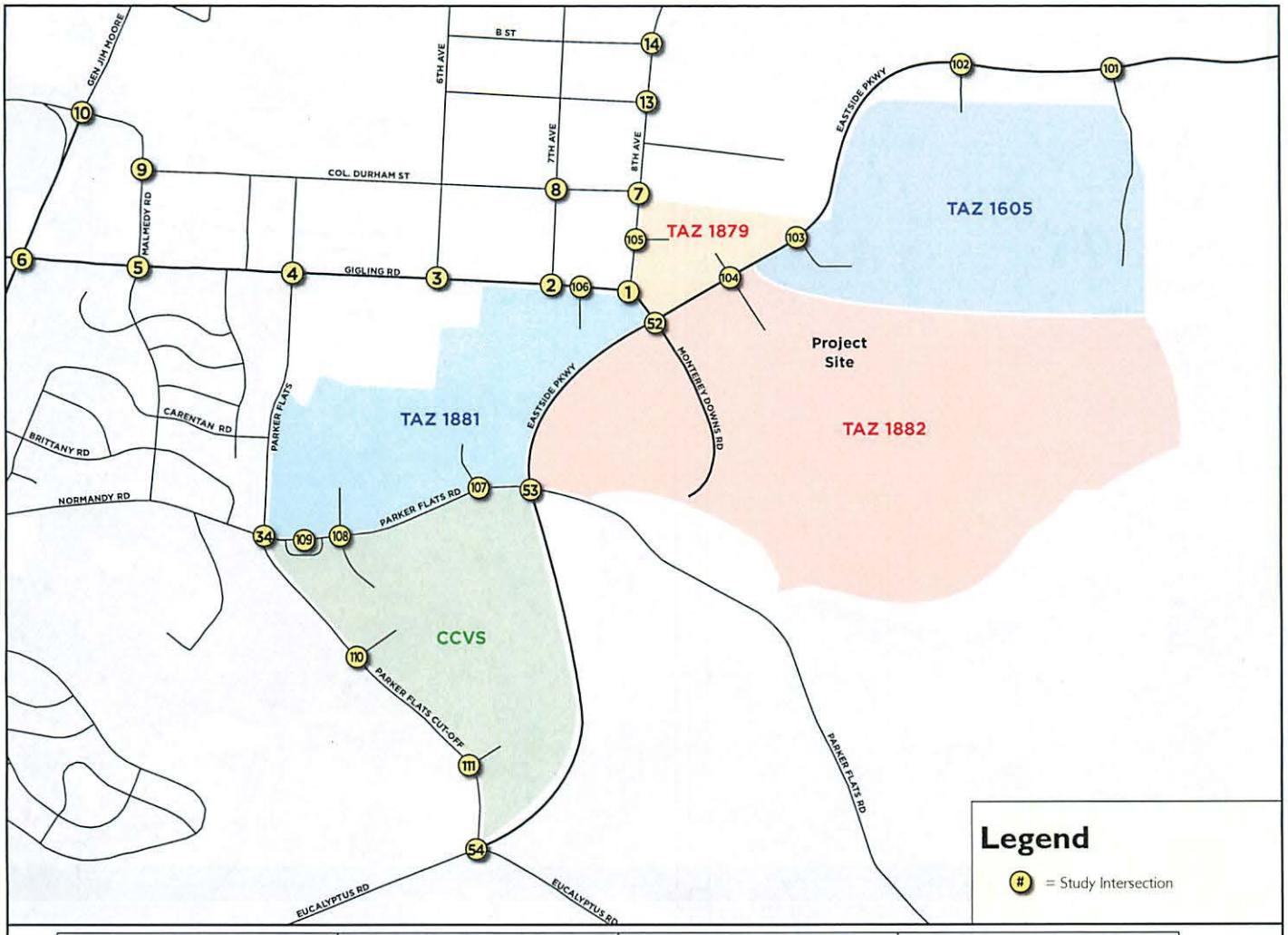

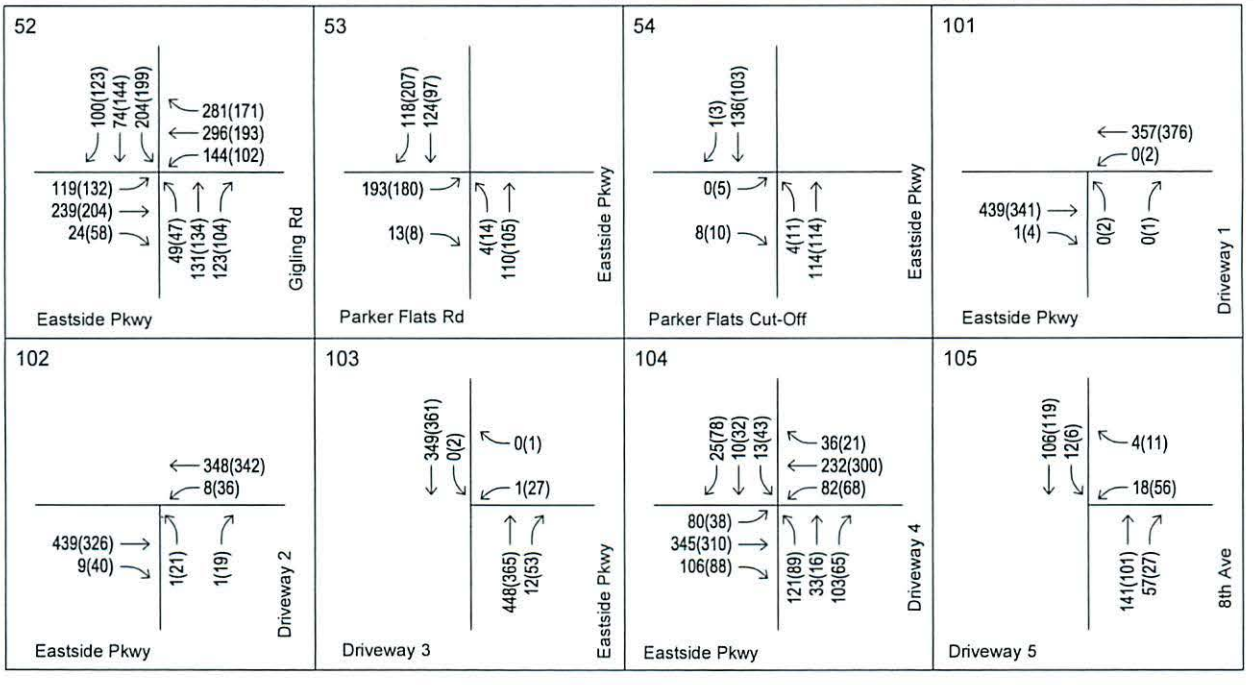

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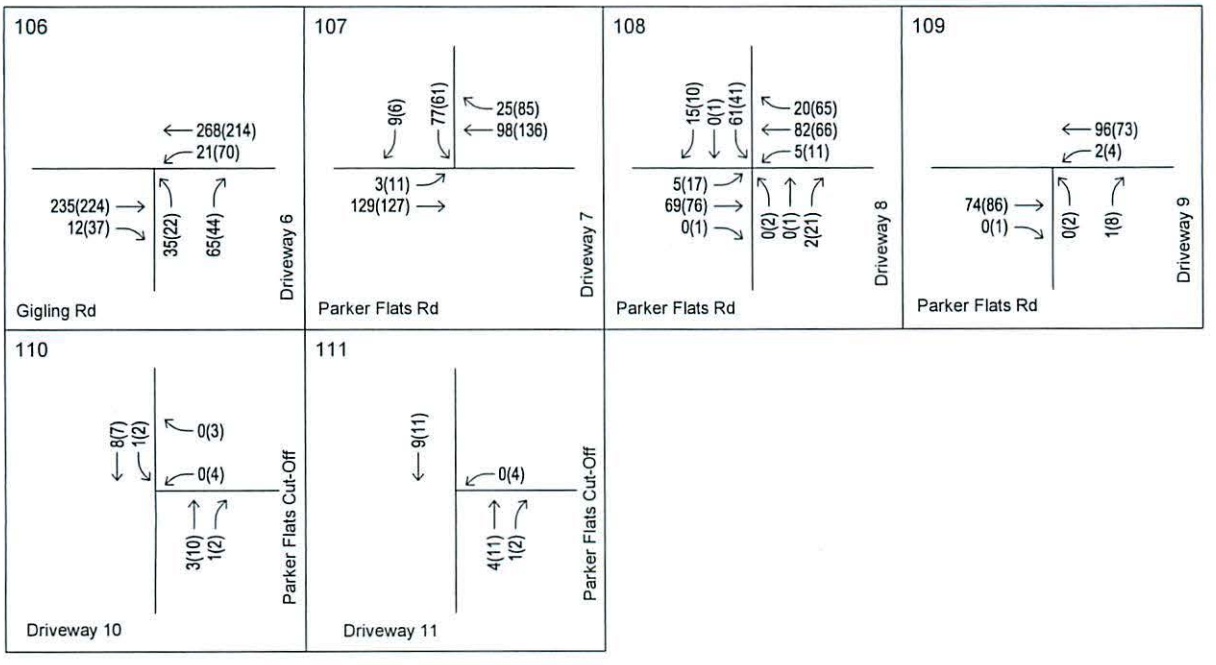

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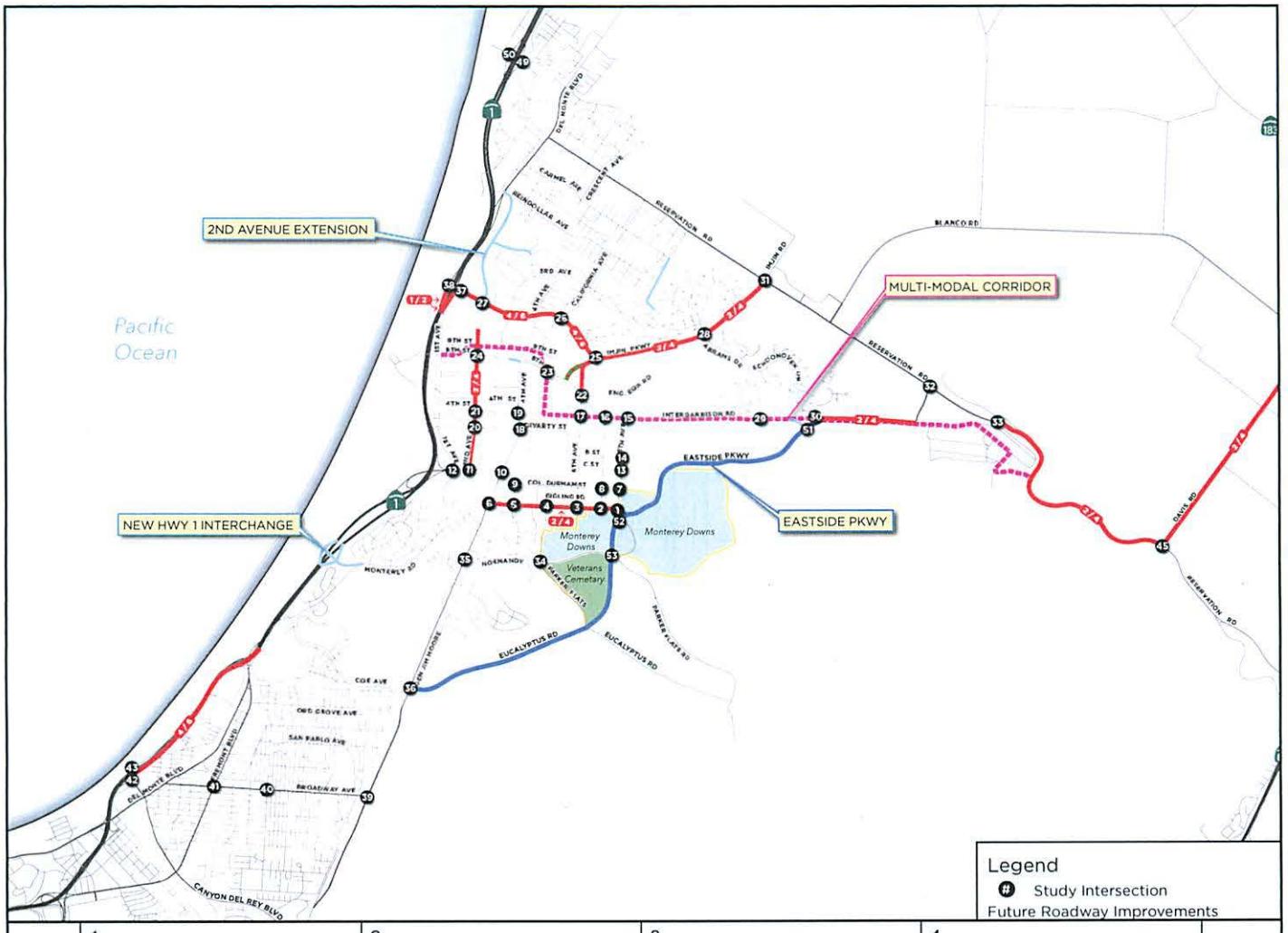
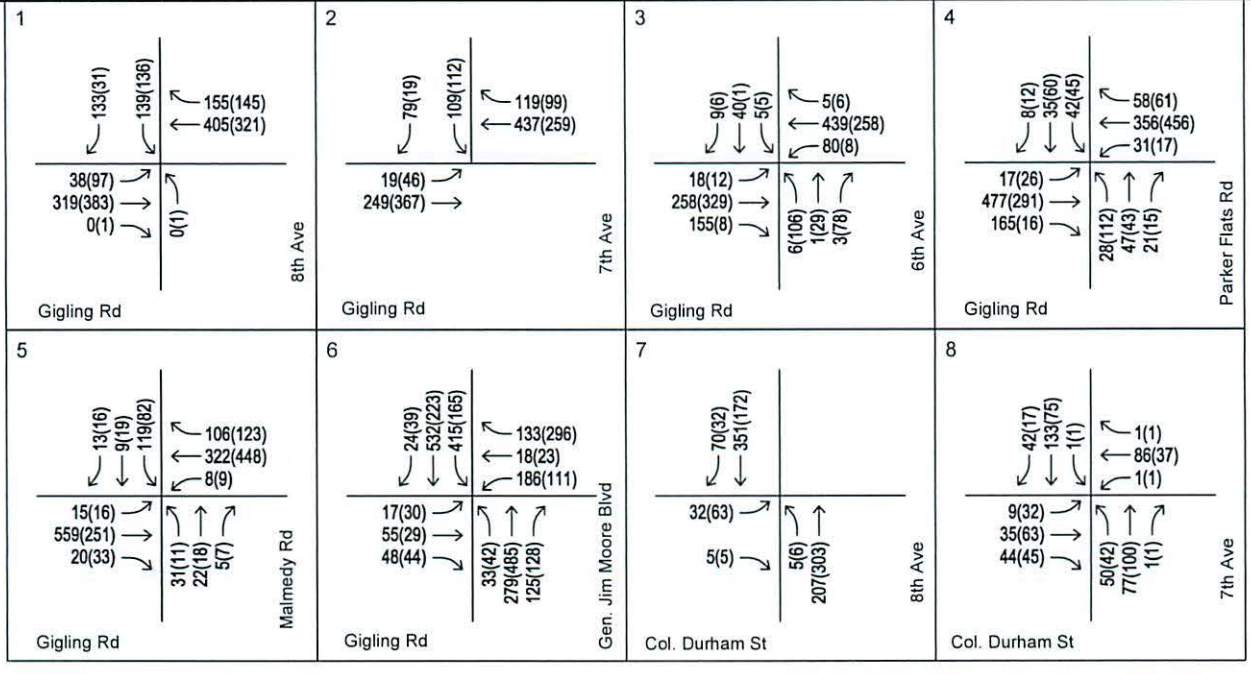
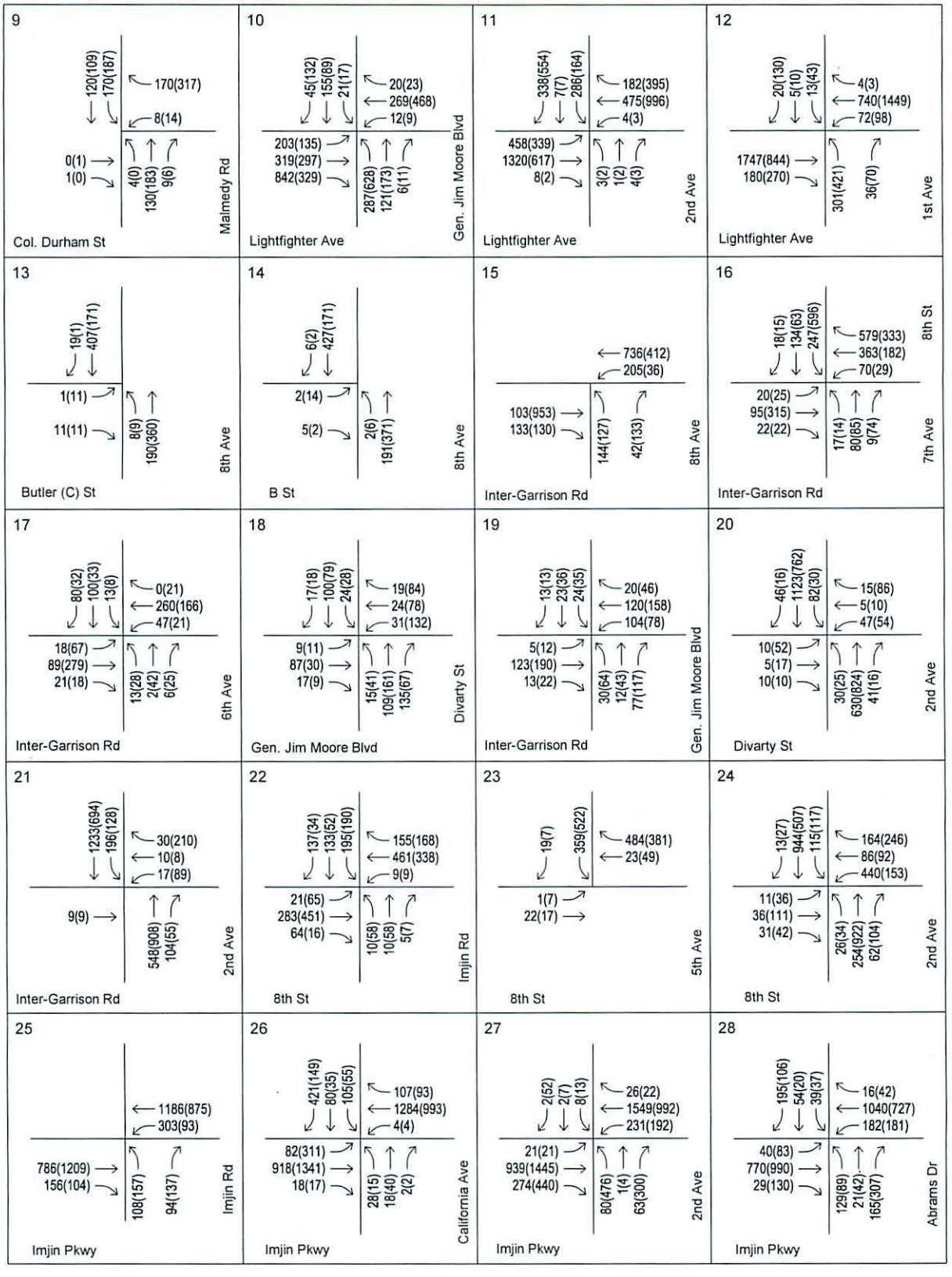




LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME



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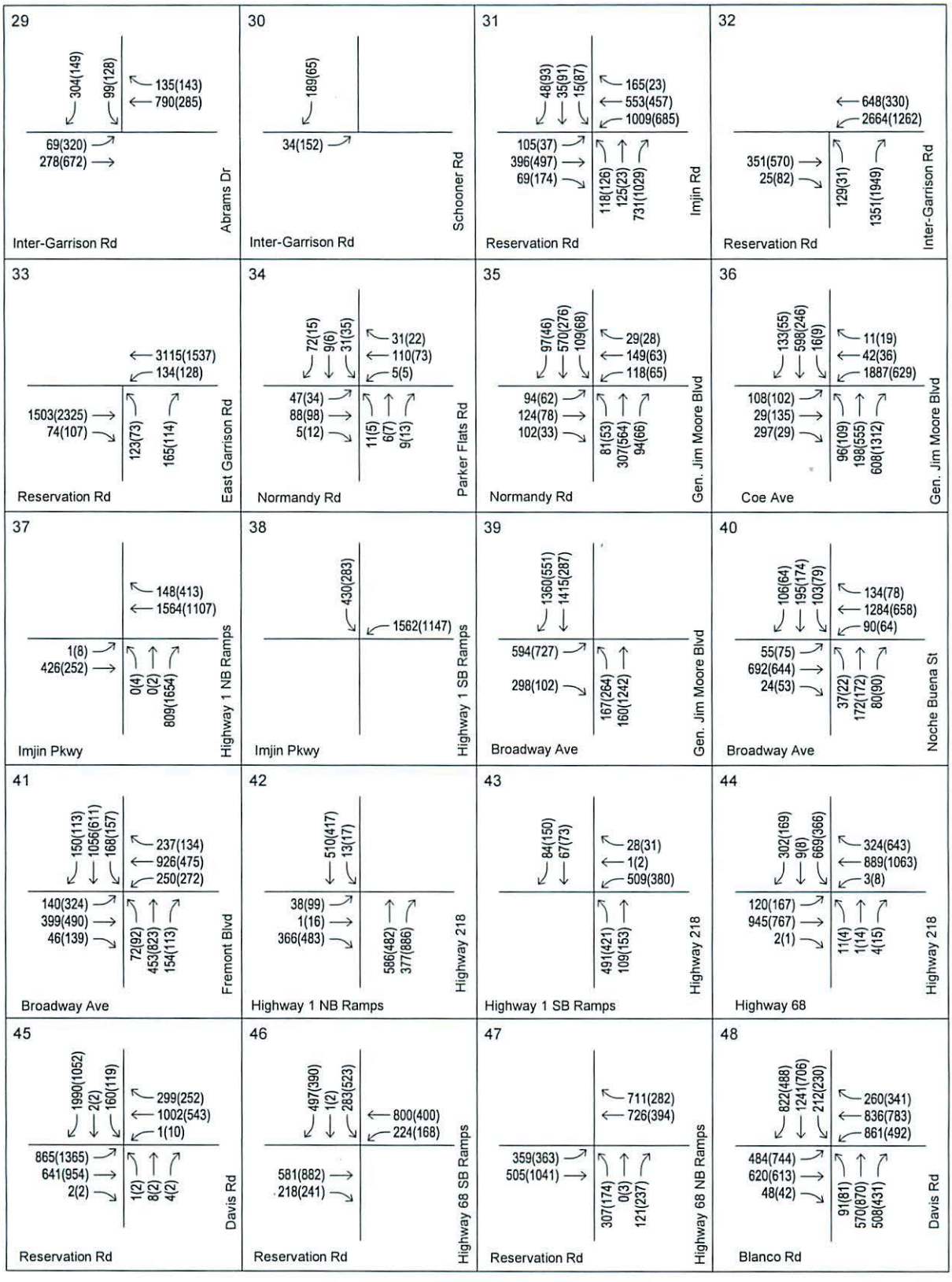
XX(XX) AM/PM PEAK HOUR VOLUME



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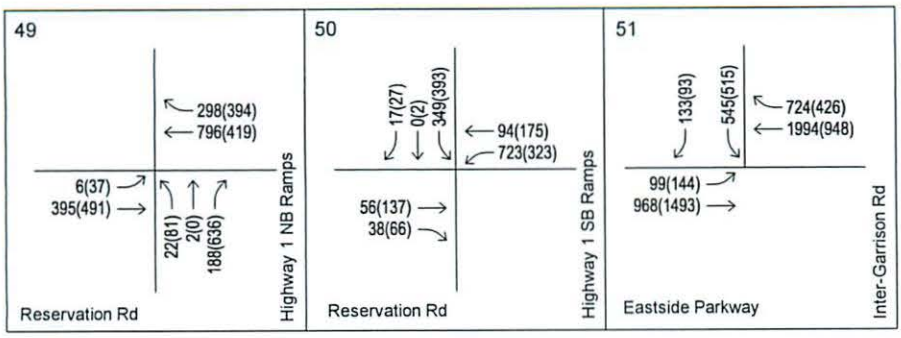
XX(XX) AM/PM PEAK HOUR VOLUME



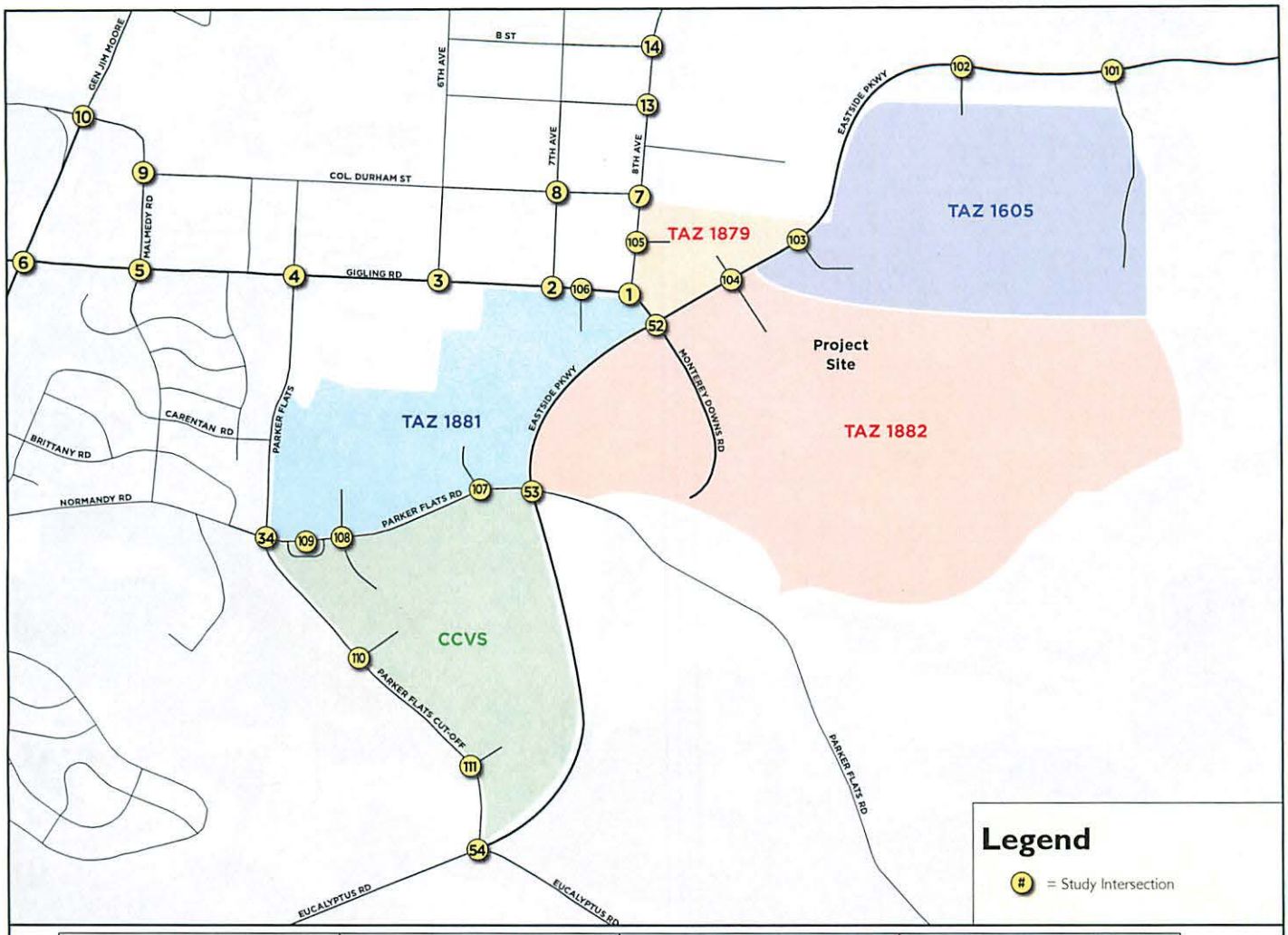
LEGEND

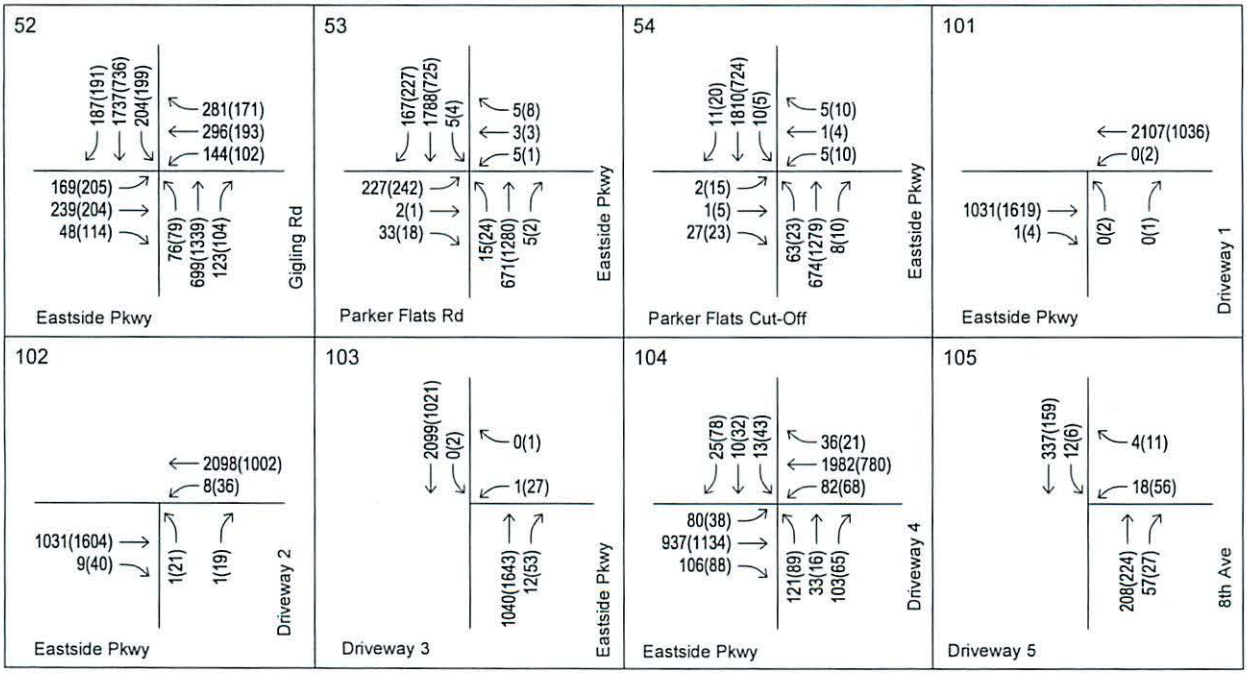
XX(XX) AM/PM PEAK HOUR VOLUME

RBF A Baker Company

Cumulative plus Project Peak Hour Intersection Volumes

Figure 4.10-7d





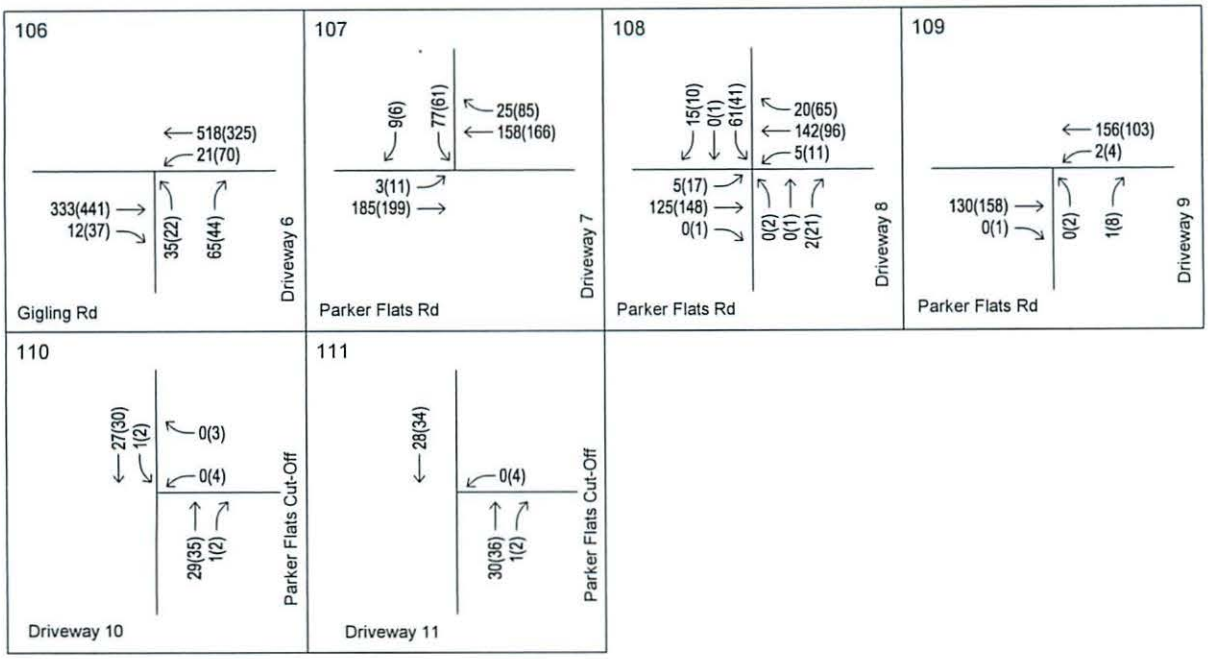
LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Cumulative plus Project Peak Hour Intersection Volumes

Figure 4.10-7e



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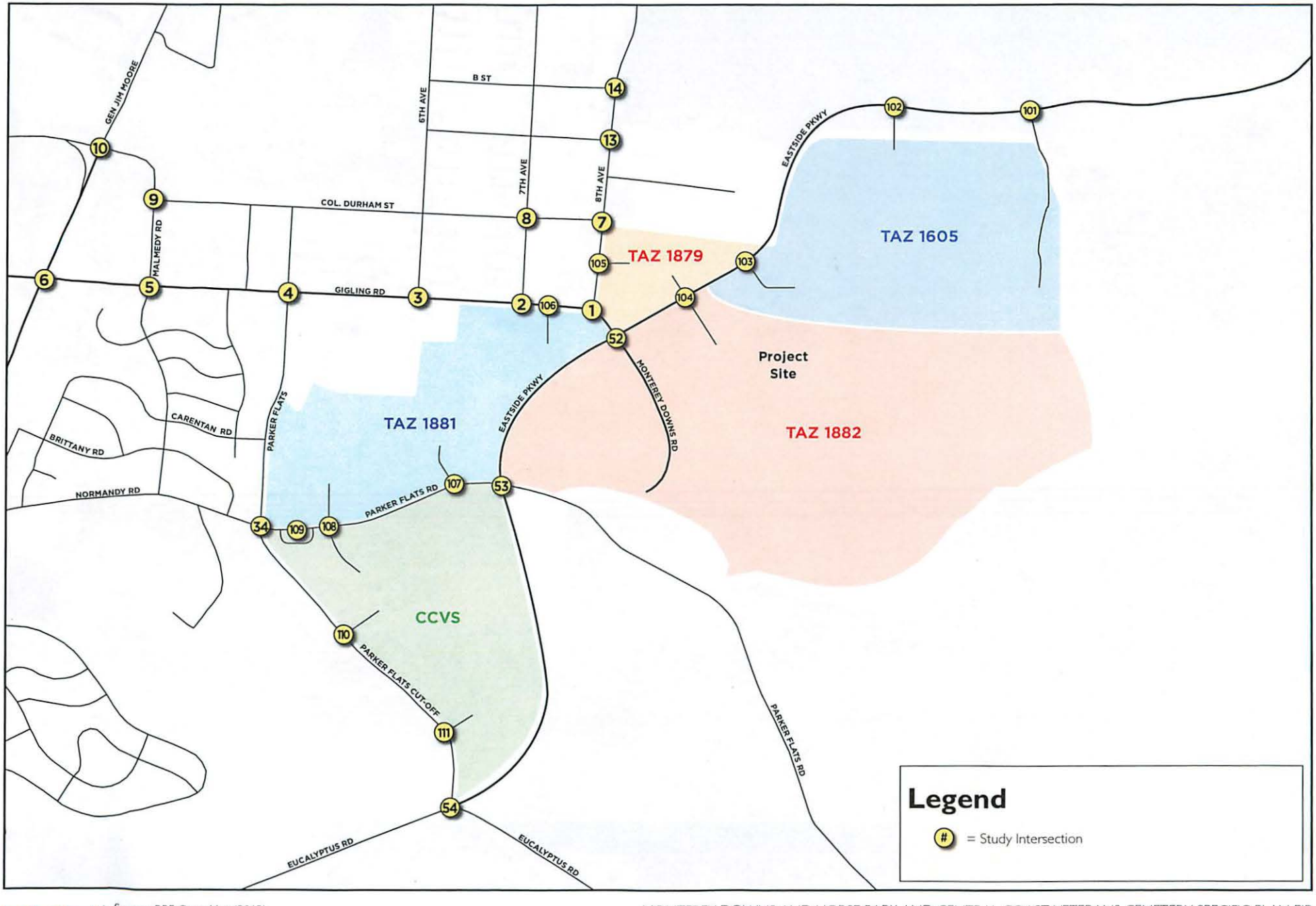
XX(XX) AM/PM PEAK HOUR VOLUME

Cumulative plus Project Peak Hour Intersection Volumes

Figure 4.10-7f

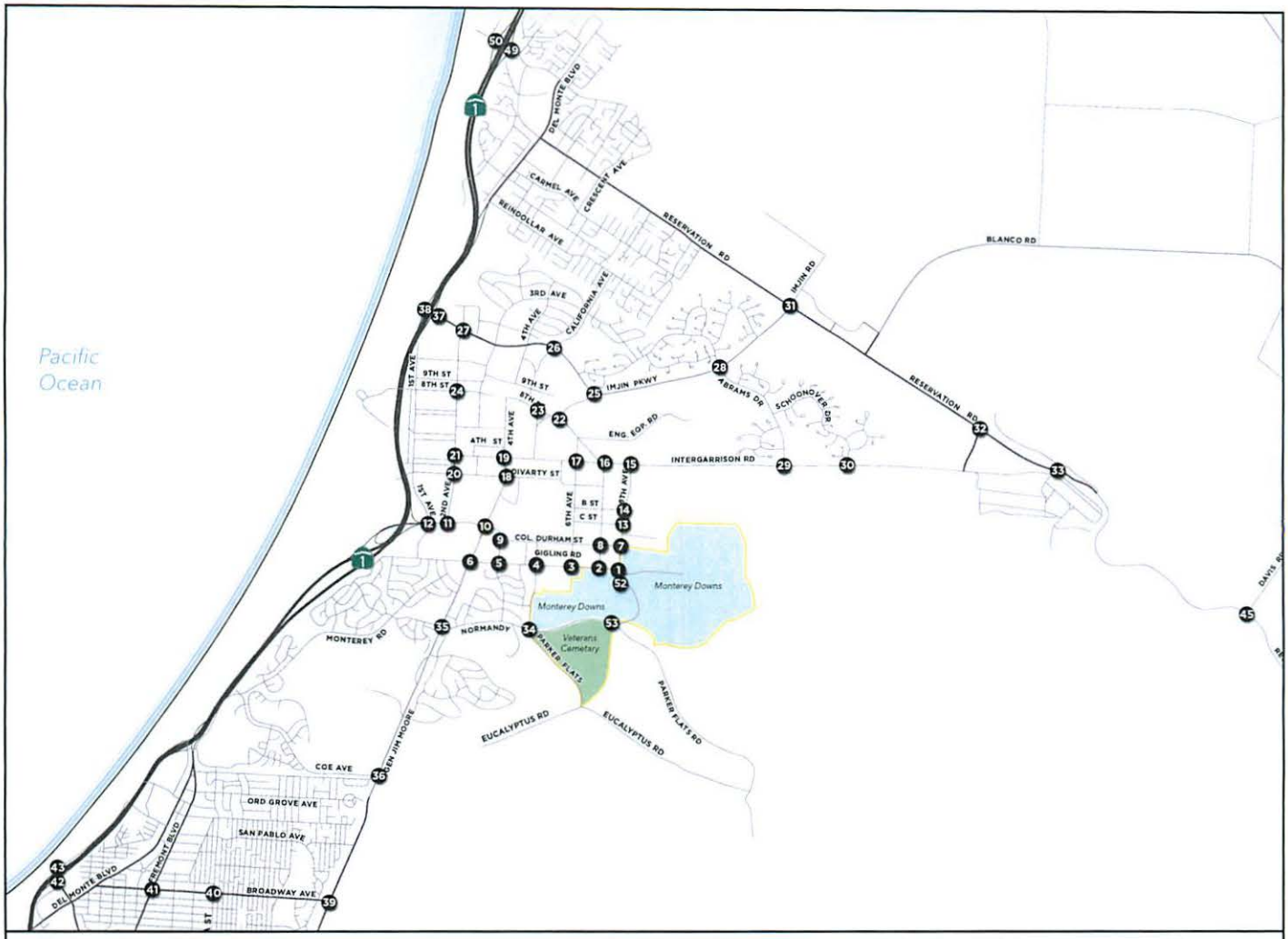


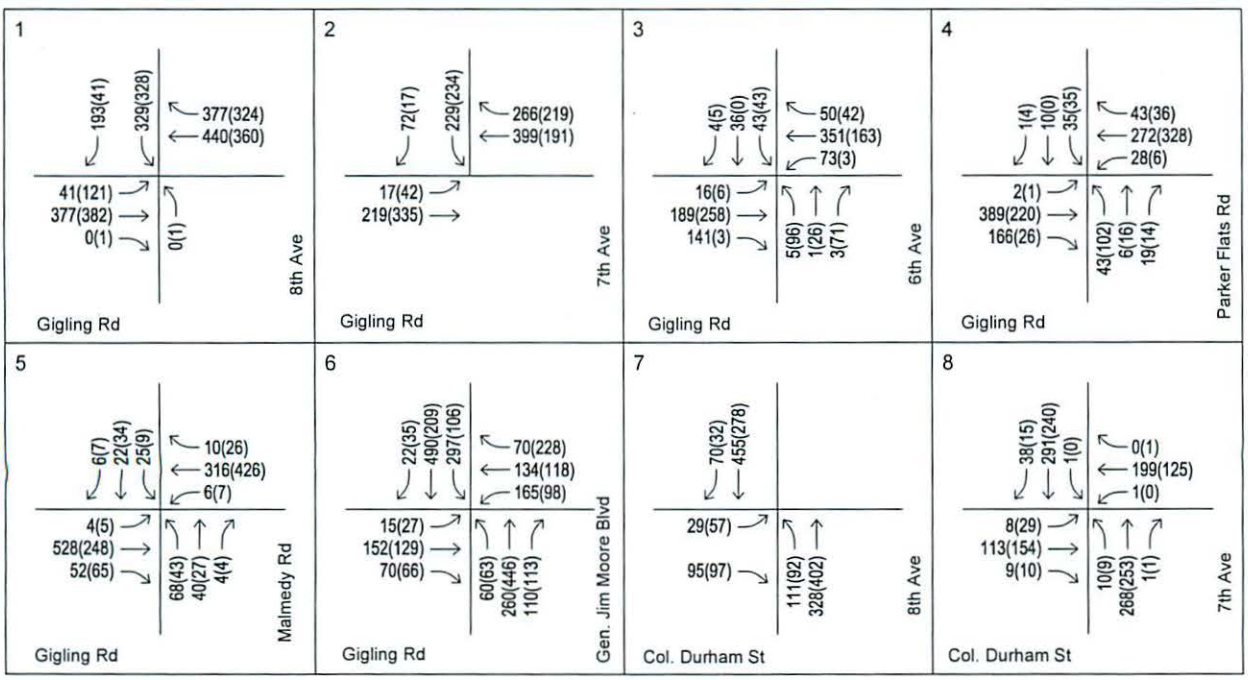
Source: RBF Consulting (2013)

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Cumulative Year (2035) plus Project Conditions On-Site Roadway Network

Figure 4.10-4





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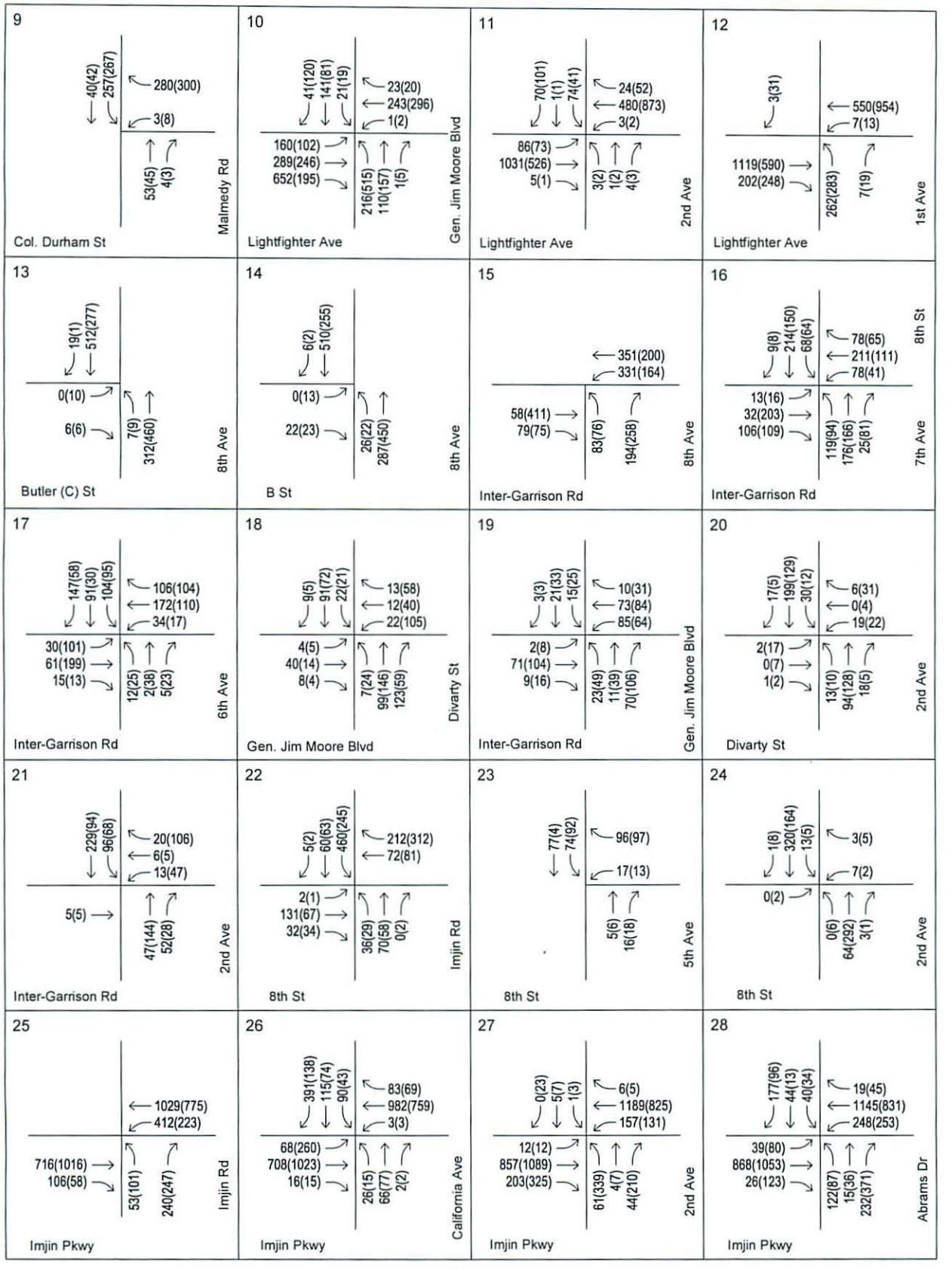
XX(XX) AM/PM PEAK HOUR VOLUME



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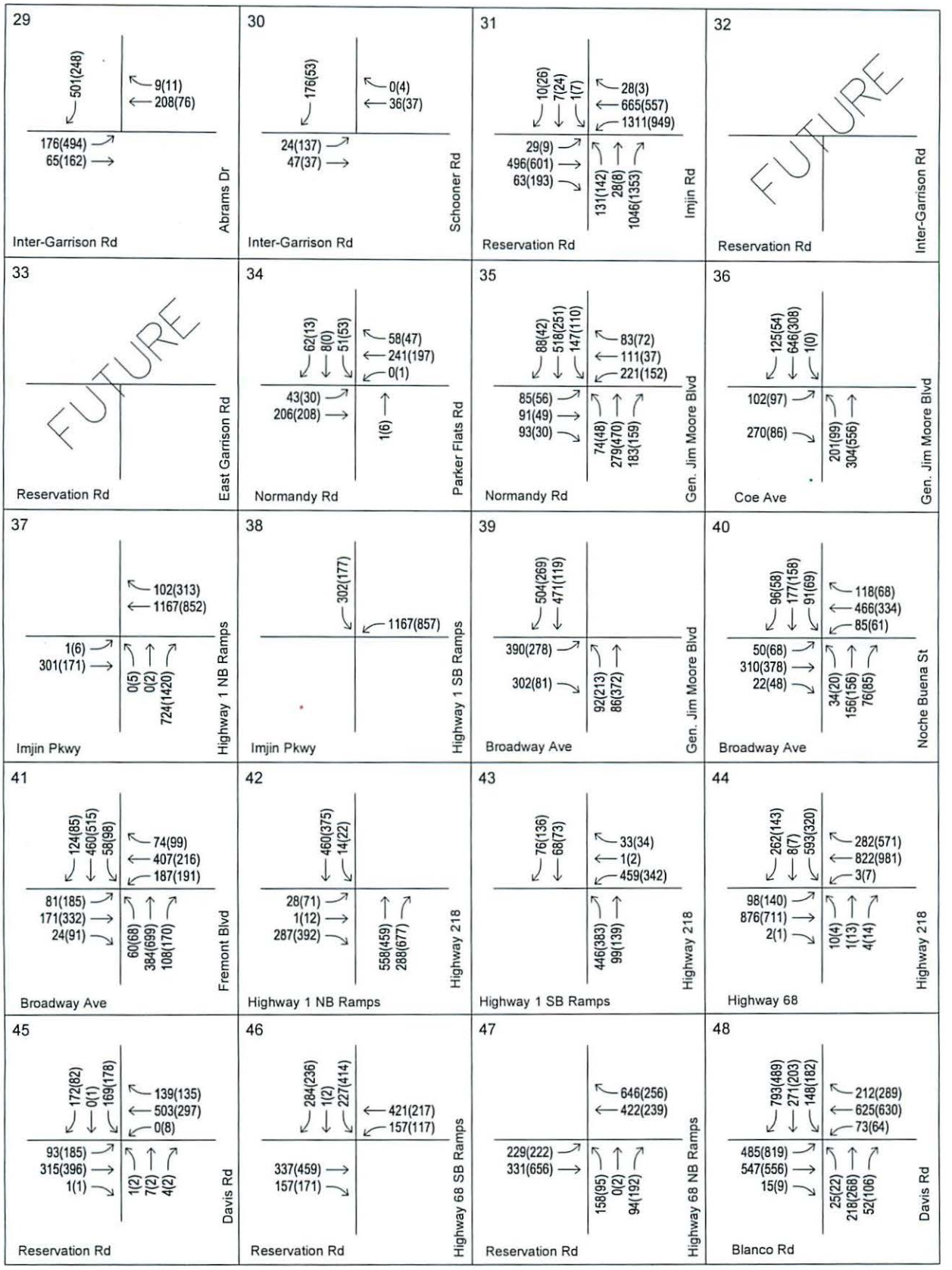
XX(XX) AM/PM PEAK HOUR VOLUME



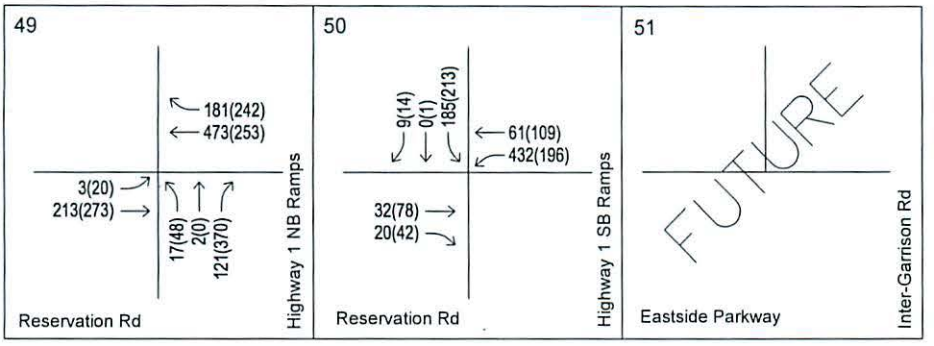
LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Existing plus Project Peak Hour Intersection Volumes

Figure 3.13-10c



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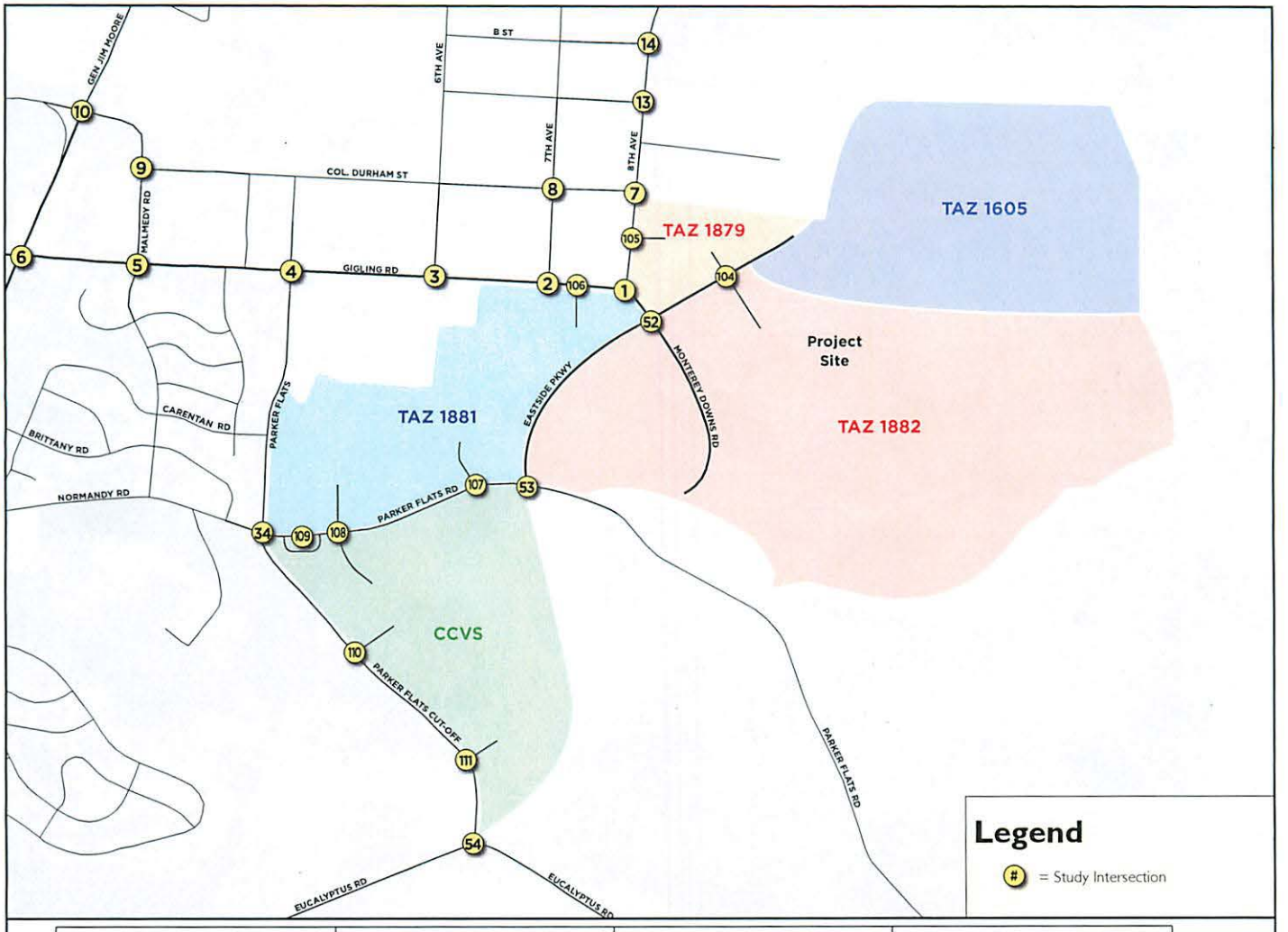
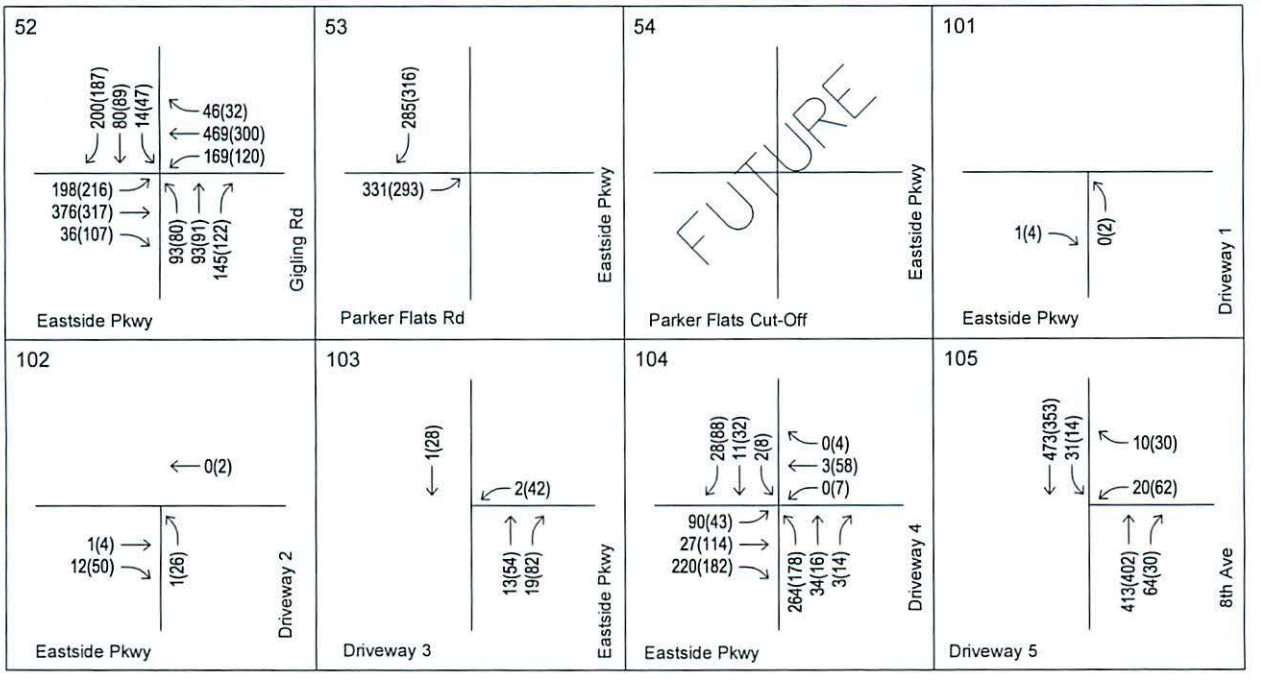
XX(XX) AM/PM PEAK HOUR VOLUME

Existing plus Project Peak Hour Intersection Volumes

Figure 3.13-10d





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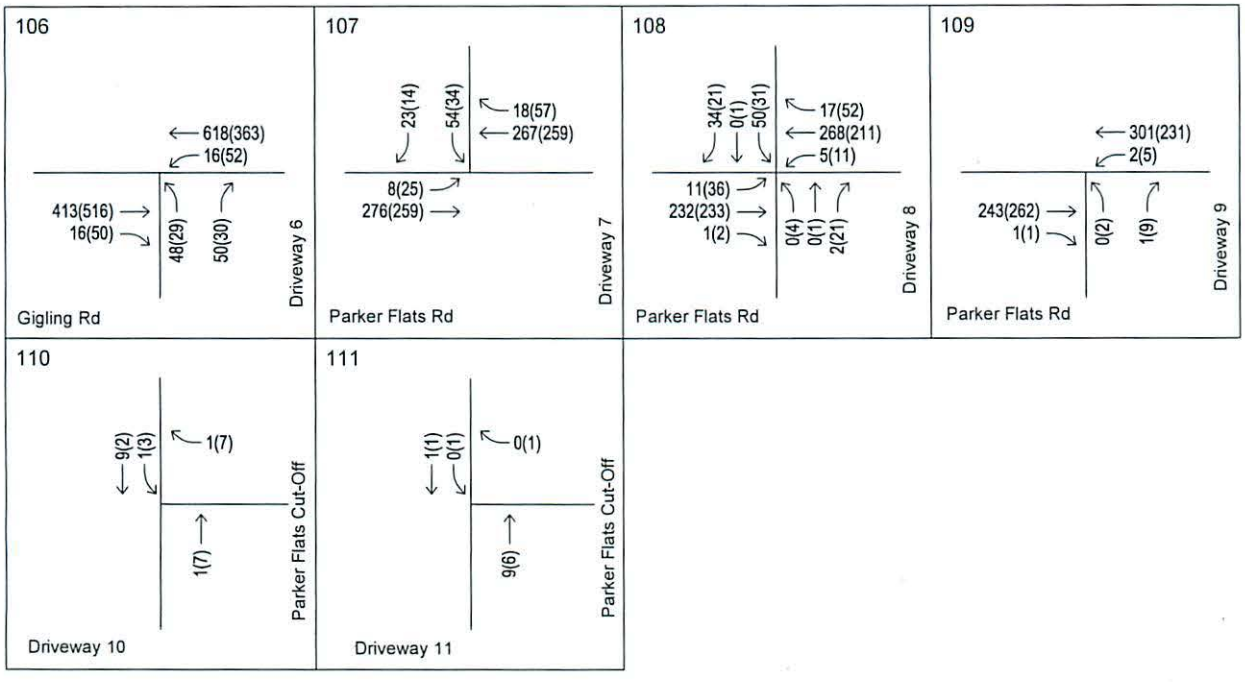
XX(XX) AM/PM PEAK HOUR VOLUME



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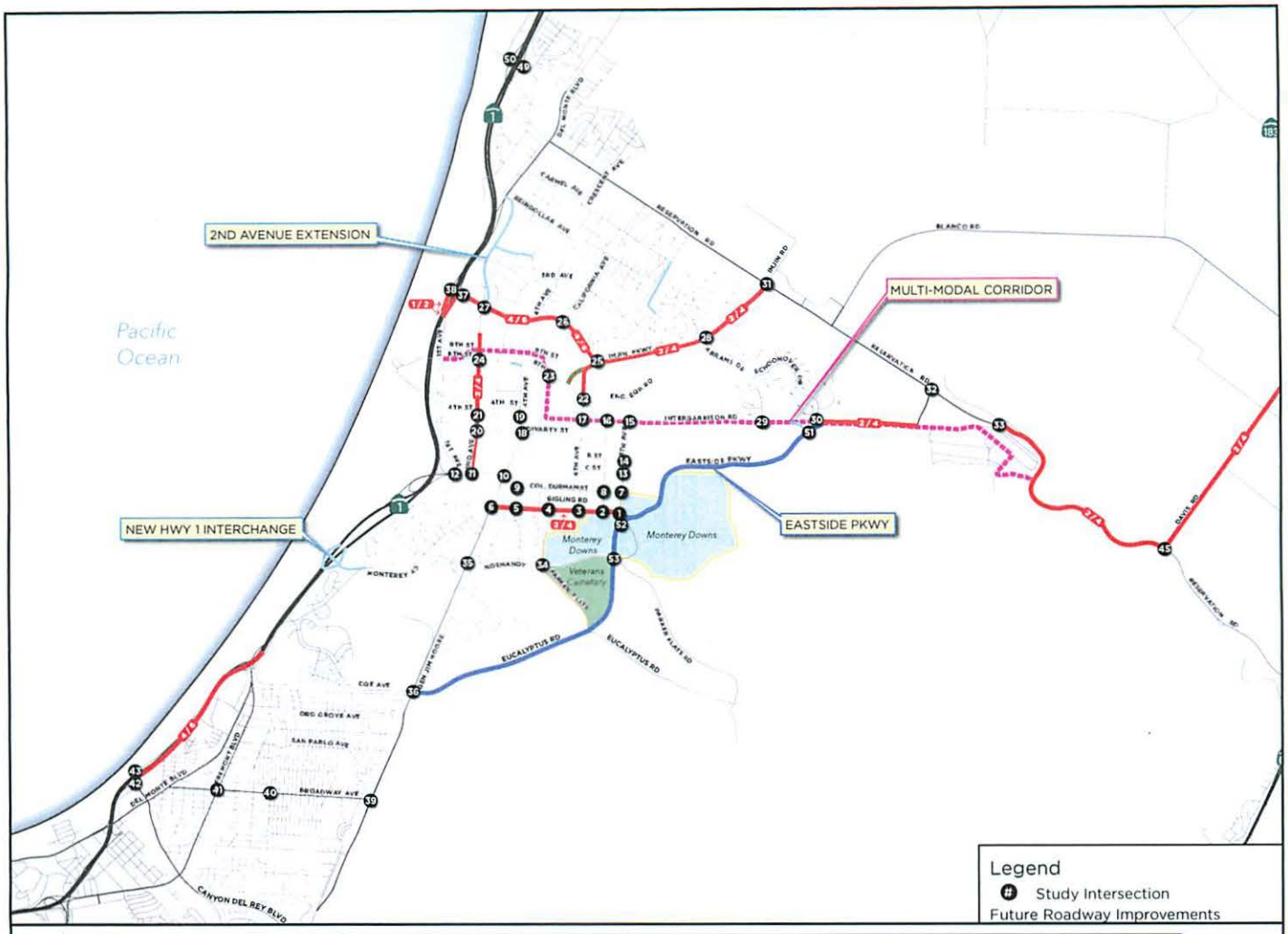
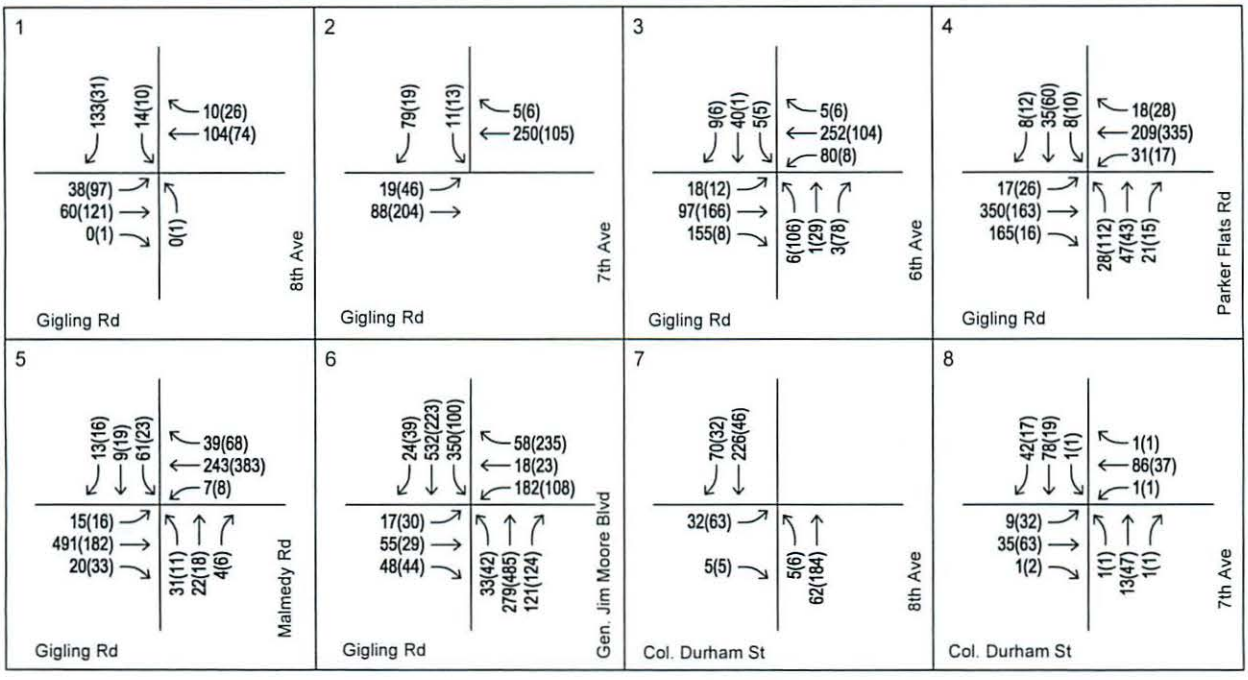
XX(XX) AM/PM PEAK HOUR VOLUME





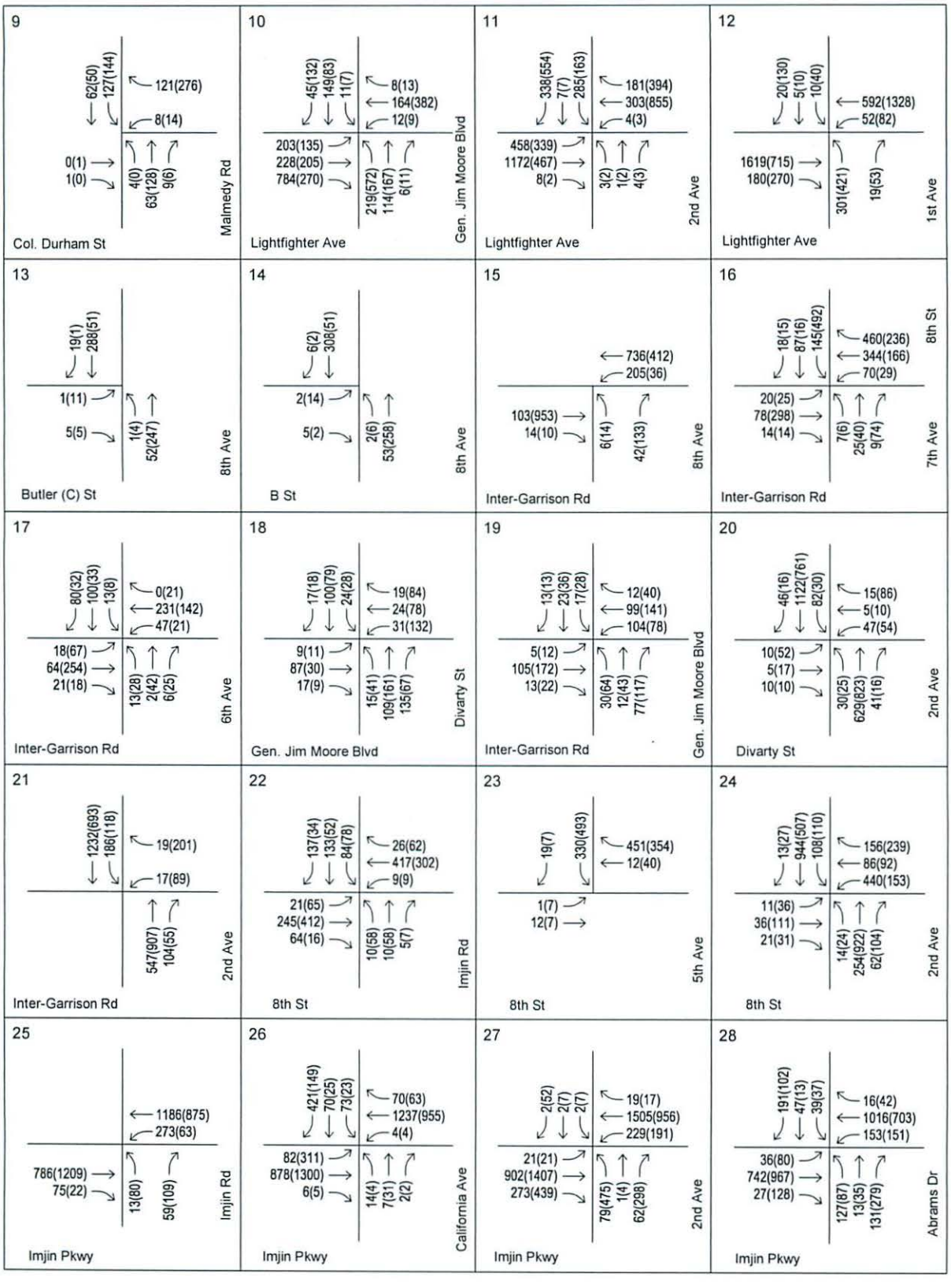
LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Cumulative Year (2035) Peak Hour Intersection Volumes

Figure 4.10-1a



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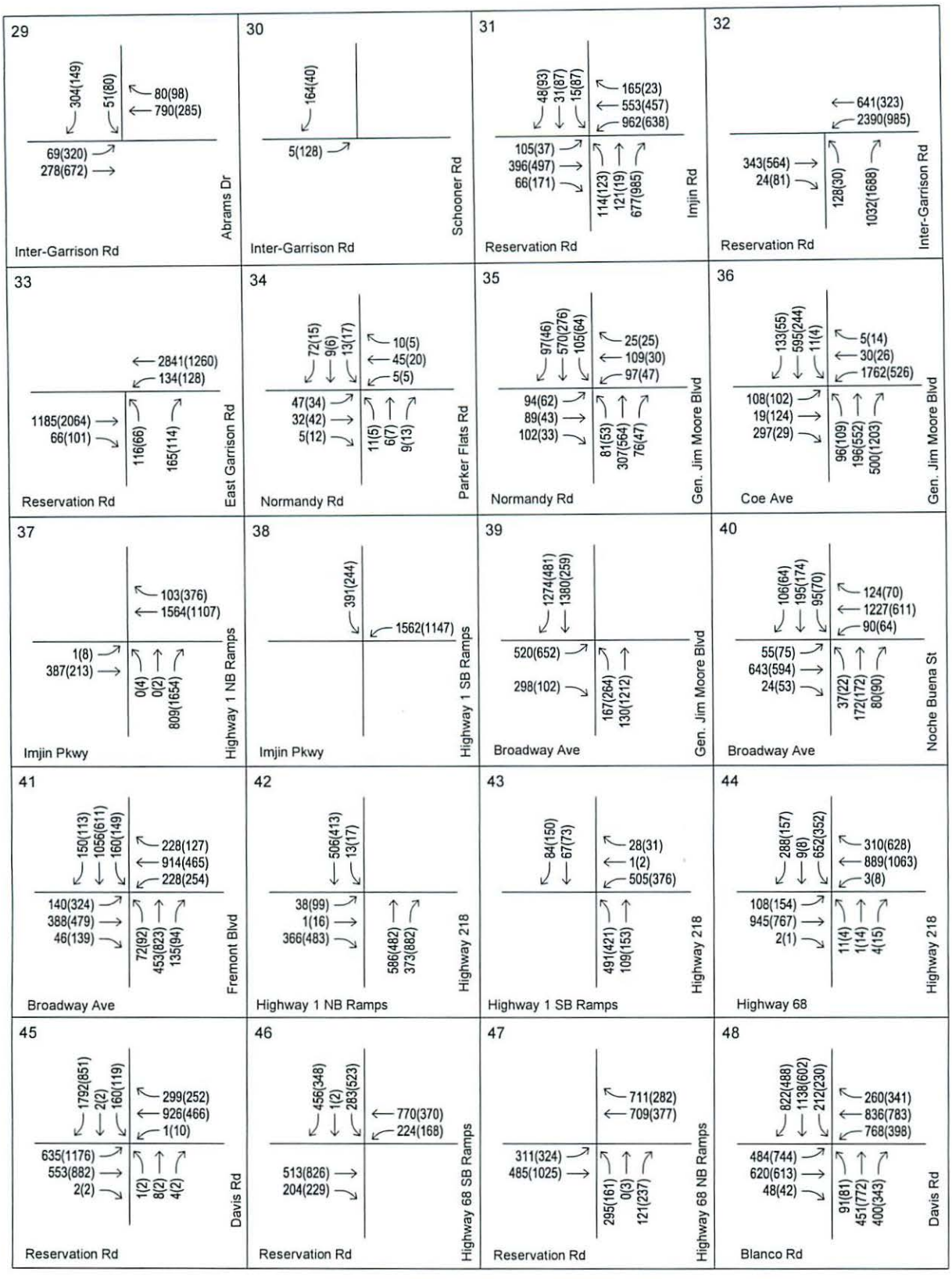
XX(XX) AM/PM PEAK HOUR VOLUME



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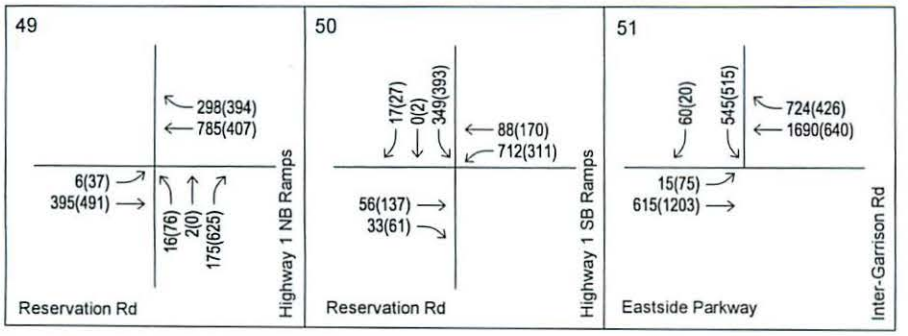
XX(XX) AM/PM PEAK HOUR VOLUME



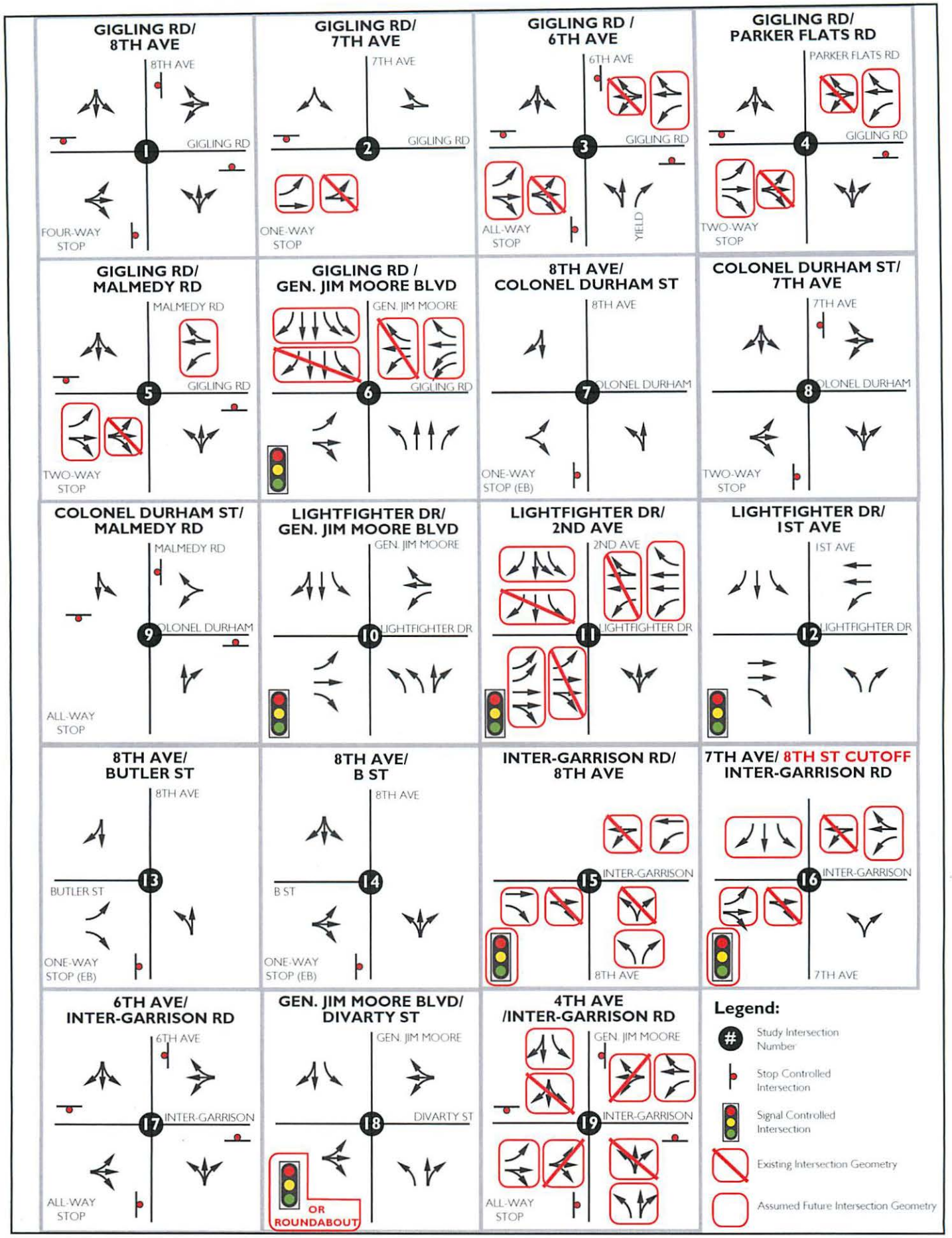
LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME

MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Cumulative Year (2035) Peak Hour Intersection Volumes

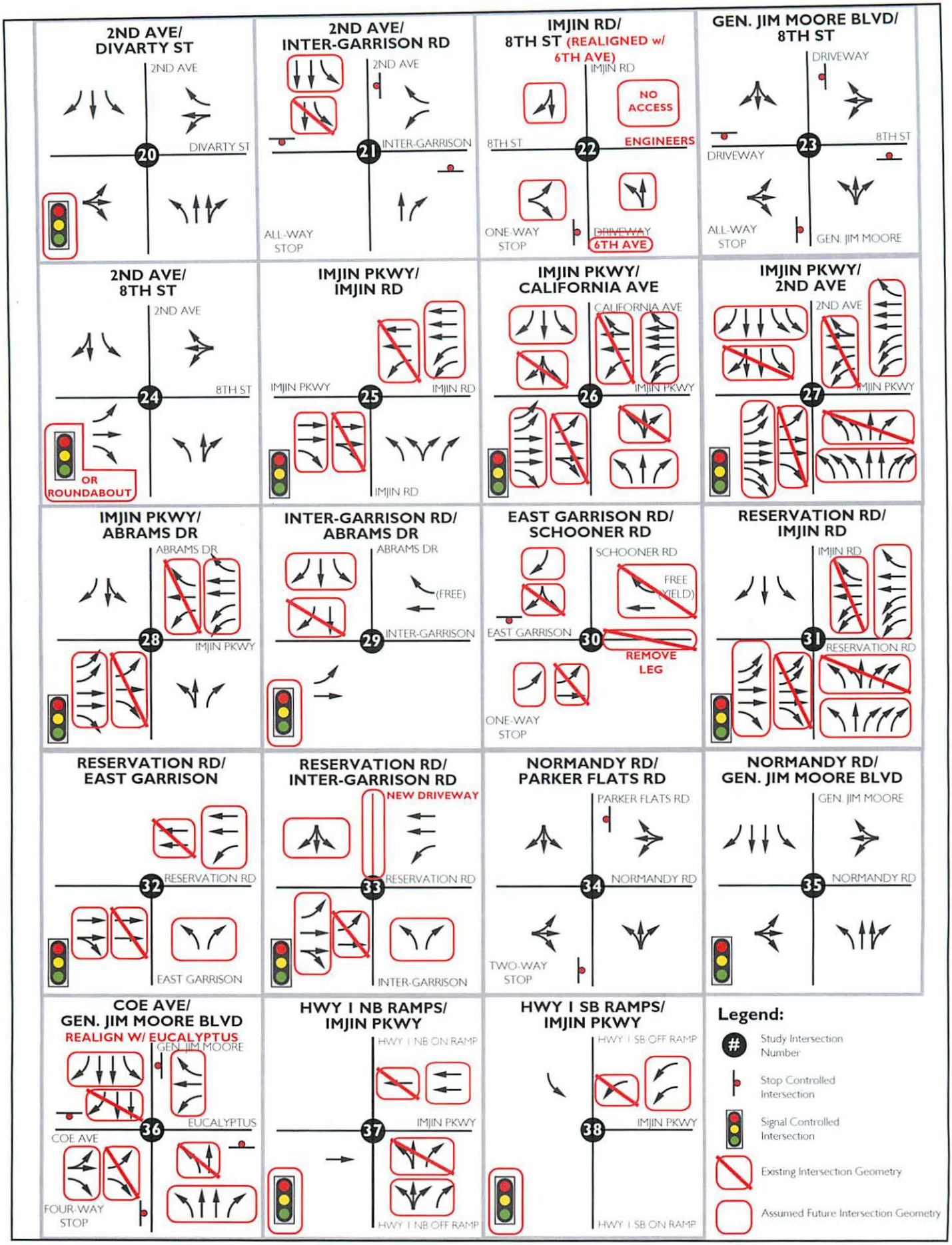
Figure 4.10-1d



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Cumulative Year (2035) No Project Intersection Geometry

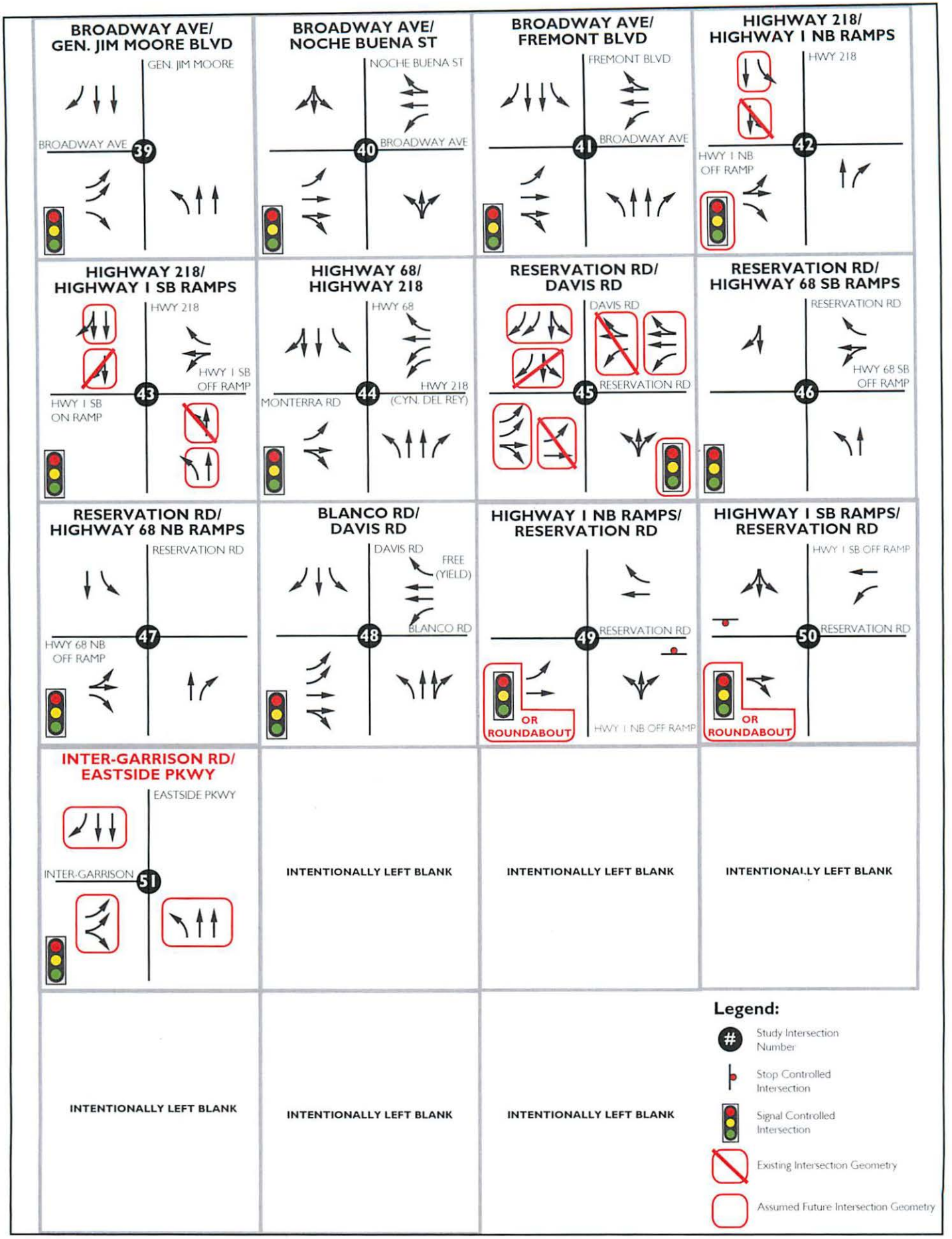
Figure 4.10-2a



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Cumulative Year (2035) No Project Intersection Geometry

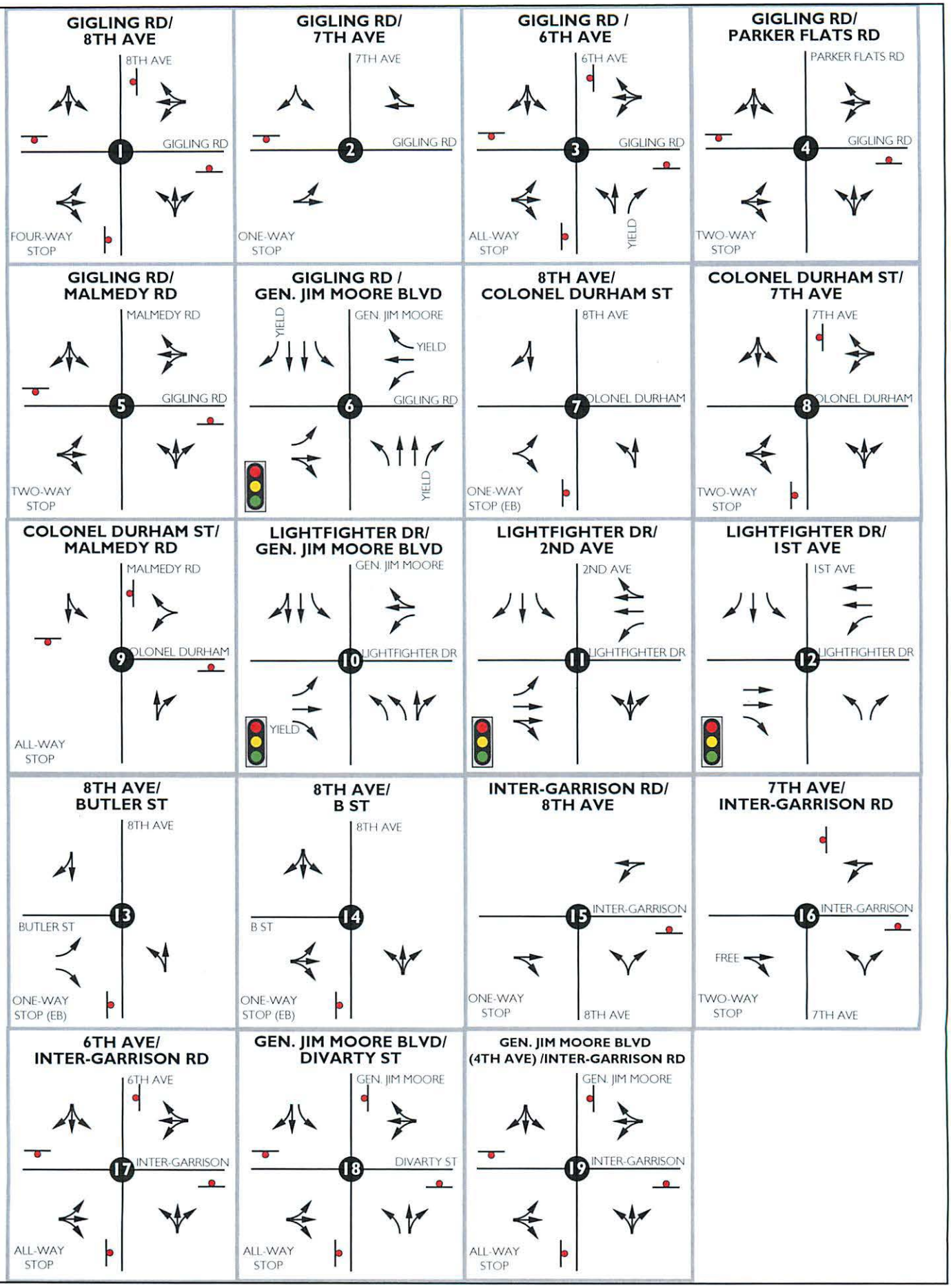
Figure 4.10-2b



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

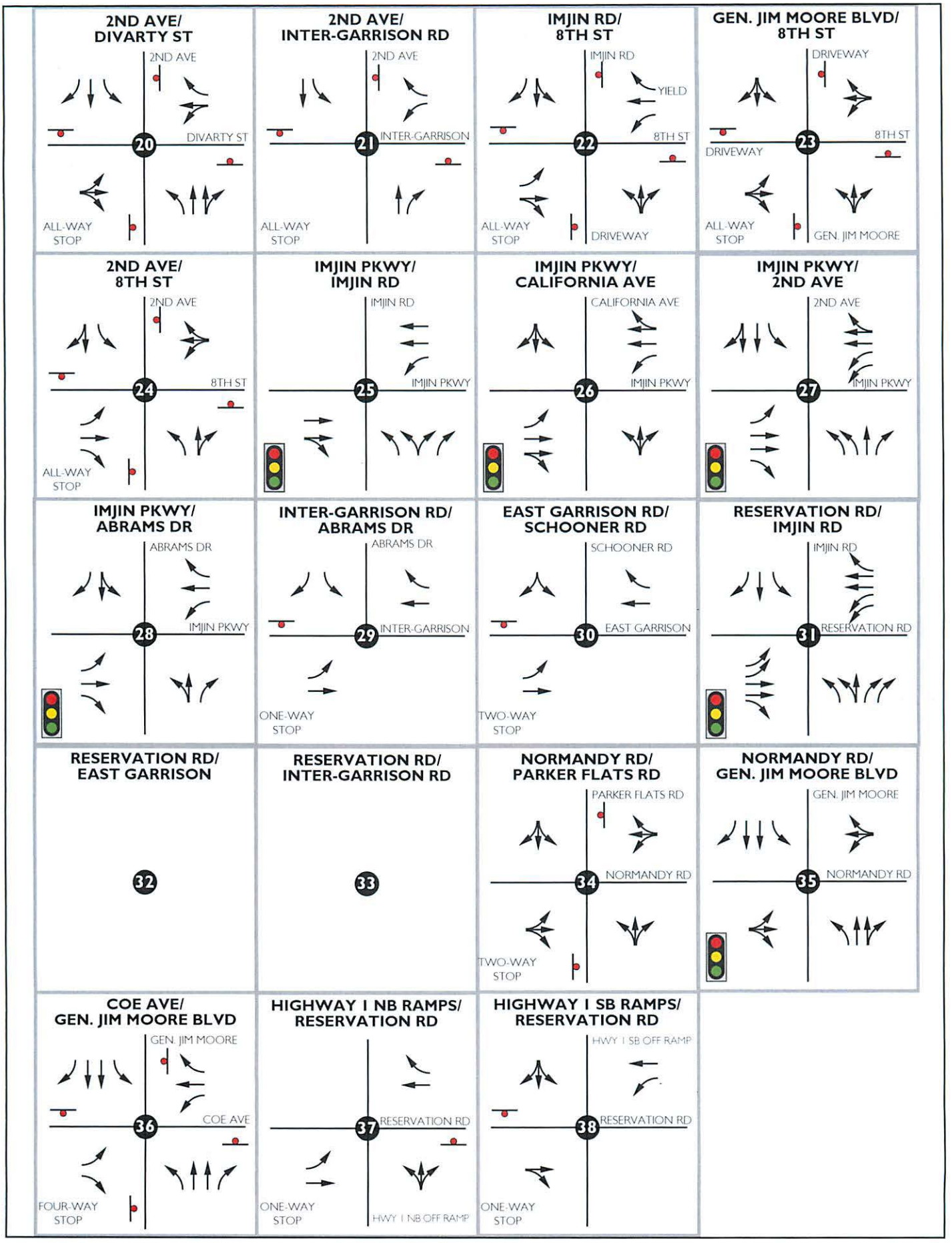
Cumulative Year (2035) No Project Intersection Geometry

Figure 4.10-2c



Existing Intersection Geometry

Figure 3.13-2a


2ND AVE/ DIVARTY ST
2ND AVE
DIVARTY ST
20
ALL-WAY STOP
2ND AVE/ INTER-GARRISON RD
2ND AVE
INTER-GARRISON
21
ALL-WAY STOP
IMJIN RD/ 8TH ST
IMJIN RD
YIELD
8TH ST
22
ALL-WAY STOP
DRIVEWAY
GEN. JIM MOORE BLVD/ 8TH ST
DRIVEWAY
8TH ST
DRIVEWAY
23
ALL-WAY STOP
GEN. JIM MOORE
2ND AVE/ 8TH ST
2ND AVE
8TH ST
24
ALL-WAY STOP
IMJIN PKWY/ IMJIN RD
IMJIN RD
IMJIN PKWY
25
IMJIN PKWY/ CALIFORNIA AVE
CALIFORNIA AVE
IMJIN PKWY
26
IMJIN PKWY/ 2ND AVE
2ND AVE
IMJIN PKWY
27
IMJIN PKWY/ ABRAMS DR
ABRAMS DR
IMJIN PKWY
28
INTER-GARRISON RD/ ABRAMS DR
ABRAMS DR
INTER-GARRISON
29
ONE-WAY STOP
EAST GARRISON RD/ SCHOONER RD
SCHOONER RD
EAST GARRISON
30
TWO-WAY STOP
RESERVATION RD/ IMJIN RD
IMJIN RD
RESERVATION RD
31
RESERVATION RD/ EAST GARRISON
32
RESERVATION RD/ INTER-GARRISON RD
33
NORMANDY RD/ PARKER FLATS RD
PARKER FLATS RD
NORMANDY RD
34
TWO-WAY STOP
NORMANDY RD/ GEN. JIM MOORE BLVD
GEN. JIM MOORE
NORMANDY RD
35
COE AVE/ GEN. JIM MOORE BLVD
GEN. JIM MOORE
COE AVE
36
FOUR-WAY STOP
HIGHWAY 1 NB RAMPS/ RESERVATION RD
RESERVATION RD
37
ONE-WAY STOP
HWY 1 NB OFF RAMP
HIGHWAY 1 SB RAMPS/ RESERVATION RD
HWY 1 SB OFF RAMP
RESERVATION RD
38
ONE-WAY STOP

BROADWAY AVE/ GEN. JIM MOORE BLVD

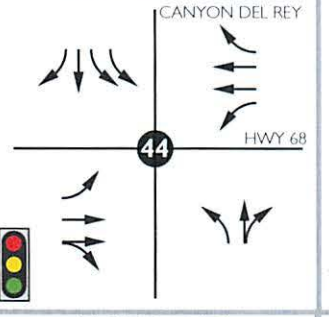
BROADWAY AVE/ NOCHE BUENA ST

BROADWAY AVE/ FREMONT BLVD

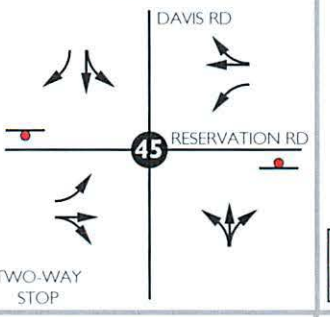
HIGHWAY 218/ HIGHWAY 1 NB RAMPS

HIGHWAY 218/ HIGHWAY 1 SB RAMPS

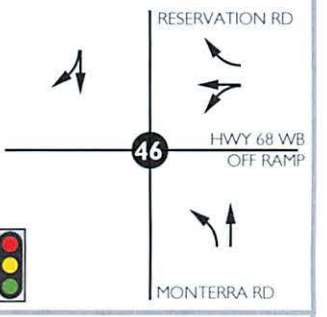
HIGHWAY 68/ HIGHWAY 218



RESERVATION RD/ DAVIS RD

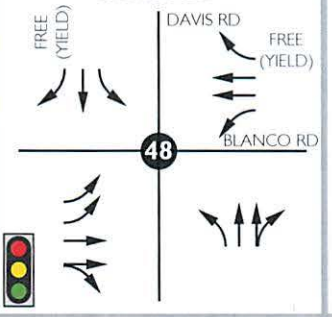


RESERVATION RD/ HIGHWAY 68 WB RAMPS



RESERVATION RD/ HIGHWAY 68 EB RAMPS

BLANCO RD/ DAVIS RD



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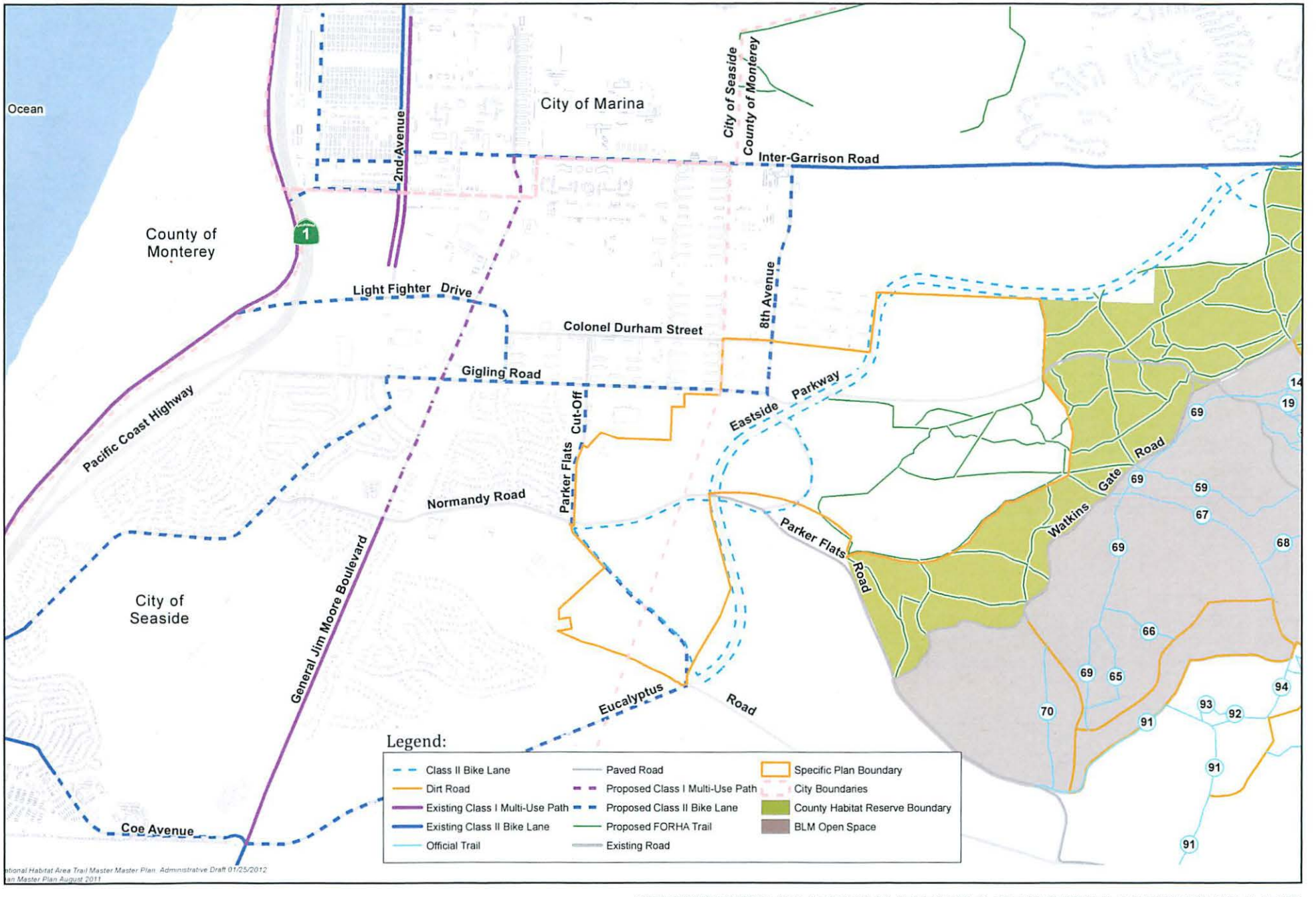
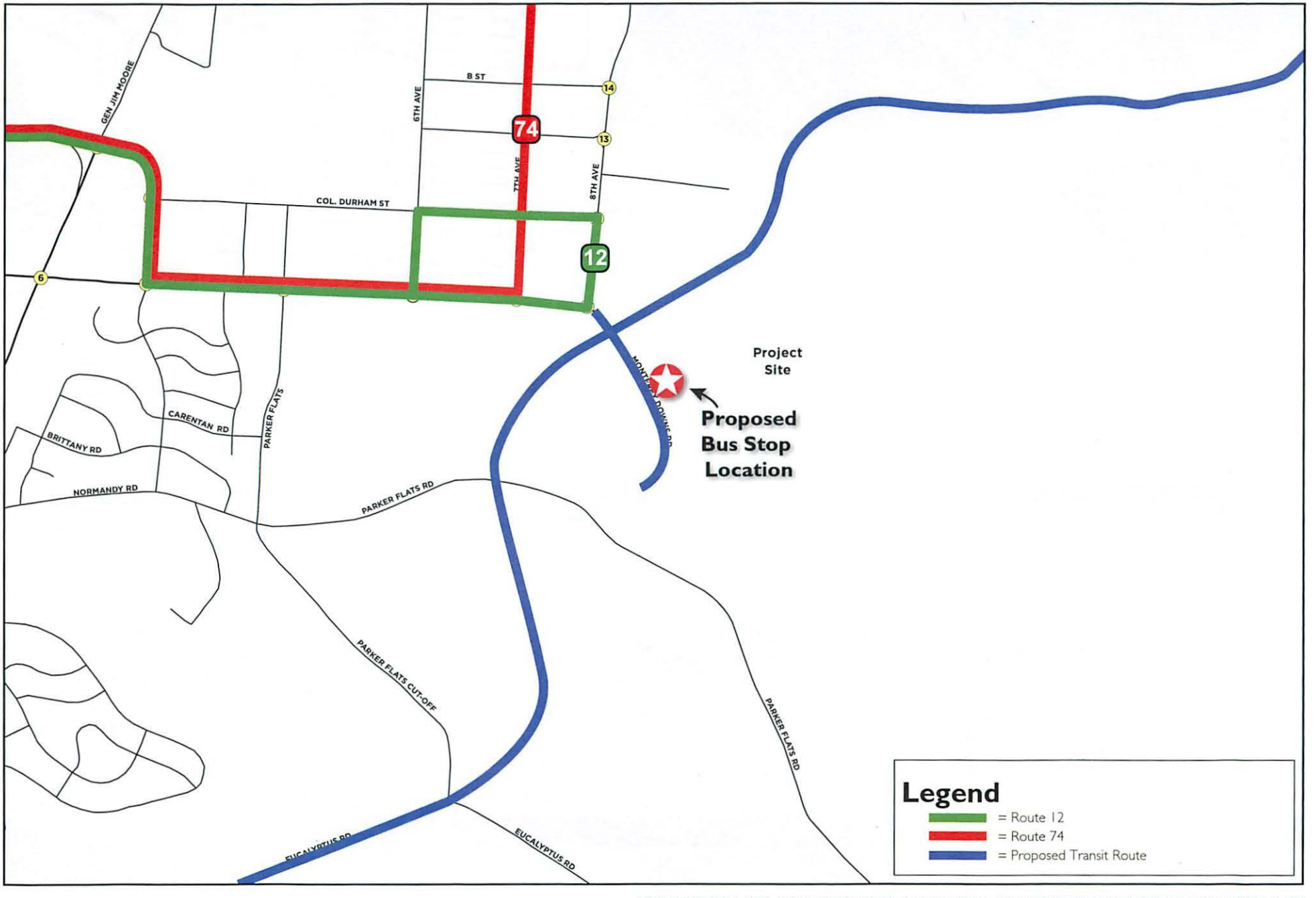


MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Existing and Proposed Pedestrian and Bicycle Facilities

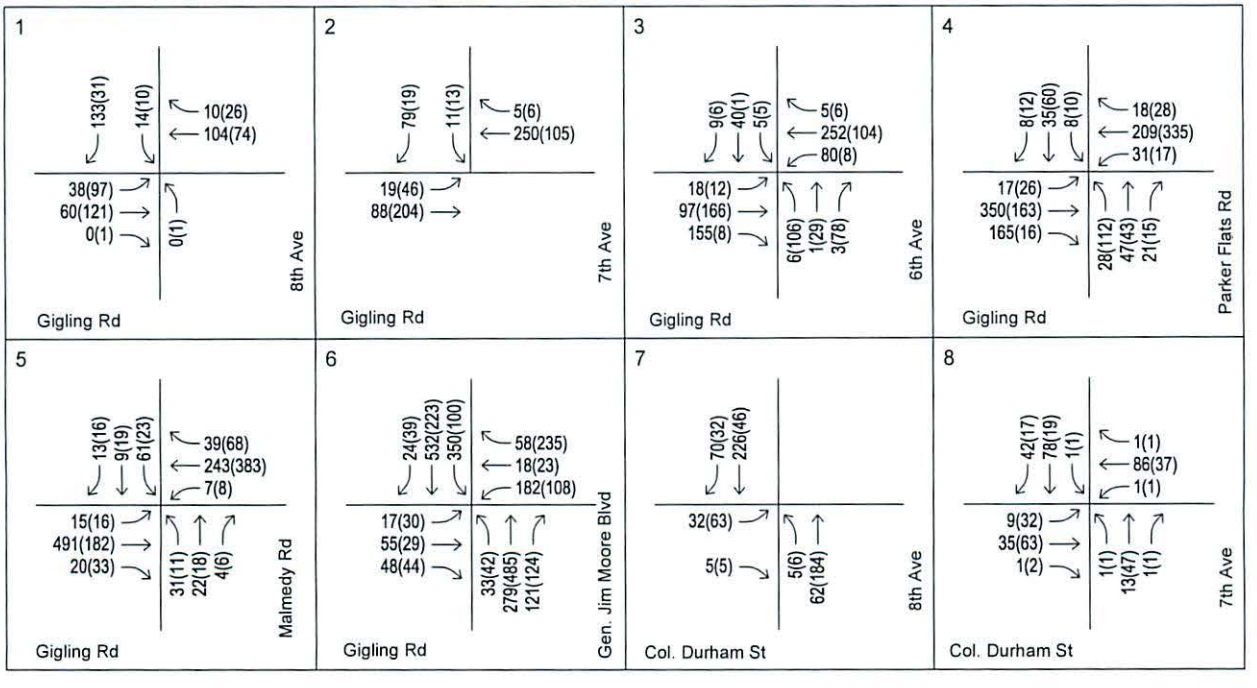
Figure 3.13-3



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

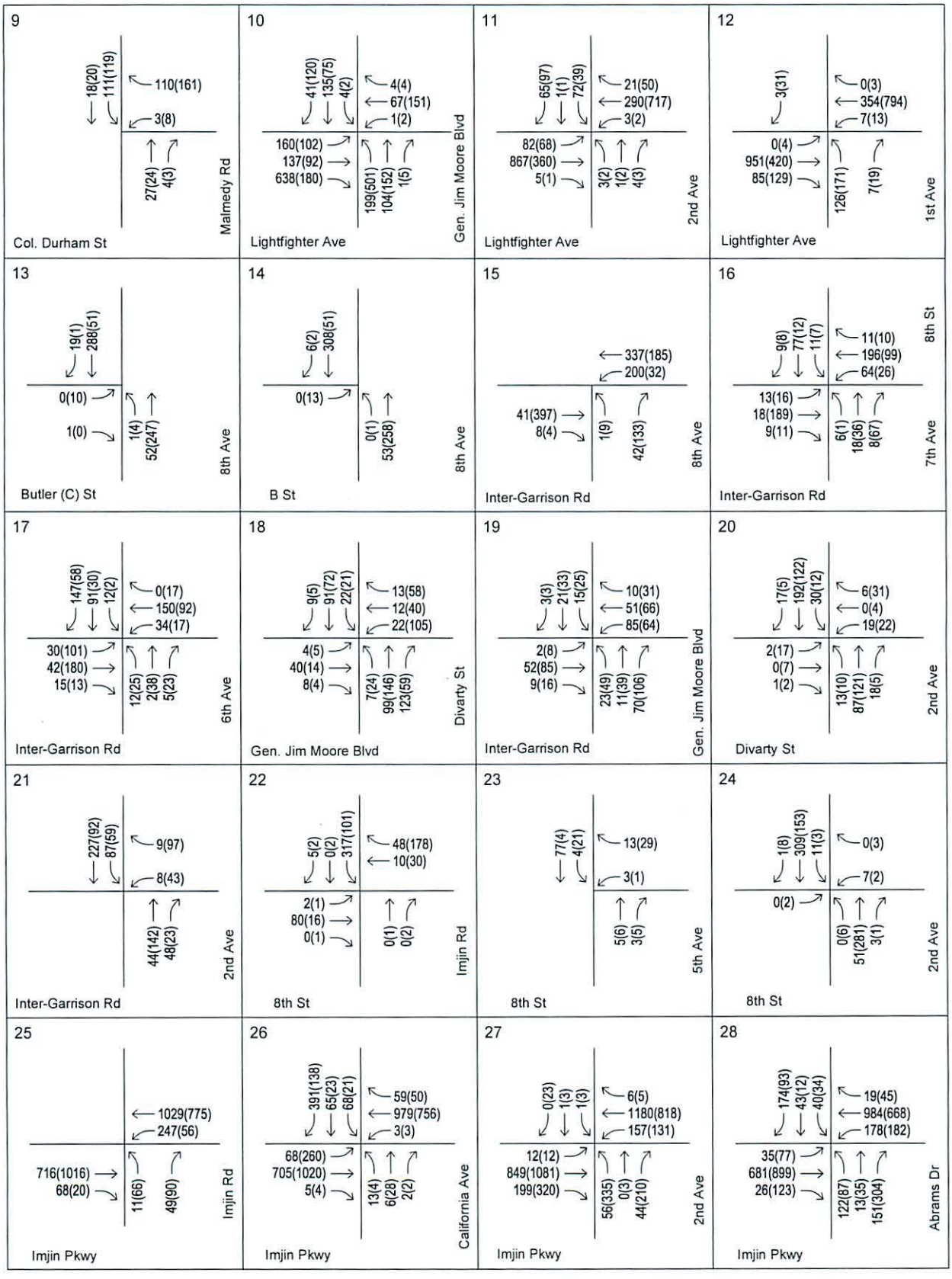
Existing Transit Routes

Figure 3.13-4



LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME



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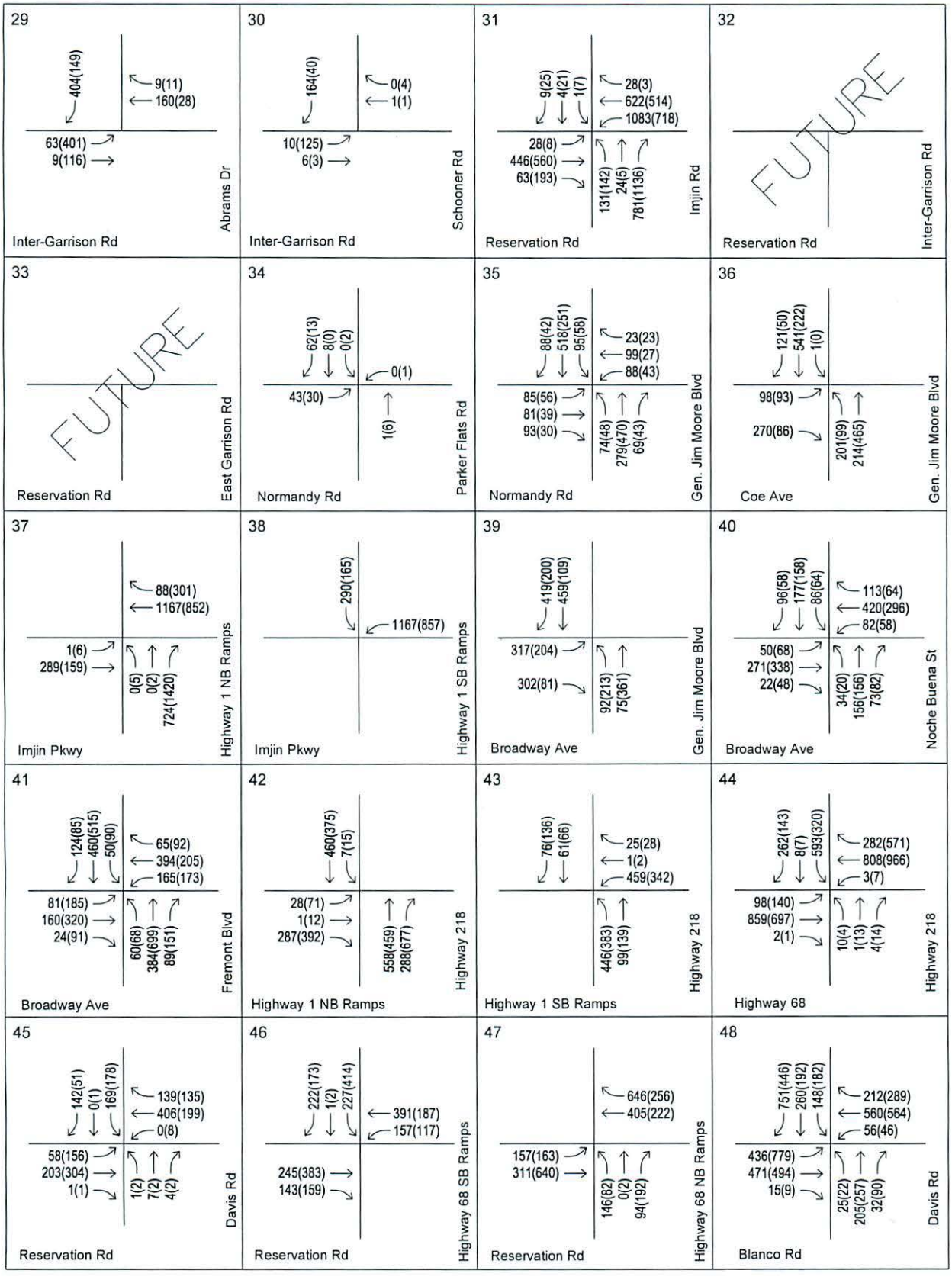
XX(XX) AM/PM PEAK HOUR VOLUME



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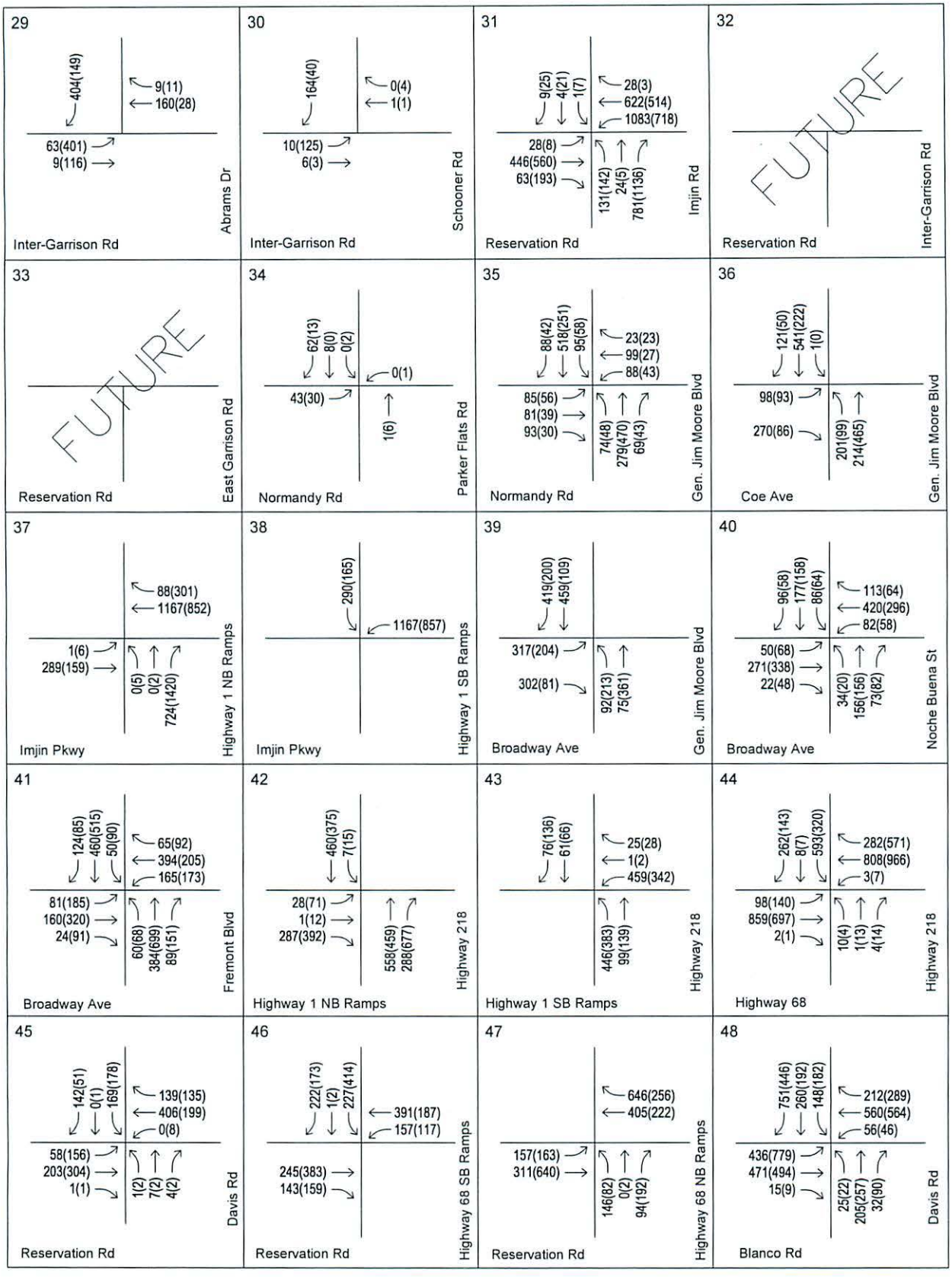
XX(XX) AM/PM PEAK HOUR VOLUME

Existing Peak Hour Intersection Volumes

Figure 3.13-5c



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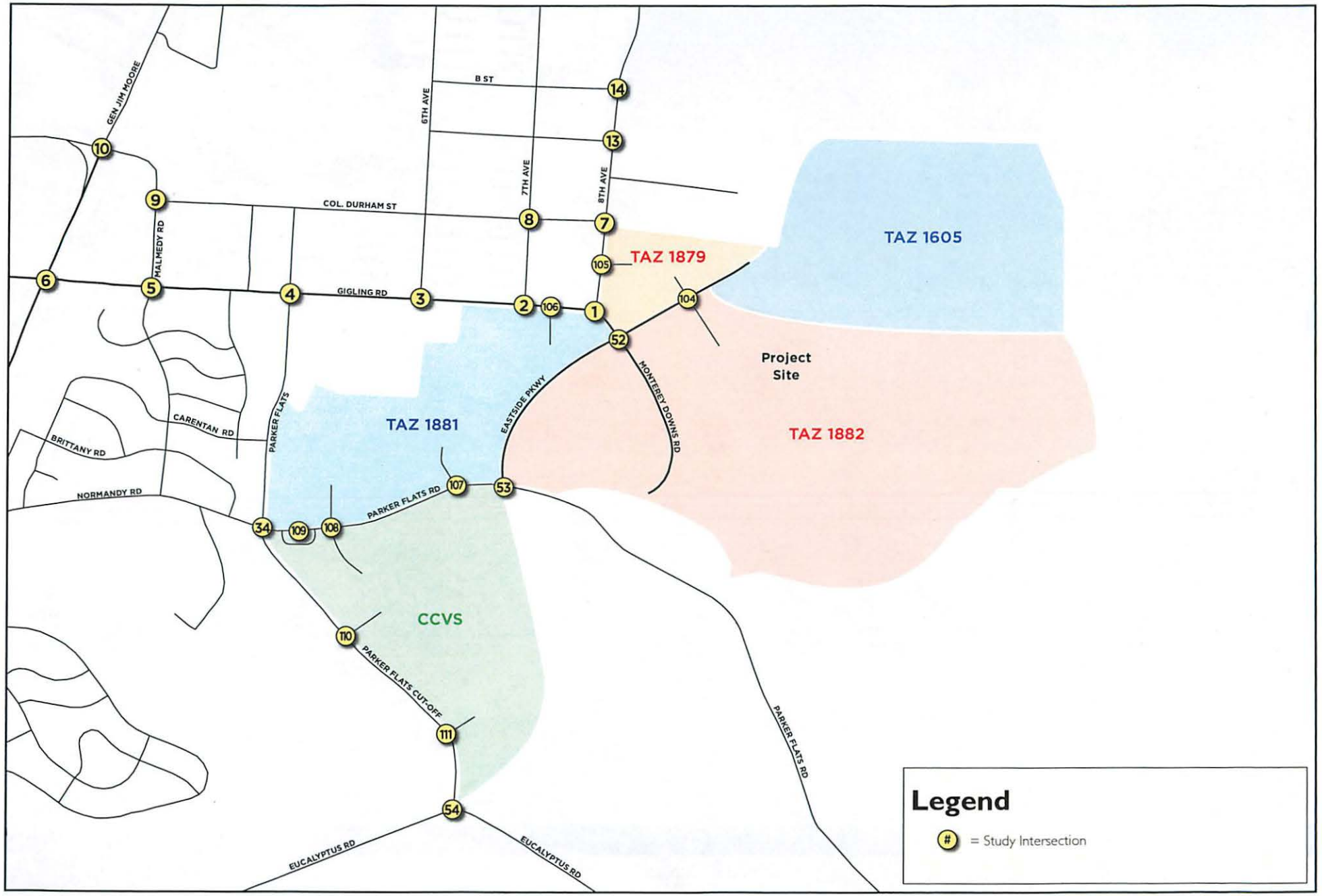
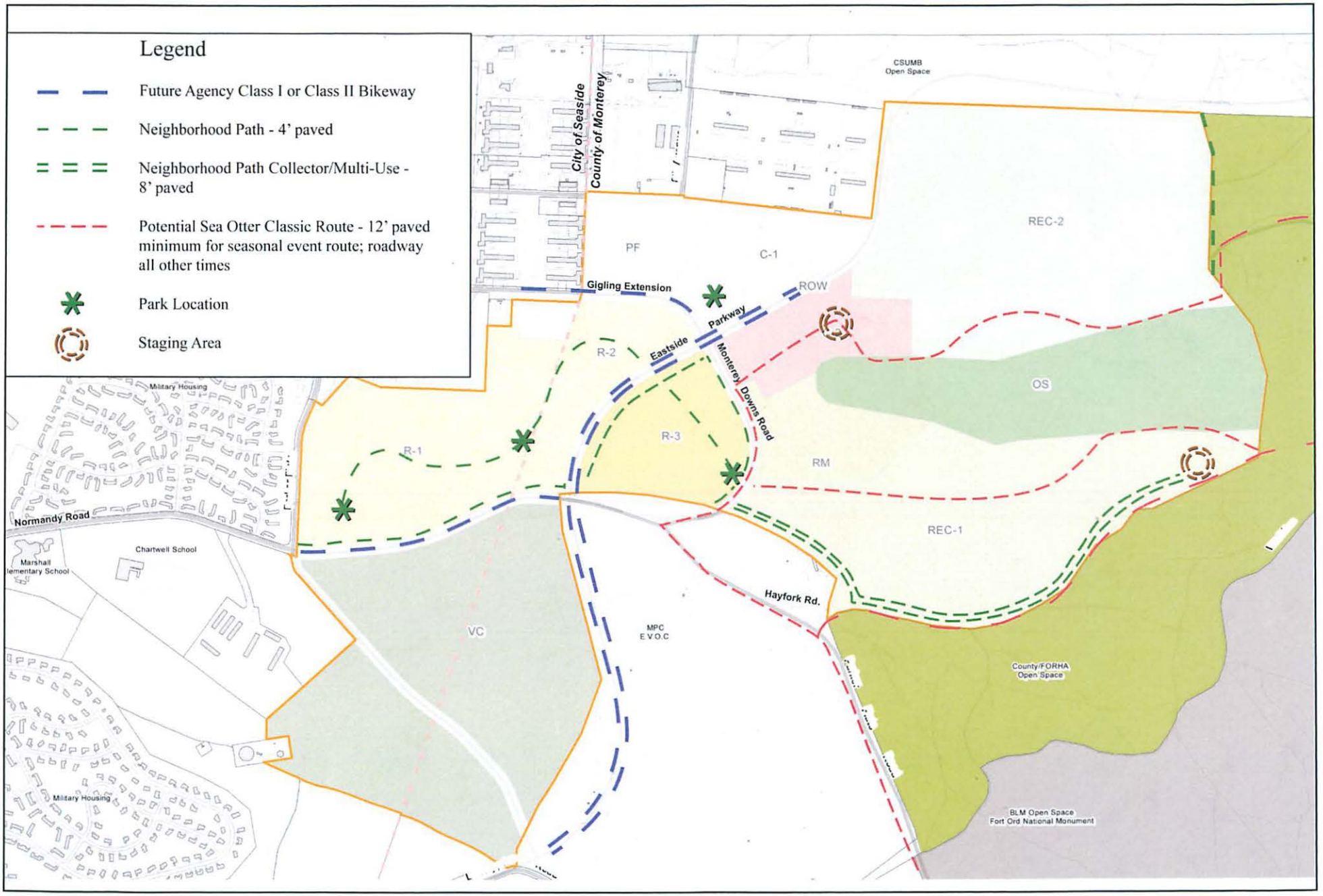
XX(XX) AM/PM PEAK HOUR VOLUME



MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Existing plus Project On-Site Roadway Network

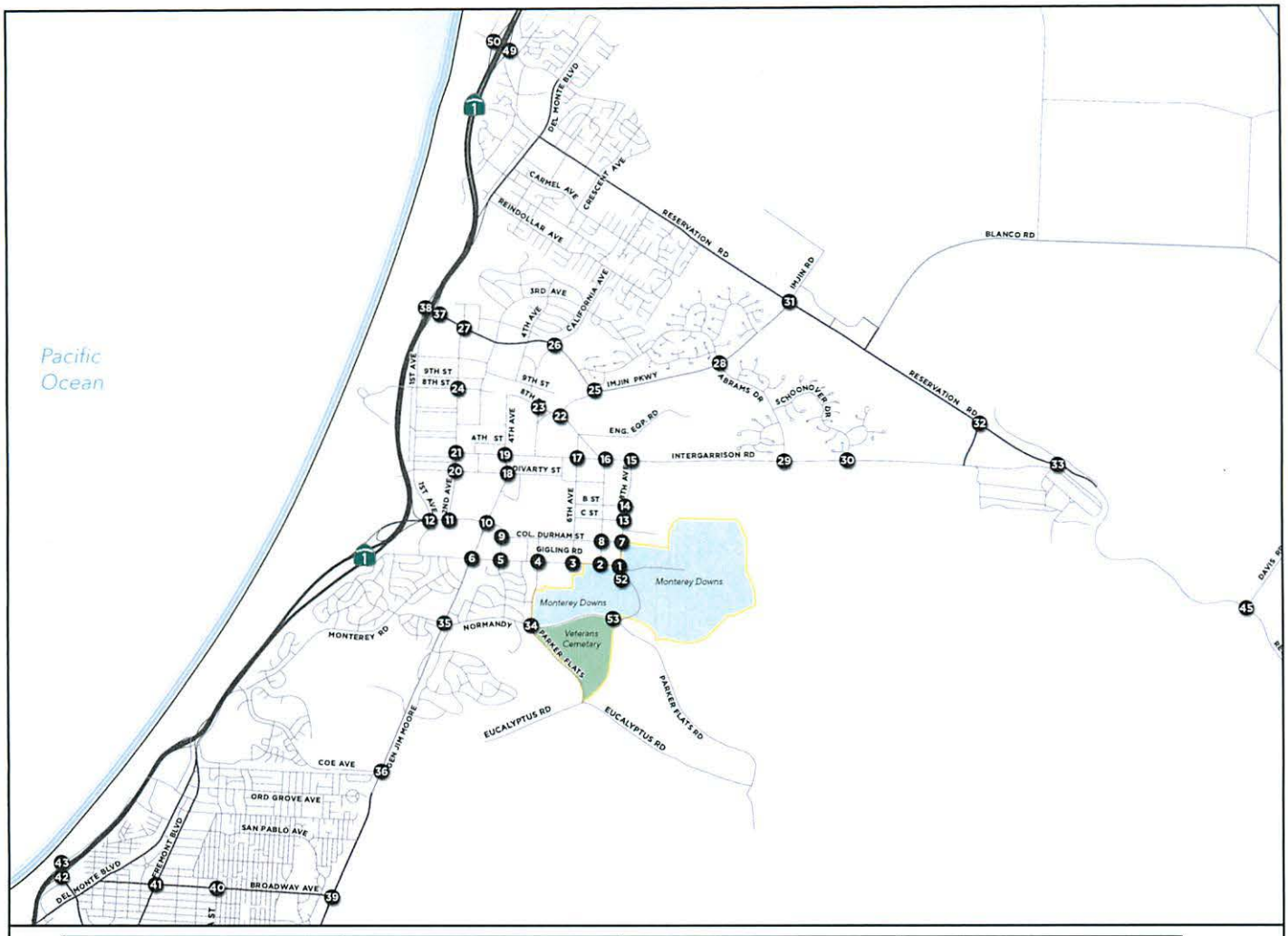
Figure 3.13-6

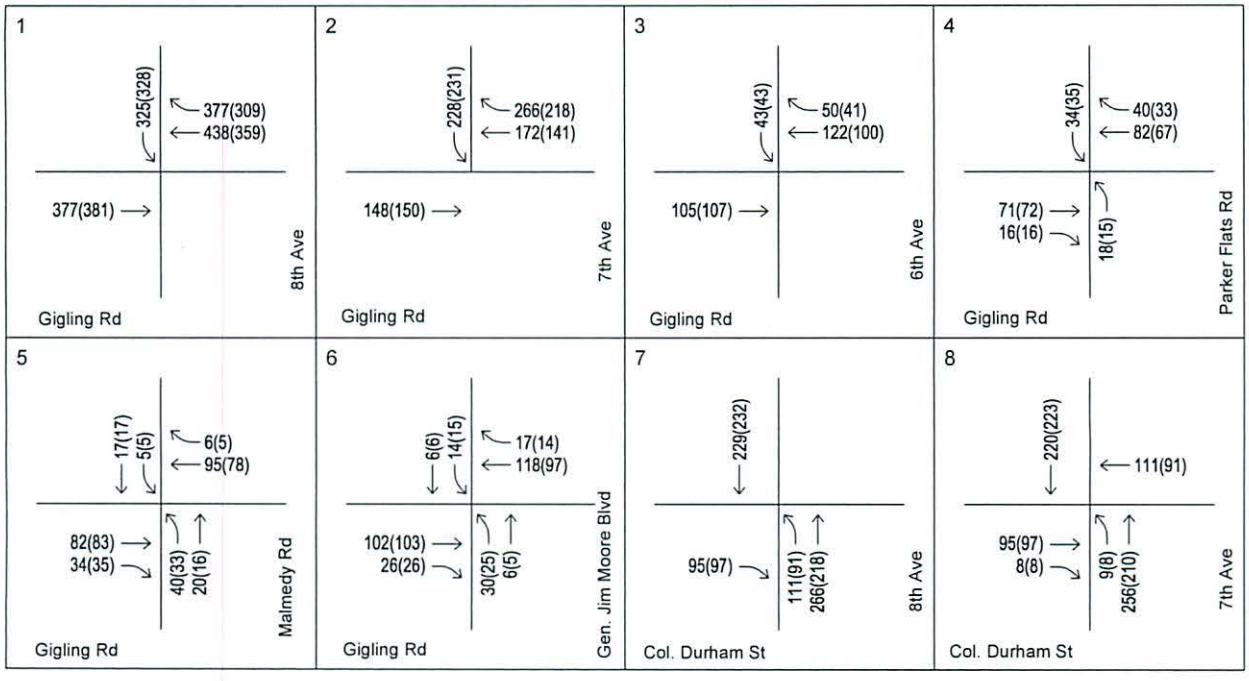


MONTEREY DOWNS AND HORSE PARK AND CENTRAL COAST VETERANS CEMETERY SPECIFIC PLAN EIR

Proposed Bicycle and Pedestrian Trail Locations

Figure 3.13-7





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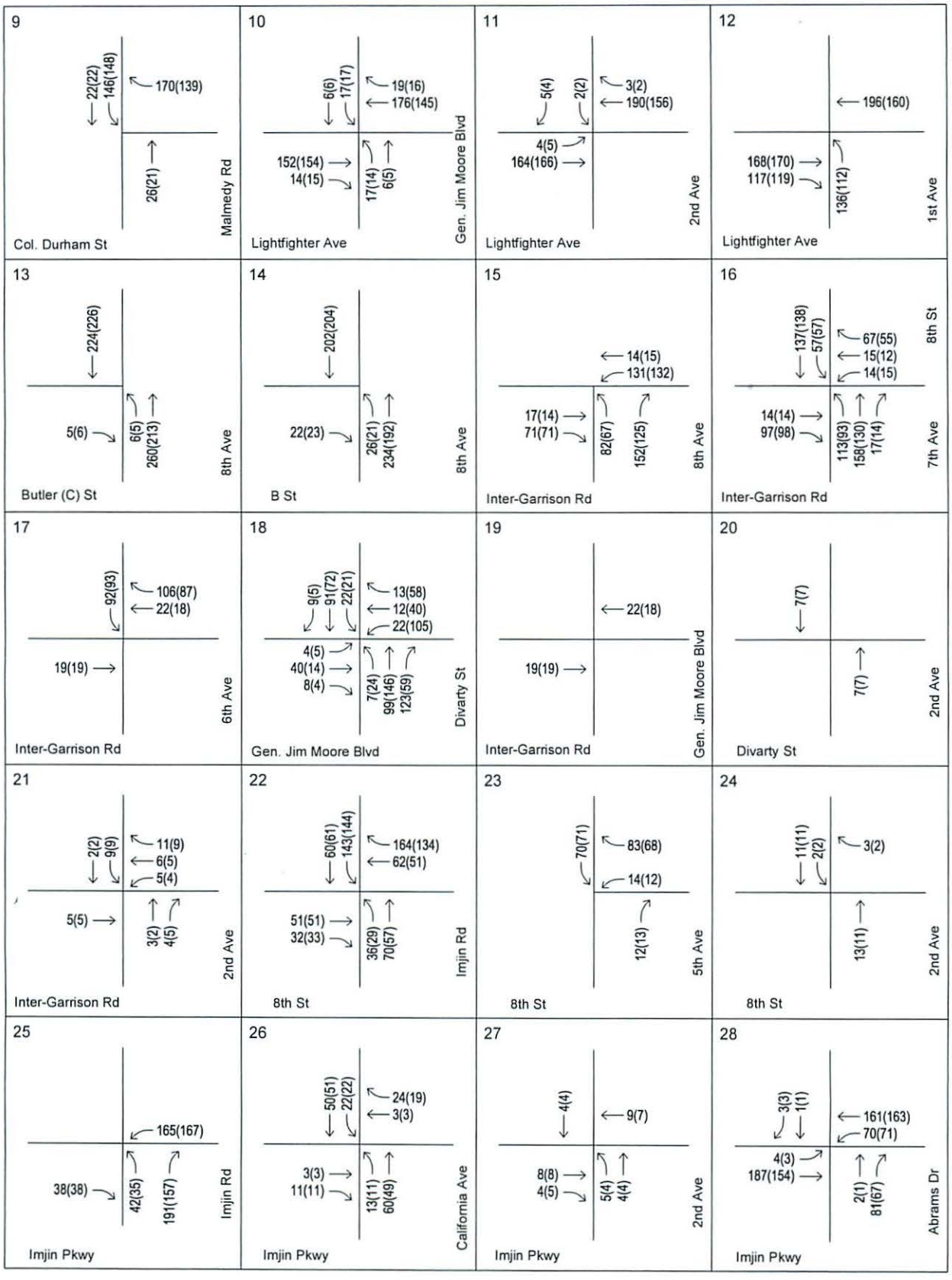
XX(XX) AM/PM PEAK HOUR VOLUME



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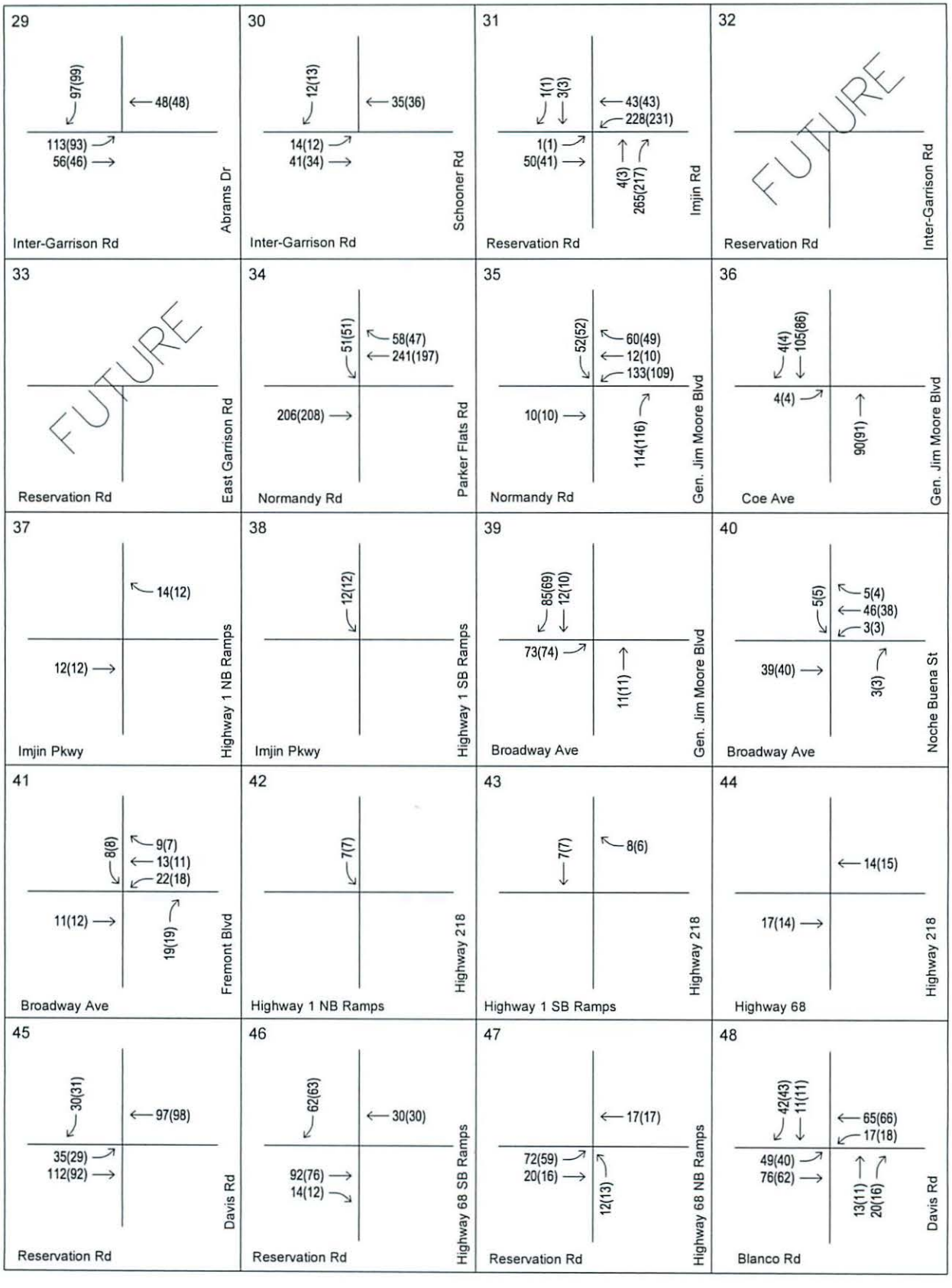
XX(XX) AM/PM PEAK HOUR VOLUME



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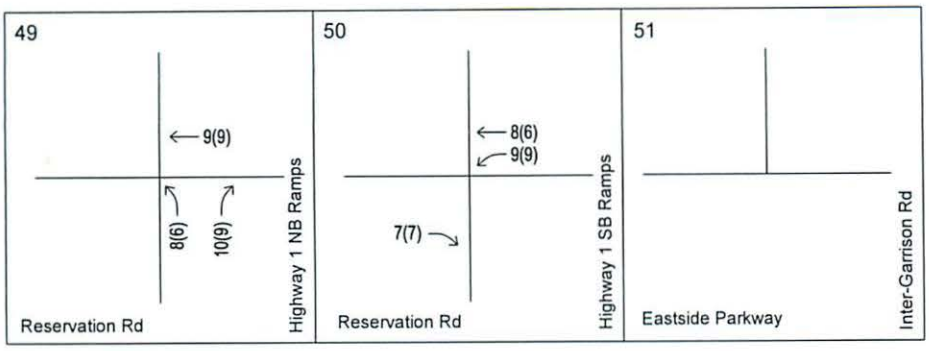
XX(XX) AM/PM PEAK HOUR VOLUME

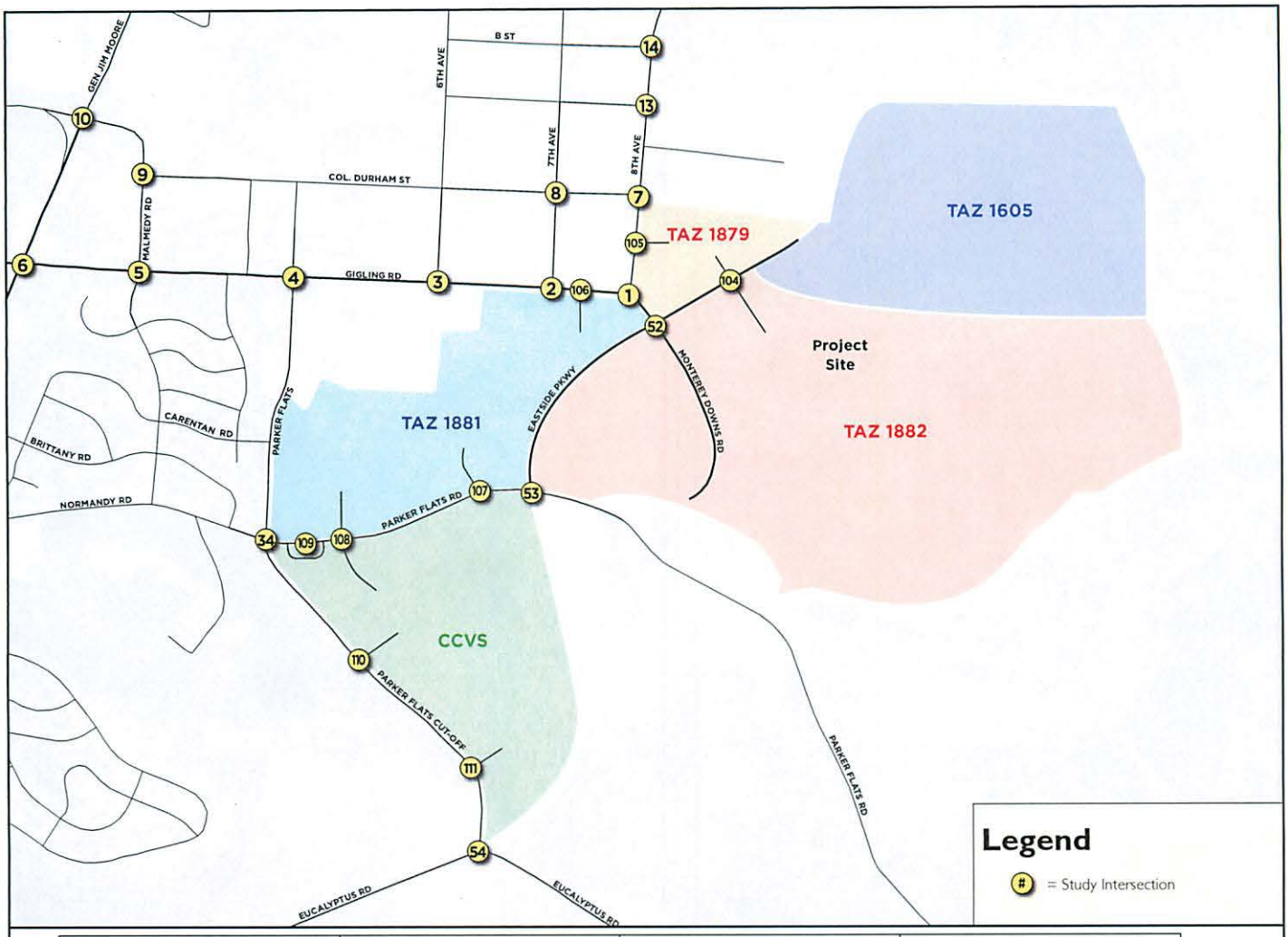


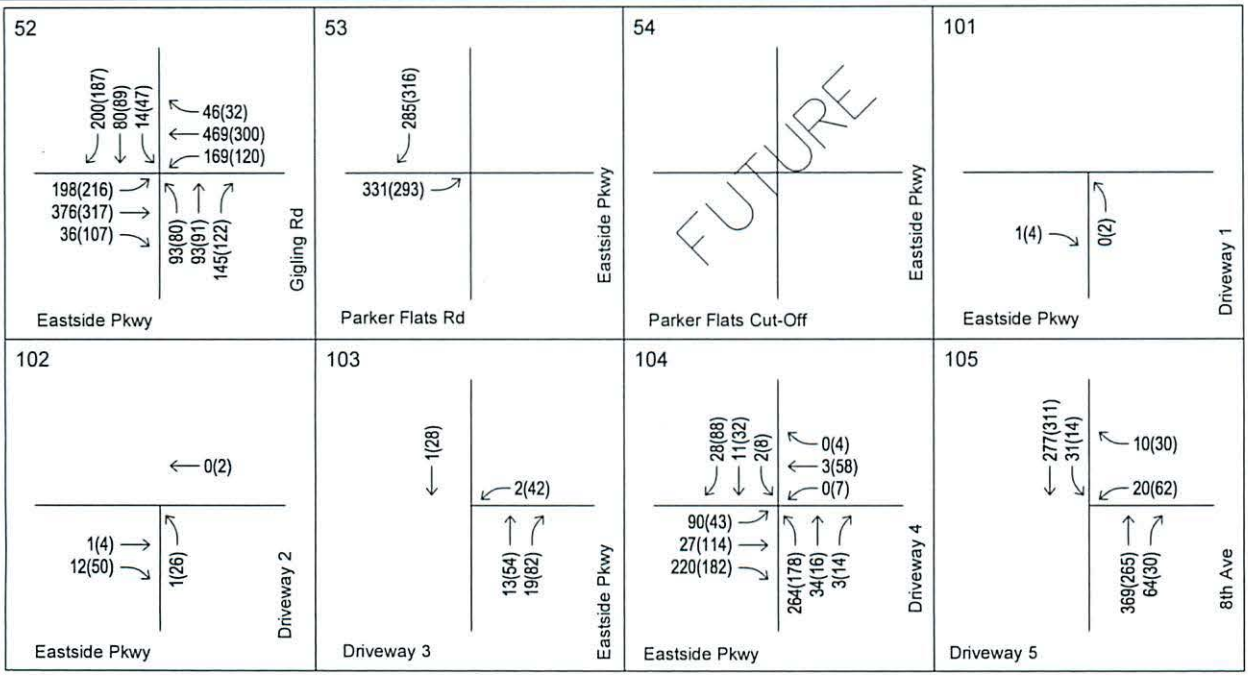
LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME

Project Peak Hour Trip Assignment

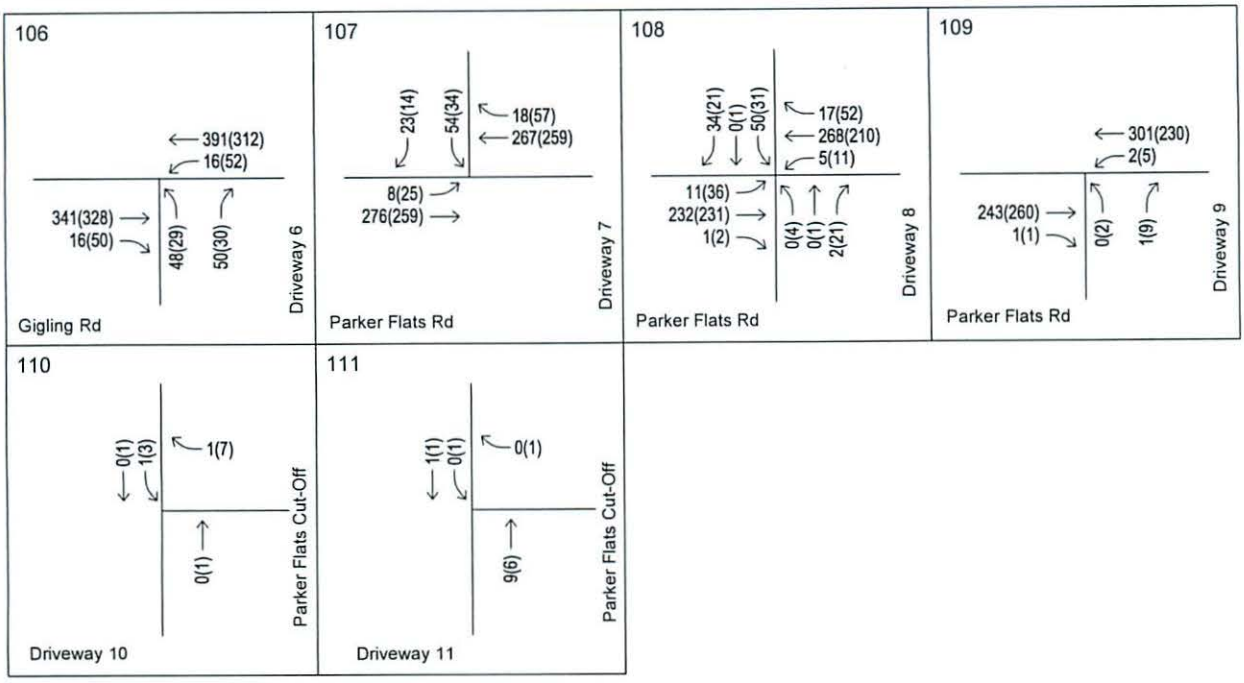
Figure 3.13-8d





LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME



LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME

4.10.10 Cumulative Transportation and Circulation Impacts

This section analyzes the estimated Cumulative Year (2035) traffic conditions without and with the Project.

Cumulative (No Project) Traffic Volumes

The Association of Monterey Bay Area Governments (AMBAG) 2035 Regional Travel Demand Model was utilized to obtain traffic volumes for forecast year 2035 (Cumulative) conditions. It is based on standardized modeling techniques in which future land uses in the region are quantified and the corresponding traffic volumes are estimated. In addition to local trips, the AMBAG model forecast traffic in a regional context, meaning that trips to and from the project study area, as well as, regional through-trips are included in the forecasts.

The 2035 AMBAG model includes many local and regional planned roadway improvements that will alter travel patterns in the future. The improvements in the vicinity of the project area are as described in detail below. A review of the 2035 model volumes revealed that cumulative volumes were lower than existing conditions at certain locations. Where this occurred, the model volumes were refined using the difference method. A review of the base year (2005) and future year (2035) model volumes was conducted to determine an annual growth rate for each corridor. The difference in daily traffic volumes between the two model years was linearly interpolated to adjust the existing conditions traffic volumes to represent a growth of 22 years to Year 2035.

Since the AMBAG model and the subsequent data refinement process focuses on daily traffic volumes, the data was further refined to determine the Cumulative Year (2035) peak hour volumes. Peak hour volumes were determined based on forecast daily traffic volumes, existing traffic patterns and future growth patterns surrounding each study intersections. Post-processing worksheets used to calculate the peak hour volumes are provided in Appendix H. The Cumulative Year (2035) No Project traffic volumes are provided in Figure 4.10-1 Cumulative Year (2035) Peak Hour Intersection Volumes.

Cumulative Year (2035) No Project Roadway Network Assumptions

The Cumulative Year (2035) conditions assume construction of the improvement projects identified in the FORA Capital Improvement Program, the TAMC Regional Transportation Plan, the City of Marina Capital Improvement Program, as well as changes recommended in the 2005 Marina University Villages (The Dunes at Monterey Bay) EIR, the 2005 East Garrison Specific Plan EIR, and the 2007 CSUMB Master Plan EIR.

The following planned roadway improvements were assumed for Cumulative Conditions analysis:

Regional Highway Improvements:

- SR-1: Widen from 4 lanes to 6 lanes in Seaside and Sand City between Fremont Avenue and Del Monte Interchanges (TAMC RTP, FORA CIP)
- SR-1 / Imjin Parkway Interchange: Reconstruct the interchange. (TAMC RTP, FORA CIP)
- SR-1 / Monterey Road Interchange: Construct a new interchange at Monterey Road (TAMC RTP, FORA CIP)
- SR-156: Widen from 2 lanes to 4 lanes and upgrade the highway to freeway status with appropriate interchanges modifications as needed between SR-156 in Castroville to US-101 in Prunedale. (TAMC RTP, FORA CIP)
- Multi-Modal Corridor: Construct new 11.5 mile multimodal corridor between the City Marina and Salinas along 9th Street, 5th Avenue, Inter-Garrison Road, Reservation, and Davis Road. The corridor will include dedicated BRT lanes, bike lanes, wide sidewalks, and with connections to the Salinas Transit Center and a new Marina Transit Center on the east side of SR-1 and the 9th Street Bridge within the future Marina Dunes project area. (TAMC RTP)
- Davis Road: Widen from 2 lanes to 4 lanes from Blanco Road to Reservation Road (TAMC RTP, FORA CIP)
- Reservation Road: Widen from 2 lanes to 4 lanes between East Garrison Road and Davis Road (TAMC RTP, FORA CIP)

FORA Roadway Segment Improvements (funded through FORA Fee Program):

- Inter-Garrison Road: Widen from 2 lanes to 4 lanes between Eastside Parkway and Reservation Road. At the intersection of Schoonover Road and Inter-Garrison Road, Inter-Garrison Road will be realigned to the south of Schoonover Road to create a new connection with Eastside Parkway. The realigned intersection of Inter-Garrison Road and Schoonover Road will remain a three-leg stop controlled intersection, with a stop sign at the Schoonover Road approach. The new intersection of Inter-Garrison Road and Eastside Parkway will include signal control.
- Eastside Parkway: Construct new 4 lane arterial between Inter-Garrison Road and General Jim Moore Boulevard.
- Davis Road: Widen from 2 lanes to 4 lanes between Blanco Road and Reservation Road.
- 8th Street: The closure of 8th Street Cut-Off between 6th Avenue and Inter-Garrison Road. The reconfiguration of the 6th Avenue and 8th Street and Engineers Equipment Road intersection.

- Inter-Garrison Road: Upgrade from 2 lane to 4 lane arterial between Eastside Parkway and Reservation Road.
- Gigling Road: Widen from 2 lanes to 4 lanes between Eastside Parkway and General Jim Moore Boulevard.

City of Marina Roadway Segment Improvements (funded through Impact Fee Programs):

- Imjin Parkway: Widen from 4 lanes to 6 lanes between SR-1 and Imjin Road (TAMC RTP, FORA CIP, Marina CIP)
- Imjin Road: Widen from 2 lanes to 4 lanes between Imjin Parkway and Reservation Road. Realign Imjin Road between Imjin Parkway and 8th Street. (TAMC RTP, FORA CIP, Marina CIP)
- 2nd Avenue Extension: Construct new 2 lane arterial between Imjin Parkway and Del Monte Boulevard. (Marina CIP)

The Cumulative Year (2035) intersection lane configurations are shown on Figure 4.10-2: Cumulative Year (2035) No Project Intersection Geometry. The Cumulative Year (2035) roadway improvements are shown on Figure 4.10-3: Cumulative Conditions (Year 2035) Roadway Improvements & Study Intersections. Except where previously noted, it is assumed in this analysis that the remaining transportation network would be the same as the Existing plus Project transportation network in the project vicinity.

Cumulative plus Project Conditions Roadway Improvements

The applicant proposes to construct the portion of Eastside Parkway within the project site. Eastside Parkway will bisect the project area and become a primary circulation route. The project area would be served by five intersections along the future Eastside Parkway in addition to the site access locations described under Existing plus Project conditions. The additional access locations along Eastside Parkway have been incorporated into the analysis of Cumulative Year (2035) plus Project conditions as illustrated in Figure 4.10-4 Cumulative Year (2035) plus Project Conditions On-Site Roadway Network and described in detail below.

- Intersection #52: Monterey Downs Road (8th Avenue) and Eastside Parkway: will consists of a four-leg signal controlled intersection that will provide access from Eastside Parkway to Monterey Downs Road / 8th Avenue. Monterey Downs Road will provide access to the central project area including the Horse Park, "Country Walk" shopping area, residential development, trail lands, RV parking lots, and horse trail staging areas. Intersection level of service analysis and peak hour volumes signal warrants indicate the need for signalization of the intersection under Cumulative plus Project conditions.
- Intersection #101: Project Driveway 1 and Eastside Parkway: will include a three-leg one-way stop controlled intersection with Eastside Parkway operating freely and the

project driveway being stop controlled. This driveway will provide limited gate controlled access to the horse track and support facilities.

- Intersection #102: Project Driveway 2 and Eastside Parkway will include a three-leg one-way stop controlled intersection with Eastside Parkway operating freely and the project driveway being stop controlled. This driveway will provide access to the horse track parking area and affordable workforce lodging.
- Intersection #103: Project Driveway 3 and Eastside Parkway will include a three-leg one-way stop controlled intersection with Eastside Parkway operating freely and the project driveway being stop controlled. This driveway will provide access to the horse track parking area.
- Intersection #104: Project Driveway 4 and Eastside Parkway will include a four-leg intersection will two-way stop control with Eastside Parkway operating freely and the two project driveways being stop controlled. The north driveway will provide access to the hotel, office, and recreational facilities to the north. The south driveway will provide access to the "Country Walk" shopping area and Open Space / Trail Lands.

Cumulative plus Project Trip Distribution

Vehicle trips generated by the project under Cumulative Year (2035) plus Project conditions were assigned to the regional roadway network using the AMBAG regional model. The development of the Cumulative plus Project model consisted of several modifications to the AMBAG regional model to enable it to estimate traffic more accurately in the area around the project area. These modifications included adding more traffic analysis zones (TAZs) and roadway network detail in the study area. This modified roadway network and TAZ system provides a greatly refined and updated representation of all the roadway facilities in the project study area.

Project Trip Redistribution due to Eastside Parkway

The most notable change affecting project traffic distribution under Cumulative Year (2035) plus Project conditions would be the construction of Eastside Parkway. This new roadway would provide a new east-west connection from Reservation Road via Inter-Garrison Road through the project site with links to Gigling Road, Parker Flats and General Jim Moore Boulevard. This new roadway is designed to supplement the traffic capacity of existing SR-68 and the Blanco Road / Reservation Road connections between Salinas/ US-101 and the Monterey Peninsula / SR-1 and would provide a more direct connection between the project site and Reservation Road, thereby shifting Salinas-bound traffic from Blanco Road to Davis Road. At the same time, the alignment of the Inter-Garrison Road and Eastside Parkway intersection will encourage through traffic movement around the California State University Monterey Bay (CSUMB) campus in order to protect the campus from regional traffic as noted in the CSUMB Master Plan document. The 37% of trips that would access the site from the north via 7th Avenue /

8th Avenue from Blanco Road and Imjin Road under Existing plus Project conditions would shift onto Eastside Parkway.

The resulting trip distribution pattern is shown on Figure 4.10-5: Cumulative Year (2035) Project Trip Distribution.

Cumulative plus Project Traffic Volumes

Project trip assignment volumes are shown on Figure 4.10-6: Cumulative Year (2035) Project Trip Assignment. The Project would generate the same number of trips as under Existing plus Project conditions. Therefore, the Project generated trips were added to the Cumulative Year (2035) No Project conditions traffic volumes to develop traffic volumes for Cumulative Year (2035) plus Project conditions. The resulting volumes are shown on Figure 4.10-7: Cumulative plus Project Traffic Volumes.

Cumulative Project Impacts and Mitigation Measures

Cumulative and Cumulative plus Project Conditions Intersection Level of Service Analysis

The results of the LOS calculations under Cumulative Year (2035) plus Project conditions are summarized in Table 4.10-1: Cumulative and Cumulative plus Project Intersection Levels of Service. Under Cumulative Year (2035) conditions without the project traffic, seven study intersections are forecast to operate at an unacceptable level of service. With the addition of project trips under the Cumulative plus Project scenario, the same seven intersections would continue to operate at an unacceptable LOS. No additional intersections are forecast to operate at an unacceptable LOS with the addition of project trips. The proposed project would have a cumulatively significant impact at the following seven intersections:

- #21: 2nd Avenue and Inter-Garrison Road
- #32: Reservation Road and Inter-Garrison Road
- #36: General Jim Moore Boulevard and Coe Avenue
- #39: General Jim Moore Boulevard and Broadway Avenue
- #41: Fremont Avenue and Broadway Avenue
- #45: Reservation Road and Davis Road
- #48: Blanco Road and Davis Road

All other study intersections are forecast to operate at an acceptable level of service under Cumulative Year (2035) plus Project conditions during both the AM and PM peak hours. Traffic signal warrant worksheets for Cumulative plus Project conditions are provided in Appendix H.

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187 **Table 4.10-1: Cumulative and Cumulative Plus Project Intersection Level of Service**

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
1	8th Avenue and Gigling Road	Stop Sign (SSS)	Seaside	C	Overall	4.7	A	3.1	A	5.2	A	4.9	A
				E	*Worst Approach*	*9.6*	A	*9.5*	A	*21.2*	C	*21.9*	C
2	Gigling Road and 7th Avenue	Signal	Seaside	C	Overall	0.8	A	0.6	A	0.8	A	0.8	A
3	Gigling Road and 6th Avenue	Signal	Seaside	C	Overall	8.5	A	11.5	B	6.5	A	9.5	A
4	Gigling Road and Parker Flats Road	Signal	Seaside	C	Overall	8.6	A	14.1	B	7.8	A	13.1	B
5	Gigling Road and Malmedy Road	Stop Sign (SSS)	Seaside	C	Overall	8.0	A	6.6	A	9.0	A	7.7	A
6	Gigling Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	21.3	C	21.2	C	21.4	C	22.6	C
7	8th Avenue and Colonel Durham Street	Stop Sign (SSS)	County	C	Overall	1.1	A	2.2	A	0.8	A	1.6	A
				E	*Worst Approach*	*10.8*	B	*10.4*	B	*13.5*	B	*12.9*	B
8	Colonel Durham Street and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	5.2	A	6.1	A	5.3	A	5.8	A
				E	*Worst Approach*	*10.5*	B	*10.0*	A	*13.0*	B	*11.6*	B
9	Colonel Durham Street and Malmedy Road	Stop Sign (AWS)	Seaside	C	Overall	8.2	A	9.4	A	9.6	A	11.3	B
10	Lightfighter Drive and General Jim Moore Boulevard	Signal	Seaside	C	Overall	22.1	C	30.9	C	23.6	C	33.5	C
11	Lightfighter Drive and 2nd Avenue	Signal	Seaside	C	Overall	18.4	B	29.7	C	19.1	B	31.7	C
12	Lightfighter Drive and 1st Avenue	Signal	Seaside	C	Overall	26.2	C	30.6	C	27.8	C	32.3	C
13	8th Avenue and Butler Street	Stop Sign (SSS)	County	C	Overall	0.2	A	0.6	A	0.3	A	0.5	A
				E	*Worst Approach*	*10.1*	B	*9.8*	A	*11.1*	B	*11.0*	B
14	8th Avenue and B street	Stop Sign (SSS)	County	C	Overall	0.2	A	0.6	A	0.2	A	0.4	A
				E	*Worst Approach*	*10.3*	B	*10.4*	B	*11.7*	B	*12.4*	B
15	Inter-Garrison Road and 8th Avenue	Signal	County	C	Overall	9.8	A	15.1	B	16.5	B	16.7	B
16	7th Avenue and Inter-Garrison Road	Roundabout	Marina	D	Overall	8.6	A	12.2	B	12.4	B	20.1	C
17	6th Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	9.5	A	10.2	B	10.0	A	10.7	B
18	General Jim Moore	Stop Sign (AWS)	Marina	D	Overall	14.8	B	16.7	C	14.8	B	16.7	C

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
	Boulevard and Divarty Street												
19	General Jim Moore Boulevard (4th Avenue) and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	8.8	A	10.2	B	9.0	A	10.6	B
20	2nd Avenue and Divarty Street	Stop Sign (AWS)	Marina	D	Overall	17.4	C	14.1	B	17.4	C	14.1	B
21	2nd Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	**67.3**	**F**	**51.1**	**F**	**73.1**	**F**	**54.9**	**F**
22	Imjin Road and 8th Street	Roundabout	Marina	D	Overall	10.6	B	9.9	A	16.6	C	13.9	B
23	5th Avenue and 8th Street	Stop Sign (AWS)	Marina	D	Overall	20.2	C	21.1	C	24.9	C	23.6	C
24	2nd Avenue and 8th Street	Signal	Marina	D	Overall	27.7	C	27.8	C	29.3	C	28.6	C
25	Imjin Parkway and Imjin Road	Signal	Marina	D	Overall	10.6	B	9.1	A	12.4	B	10.8	B
26	Imjin Parkway and California Avenue	Signal	Marina	D	Overall	23.1	C	15.9	B	23.0	C	15.9	B
27	Imjin Parkway and 2nd Avenue	Signal	Marina	D	Overall	18.9	B	22.3	C	19.1	B	22.4	C
28	Imjin Parkway and Abrams Drive	Signal	Marina	D	Overall	17.4	B	17.0	B	18.0	B	17.7	B
29	Inter-Garrison Road and Abrams Drive	Signal	County	C	Overall	23.7	C	17.7	B	23.3	C	18.4	B
30	Inter-Garrison Road and Schoonover Road	Stop Sign (SSS)	*County*	*C*	*Overall*	*8.9*	A	*7.6*	A	*8.8*	A	*7.8*	A
				E	*Worst Approach*	*8.9*	A	*8.4*	A	*9.0*	A	*8.5*	A
31	Reservation Road and Imjin Road	Signal	Marina	D	Overall	21.3	C	23.5	C	21.4	C	23.6	C
32	Reservation Road and Inter-Garrison Road	Signal	County	D	Overall	**>200**	**F**	**>200**	**F**	**>200**	**F**	**>200**	**F**
33	Reservation Road and East Garrison Road	Signal	County	D	Overall	10.5	B	6.4	A	20.0	B	7.7	A
34	Normandy Road and Parker Flats Road	Stop Sign (SSS)	Seaside	C	Overall	10.2	B	7.2	A	8.4	A	8.8	A
				E	*Worst Approach*	6.2	A	9.7	A	*11.7*	B	*10.9*	B
35	Normandy Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	17.8	B	14.7	B	18.5	B	15.5	B
36	Coe Avenue and General Jim Moore Boulevard	Signal	Seaside	C	Overall	**>200**	**F**	**84.3**	**F**	**>200**	**F**	**126.1**	**F**
37	SR-1 NB Ramps and Imjin	Signal	Caltrans	C/D	Overall	0.7	A	2.3	A	0.8	A	2.3	A

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
	Parkway												
38	SR-1 SB Ramps and Imjin Parkway	Signal	Caltrans	C/D	Overall	19.8	B	13.5	B	21.5	C	15.1	B
39	Broadway Avenue and General Jim Moore Boulevard	Signal	Seaside	C	Overall	**60.2**	**E**	15.1	B	**79.6**	**E**	17.8	B
40	Broadway Avenue and Noche Buena Street	Signal	Seaside	C	Overall	28.9	C	22.7	C	32.0	C	23.0	C
41	Broadway Avenue and Fremont Boulevard	Signal	Seaside	C	Overall	**58.5**	**E**	**37.3**	**D**	**60.7**	**E**	**38.8**	**D**
42	Highway 218 and SR-1 NB Ramps	Signal	Caltrans	C/D	Overall	18.0	B	33.2	C	18.0	B	33.6	C
43	Highway 218 and SR-1 SB Ramps	Signal	Caltrans	C/D	Overall	23.8	C	19.9	B	24.0	C	20.0	B
44	Highway 68 and Highway 218	Signal	Caltrans	C/D	Overall	18.6	B	15.4	B	19.1	B	16.1	B
45	Reservation Road and Davis Road	Signal	Caltrans	C/D	Overall	**305.2**	**F**	43.0	D	**368.5**	**F**	**64.9**	**E**
46	Highway 68 WB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	28.5	C	43.5	D	34.0	C	51.8	D
47	Highway 68 EB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	29.2	C	19.1	B	33.3	C	19.7	B
48	Blanco Road and Davis Road	Signal	Salinas	D	Overall	**171.8**	**F**	**77.0**	**E**	**>200**	**F**	**102.4**	**F**
49	SR-1 NB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	14.4	B	35.5	D	15.5	B	37.2	D
50	SR-1 SB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	30.8	C	27.4	C	31.3	C	27.7	C
51	Eastside Parkway and Inter-Garrison Road	Signal	County	D	Overall	15.3	B	12.0	B	36.0	D	15.1	B
52	Eastside Parkway and Gigling Road / Monterey Downs Road	Signal	County	D	Overall	8.7	A	9.4	A	32.6	C	30.6	C
53	Eastside Parkway and Parker Flats Road	Signal	County	D	Overall	11.0	B	11.5	B	22.1	C	18.1	B
54	Eastside Parkway and	Stop Sign (SSS)	County	C	Overall	0.6	A	0.3	A	0.8	A	0.7	A
				E	*Worst*	*16.1*	C	*11.1*	B	*24.6*	C	*23.9*	C

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
	Eucalyptus Road / Parker Flats Cut-Off				*Approach*								
101	Driveway 1 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.0	A	0.0	A
				E	*Worst Approach*					*7.2*	A	*26.3*	D
102	Driveway 2 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.0	A	0.6	A
				E	*Worst Approach*					*28.2*	D	*25.1*	D
103	Driveway 3 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.0	A	0.4	A
				E	*Worst Approach*					*22.5*	C	*38.6*	E
104	Driveway 4 / Eastside Parkway	Signal	County	D	Overall	Project Driveway Intersection				31.9	C	18.8	B
105	Driveway 5 and 8th Avenue	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.6	A	1.7	A
				E	*Worst Approach*					*12.5*	B	*11.4*	B
106	Driveway 6 and Gigling Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				1.6	A	1.7	A
				E	*Worst Approach*					*14.3*	B	*14.6*	B
107	Driveway 7 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				2.2	A	1.7	A
				E	*Worst Approach*					*11.3*	B	*11.8*	B
108	Driveway 8 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				2.4	A	2.5	A
				E	*Worst Approach*					*10.9*	B	*11.2*	B
109	Driveway 9 and Parkers Flats Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.1	A	0.4	A
				E	*Worst Approach*					*8.9*	A	*9.3*	A
110	Driveway 10 and Parker Flats Cut-Off	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.1	A	1.0	A
				E	*Worst Approach*					*7.3*	A	*8.7*	A
111	Driveway 11 and Parker Flats Cut-Off	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				9.1	A	9.1	A
				E	*Worst Approach*					*9.1*	A	9.2	A

Notes:

1. Analysis performed using HCM 2000 methodologies
2. Delay indicated in seconds
3. Signalized and all-way stop controlled intersection levels of service and delays reported are for overall average delay.
4. Side-street stop controlled intersections levels of service and delays reported are for overall average delay and worst approach movement delay.

Abbreviations:

Juris. = Jurisdiction

SSS = Side-Street Stop Control
AWS = All-Way Stop Control

Source: RBF Consulting 2013

Cumulative and Cumulative plus Project Highway Mainline Level of Service Analysis

Table 4.10-2: Cumulative and Cumulative plus Project Conditions Freeway Mainline LOS Operations shows a summary of the weekday AM and PM peak hour freeway mainline operations under Cumulative and Cumulative plus Project conditions. Detailed HCM

mainline analysis worksheets are included in Appendix H. According to the analysis, eight freeway mainline segments would operate at an unacceptable LOS E or worse during either the AM or PM peak hours under Cumulative plus Project conditions. The mainline segments that would operate at an unacceptable LOS are indicated by the gray highlighted cells in Table 4.10-2: Cumulative and Cumulative plus Project Conditions Freeway Mainline LOS Operations.

Cumulative and Cumulative plus Project Highway On-Ramp Level of Service Analysis

Table 4.10-3: Cumulative and Cumulative plus Project Conditions Freeway On-Ramp LOS Operations compares weekday AM and PM peak hour freeway on-ramp operations under Cumulative and Cumulative plus Project conditions. Detailed HCM mainline analysis worksheets are included in Appendix H. According to the analysis, 22 freeway on-ramps would operate at an unacceptable LOS E or F during either the AM or PM peak hours under Cumulative Year (2035) plus Project conditions. The SR-1 on-ramps that would operate at an unacceptable LOS are indicated by the gray highlighted cells in Table 4.10-3: Cumulative and Cumulative plus Project Conditions Freeway On-Ramp LOS Operations.

208 **Table 4.10-2: Cumulative and Cumulative Plus Project Conditions Freeway Mainline Segment LOS Operations**

Freeway	Segment	Direction	# of Lanes	Cumulative 2035 Without Project								Cumulative 2035 With Project							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
				Volume	LOS	Speed	D	Volume	LOS	Speed	D	Volume	LOS	Speed	D	Volume	LOS	Speed	D
SR-156	Hwy 183 to	NB	2	1,782	B	70.0	14.7	2,568	C	69.8	21.2	1,797	B	70.0	14.8	2,615	C	69.8	21.7
	Castroville Blvd	SB	2	2,783	C	69.4	23.2	1,166	A	70.0	9.6	2,828	C	69.2	23.6	1,195	A	70.0	9.9
	Hwy 1 to	NB	2	1,631	B	70.0	13.5	2,394	C	70.0	19.8	1,652	B	70.0	13.6	2,437	C	70.0	20.1
	Hwy 183	SB	2	2,841	C	69.2	23.7	1,077	A	70.0	8.9	2,896	C	69.0	24.2	1,107	A	70.0	9.1
SR-1	Hwy 156 to	NB	2	3,661	D	62.4	33.9	3,598	D	63.2	32.9	3,719	D	61.5	34.9	3,645	D	62.6	33.7
	Molera Rd / Nashua Rd	SB	2	**3,986**	**E**	**56.9**	**40.5**	2,507	C	69.9	20.7	**4,036**	**E**	**55.9**	**41.7**	2,557	C	69.9	21.1
	Molera Rd / Nashua Rd	NB	2	3,048	C	68.3	25.8	3,254	D	67.3	27.4	3,111	D	67.9	26.5	3,304	D	67.0	28.0
	to Del Monte Blvd North	SB	2	**3,787**	**E**	**60.4**	**36.2**	2,078	B	70.0	16.8	**3,841**	**E**	**59.6**	**37.3**	2,131	B	70.0	17.3
	Del Monte Blvd North to	NB	2	2,821	C	69.4	23.0	3,006	C	68.8	24.8	2,884	C	69.2	23.6	3,057	C	68.5	25.3
	Reservation Rd	SB	2	3,477	D	65.4	30.1	1,934	B	70.0	15.7	3,531	D	64.8	30.9	1,988	B	70.0	16.1
	Reservation Rd to	NB	2	2,406	C	70.0	19.5	3,301	D	67.0	27.9	2,488	C	70.0	20.2	3,368	D	66.4	28.7
	Del Monte Blvd South (1)	SB	2	3,763	D	61.9	34.4	1,741	B	70.0	14.1	**3,833**	**E**	**60.9**	**35.7**	1,812	B	70.0	14.7
	Del Monte Blvd South (1)	NB	3	2,897	B	70.0	15.6	4,335	C	69.2	23.7	2,993	B	70.0	16.2	4,414	C	69.0	24.2
	to Imjin Pkwy	SB	3	5,139	D	65.9	29.5	2,308	B	70.0	12.5	5,222	D	65.4	30.2	2,392	B	70.0	12.9
	Imjin Pkwy to	NB	3	2,947	B	70.0	15.9	5,394	D	64.1	31.8	2,998	B	70.0	16.2	5,436	D	63.8	32.2
	Lightfighter Dr	SB	3	**6,150**	**E**	**56.2**	**41.3**	2,799	B	70.0	15.1	**6,194**	**E**	**55.6**	**42.1**	2,844	B	70.0	15.3
	Lightfighter Dr to	NB	3	3,314	B	70.0	17.9	5,527	D	63.0	33.1	3,398	C	70.0	18.3	5,536	D	62.9	33.2
	Monterey Road (Future)	SB	3	**6,140**	**E**	**56.3**	**41.2**	3,261	B	70.0	17.6	**6,237**	**E**	**55.0**	**42.8**	3,341	C	70.0	18.0
	Monterey Road (Future) to	NB	3	3,339	C	70.0	18.0	**5,701**	**E**	**61.4**	**35.1**	3,450	C	70.0	18.6	**5,814**	**E**	**60.2**	**36.5**
	Fremont Blvd	SB	3	**6,151**	**E**	**56.2**	**41.4**	3,353	C	70.0	18.1	**6,280**	**E**	**54.4**	**43.6**	3,459	C	70.0	18.7
	Fremont Blvd to	NB	2	2,596	B	70.0	13.9	4,839	D	67.5	27.1	2,696	B	70.0	14.5	4,940	D	67.0	27.8
	Hwy 218	SB	2	5,058	D	66.5	28.6	2,707	B	70.0	14.6	5,174	D	65.8	29.5	2,802	B	70.0	15.1
	Hwy 218 to	NB	2	2,531	C	69.9	20.4	**3,962**	**E**	**58.8**	**38.2**	2,627	C	69.8	21.2	**4,059**	**E**	**57.0**	**40.4**
	Del Monte Blvd South (2)	SB	2	**4,379**	**F**	-	-	3,118	C	68.2	25.9	**4,491**	**F**	-	-	3,209	D	67.6	26.9
	Del Monte Blvd South (2) to	NB	2	2,531	C	69.9	20.4	**3,935**	**E**	**59.6**	**37.3**	2,605	C	69.9	21.0	**3,980**	**E**	**58.8**	**38.2**
	Casa Verde Way	SB	2	3,728	D	62.7	33.5	2,541	C	69.9	20.5	**3,814**	**E**	**61.4**	**35.0**	2,584	C	69.9	20.8
	Casa Verde Way to	NB	2	2,479	C	70.0	20.0	3,526	D	65.1	30.5	2,551	C	69.9	20.6	3,570	D	64.6	31.2
	Hwy 68 East	SB	2	3,585	D	64.4	31.4	2,571	C	69.9	20.7	3,668	D	63.5	32.6	2,613	C	69.9	21.1
	Hwy 68 East to	NB	2	3,353	D	66.7	28.4	**4,538**	**F**	-	-	3,423	D	66.1	29.2	**4,581**	**F**	-	-
	Fremont St	SB	2	**4,666**	**F**	-	-	3,410	D	66.2	29.0	**4,746**	**F**	-	-	3,451	D	65.8	29.6
	Fremont St to	NB	2	2,360	C	70.0	19.0	3,390	D	66.4	28.8	2,401	C	70.0	19.3	3,433	D	66.0	29.3
	Munras Ave/Soledad Dr	SB	2	**3,916**	**E**	**59.9**	**36.9**	2,370	C	70.0	19.1	**3,962**	**E**	**59.1**	**37.8**	2,411	C	70.0	19.4
	Munras Ave/Soledad Dr to	NB	2	2,849	C	69.4	23.2	3,410	D	66.2	29.0	2,881	C	69.3	23.4	3,442	D	65.9	29.5
	Hwy 68 West	SB	2	**4,043**	**E**	**57.7**	**39.5**	2,779	C	69.6	22.5	**4,079**	**E**	**57.0**	**40.4**	2,811	C	69.5	22.8

Notes:

1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service, D = Density (Passenger Cars / Mile / Lane), NB = Northbound, SB = Southbound
3. Speed is provided in Miles Per Hour (MPH)
4. Assumed Passenger-Car Equivalent (PCE) value of 1.5

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210 **Table 4.10-3: Cumulative and Cumulative Plus Project Conditions Freeway On-Ramp LOS Operations**

SR-1 On-Ramp	Direction	Cumulative 2035 Without Project								Cumulative 2035 With Project							
		AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
		Volume	LOS	Speed	Density	Volume	LOS	Speed	Density	Volume	LOS	Speed	Density	Volume	LOS	Speed	Density
Molera Rd / Nashua Rd	NB	**745**	**E**	**54.0**	**38.1**	**438**	**E**	**54.0**	**37.7**	**745**	**E**	**53.0**	**38.6**	**438**	**E**	**54.0**	**38.1**
	SB	**88**	**E**	**53.0**	**38.1**	117	C	61.0	22.7	**92**	**E**	**53.0**	**38.6**	120	C	61.0	23.2
Del Monte Blvd North	NB	256	D	58.0	31.6	265	D	57.0	33.4	256	D	58.0	32.1	265	D	57.0	33.9
	SB	**13**	**E**	**56.0**	**35.2**	23	C	61.0	21.3	**13**	**E**	**56.0**	**35.7**	24	C	61.0	21.8
Reservation Rd	NB	675	D	59.0	28.4	198	D	59.0	30.3	675	D	59.0	29.0	198	D	59.0	30.8
	SB	**413**	**E**	**54.0**	**36.9**	297	B	61.0	19.1	**429**	**E**	**54.0**	**37.5**	314	B	61.0	19.7
Del Monte Blvd South (1)	NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB	**1,375**	**F**	**49.0**	**41.6**	567	C	60.0	20.6	**1,388**	**F**	**47.0**	**42.5**	580	C	60.0	21.3
Imjin Pkwy	NB	417	C	60.0	22.9	263	D	57.0	34.3	462	C	60.0	23.7	300	D	56.0	34.9
	SB	**1,724**	**F**	**51.0**	**38.4**	963	B	62.0	19.4	**1,724**	**F**	**50.0**	**38.6**	963	B	62.0	19.6
Lightfighter	NB	301	C	60.0	21.5	**628**	**E**	**55.0**	**36.5**	352	C	60.0	21.9	**670**	**E**	**55.0**	**36.9**
	SB	**311**	**E**	**51.0**	**40.6**	546	C	60.0	23.9	**408**	**F**	**50.0**	**41.4**	626	C	60.0	24.5
New Interchange	NB	125	C	60.0	23.1	**282**	**E**	**56.0**	**35.4**	125	C	60.0	23.7	**282**	**E**	**55.0**	**36.1**
	SB	**1,062**	**F**	**37.0**	**46.9**	167	C	60.0	24.4	**1,094**	**F**	**34.0**	**47.8**	193	C	60.0	25.1
Fremont Blvd	NB	1,030	C	59.0	25.8	**1,967**	**F**	**49.0**	**40.9**	1,042	C	59.0	26.4	**1,979**	**F**	**48.0**	**41.5**
	SB	**1,142**	**F**	**28.0**	**48.8**	293	D	59.0	28.4	**1,142**	**F**	**23.0**	**49.8**	293	D	59.0	29.3
Hwy 218 (Canyon Del Rey Blvd)	NB	616	C	60.0	27.1	**1,389**	**F**	**35.0**	**46.5**	620	C	59.0	28.0	**1,393**	**F**	**32.0**	**47.4**
	SB	**595**	**F**	**49.0**	**38.9**	19	D	60.0	28.0	**595**	**F**	**46.0**	**39.8**	19	D	60.0	28.8
Del Monte Blvd South (2)	NB	32	B	65.0	17.9	49	D	57.0	30.6	54	B	65.0	18.8	101	D	56.0	31.4
	SB	**713**	**E**	**55.0**	**35.9**	661	C	60.0	25.4	**713**	**E**	**54.0**	**36.6**	661	C	60.0	25.8
Casa Verde Wy	NB	215	C	60.0	26.0	**576**	**E**	**53.0**	**38.2**	217	C	60.0	26.6	**577**	**E**	**52.0**	**38.6**
	SB	195	D	59.0	30.9	241	C	63.0	21.9	195	D	58.0	31.7	241	C	63.0	22.3
Hwy 68 East	NB	118	C	60.0	25.5	163	D	56.0	34.7	120	C	60.0	26.1	164	D	56.0	35.1
	SB	**1,302**	**F**	**44.0**	**38.5**	966	C	61.0	27.5	**1,302**	**F**	**42.0**	**39.2**	966	C	60.0	27.9
Fremont St	NB	1,394	C	60.0	27.7	**1,721**	**F**	**47.0**	**38.0**	1,423	D	60.0	28.3	**1,721**	**F**	**46.0**	**38.4**
	SB	**621**	**E**	**52.0**	**39.8**	311	C	59.0	26.3	**621**	**E**	**51.0**	**40.2**	311	C	59.0	26.6
Munras Ave/Soledad Dr	NB	454	C	59.0	26.1	**594**	**E**	**56.0**	**35.1**	463	C	59.0	26.5	605	**E**	**56.0**	**35.5**
	SB	762	D	54.0	34.4	837	C	62.0	23.2	**762**	**F**	**54.0**	**34.7**	837	C	62.0	23.5
Hwy 68 West	NB	994	D	58.0	30.1	**1,344**	**E**	**55.0**	**36.1**	1,007	D	58.0	30.4	**1,357**	**E**	**55.0**	**36.4**
	SB	593	D	58.0	31.3	519	C	60.0	24.6	593	D	58.0	31.5	519	C	60.0	24.8

Notes:
1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service
3. Speed is provided in Miles Per Hour (MPH)
4. Density = Passenger Cars / Mile / Lane

5. NB = Northbound, SB = Southbound
6. Assumed Passenger-Car Equivalent (PCE) value of 1.5

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Cumulative and Cumulative plus Project Roadway Segment Level of Service Operations

As shown in Table 4.10-4: Cumulative and Cumulative plus Project Roadway Segment LOS, one roadway segment would operate at an unacceptable LOS. The segment of Reservation between Inter-Garrison Road and Davis Road would operate at LOS D under Cumulative Year (2035) No Project Conditions and operate at an unacceptable LOS E under Cumulative Year (2035) plus Project Conditions

Table 4.10-4: Cumulative and Cumulative Plus Project Roadway Segment LOS

Roadway	Location	Jurisdiction	Roadway Type	# of Lanes	Cumulative		Cumulative Plus Project	
					ADT	LOS	ADT	LOS
Davis Rd	Blanco Rd / Reservation Rd	MC	4-Lane Undivided Arterial (w/ Left-Turn Lane)	4	29,900	C	33,800	C
Reservation Rd	Inter-Garrison Rd / East Garrison Rd	MC	4-Lane Expressway	4	40,500	D	**46,010**	**E**
	East Garrison Rd / Davis Rd	MC		4	41,200	D	**46,580**	**E**
Gigling Rd	Monterey Downs Rd / 8th Ave	MC / FORA	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	2,200	A	10,892	A
	8th Ave / 7th Ave	MC / FORA			2,600	A	8,330	A
	7th Ave / 6th Ave	Seaside / FORA			3,200	A	6,762	A
	6th Ave / Parker Flats Rd	Seaside / FORA			3,600	A	6,770	A
	Parker Flats Rd / Malmedy Rd	Seaside / FORA			6,000	A	8,500	A
	Malmedy Rd / Gen. Jim Moore Blvd	Seaside / FORA			6,200	A	7,530	A
7th	Gigling Rd / Colonel Durham St	Seaside / FORA	2-Lane Collector	2	700	A	2,861	A
	Colonel Durham St / Inter-Garrison Rd	Seaside / FORA			1,700	A	2,920	A
8th	Gigling Rd / Colonel Durham St	MC / FORA	2-Lane Collector	2	3,200	A	6,575	B
	Colonel Durham St / Inter-Garrison Rd	MC / FORA			3,600	A	6,354	B
Inter-Garrison Rd	Reservation Rd / Eastside Pkwy	MC / FORA	4-Lane Expressway	4	33,100	E	39,818	F
Eastside Parkway	Inter-Garrison Rd / Driveway 1	MC / FORA	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	17,800	A	26,105	C
	Driveway 1 / Driveway 2	MC / FORA			17,800	A	26,136	C
	Driveway 2 / Driveway 3	MC / FORA			17,800	A	26,198	C
	Driveway 3 / Driveway 4	MC / FORA			17,800	A	26,973	C
	Driveway 5 / Gigling Rd	MC / FORA			17,800	A	27,936	C
	Gigling Rd / Normandy Rd	MC / FORA			16,000	A	22,323	B
	Normandy Rd / Gen. Jim Moore Rd	Seaside / FORA			15,000	A	17,430	A
Broadway Avenue	West of Gen Jim Moore	Seaside	4-Lane Undivided Arterial (w/ Left-Turn Lane)	4	18,700	B	20,329	C
	East of Nocha Buena	Seaside		4	20,600	C	21,870	C
	West of Nocha Buena	Seaside		4	22,400	D	23,483	D
	East of Fremont	Seaside		4	22,900	D	23,725	D
	West of Fremont	Seaside		4	22,400	D	22,633	D
Gen. Jim Moore	Eastside Pkwy / Broadway	Seaside	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	20,400	A	22,834	B

Source: RBF Consulting 2013
Analysis performed using HCM 2000 Methodologies
Notes / Abbreviations:
ADT = Average Daily Traffic
MC = Monterey County

Significant Cumulative Impacts – Level of Service Operations

Cumulative Intersection Impacts

Impact 4.10-1: The Project would result in additional trips and increased delays at intersections operating at an unacceptable LOS under Cumulative Year (2035) No Project conditions. The addition of project generated trips would result in a **potentially significant impact**. The proposed project would have a cumulatively considerable contribution to a decline in LOS at eight of the study intersections. The affected intersections and recommended improvements necessary to achieve an acceptable level of service are as follows:

21. *2nd Avenue and Inter-Garrison Road:* Install a traffic signal

#32. *Inter-Garrison Road and Reservation Road:* Widen and restripe the intersection to include one northbound left lane turn lane and two northbound right turn lanes, two westbound left turn lanes, and two westbound through lanes.

#36. *General Jim Moore Boulevard and Coe Avenue:* Widen and restripe the intersection to include one northbound left turn lane, two northbound through lanes, one eastbound left turn lane, one eastbound shared through-right right lane, one eastbound right turn lane, two westbound left turn lanes, and one westbound shared through-right turn lane.

#39. *General Jim Moore Boulevard and Broadway Avenue:* Widen and restripe the intersection to include one southbound through lane, one southbound shared through-right lane, and one southbound right turn lane.

#41. *Fremont Boulevard and Broadway Avenue:* To mitigate this operational deficiency to within the required standards would require widening the eastbound and westbound approach to two through lanes in each direction. This mitigation is not considered feasible due to existing right-of-way constraints. This operational deficiency should be considered a ***significant and unavoidable impact***.

#45. *David Road and Reservation Road:* Add a through lane on the westbound Reservation Road approach. Add additional left turn lane on the eastbound Reservation Road approach. Add additional right turn lane and implement "free" right turns for vehicles turning right into westbound Reservation Road from southbound Davis Road.

#48. *Davis Road and Blanco Road:* Add a left turn lane, through lane, and right turn lane on the southbound David Road approach. Add two through lanes on the northbound Davis Road approach, so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right turn lane). Add two through lanes on the eastbound Blanco Road approach so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right lane). Add a left turn lane, a through lane, and a right turn lane on the westbound Blanco Road approach, utilize "overlap" phasing for right turns from westbound Blanco Road approach and southbound Davis Road approach.

Table 4.10-5: Cumulative Year (2035) Plus Project Intersection LOS (without and with Mitigation Measures) summarizes the forecast LOS with implementation of the recommended mitigation measures. Implementation of Mitigation Measure 3.13-1 and 4.10-1 would reduce this impact to a ***less than significant*** level for intersections #21, #32, #36, #39, #45 and #48. Impacts at intersection #41 would be considered a ***significant unavoidable impact***.

Table 4.10-5: Cumulative Year (2035) plus Project Intersection LOS (Without and With Mitigation Measures)

#	Intersection:	Juris.	LOS Std.	Cumulative Plus Project Without Mitigation				Cumulative Plus Project With Mitigation			
				AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
				Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
21	2nd Avenue and Inter-Garrison Road	Marina	D	**73.1**	**F**	**54.9**	**F**	4.4	A	9.0	A
32	Reservation Road and Inter-Garrison Road	County	D	**>200**	**F**	**>200**	**F**	17.7	B	19.4	B
36	Coe Avenue and General Jim Moore Boulevard	Seaside	C	**>200**	**F**	**126.1**	**F**	27.3	C	14.6	B
39	Broadway Avenue and General Jim Moore Boulevard	Seaside	C	**79.6**	**E**	17.8	B	24.3	C	15.6	B
41	Broadway Avenue and Fremont Boulevard	Seaside	C	**60.7**	**E**	**38.8**	**D**	No Feasible Mitigation			
45	Reservation Road and Davis Road	Caltrans	C/D	**368.5**	**F**	**64.9**	**E**	27.9	C	22.2	C
48	Blanco Road and Davis Road	Salinas	D	**>200**	**F**	**102.4**	**F**	34.4	C	27.9	C

Cumulative SR-1 Mainline and On-Ramp Impacts

Impact 4.10-2: Increased Trips to SR-1 Mainline Freeway Segments and On-Ramp LOS: The proposed project would result in additional trips and increased delays at SR-1 freeway mainline and on-ramps already operating at an unacceptable LOS D or worse under Cumulative plus Project conditions. This is considered a **potentially significant impact**. The affected mainline freeway segments and on-ramp locations include:

Impact SR-1 Freeway Mainline Segments:

- SR-1 Southbound through Marina between Molera Road and Del Monte Boulevard (AM Peak Hour)
- SR-1 Southbound in Marina between Reservation Road and Del Monte Boulevard (AM Peak Hour)
- SR-1 Southbound in Marina and Seaside between Imjin Parkway and Fremont Boulevard (AM Peak Hour)
- SR-1 Southbound in Seaside and Monterey between Highway 218 and Casa Verde Way (AM Peak Hour)
- SR-1Southbound in Monterey between SR-68 East and SR-68 West (AM Peak Hour)
- SR-1 Northbound in Monterey between Fremont Street and SR-68 East (PM Peak Hour)
- SR-1 Northbound in Monterey and Seaside between Casa Verde Way and Highway 218 (PM Peak Hour)
- SR-1 Northbound in Seaside between Fremont Boulevard and the Future interchange at Monterey Road (PM Peak Hour)

Impacted SR-1 On-Ramps:

- SR-1 & Molera Road / Nashua Road Northbound On-Ramp (AM and PM Peak Hours)
- SR-1 & Molera Road / Nashua Road Southbound On-Ramp (AM Peak Hour)
- SR-1 & Del Monte Boulevard north of Marina Southbound On-Ramp (AM Peak Hour)
- SR-1 & Reservation Road north of Marina Southbound On-Ramp (AM Peak Hour)

- SR-1 & Del Monte Boulevard south Marina Southbound On-Ramp (AM Peak Hour)
- SR-1 & Imjin Parkway Southbound On-Ramp (AM Peak Hour)
- SR-1 & Lightfighter Drive Southbound On-Ramp (AM Peak Hour)
- SR-1 & Lightfighter Drive Northbound On-Ramp (PM Peak Hour)
- SR-1 & Monterey Road (New Interchange) Southbound On-Ramp (AM Peak Hour)
- SR-1 & Monterey Road (New Interchange) Northbound On-Ramp (PM Peak Hour)
- SR-1 & Fremont Boulevard in Seaside Southbound On-Ramp (AM Peak Hour)
- SR-1 & Fremont Boulevard in Seaside Northbound On-Ramp (PM Peak Hour)
- SR-1 & SR-218 Southbound On-Ramp (AM Peak Hour)
- SR-1 & SR-218 Northbound On-Ramp (PM Peak Hour)
- SR-1 & Del Monte Boulevard in Monterey Southbound On-Ramp (AM Peak Hour)
- SR-1 & Casa Verde Way Northbound On-Ramp (PM Peak Hour)
- SR-1 & SR-68 East Southbound On-Ramp (AM Peak Hour)
- SR-1 & Fremont Street in Monterey Southbound On-Ramp (AM Peak Hour)
- SR-1 & Fremont Street in Monterey Northbound On-Ramp (PM Peak Hour)
- SR-1 & Munras Avenue Southbound On-Ramp (AM Peak Hour)
- SR-1 & Munras Avenue Northbound On-Ramp (PM Peak Hour)
- SR-1 & SR-68 Northbound On-Ramp (PM Peak Hour)

To achieve acceptable operations, SR-1 would need to be widened from four to five lanes in the southbound direction between Molera Road / Nashua Road and SR-68 West and in the northbound direction between SR-68 East Drive and Monterey Road. However, the feasibility of widening SR-1 to more than four lanes in any one direction is uncertain, as the ability to obtain the necessary right-of-way is limited. Therefore, the Project would represent a **significant unavoidable impact** along these freeway segments and on-ramp locations. Payment of FORA fees would mitigate the proposed project's cumulative impacts towards regional improvements on SR-1.

Cumulative Roadway Segment Impacts

Impact 4.10-3: Unacceptable Roadway Segment LOS. The proposed project would result in additional trips on roadway segments forecast to operate at an unacceptable LOS D or worse under Cumulative Year (2035) plus

Project conditions. This is considered a **potentially significant impact**. The affected roadway segments include:

- Reservation between Inter-Garrison Road and Davis Road: this segment is forecast to operate at LOS D under Cumulative Conditions and LOS E with the addition of project traffic under Cumulative Year (2035) plus Project Conditions

The project is forecast to result in a cumulative impact on this segment based on the ratio of volume to capacity. Although this planning methodology can effectively identify potential capacity issues, segment operations are typically defined by the operations of signalized intersections when ADT exceeds LOS D thresholds. This standard guideline is best described in the roadway/arterial level of service methodology contained in the 2000 Highway Capacity Manual (Transportation Research Board, 2000). The intersections of Inter-Garrison Road / Reservation Road, East Garrison Road / Reservation Road, and Davis Road / Blanco Road are forecast to operate at acceptable levels of service with the recommended mitigation defined in this EIR. The acceptable operating conditions indicate that the segment capacity will be sufficient to maintain acceptable roadway operations without adding additional lanes on Reservation Road. Based on the intersection levels of service along the corridor, the forecast roadway segment impact would be reduced to a **less than significant** level.

Mitigation Measures:

MM 4.10-1 Prior to issuance of building permits, the project applicant shall submit to the City of Seaside evidence of payment of the fees listed below (fair share costs for project-level impacts based on estimated 2013 project costs to be adjusted annually on July 1 by the Engineering Record's Construction Cost Index).

- Payment of County of Monterey fair share fees for the improvements to the following intersections:
  - Intersection #32: Inter-Garrison Road / Reservation Road
  - Intersection #45: Davis Road / Reservation Road
  - Intersection #48 Davis Road / Blanco Road
- Payment of FORA fees for the improvements to the following intersections:
  - Intersection #21: Inter-Garrison Road / 2nd Avenue
- Payment of City of Seaside fair share fees for improvements at the following intersections:
  - Intersection #36: Coe Avenue and General Jim Moore Boulevard

- Intersection #39: Broadway Avenue and General Jim Moore Boulevard

Prior to issuance of building of building permits the applicant shall submit the required fees to the appropriate jurisdiction. Prior to issues of building permits, the applicant shall provide evidence of fee payment to the City of Seaside.

5. References

5.1. List of Preparers

City of Seaside

John Dunn, City Manager

Diana Ingersoll, P.E., Deputy City Manager

Teri Wissler Adam, City of Seaside Contract Project Manager

Lisa Brinton, Community and Economic Development Services Manager

Rick Medina, Senior Planner

Tim O'Halloran, P.E. - City Engineer / Public Works Services Manager

RBF Consulting

Bill Wiseman, Vice President and Project Manager

Erika Spencer, Senior Environmental Planner and Deputy Project Manager

Jonathan Schuppert, Associate Planner

Eddie Torres, Air Quality and Noise Specialist

Achilles Malisos, Air Quality and Noise Specialist

Kristen Bogue, Environmental Analyst

Kari Cano, Environmental Analyst

Regan Miller, Traffic Engineer

Nathan Schmidt, Transportation Planner

Frederik Venter, Traffic Engineer

Alex Tabrizi, Traffic Engineer

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4. CEQA Considerations

This section of the EIR discusses long-term implications of the proposed project as required by CEQA. The topics discussed include significant irreversible commitment of resources, growth-inducing impacts, significant and unavoidable environmental effects, and effects found not to be significant. Cumulative impacts and alternatives to the proposed project are also discussed herein.

4.1 Significant and Unavoidable Environmental Effects

Unavoidable adverse impacts are those effects of the proposed project that would significantly affect either natural systems or other community resources, and cannot be mitigated to a less-than-significant level as identified in the previous analyses. The proposed project, if implemented, would result in the following significant and unavoidable project impacts:

4.2. Significant Irreversible Changes

Section 15126.2(c) of the State CEQA Guidelines requires an EIR to discuss the significant irreversible environmental changes that would be involved if the proposed project would be implemented. Examples include the following: uses of nonrenewable resources during the initial and continued phases of the project, since a large commitment of such resources makes removal or nonuse thereafter unlikely; primary and secondary impacts of a project that would generally commit future generations to similar uses (e.g., highway improvements that provide access to a previously inaccessible area); and/or irreversible damage that could result from any potential environmental accidents associated with the proposed project.

Analysis

4.3. Growth Inducement

CEQA requires that any growth-inducing aspect of a project be discussed in an EIR. According to CEQA, it must not be assumed that growth in any area is necessarily beneficial, detrimental or of little significance to the environment. A project would have growth-inducing effects if it would:

- Foster economic or population growth, or the construction of additional housing (either directly or indirectly) in the surrounding environment;
- Remove obstacles to population growth;
- Tax existing community services or facilities, requiring the construction of new facilities that could cause significant environmental effects; or
- Encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

If a project meets any one of these criteria, it may be considered growth inducing. Generally, growth inducing projects are either located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encourage premature or unplanned growth.

To comply with CEQA, an EIR must discuss the ways in which the proposed project could promote economic or population growth in the vicinity of the project and how that growth will, in turn, affect the surrounding environment [CEQA Guidelines Section 15126.2(d)].

4.3.1 Economic Effects

4.3.2 Remove Obstacles to and/or Foster Population Growth

Growth can be induced in a number of ways, including the direct construction of new homes and businesses, the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of the removal of obstacles to growth relates directly to the removal of infrastructure limitations (typically through the provision of additional capacity or supply), or the reduction or elimination of regulatory constraints on growth that could result in growth unforeseen at the time of project approval.

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

4.3.3 Tax Existing Community Services or Facilities

4.4. Energy Conservation

Public Resources Code Section 21100(b)(3) and Appendix F of the *CEQA Guidelines* requires a description (where relevant) of the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, the California State Legislature adopted Assembly Bill 1575 (AB 1575) in response to the oil crisis of the 1970s. This bill created the California Energy Commission (CEC). The purpose of the CEC is to forecast future energy needs; license thermal power plants of 50 megawatts or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and to promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards.

Energy Consumption

Short-Term Construction

In 1994, the United States Environmental Protection Agency (EPA) adopted the first set of emission standards (Tier 1) for all new off-road diesel engines greater than 37 kilowatts (kW). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing NO_X emissions from these engines by 30 percent. The EPA Tier 2 and Tier 3 standards for off-road diesel engines are projected to further reduce emissions by 60 percent for NO_X and 40 percent for particulate matter from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Non-road Diesel Rule. This rule will cut emissions from off-road diesel engines by more than 90 percent, and will be fully phased in by 2014. A number of construction projects using diesel powered equipment have the potential to occur every year under the proposed project.

Development under the proposed project includes mixed-use, commercial, and transit-oriented development. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than other similar development projects. Also, diesel powered construction equipment in general will continue to become more efficient as the EPA standards phase in.

Long-Term Operations

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

Public Transportation Options

Building Energy Demand

Energy Efficiency Measures

4.5. Effects Found Not to be Significant

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment (CEQA Guidelines Section 15328). The term "environment," as used in this definition, means the physical conditions that exist within the area that will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise and objects of historic or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the proposed project. The "environment" includes both natural and man-made conditions (CEQA Guidelines Section 15360).

Detailed analyses and discussion of environmental topics found to be significant are provided within Section 3.0 of this EIR. Section 3.0 also identifies impacts that are found to be less than significant. The following resources do not exist within the project area and/or are not considered to have the potential to cause a significant environmental impact. As such, detailed analyses of the following environmental resources were not included in the EIR:

Agricultural Resources

- The project site is not mapped on

Mineral Resources

4.6. Cumulative Impacts

CEQA Requirements

CEQA defines cumulative impacts as two or more individual effects which, when considered together, are substantial or which compound or increase other environmental impacts. An evaluation of cumulative impacts is required by CEQA when they are significant, but need not be as detailed as the discussion of project impacts. Cumulative conditions are defined as conditions in the foreseeable future with all approved, pending, and known planned development in place. The CEQA Guidelines require that an EIR discuss the cumulative impacts of a project where the project's incremental effect is cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

The criteria for determining significance of cumulative impacts are the same as those that apply to the project-level analysis unless otherwise noted in the section, where other agency standards regarding cumulative analyses may apply. Where the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR indicates why the cumulative impact is not significant and is not discussed in further detail in the EIR. Where the EIR identifies a significant cumulative impact, but finds that the project's contribution to that impact would be less than considerable, an explanation for that conclusion is provided.

According to the California State CEQA Guidelines section 15130 (a)(1), there is no need to evaluate cumulative impacts to which the project does not contribute. Relevant potential cumulative impacts to which the proposed project could contribute include: aesthetics and visual resources; air quality; geology, soils and seismicity; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; public services and utilities; and transportation and circulation. Each of these topics is addressed herein.

Cumulative Impacts Analysis and Assumptions

Impacts associated with cumulative development were analyzed based on the proposed project's effects in combination with a summary of projections in the adopted County of Monterey General Plan and the City of Seaside General Plan.

Aesthetics & Visual Resources

Insert Impact Discussion

Conclusion:

Air Quality

The cumulative scenario for ozone is based on the consistency of the proposed project with the MBUAPCD 2012 *AQMP*. As the region is in nonattainment for ozone, projects and plans are evaluated for cumulative impacts by determining the consistency of the proposed project with the applicable regional air quality plan. The 2012 AQMP addresses attainment of the State ozone standard. The air district has included emissions related to population and economic growth (that leads to traffic activity) in the AQMP using projections adopted by the Association of Monterey Bay Area Governments (AMBAG). Consistency with the AQMP is normally determined by AMBAG. As described in Section 3.11, Population and Housing, the projected population associated with the proposed project would be within the City's projected population, as well as the projected population for the City of Seaside on the former Fort Ord. Additionally, the project would be consistent with the City of Seaside General Plan and Fort Ord Reuse Plan; refer to Section 3.9, Land Use and Planning. Therefore, the proposed project would not induce substantial population growth that would exceed AMBAG projections.

> **Conclusion:** However, as shown in Table 3.2-6, the emissions from development of the project area exceed the MBUAPCD thresholds for ROG, NO_X, and CO, resulting in a significant impact. As a result, the proposed project would also **significant cumulative impact**.

Biological Resources

Cultural Resources

Greenhouse Gas Emissions

Cumulative Impacts

As discussed in Section 3.6: Greenhouse Gases, despite project design elements and Mitigation Measure 3.6-1, the proposed project would result in a significant impact regarding GHG emissions. The project would implement the project design features within the *Monterey Downs Specific Plan* and additional mitigation measures. However, these sustainability measures would not reduce GHG emissions below MBUAPCD thresholds.

On December 30, 2009, the Natural Resources Agency adopted the CEQA Guideline Amendments prepared by Office of Planning and Research (OPR), as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010. The Natural Resources Agency originally proposed to add subdivision (f) to section 15130 to clarify that sections 21083 and 21083.05 of the Public Resources Code do not require a detailed analysis of GHG emissions solely due to the emissions of other projects (i.e., State CEQA Guidelines, Section 15130(a)(1); *Santa Monica Chamber*

of Commerce v. City of Santa Monica (2002) 101 Cal.App.4th 786, 799). Rather, the proposed subdivision (f) would have provided that a detailed analysis is required when evidence shows that the incremental contribution of the project's GHG emissions is cumulatively considerable when added to other cumulative projects (i.e., *Communities for a Better Environment v. California Resources Agency* (2002), supra, 103 Cal.App.4th at 119-120). In essence, the proposed addition would be a restatement of law as applied to GHG emissions. Analysis of GHG emissions as a cumulative impact is consistent with case law arising under the National Environmental Policy Act (e.g., *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1215-1217 [9th Cir. 2008]). Other portions of the CEQA Guideline Amendments address how lead agencies may determine whether a project's emissions are cumulatively considerable (e.g., Proposed Sections 15064(h)(3) and 15064.4). However, public comments noted that the new subdivision merely restated the law, and was capable of misinterpretation. The Natural Resources Agency, therefore, determined that because other provisions of the CEQA Guideline Amendments address the analysis of GHG emissions as a cumulative impact, and because the reasoning of those is fully explained in the Initial Statement of Reasons, subdivision (f) should not be added to the CEQA Guidelines. The deletion was reflected in the revisions that were made available for further public review and comment on October 23, 2009.

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[25] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[26] The additive effect of the project's GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. However, despite the implementation of applicable mitigation measures, the proposed project would result in a significant and unavoidable impact regarding GHG emissions. Therefore, the project's cumulative GHG emissions would be considered **significant and unavoidable**.

Conclusion:

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[25] California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, 2008.

[26] Ibid.

Geology and Soils

Insert Impact Discussion

Conclusion:

Hazards and Hazardous Materials

Insert Impact Discussion

Conclusion:

Hydrology and Water Quality

Insert Impact Discussion

Conclusion:

Land Use and Planning

Insert Impact Discussion

Conclusion:

Noise

Short-Term Cumulative Impacts

The project has no control over the timing or sequencing of the related projects, and as such, any quantitative analysis to ascertain the daily construction noise that assumes multiple, concurrent construction projects would be speculative. Construction-related noise for the proposed project and each related project would be localized. In addition, it is likely that each of the related projects would have to comply with the noise standards of the local Municipal Code, as well as mitigation measures that may be prescribed pursuant to CEQA provisions that require significant impacts to be reduced to the extent feasible.

Project construction noise impacts would cease upon completion of excavation, grading, and building activities. Compliance with the noise standards of the local Municipal Code and Mitigation Measure 3.10-1a, would serve to minimize the length of time noise-sensitive receptors are exposed to significant noise levels. Additionally, because noise dissipates as it travels away from its source, noise impacts from construction activities would be limited to each of the respective sites and their and vicinities. As such, the project would not result in a substantial cumulative contribution to construction noise in the project vicinity. Therefore, a **less than significant** impact would occur in this regard.

Long-Term Cumulative Impacts

Cumulative Mobile Noise. The cumulative mobile noise analysis is conducted in a two-step process. First, the combined effects from both the proposed project and other projects are compared. Second, for combined effects that are determined to be cumulatively significant, the project's incremental effects then are analyzed. The project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "Future With Project" condition to "Existing" conditions. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

- *Combined Effects:* The cumulative with project noise level ("Future With Project") would cause a significant cumulative impact if a 3 dBA increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with identified cumulative projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

- *Incremental Effects:* The "Future With Project" causes a 1 dBA increase in noise over the "Future Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Consequently, only proposed projects and growth due to occur in the general vicinity of the project site would contribute to cumulative noise impacts. Table 4-1: Cumulative Noise Scenario, lists the traffic noise effects along roadway segments in the project vicinity for "Existing", "Future Without Project", and "Future With Project", including incremental and net cumulative impacts.

First, it must be determined whether the Cumulative Plus Project Increase Above Existing Conditions (Combined Effects) is exceeded. Per Table 4-1 this criterion is exceeded along 25 of the segments. Next, under the Incremental Effects criteria, cumulative noise impacts are defined by determining if the ambient (Future Without Project) noise level is increased by 1 dB or more. Based on the results of Table 4-1,

there would be 12 roadway segments that would exceed both the combined and incremental effects criteria.

A significant cumulative mobile noise impact would result only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use. Therefore, noise levels would not exceed the normally acceptable land use compatibility standards for roadway segments that exceeded both the Combined Effects and Incremental Effects criteria. Therefore, the proposed project would not result in cumulative mobile noise impacts. Thus, the proposed project, in combination with cumulative background traffic noise levels, would result in a **less than significant** cumulative impact in this regard.

Table 4-1: Cumulative Noise Scenario

Roadway Segment	Existing	Future Without Project	Future With Project	Combined Effects	Incremental Effects	Potentially Result in a Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference in dBA Between Existing and Future With Project	Difference in dBA Between Future Without Project and Future With Project	
8th Avenue						
Gigling Road to Colonel Durham Street	51.1	51.1	54.3	**3.0**	**3.2**	*No*
Colonel Durham Street to Intergarison Road	52.4	52.4	54.9	**3.0**	**2.5**	*No*
7th Avenue						
Gigling Road to Colonel Durham Street	45.3	45.3	51.7	**6.0**	**6.4**	*No*
Colonel Durham Street to Intergarison Road	49.3	49.8	52.0	**3.0**	**2.2**	*No*
6th Avenue						
Gigling Road to Colonel Durham Street	42.0	42.0	42.0	0	0	*No*
Colonel Durham Street to Inter Garrison Road	47.6	48.0	48.0	0	0	*No*
Inter Garrison Road to 8th Street	48.1	48.5	48.5	0	0	*No*
Imjin Road						
8th Street to Imjin Parkway	53.1	53.4	55.9	**3.0**	**2.5**	*No*
Parker Flats Road						
South of Gigling Road	47.1	47.7	47.7	1.0	0	*No*
Malmedy Road						
South of Gigling Road	45.1	45.6	45.7	1.0	0.1	*No*
General Jim Moore Boulevard						
North of Inter Garrison Road	47.2	47.5	47.9	1.0	0.4	*No*
Inter Garrison Road to Divarty Street	50.7	51.3	51.3	1.0	0	*No*
Divarty Street to Lightfighter Drive	52.6	53.0	53.0	0	0	*No*
Lightfighter Drive to Gigling Road	58.6	59.0	59.5	1.0	0.5	*No*
Gigling Road to Normandy Road	58.6	58.6	59.0	0	0.4	*No*
Normandy Road to Eastside Parkway	57.9	58.3	58.4	1.0	0.1	*No*
Eastside Parkway to Broadway Avenue	60.4	63.8	64.3	**4.0**	0.5	*No*
South of Broadway Avenue	59.8	60.2	60.5	1.0	0.3	*No*
2nd Avenue						
Inter Garrison Road to 8th Street	54.5	61.1	63.5	**9.0**	2.4	*No*
8th Street to Imjin Parkway	55.1	60.5	60.5	**5.0**	0	*No*
River Road						
East of Highway 68	64.7	65.1	65.2	1.0	0.1	*No*
Reservation Road						
Highway 68 to Davis Road	59.4	62.7	63.1	4.0	0.4	*No*
Davis Road to East Garrison	62.2	69.8	70.3	**8.0**	0.5	*No*
East Garrison to Inter Garrison Road	62.2	69.7	70.2	**8.0**	0.5	*No*
Inter Garrison Road to Blanco Road	63.1	65.1	65.2	2.0	0.1	*No*
Blanco Road to Imjin Parkway	67.5	67	67.2	0.0	0.2	*No*
West of Imjin Parkway	65.2	64.7	64.7	-1.0	0	*No*
Imjin Parkway						
Reservation Road to Abrams Drive	61	60.4	60.6	0	0.2	*No*
Abrams Drive to Imjin Road	64.4	64.5	64.7	0	0.2	*No*
Imjin Road to California Avenue	63.7	64.7	65.0	1.0	0.3	*No*
California Avenue to 2nd Avenue	64.6	66.2	66.3	2.0	0.1	*No*
2nd Avenue to Highway 1	65.2	66.3	66.4	1.0	0.1	*No*
8th Street						
Inter Garrison Road to 6th Avenue	48.7	58.2	59.2	11	1	*No*

6th Avenue to General Jim Moore Boulevard	50.4	58.0	58.1	**8.0**	0.1	*No*
General Jim Moore Boulevard to 2nd Avenue	N/A	59.5	59.5	N/A	0	*No*
West of 2nd Avenue	N/A	50.4	50.8	N/A	0.4	*No*
Inter Garrison Road						
Reservation Road to Eastside Parkway	N/A	60.9	61.6	N/A	0.7	*No*
Eastside Parkway to Schooner Road	N/A	57.8	58.2	N/A	0.4	*No*
Schooner Road to Abrams Drive	54.7	64.2	64.5	**10.0**	0.3	*No*
Abrams Drive to 8th Avenue	61.1	64.2	64.2	**3.0**	0	*No*
8th Avenue to 7th Avenue	60.4	64.2	64.9	**5.0**	0.7	*No*
7th Avenue to 6th Avenue	52.7	54.7	55.1	2.0	0.4	*No*
6th Avenue to General Jim Moore Boulevard	53.4	54.9	55.3	2.0	0.4	*No*
General Jim Moore Boulevard to 2nd Avenue	51.1	54.1	54.5	**3.0**	0.4	*No*
Colonel Durham Street						
8th Avenue to 7th Avenue	48.6	49.1	51.7	**3.0**	**2.6**	*No*
7th Avenue to 6th Avenue	50.5	50.8	50.8	0	0	*No*
Parker Flats Road to Malmedy Road	53.7	54.1	55.1	1.0	1	*No*
Lightfighter Avenue						
General Jim Moore Boulevard to 2nd Avenue	56.1	57.9	58.6	**3.0**	0.7	*No*
Gigling Road						
8th Avenue to 7th Avenue	52.9	53.2	57.9	**5.0**	**4.7**	*No*
7th Avenue to 6th Avenue	53.7	54.1	57.1	**3.4**	**3.0**	*No*
6th Avenue to Parker Flats Road	54.0	54.5	57.3	**3.0**	**2.8**	*No*
Parker Flats Road to Malmedy Road	56.4	56.8	58.3	2.0	**1.5**	*No*
Malmedy Road to General Jim Moore Boulevard	56.3	56.7	57.6	1.0	0.9	*No*
Normandy Road						
East of General Jim Moore Boulevard	49.4	49.9	51.5	2.0	**1.6**	*No*
Eastside Parkway						
Inter Garrison Road to Normandy Road	N/A	58.4	60.0	N/A	**1.6**	*No*
Normandy Road to General Jim Moore Boulevard	N/A	57.7	58.4	N/A	0.7	*No*
Broadway Avenue						
West of General Jim Moore Boulevard	55.8	60.1	60.4	**5.0**	0.3	*No*
East of Noche Buena Street	57.1	60.7	60.9	**4.0**	0.2	*No*
West of Noche Buena Street	56.7	61.0	61.2	**5.0**	0.2	*No*
East of Fremont Boulevard	57.6	61.7	61.8	**4.0**	0.1	*No*
West of Fremont Boulevard	57.3	61.0	61.1	**4.0**	0.1	*No*
Fremont Boulevard						
South of Broadway Avenue	59.4	60.2	60.3	1.0	0.1	*No*
Highway 218						
East of Highway 1	61.2	61.5	61.5	0	0	*No*
North of Highway 68	62.4	62.8	63.0	1.0	0.2	*No*
Highway 68						
East of Highway 218	67.5	67.9	68.1	1.0	0.2	*No*
West of Highway 218	66.6	67.0	67.1	1.0	0.1	*No*
Davis Road						
Blanco Road to Reservation Road	63.8	64.6	65.4	2.0	0.8	*No*
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level						
Source: Based on project traffic data from Section 3.13, Transportation and Circulation. Refer to Appendix H for additional details on modeling inputs.						

Public Services & Recreation

Cumulative Transportation and Circulation Impacts

This section analyzes the estimated Cumulative Year (2035) traffic conditions without and with the Project.

Cumulative (No Project) Traffic Volumes

The Association of Monterey Bay Area Governments (AMBAG) 2035 Regional Travel Demand Model was utilized to obtain traffic volumes for forecast year 2035 (Cumulative) conditions. It is based on standardized modeling techniques in which future land uses in the region are quantified and the corresponding traffic volumes are estimated. In addition to local trips, the AMBAG model forecast traffic in a regional context, meaning that trips to and from the project study area, as well as, regional through-trips are included in the forecasts.

The 2035 AMBAG model includes many local and regional planned roadway improvements that will alter travel patterns in the future. The improvements in the vicinity of the project area are as described in detail below. A review of the 2035 model volumes revealed that cumulative volumes were lower than existing conditions at certain locations. Where this occurred, the model volumes were refined using the difference method. A review of the base year (2005) and future year (2035) model volumes was conducted to determine an annual growth rate for each corridor. The difference in daily traffic volumes between the two model years was linearly interpolated to adjust the existing conditions traffic volumes to represent a growth of 22 years to Year 2035.

Since the AMBAG model and the subsequent data refinement process focuses on daily traffic volumes, the data was further refined to determine the Cumulative Year (2035) peak hour volumes. Peak hour volumes were determined based on forecast daily traffic volumes, existing traffic patterns and future growth patterns surrounding each study intersections. Post-processing worksheets used to calculate the peak hour volumes are provided in Appendix H. The Cumulative Year (2035) No Project traffic volumes are provided in Figure 4.10-1 Cumulative Year (2035) Peak Hour Intersection Volumes.

Cumulative Year (2035) No Project Roadway Network Assumptions

The Cumulative Year (2035) conditions assume construction of the improvement projects identified in the FORA Capital Improvement Program, the TAMC Regional Transportation Plan, the City of Marina Capital Improvement Program, as well as changes recommended in the 2005 Marina University Villages (The Dunes at Monterey Bay) EIR, the 2005 East Garrison Specific Plan EIR, and the 2007 CSUMB Master Plan EIR.

The following planned roadway improvements were assumed for Cumulative Conditions analysis:

Regional Highway Improvements:

- SR-1: Widen from 4 lanes to 6 lanes in Seaside and Sand City between Fremont Avenue and Del Monte Interchanges (TAMC RTP, FORA CIP)
- SR-1 / Imjin Parkway Interchange: Reconstruct the interchange. (TAMC RTP, FORA CIP)
- SR-1 / Monterey Road Interchange: Construct a new interchange at Monterey Road (TAMC RTP, FORA CIP)
- SR-156: Widen from 2 lanes to 4 lanes and upgrade the highway to freeway status with appropriate interchanges modifications as needed between SR-156 in Castroville to US-101 in Prunedale. (TAMC RTP, FORA CIP)
- Multi-Modal Corridor: Construct new 11.5 mile multimodal corridor between the City Marina and Salinas along 9th Street, 5th Avenue, Inter-Garrison Road, Reservation, and Davis Road. The corridor will include dedicated BRT lanes, bike lanes, wide sidewalks, and with connections to the Salinas Transit Center and a new Marina Transit Center on the east side of SR-1 and the 9th Street Bridge within the future Marina Dunes project area. (TAMC RTP)
- Davis Road: Widen from 2 lanes to 4 lanes from Blanco Road to Reservation Road (TAMC RTP, FORA CIP)
- Reservation Road: Widen from 2 lanes to 4 lanes between East Garrison Road and Davis Road (TAMC RTP, FORA CIP)

FORA Roadway Segment Improvements (funded through FORA Fee Program):

- Inter-Garrison Road: Widen from 2 lanes to 4 lanes between Eastside Parkway and Reservation Road. At the intersection of Schoonover Road and Inter-Garrison Road, Inter-Garrison Road will be realigned to the south of Schoonover Road to create a new connection with Eastside Parkway. The realigned intersection of Inter-Garrison Road and Schoonover Road will remain a three-leg stop controlled intersection, with a stop sign at the Schoonover Road approach. The new intersection of Inter-Garrison Road and Eastside Parkway will include signal control.
- Eastside Parkway: Construct new 4 lane arterial between Inter-Garrison Road and General Jim Moore Boulevard.
- Davis Road: Widen from 2 lanes to 4 lanes between Blanco Road and Reservation Road.
- 8th Street: The closure of 8th Street Cut-Off between 6th Avenue and Inter-Garrison Road. The reconfiguration of the 6th Avenue and 8th Street and Engineers Equipment Road intersection.

- Inter-Garrison Road: Upgrade from 2 lane to 4 lane arterial between Eastside Parkway and Reservation Road.
- Gigling Road: Widen from 2 lanes to 4 lanes between Eastside Parkway and General Jim Moore Boulevard.

City of Marina Roadway Segment Improvements (funded through Impact Fee Programs):

- Imjin Parkway: Widen from 4 lanes to 6 lanes between SR-1 and Imjin Road (TAMC RTP, FORA CIP, Marina CIP)
- Imjin Road: Widen from 2 lanes to 4 lanes between Imjin Parkway and Reservation Road. Realign Imjin Road between Imjin Parkway and 8th Street. (TAMC RTP, FORA CIP, Marina CIP)
- 2nd Avenue Extension: Construct new 2 lane arterial between Imjin Parkway and Del Monte Boulevard. (Marina CIP)

The Cumulative Year (2035) intersection lane configurations are shown on Figure 4.10-2: Cumulative Year (2035) No Project Intersection Geometry. The Cumulative Year (2035) roadway improvements are shown on Figure 4.10-3: Cumulative Conditions (Year 2035) Roadway Improvements & Study Intersections. Except where previously noted, it is assumed in this analysis that the remaining transportation network would be the same as the Existing plus Project transportation network in the project vicinity.

Cumulative plus Project Conditions Roadway Improvements

The applicant proposes to construct the portion of Eastside Parkway within the project site. Eastside Parkway will bisect the project area and become a primary circulation route. The project area would be served by five intersections along the future Eastside Parkway in addition to the site access locations described under Existing plus Project conditions. The additional access locations along Eastside Parkway have been incorporated into the analysis of Cumulative Year (2035) plus Project conditions as illustrated in Figure 4.10-4 Cumulative Year (2035) plus Project Conditions On-Site Roadway Network and described in detail below.

- Intersection #52: Monterey Downs Road (8th Avenue) and Eastside Parkway: will consists of a four-leg signal controlled intersection that will provide access from Eastside Parkway to Monterey Downs Road / 8th Avenue. Monterey Downs Road will provide access to the central project area including the Horse Park, "Country Walk" shopping area, residential development, trail lands, RV parking lots, and horse trail staging areas. Intersection level of service analysis and peak hour volumes signal warrants indicate the need for signalization of the intersection under Cumulative plus Project conditions.
- Intersection #101: Project Driveway 1 and Eastside Parkway: will include a three-leg one-way stop controlled intersection with Eastside Parkway operating freely and the

project driveway being stop controlled. This driveway will provide limited gate controlled access to the horse track and support facilities.

- Intersection #102: Project Driveway 2 and Eastside Parkway will include a three-leg one-way stop controlled intersection with Eastside Parkway operating freely and the project driveway being stop controlled. This driveway will provide access to the horse track parking area and affordable workforce lodging.
- Intersection #103: Project Driveway 3 and Eastside Parkway will include a three-leg one-way stop controlled intersection with Eastside Parkway operating freely and the project driveway being stop controlled. This driveway will provide access to the horse track parking area.
- Intersection #104: Project Driveway 4 and Eastside Parkway will include a four-leg intersection will two-way stop control with Eastside Parkway operating freely and the two project driveways being stop controlled. The north driveway will provide access to the hotel, office, and recreational facilities to the north. The south driveway will provide access to the "Country Walk" shopping area and Open Space / Trail Lands.

Cumulative plus Project Trip Distribution

Vehicle trips generated by the project under Cumulative Year (2035) plus Project conditions were assigned to the regional roadway network using the AMBAG regional model. The development of the Cumulative plus Project model consisted of several modifications to the AMBAG regional model to enable it to estimate traffic more accurately in the area around the project area. These modifications included adding more traffic analysis zones (TAZs) and roadway network detail in the study area. This modified roadway network and TAZ system provides a greatly refined and updated representation of all the roadway facilities in the project study area.

Project Trip Redistribution due to Eastside Parkway

The most notable change affecting project traffic distribution under Cumulative Year (2035) plus Project conditions would be the construction of Eastside Parkway. This new roadway would provide a new east-west connection from Reservation Road via Inter-Garrison Road through the project site with links to Gigling Road, Parker Flats and General Jim Moore Boulevard. This new roadway is designed to supplement the traffic capacity of existing SR-68 and the Blanco Road / Reservation Road connections between Salinas/ US-101 and the Monterey Peninsula / SR-1 and would provide a more direct connection between the project site and Reservation Road, thereby shifting Salinas-bound traffic from Blanco Road to Davis Road. At the same time, the alignment of the Inter-Garrison Road and Eastside Parkway intersection will encourage through traffic movement around the California State University Monterey Bay (CSUMB) campus in order to protect the campus from regional traffic as noted in the CSUMB Master Plan document. The 37% of trips that would access the site from the north via 7th Avenue /

8th Avenue from Blanco Road and Imjin Road under Existing plus Project conditions would shift onto Eastside Parkway.

The resulting trip distribution pattern is shown on Figure 4.10-5: Cumulative Year (2035) Project Trip Distribution.

Cumulative plus Project Traffic Volumes

Project trip assignment volumes are shown on Figure 4.10-6: Cumulative Year (2035) Project Trip Assignment. The Project would generate the same number of trips as under Existing plus Project conditions. Therefore, the Project generated trips were added to the Cumulative Year (2035) No Project conditions traffic volumes to develop traffic volumes for Cumulative Year (2035) plus Project conditions. The resulting volumes are shown on Figure 4.10-7: Cumulative plus Project Traffic Volumes.

Cumulative Project Impacts and Mitigation Measures

Cumulative and Cumulative plus Project Conditions Intersection Level of Service Analysis

The results of the LOS calculations under Cumulative Year (2035) plus Project conditions are summarized in Table 4.10-1: Cumulative and Cumulative plus Project Intersection Levels of Service. Under Cumulative Year (2035) conditions without the project traffic, seven study intersections are forecast to operate at an unacceptable level of service. With the addition of project trips under the Cumulative plus Project scenario, the same seven intersections would continue to operate at an unacceptable LOS. No additional intersections are forecast to operate at an unacceptable LOS with the addition of project trips. The proposed project would have a cumulatively significant impact at the following seven intersections:

#21: 2nd Avenue and Inter-Garrison Road
#32: Reservation Road and Inter-Garrison Road
#36: General Jim Moore Boulevard and Coe Avenue
#39: General Jim Moore Boulevard and Broadway Avenue
#41: Fremont Avenue and Broadway Avenue
#45: Reservation Road and Davis Road
#48: Blanco Road and Davis Road

All other study intersections are forecast to operate at an acceptable level of service under Cumulative Year (2035) plus Project conditions during both the AM and PM peak hours. Traffic signal warrant worksheets for Cumulative plus Project conditions are provided in Appendix H.

Table 4.10-1: Cumulative and Cumulative Plus Project Intersection Level of Service

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
1	8th Avenue and Gigling Road	Stop Sign (SSS)	Seaside	C	Overall	4.7	A	3.1	A	5.2	A	4.9	A
				E	*Worst Approach*	*9.6*	A	*9.5*	A	*21.2*	C	*21.9*	C
2	Gigling Road and 7th Avenue	Signal	Seaside	C	Overall	0.8	A	0.6	A	0.8	A	0.8	A
3	Gigling Road and 6th Avenue	Signal	Seaside	C	Overall	8.5	A	11.5	B	6.5	A	9.5	A
4	Gigling Road and Parker Flats Road	Signal	Seaside	C	Overall	8.6	A	14.1	B	7.8	A	13.1	B
5	Gigling Road and Malmedy Road	Stop Sign (SSS)	Seaside	C	Overall	8.0	A	6.6	A	9.0	A	7.7	A
6	Gigling Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	21.3	C	21.2	C	21.4	C	22.6	C
7	8th Avenue and Colonel Durham Street	Stop Sign (SSS)	County	C	Overall	1.1	A	2.2	A	0.8	A	1.6	A
				E	*Worst Approach*	*10.8*	B	*10.4*	B	*13.5*	B	*12.9*	B
8	Colonel Durham Street and 7th Avenue	Stop Sign (SSS)	Seaside	C	Overall	5.2	A	6.1	A	5.3	A	5.8	A
				E	*Worst Approach*	*10.5*	B	*10.0*	A	*13.0*	B	*11.6*	B
9	Colonel Durham Street and Malmedy Road	Stop Sign (AWS)	Seaside	C	Overall	8.2	A	9.4	A	9.6	A	11.3	B
10	Lightfighter Drive and General Jim Moore Boulevard	Signal	Seaside	C	Overall	22.1	C	30.9	C	23.6	C	33.5	C
11	Lightfighter Drive and 2nd Avenue	Signal	Seaside	C	Overall	18.4	B	29.7	C	19.1	B	31.7	C
12	Lightfighter Drive and 1st Avenue	Signal	Seaside	C	Overall	26.2	C	30.6	C	27.8	C	32.3	C
13	8th Avenue and Butler Street	Stop Sign (SSS)	County	C	Overall	0.2	A	0.6	A	0.3	A	0.5	A
				E	*Worst Approach*	*10.1*	B	*9.8*	A	*11.1*	B	*11.0*	B
14	8th Avenue and B street	Stop Sign (SSS)	County	C	Overall	0.2	A	0.6	A	0.2	A	0.4	A
				E	*Worst Approach*	*10.3*	B	*10.4*	B	*11.7*	B	*12.4*	B
15	Inter-Garrison Road and 8th Avenue	Signal	County	C	Overall	9.8	A	15.1	B	16.5	B	16.7	B
16	7th Avenue and Inter-Garrison Road	Roundabout	Marina	D	Overall	8.6	A	12.2	B	12.4	B	20.1	C
17	6th Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	9.5	A	10.2	B	10.0	A	10.7	B
18	General Jim Moore	Stop Sign (AWS)	Marina	D	Overall	14.8	B	16.7	C	14.8	B	16.7	C

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
	Boulevard and Divarty Street												
19	General Jim Moore Boulevard (4th Avenue) and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	8.8	A	10.2	B	9.0	A	10.6	B
20	2nd Avenue and Divarty Street	Stop Sign (AWS)	Marina	D	Overall	17.4	C	14.1	B	17.4	C	14.1	B
21	2nd Avenue and Inter-Garrison Road	Stop Sign (AWS)	Marina	D	Overall	**67.3**	**F**	**51.1**	**F**	**73.1**	**F**	**54.9**	**F**
22	Imjin Road and 8th Street	Roundabout	Marina	D	Overall	10.6	B	9.9	A	16.6	C	13.9	B
23	5th Avenue and 8th Street	Stop Sign (AWS)	Marina	D	Overall	20.2	C	21.1	C	24.9	C	23.6	C
24	2nd Avenue and 8th Street	Signal	Marina	D	Overall	27.7	C	27.8	C	29.3	C	28.6	C
25	Imjin Parkway and Imjin Road	Signal	Marina	D	Overall	10.6	B	9.1	A	12.4	B	10.8	B
26	Imjin Parkway and California Avenue	Signal	Marina	D	Overall	23.1	C	15.9	B	23.0	C	15.9	B
27	Imjin Parkway and 2nd Avenue	Signal	Marina	D	Overall	18.9	B	22.3	C	19.1	B	22.4	C
28	Imjin Parkway and Abrams Drive	Signal	Marina	D	Overall	17.4	B	17.0	B	18.0	B	17.7	B
29	Inter-Garrison Road and Abrams Drive	Signal	County	C	Overall	23.7	C	17.7	B	23.3	C	18.4	B
30	Inter-Garrison Road and Schoonover Road	Stop Sign (SSS)	*County*	*C*	*Overall*	*8.9*	A	*7.6*	A	*8.8*	A	*7.8*	A
				E	*Worst Approach*	*8.9*	A	*8.4*	A	*9.0*	A	*8.5*	A
31	Reservation Road and Imjin Road	Signal	Marina	D	Overall	21.3	C	23.5	C	21.4	C	23.6	C
32	Reservation Road and Inter-Garrison Road	Signal	County	D	Overall	**>200**	**F**	**>200**	**F**	**>200**	**F**	**>200**	**F**
33	Reservation Road and East Garrison Road	Signal	County	D	Overall	10.5	B	6.4	A	20.0	B	7.7	A
34	Normandy Road and Parker Flats Road	Stop Sign (SSS)	Seaside	C	Overall	10.2	B	7.2	A	8.4	A	8.8	A
				E	*Worst Approach*	6.2	A	9.7	A	*11.7*	B	*10.9*	B
35	Normandy Road and General Jim Moore Boulevard	Signal	Seaside	C	Overall	17.8	B	14.7	B	18.5	B	15.5	B
36	Coe Avenue and General Jim Moore Boulevard	Signal	Seaside	C	Overall	**>200**	**F**	**84.3**	**F**	**>200**	**F**	**126.1**	**F**
37	SR-1 NB Ramps and Imjin	Signal	Caltrans	C/D	Overall	0.7	A	2.3	A	0.8	A	2.3	A

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
	Parkway												
38	SR-1 SB Ramps and Imjin Parkway	Signal	Caltrans	C/D	Overall	19.8	B	13.5	B	21.5	C	15.1	B
39	Broadway Avenue and General Jim Moore Boulevard	Signal	Seaside	C	Overall	**60.2**	**E**	15.1	B	**79.6**	**E**	17.8	B
40	Broadway Avenue and Noche Buena Street	Signal	Seaside	C	Overall	28.9	C	22.7	C	32.0	C	23.0	C
41	Broadway Avenue and Fremont Boulevard	Signal	Seaside	C	Overall	**58.5**	**E**	**37.3**	**D**	**60.7**	**E**	**38.8**	**D**
42	Highway 218 and SR-1 NB Ramps	Signal	Caltrans	C/D	Overall	18.0	B	33.2	C	18.0	B	33.6	C
43	Highway 218 and SR-1 SB Ramps	Signal	Caltrans	C/D	Overall	23.8	C	19.9	B	24.0	C	20.0	B
44	Highway 68 and Highway 218	Signal	Caltrans	C/D	Overall	18.6	B	15.4	B	19.1	B	16.1	B
45	Reservation Road and Davis Road	Signal	Caltrans	C/D	Overall	**305.2**	**F**	43.0	D	**368.5**	**F**	**64.9**	**E**
46	Highway 68 WB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	28.5	C	43.5	D	34.0	C	51.8	D
47	Highway 68 EB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	29.2	C	19.1	B	33.3	C	19.7	B
48	Blanco Road and Davis Road	Signal	Salinas	D	Overall	**171.8**	**F**	**77.0**	**E**	**>200**	**F**	**102.4**	**F**
49	SR-1 NB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	14.4	B	35.5	D	15.5	B	37.2	D
50	SR-1 SB Ramps and Reservation Road	Signal	Caltrans	C/D	Overall	30.8	C	27.4	C	31.3	C	27.7	C
51	Eastside Parkway and Inter-Garrison Road	Signal	County	D	Overall	15.3	B	12.0	B	36.0	D	15.1	B
52	Eastside Parkway and Gigling Road / Monterey Downs Road	Signal	County	D	Overall	8.7	A	9.4	A	32.6	C	30.6	C
53	Eastside Parkway and Parker Flats Road	Signal	County	D	Overall	11.0	B	11.5	B	22.1	C	18.1	B
54	Eastside Parkway and	Stop Sign (SSS)	County	C	Overall	0.6	A	0.3	A	0.8	A	0.7	A
				E	*Worst*	*16.1*	C	*11.1*	B	24.6	C	23.9	C

#	Intersection:	Ctrl. Type	Juris.	LOS Std.	Overall / Worst Approach	Cumulative Conditions				Cumulative Plus Project Conditions			
						AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
						Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
	Eucalyptus Road / Parker Flats Cut-Off				*Approach*								
101	Driveway 1 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.0	A	0.0	A
				E	*Worst Approach*					*7.2*	A	*26.3*	D
102	Driveway 2 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.0	A	0.6	A
				E	*Worst Approach*					*28.2*	D	*25.1*	D
103	Driveway 3 / Eastside Parkway	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.0	A	0.4	A
				E	*Worst Approach*					*22.5*	C	*38.6*	E
104	Driveway 4 / Eastside Parkway	Signal	County	D	Overall	Project Driveway Intersection				31.9	C	18.8	B
105	Driveway 5 and 8th Avenue	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.6	A	1.7	A
				E	*Worst Approach*					*12.5*	B	*11.4*	B
106	Driveway 6 and Gigling Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				1.6	A	1.7	A
				E	*Worst Approach*					*14.3*	B	*14.6*	B
107	Driveway 7 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				2.2	A	1.7	A
				E	*Worst Approach*					*11.3*	B	*11.8*	B
108	Driveway 8 and Parker Flats Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				2.4	A	2.5	A
				E	*Worst Approach*					*10.9*	B	*11.2*	B
109	Driveway 9 and Parkers Flats Road	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.1	A	0.4	A
				E	*Worst Approach*					*8.9*	A	*9.3*	A
110	Driveway 10 and Parker Flats Cut-Off	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				0.1	A	1.0	A
				E	*Worst Approach*					*7.3*	A	*8.7*	A
111	Driveway 11 and Parker Flats Cut-Off	Stop Sign (SSS)	County	C	Overall	Project Driveway Intersection				9.1	A	9.1	A
				E	*Worst Approach*					*9.1*	A	9.2	A

Notes:

1. Analysis performed using HCM 2000 methodologies
2. Delay indicated in seconds
3. Signalized and all-way stop controlled intersection levels of service and delays reported are for overall average delay.
4. Side-street stop controlled intersections levels of service and delays reported are for overall average delay and worst approach movement delay.

Abbreviations:

Juris. = Jurisdiction

SSS = Side-Street Stop Control
AWS = All-Way Stop Control

Source: RBF Consulting 2013

Cumulative and Cumulative plus Project Highway Mainline Level of Service Analysis

Table 4.10-2: Cumulative and Cumulative plus Project Conditions Freeway Mainline LOS Operations shows a summary of the weekday AM and PM peak hour freeway mainline operations under Cumulative and Cumulative plus Project conditions. Detailed HCM

mainline analysis worksheets are included in Appendix H. According to the analysis, eight freeway mainline segments would operate at an unacceptable LOS E or worse during either the AM or PM peak hours under Cumulative plus Project conditions. The mainline segments that would operate at an unacceptable LOS are indicated by the gray highlighted cells in Table 4.10-2: Cumulative and Cumulative plus Project Conditions Freeway Mainline LOS Operations.

Cumulative and Cumulative plus Project Highway On-Ramp Level of Service Analysis

Table 4.10-3: Cumulative and Cumulative plus Project Conditions Freeway On-Ramp LOS Operations compares weekday AM and PM peak hour freeway on-ramp operations under Cumulative and Cumulative plus Project conditions. Detailed HCM mainline analysis worksheets are included in Appendix H. According to the analysis, 22 freeway on-ramps would operate at an unacceptable LOS E or F during either the AM or PM peak hours under Cumulative Year (2035) plus Project conditions. The SR-1 on-ramps that would operate at an unacceptable LOS are indicated by the gray highlighted cells in Table 4.10-3: Cumulative and Cumulative plus Project Conditions Freeway On-Ramp LOS Operations.

Table 4.10-2: Cumulative and Cumulative Plus Project Conditions Freeway Mainline Segment LOS Operations

Freeway	Segment	Direction	# of Lanes	Cumulative 2035 Without Project								Cumulative 2035 With Project							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
				Volume	LOS	Speed	D	Volume	LOS	Speed	D	Volume	LOS	Speed	D	Volume	LOS	Speed	D
SR-156	Hwy 183 to Castroville Blvd	NB	2	1,782	B	70.0	14.7	2,568	C	69.8	21.2	1,797	B	70.0	14.8	2,615	C	69.8	21.7
		SB	2	2,783	C	69.4	23.2	1,166	A	70.0	9.6	2,828	C	69.2	23.6	1,195	A	70.0	9.9
	Hwy 1 to Hwy 183	NB	2	1,631	B	70.0	13.5	2,394	C	70.0	19.8	1,652	B	70.0	13.6	2,437	C	70.0	20.1
		SB	2	2,841	C	69.2	23.7	1,077	A	70.0	8.9	2,896	C	69.0	24.2	1,107	A	70.0	9.1
SR-1	Hwy 156 to Molera Rd / Nashua Rd	NB	2	3,661	D	62.4	33.9	3,598	D	63.2	32.9	3,719	D	61.5	34.9	3,645	D	62.6	33.7
		SB	2	**3,986**	**E**	**56.9**	**40.5**	2,507	C	69.9	20.7	**4,036**	**E**	**55.9**	**41.7**	2,557	C	69.9	21.1
	Molera Rd / Nashua Rd to Del Monte Blvd North	NB	2	3,048	C	68.3	25.8	3,254	D	67.3	27.4	3,111	D	67.9	26.5	3,304	D	67.0	28.0
		SB	2	**3,787**	**E**	**60.4**	**36.2**	2,078	B	70.0	16.8	**3,841**	**E**	**59.6**	**37.3**	2,131	B	70.0	17.3
	Del Monte Blvd North to Reservation Rd	NB	2	2,821	C	69.4	23.0	3,006	C	68.8	24.8	2,884	C	69.2	23.6	3,057	C	68.5	25.3
		SB	2	3,477	D	65.4	30.1	1,934	B	70.0	15.7	3,531	D	64.8	30.9	1,988	B	70.0	16.1
	Reservation Rd to Del Monte Blvd South (1)	NB	2	2,406	C	70.0	19.5	3,301	D	67.0	27.9	2,488	C	70.0	20.2	3,368	D	66.4	28.7
		SB	2	3,763	D	61.9	34.4	1,741	B	70.0	14.1	**3,833**	**E**	**60.9**	**35.7**	1,812	B	70.0	14.7
	Del Monte Blvd South (1) to Imjin Pkwy	NB	3	2,897	B	70.0	15.6	4,335	C	69.2	23.7	2,993	B	70.0	16.2	4,414	C	69.0	24.2
		SB	3	5,139	D	65.9	29.5	2,308	B	70.0	12.5	5,222	D	65.4	30.2	2,392	B	70.0	12.9
	Imjin Pkwy to Lightfighter Dr	NB	3	2,947	B	70.0	15.9	5,394	D	64.1	31.8	2,998	B	70.0	16.2	5,436	D	63.8	32.2
		SB	3	**6,150**	**E**	**56.2**	**41.3**	2,799	B	70.0	15.1	**6,194**	**E**	**55.6**	**42.1**	2,844	B	70.0	15.3
	Lightfighter Dr to Monterey Road (Future)	NB	3	3,314	B	70.0	17.9	5,527	D	63.0	33.1	3,398	C	70.0	18.3	5,536	D	62.9	33.2
		SB	3	**6,140**	**E**	**56.3**	**41.2**	3,261	B	70.0	17.6	**6,237**	**E**	**55.0**	**42.8**	3,341	C	70.0	18.0
	Monterey Road (Future) to Fremont Blvd	NB	3	3,339	C	70.0	18.0	**5,701**	**E**	**61.4**	**35.1**	3,450	C	70.0	18.6	**5,814**	**E**	**60.2**	**36.5**
		SB	3	**6,151**	**E**	**56.2**	**41.4**	3,353	C	70.0	18.1	**6,280**	**E**	**54.4**	**43.6**	3,459	C	70.0	18.7
	Fremont Blvd to Hwy 218	NB	2	2,596	B	70.0	13.9	4,839	D	67.5	27.1	2,696	B	70.0	14.5	4,940	D	67.0	27.8
		SB	2	5,058	D	66.5	28.6	2,707	B	70.0	14.6	5,174	D	65.8	29.5	2,802	B	70.0	15.1
	Hwy 218 to Del Monte Blvd South (2)	NB	2	2,531	C	69.9	20.4	**3,962**	**E**	**58.8**	**38.2**	2,627	C	69.8	21.2	**4,059**	**E**	**57.0**	**40.4**
		SB	2	**4,379**	**F**	-	-	3,118	C	68.2	25.9	**4,491**	**F**	-	-	3,209	D	67.6	26.9
	Del Monte Blvd South (2) to Casa Verde Way	NB	2	2,531	C	69.9	20.4	**3,935**	**E**	**59.6**	**37.3**	2,605	C	69.9	21.0	**3,980**	**E**	**58.8**	**38.2**
		SB	2	3,728	D	62.7	33.5	2,541	C	69.9	20.5	**3,814**	**E**	**61.4**	**35.0**	2,584	C	69.9	20.8
	Casa Verde Way to Hwy 68 East	NB	2	2,479	C	70.0	20.0	3,526	D	65.1	30.5	2,551	C	69.9	20.6	3,570	D	64.6	31.2
		SB	2	3,585	D	64.4	31.4	2,571	C	69.9	20.7	3,668	D	63.5	32.6	2,613	C	69.9	21.1
	Hwy 68 East to Fremont St	NB	2	3,353	D	66.7	28.4	**4,538**	**F**	-	-	3,423	D	66.1	29.2	**4,581**	**F**	-	-
		SB	2	**4,666**	**F**	-	-	3,410	D	66.2	29.0	**4,746**	**F**	-	-	3,451	D	65.8	29.6
	Fremont St to Munras Ave/Soledad Dr	NB	2	2,360	C	70.0	19.0	3,390	D	66.4	28.8	2,401	C	70.0	19.3	3,433	D	66.0	29.3
		SB	2	**3,916**	**E**	**59.9**	**36.9**	2,370	C	70.0	19.1	**3,962**	**E**	**59.1**	**37.8**	2,411	C	70.0	19.4
	Munras Ave/Soledad Dr to Hwy 68 West	NB	2	2,849	C	69.4	23.2	3,410	D	66.2	29.0	2,881	C	69.3	23.4	3,442	D	65.9	29.5
		SB	2	**4,043**	**E**	**57.7**	**39.5**	2,779	C	69.6	22.5	**4,079**	**E**	**57.0**	**40.4**	2,811	C	69.5	22.8

Notes:

1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service, D = Density (Passenger Cars / Mile / Lane), NB = Northbound, SB = Southbound
3. Speed is provided in Miles Per Hour (MPH)
4. Assumed Passenger-Car Equivalent (PCE) value of 1.5

Table 4.10-3: Cumulative and Cumulative Plus Project Conditions Freeway On-Ramp LOS Operations

SR-1 On-Ramp	Direction	Cumulative 2035 Without Project								Cumulative 2035 With Project							
		AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
		Volume	LOS	Speed	Density	Volume	LOS	Speed	Density	Volume	LOS	Speed	Density	Volume	LOS	Speed	Density
Molera Rd / Nashua Rd	NB	**745**	**E**	**54.0**	**38.1**	**438**	**E**	**54.0**	**37.7**	**745**	**E**	**53.0**	**38.6**	**438**	**E**	**54.0**	**38.1**
	SB	**88**	**E**	**53.0**	**38.1**	117	C	61.0	22.7	**92**	**E**	**53.0**	**38.6**	120	C	61.0	23.2
Del Monte Blvd North	NB	256	D	58.0	31.6	265	D	57.0	33.4	256	D	58.0	32.1	265	D	57.0	33.9
	SB	**13**	**E**	**56.0**	**35.2**	23	C	61.0	21.3	**13**	**E**	**56.0**	**35.7**	24	C	61.0	21.8
Reservation Rd	NB	675	D	59.0	28.4	198	D	59.0	30.3	675	D	59.0	29.0	198	D	59.0	30.8
	SB	**413**	**E**	**54.0**	**36.9**	297	B	61.0	19.1	**429**	**E**	**54.0**	**37.5**	314	B	61.0	19.7
Del Monte Blvd South (1)	NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB	**1,375**	**F**	**49.0**	**41.6**	567	C	60.0	20.6	**1,388**	**F**	**47.0**	**42.5**	580	C	60.0	21.3
Imjin Pkwy	NB	417	C	60.0	22.9	263	D	57.0	34.3	462	C	60.0	23.7	300	D	56.0	34.9
	SB	**1,724**	**F**	**51.0**	**38.4**	963	B	62.0	19.4	**1,724**	**F**	**50.0**	**38.6**	963	B	62.0	19.6
Lightfighter	NB	301	C	60.0	21.5	**628**	**E**	**55.0**	**36.5**	352	C	60.0	21.9	**670**	**E**	**55.0**	**36.9**
	SB	**311**	**E**	**51.0**	**40.6**	546	C	60.0	23.9	**408**	**F**	**50.0**	**41.4**	626	C	60.0	24.5
New Interchange	NB	125	C	60.0	23.1	**282**	**E**	**56.0**	**35.4**	125	C	60.0	23.7	**282**	**E**	**55.0**	**36.1**
	SB	**1,062**	**F**	**37.0**	**46.9**	167	C	60.0	24.4	**1,094**	**F**	**34.0**	**47.8**	193	C	60.0	25.1
Fremont Blvd	NB	1,030	C	59.0	25.8	**1,967**	**F**	**49.0**	**40.9**	1,042	C	59.0	26.4	**1,979**	**F**	**48.0**	**41.5**
	SB	**1,142**	**F**	**28.0**	**48.8**	293	D	59.0	28.4	**1,142**	**F**	**23.0**	**49.8**	293	D	59.0	29.3
Hwy 218 (Canyon Del Rey Blvd)	NB	616	C	60.0	27.1	**1,389**	**F**	**35.0**	**46.5**	620	C	59.0	28.0	**1,393**	**F**	**32.0**	**47.4**
	SB	**595**	**F**	**49.0**	**38.9**	19	D	60.0	28.0	**595**	**F**	**46.0**	**39.8**	19	D	60.0	28.8
Del Monte Blvd South (2)	NB	32	B	65.0	17.9	49	D	57.0	30.6	54	B	65.0	18.8	101	D	56.0	31.4
	SB	**713**	**E**	**55.0**	**35.9**	661	C	60.0	25.4	**713**	**E**	**54.0**	**36.6**	661	C	60.0	25.8
Casa Verde Wy	NB	215	C	60.0	26.0	**576**	**E**	**53.0**	**38.2**	217	C	60.0	26.6	**577**	**E**	**52.0**	**38.6**
	SB	195	D	59.0	30.9	241	C	63.0	21.9	195	D	58.0	31.7	241	C	63.0	22.3
Hwy 68 East	NB	118	C	60.0	25.5	163	D	56.0	34.7	120	C	60.0	26.1	164	D	56.0	35.1
	SB	**1,302**	**F**	**44.0**	**38.5**	966	C	61.0	27.5	**1,302**	**F**	**42.0**	**39.2**	966	C	60.0	27.9
Fremont St	NB	1,394	C	60.0	27.7	**1,721**	**F**	**47.0**	**38.0**	1,423	D	60.0	28.3	**1,721**	**F**	**46.0**	**38.4**
	SB	**621**	**E**	**52.0**	**39.8**	311	C	59.0	26.3	**621**	**E**	**51.0**	**40.2**	311	C	59.0	26.6
Munras Ave/Soledad Dr	NB	454	C	59.0	26.1	**594**	**E**	**56.0**	**35.1**	463	C	59.0	26.5	605	**E**	**56.0**	**35.5**
	SB	762	D	54.0	34.4	837	C	62.0	23.2	**762**	**F**	**54.0**	**34.7**	837	C	62.0	23.5
Hwy 68 West	NB	994	D	58.0	30.1	**1,344**	**E**	**55.0**	**36.1**	1,007	D	58.0	30.4	**1,357**	**E**	**55.0**	**36.4**
	SB	593	D	58.0	31.3	519	C	60.0	24.6	593	D	58.0	31.5	519	C	60.0	24.8

Notes:
1. Analysis performed using HCM 2000 Methodologies
2. LOS = Level of Service
3. Speed is provided in Miles Per Hour (MPH)
4. Density = Passenger Cars / Mile / Lane

5. NB = Northbound, SB = Southbound
6. Assumed Passenger-Car Equivalent (PCE) value of 1.5

Cumulative and Cumulative plus Project Roadway Segment Level of Service Operations

As shown in Table 4.10-4: Cumulative and Cumulative plus Project Roadway Segment LOS, one roadway segment would operate at an unacceptable LOS. The segment of Reservation between Inter-Garrison Road and Davis Road would operate at LOS D under Cumulative Year (2035) No Project Conditions and operate at an unacceptable LOS E under Cumulative Year (2035) plus Project Conditions

Table 4.10-4: Cumulative and Cumulative Plus Project Roadway Segment LOS

Roadway	Location	Jurisdiction	Roadway Type	# of Lanes	Cumulative		Cumulative Plus Project	
					ADT	LOS	ADT	LOS
Davis Rd	Blanco Rd / Reservation Rd	MC	4-Lane Undivided Arterial (w/ Left-Turn Lane)	4	29,900	C	33,800	C
Reservation Rd	Inter-Garrison Rd / East Garrison Rd	MC	4-Lane Expressway	4	40,500	D	**46,010**	**E**
	East Garrison Rd / Davis Rd	MC		4	41,200	D	**46,580**	**E**
Gigling Rd	Monterey Downs Rd / 8th Ave	MC / FORA	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	2,200	A	10,892	A
	8th Ave / 7th Ave	MC / FORA			2,600	A	8,330	A
	7th Ave / 6th Ave	Seaside / FORA			3,200	A	6,762	A
	6th Ave / Parker Flats Rd	Seaside / FORA			3,600	A	6,770	A
	Parker Flats Rd / Malmedy Rd	Seaside / FORA			6,000	A	8,500	A
	Malmedy Rd / Gen. Jim Moore Blvd	Seaside / FORA			6,200	A	7,530	A
7th	Gigling Rd / Colonel Durham St	Seaside / FORA	2-Lane Collector	2	700	A	2,861	A
	Colonel Durham St / Inter-Garrison Rd	Seaside / FORA			1,700	A	2,920	A
8th	Gigling Rd / Colonel Durham St	MC / FORA	2-Lane Collector	2	3,200	A	6,575	B
	Colonel Durham St / Inter-Garrison Rd	MC / FORA			3,600	A	6,354	B
Inter-Garrison Rd	Reservation Rd / Eastside Pkwy	MC / FORA	4-Lane Expressway	4	33,100	E	39,818	F
Eastside Parkway	Inter-Garrison Rd / Driveway 1	MC / FORA	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	17,800	A	26,105	C
	Driveway 1 / Driveway 2	MC / FORA			17,800	A	26,136	C
	Driveway 2 / Driveway 3	MC / FORA			17,800	A	26,198	C
	Driveway 3 / Driveway 4	MC / FORA			17,800	A	26,973	C
	Driveway 5 / Gigling Rd	MC / FORA			17,800	A	27,936	C
	Gigling Rd / Normandy Rd	MC / FORA			16,000	A	22,323	B
	Normandy Rd / Gen. Jim Moore Rd	Seaside / FORA			15,000	A	17,430	A
Broadway Avenue	West of Gen Jim Moore	Seaside	4-Lane Undivided Arterial (w/ Left-Turn Lane)	4	18,700	B	20,329	C
	East of Nocha Buena	Seaside		4	20,600	C	21,870	C
	West of Nocha Buena	Seaside		4	22,400	D	23,483	D
	East of Fremont	Seaside		4	22,900	D	23,725	D
	West of Fremont	Seaside		4	22,400	D	22,633	D
Gen. Jim Moore	Eastside Pkwy / Broadway	Seaside	4-Lane Divided Arterial (w/ Left-Turn Lane)	4	20,400	A	22,834	B

Source: RBF Consulting 2013
Analysis performed using HCM 2000 Methodologies
Notes / Abbreviations:
ADT = Average Daily Traffic
MC = Monterey County

Significant Cumulative Impacts – Level of Service Operations

Cumulative Intersection Impacts

Impact 4.10-1: The Project would result in additional trips and increased delays at intersections operating at an unacceptable LOS under Cumulative Year (2035) No Project conditions. The addition of project generated trips would result in a **potentially significant impact**. The proposed project would have a cumulatively considerable contribution to a decline in LOS at eight of the study intersections. The affected intersections and recommended improvements necessary to achieve an acceptable level of service are as follows:

 # 21. 2nd Avenue and Inter-Garrison Road: Install a traffic signal

#32. Inter-Garrison Road and Reservation Road: Widen and restripe the intersection to include one northbound left lane turn lane and two northbound right turn lanes, two westbound left turn lanes, and two westbound through lanes.

#36. General Jim Moore Boulevard and Coe Avenue: Widen and restripe the intersection to include one northbound left turn lane, two northbound through lanes, one eastbound left turn lane, one eastbound shared through-right right lane, one eastbound right turn lane, two westbound left turn lanes, and one westbound shared through-right turn lane.

#39. General Jim Moore Boulevard and Broadway Avenue: Widen and restripe the intersection to include one southbound through lane, one southbound shared through-right lane, and one southbound right turn lane.

#41. Fremont Boulevard and Broadway Avenue: To mitigate this operational deficiency to within the required standards would require widening the eastbound and westbound approach to two through lanes in each direction. This mitigation is not considered feasible due to existing right-of-way constraints. This operational deficiency should be considered a ***significant and unavoidable impact***.

#45. David Road and Reservation Road: Add a through lane on the westbound Reservation Road approach. Add additional left turn lane on the eastbound Reservation Road approach. Add additional right turn lane and implement "free" right turns for vehicles turning right into westbound Reservation Road from southbound Davis Road.

#48. Davis Road and Blanco Road: Add a left turn lane, through lane, and right turn lane on the southbound David Road approach. Add two through lanes on the northbound Davis Road approach, so that it has three

through lanes and one right turn only lane (instead of one through lane and one shared through-right turn lane). Add two through lanes on the eastbound Blanco Road approach so that it has three through lanes and one right turn only lane (instead of one through lane and one shared through-right lane). Add a left turn lane, a through lane, and a right turn lane on the westbound Blanco Road approach, utilize "overlap" phasing for right turns from westbound Blanco Road approach and southbound Davis Road approach.

Table 4.10-5: Cumulative Year (2035) Plus Project Intersection LOS (without and with Mitigation Measures) summarizes the forecast LOS with implementation of the recommended mitigation measures. Implementation of Mitigation Measure 3.13-1 and 4.10-1 would reduce this impact to a ***less than significant*** level for intersections #21, #32, #36, #39, #45 and #48. Impacts at intersection #41 would be considered a ***significant unavoidable impact***.

Table 4.10-5: Cumulative Year (2035) plus Project Intersection LOS (Without and With Mitigation Measures)

#	Intersection:	Juris.	LOS Std.	Cumulative Plus Project Without Mitigation				Cumulative Plus Project With Mitigation			
				AM Pk. Hr.		PM Pk. Hr.		AM Pk. Hr.		PM Pk. Hr.	
				Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
21	2nd Avenue and Inter-Garrison Road	Marina	D	**73.1**	**F**	**54.9**	**F**	4.4	A	9.0	A
32	Reservation Road and Inter-Garrison Road	County	D	**>200**	**F**	**>200**	**F**	17.7	B	19.4	B
36	Coe Avenue and General Jim Moore Boulevard	Seaside	C	**>200**	**F**	**126.1**	**F**	27.3	C	14.6	B
39	Broadway Avenue and General Jim Moore Boulevard	Seaside	C	**79.6**	**E**	17.8	B	24.3	C	15.6	B
41	Broadway Avenue and Fremont Boulevard	Seaside	C	**60.7**	**E**	**38.8**	**D**	No Feasible Mitigation			
45	Reservation Road and Davis Road	Caltrans	C/D	**368.5**	**F**	**64.9**	**E**	27.9	C	22.2	C
48	Blanco Road and Davis Road	Salinas	D	**>200**	**F**	**102.4**	**F**	34.4	C	27.9	C

Cumulative SR-1 Mainline and On-Ramp Impacts

Impact 4.10-2: Increased Trips to SR-1 Mainline Freeway Segments and On-Ramp LOS: The proposed project would result in additional trips and increased delays at SR-1 freeway mainline and on-ramps already operating at an unacceptable LOS D or worse under Cumulative plus Project conditions.

This is considered a **potentially significant impact**. The affected mainline freeway segments and on-ramp locations include:

Impact SR-1 Freeway Mainline Segments:

- SR-1 Southbound through Marina between Molera Road and Del Monte Boulevard (AM Peak Hour)
- SR-1 Southbound in Marina between Reservation Road and Del Monte Boulevard (AM Peak Hour)
- SR-1 Southbound in Marina and Seaside between Imjin Parkway and Fremont Boulevard (AM Peak Hour)
- SR-1 Southbound in Seaside and Monterey between Highway 218 and Casa Verde Way (AM Peak Hour)
- SR-1Southbound in Monterey between SR-68 East and SR-68 West (AM Peak Hour)
- SR-1 Northbound in Monterey between Fremont Street and SR-68 East (PM Peak Hour)
- SR-1 Northbound in Monterey and Seaside between Casa Verde Way and Highway 218 (PM Peak Hour)
- SR-1 Northbound in Seaside between Fremont Boulevard and the Future interchange at Monterey Road (PM Peak Hour)

Impacted SR-1 On-Ramps:

- SR-1 & Molera Road / Nashua Road Northbound On-Ramp (AM and PM Peak Hours)
- SR-1 & Molera Road / Nashua Road Southbound On-Ramp (AM Peak Hour)
- SR-1 & Del Monte Boulevard north of Marina Southbound On-Ramp (AM Peak Hour)
- SR-1 & Reservation Road north of Marina Southbound On-Ramp (AM Peak Hour)
- SR-1 & Del Monte Boulevard south Marina Southbound On-Ramp (AM Peak Hour)
- SR-1 & Imjin Parkway Southbound On-Ramp (AM Peak Hour)
- SR-1 & Lightfighter Drive Southbound On-Ramp (AM Peak Hour)
- SR-1 & Lightfighter Drive Northbound On-Ramp (PM Peak Hour)
- SR-1 & Monterey Road (New Interchange) Southbound On-Ramp (AM Peak Hour)

- SR-1 & Monterey Road (New Interchange) Northbound On-Ramp (PM Peak Hour)
- SR-1 & Fremont Boulevard in Seaside Southbound On-Ramp (AM Peak Hour)
- SR-1 & Fremont Boulevard in Seaside Northbound On-Ramp (PM Peak Hour)
- SR-1 & SR-218 Southbound On-Ramp (AM Peak Hour)
- SR-1 & SR-218 Northbound On-Ramp (PM Peak Hour)
- SR-1 & Del Monte Boulevard in Monterey Southbound On-Ramp (AM Peak Hour)
- SR-1 & Casa Verde Way Northbound On-Ramp (PM Peak Hour)
- SR-1 & SR-68 East Southbound On-Ramp (AM Peak Hour)
- SR-1 & Fremont Street in Monterey Southbound On-Ramp (AM Peak Hour)
- SR-1 & Fremont Street in Monterey Northbound On-Ramp (PM Peak Hour)
- SR-1 & Munras Avenue Southbound On-Ramp (AM Peak Hour)
- SR-1 & Munras Avenue Northbound On-Ramp (PM Peak Hour)
- SR-1 & SR-68 Northbound On-Ramp (PM Peak Hour)

To achieve acceptable operations, SR-1 would need to be widened from four to five lanes in the southbound direction between Molera Road / Nashua Road and SR-68 West and in the northbound direction between SR-68 East Drive and Monterey Road. However, the feasibility of widening SR-1 to more than four lanes in any one direction is uncertain, as the ability to obtain the necessary right-of-way is limited. Therefore, the Project would represent a **significant unavoidable impact** along these freeway segments and on-ramp locations. Payment of FORA fees would mitigate the proposed project's cumulative impacts towards regional improvements on SR-1.

Cumulative Roadway Segment Impacts

Impact 4.10-3: Unacceptable Roadway Segment LOS. The proposed project would result in additional trips on roadway segments forecast to operate at an unacceptable LOS D or worse under Cumulative Year (2035) plus Project conditions. This is considered a **potentially significant impact**. The affected roadway segments include:

- Reservation between Inter-Garrison Road and Davis Road: this segment is forecast to operate at LOS D under Cumulative Conditions and LOS E with the addition of project traffic under Cumulative Year (2035) plus Project Conditions

The project is forecast to result in a cumulative impact on this segment based on the ratio of volume to capacity. Although this planning methodology can effectively identify potential capacity issues, segment operations are typically defined by the operations of signalized intersections when ADT exceeds LOS D thresholds. This standard guideline is best described in the roadway/arterial level of service methodology contained in the 2000 Highway Capacity Manual (Transportation Research Board, 2000). The intersections of Inter-Garrison Road / Reservation Road, East Garrison Road / Reservation Road, and Davis Road / Blanco Road are forecast to operate at acceptable levels of service with the recommended mitigation defined in this EIR. The acceptable operating conditions indicate that the segment capacity will be sufficient to maintain acceptable roadway operations without adding additional lanes on Reservation Road. Based on the intersection levels of service along the corridor, the forecast roadway segment impact would be reduced to a **less than significant** level.

Mitigation Measures:

MM 4.10-1 Prior to issuance of building permits, the project applicant shall submit to the City of Seaside evidence of payment of the fees listed below (fair share costs for project-level impacts based on estimated 2013 project costs to be adjusted annually on July 1 by the Engineering Record's Construction Cost Index).

- Payment of County of Monterey fair share fees for the improvements to the following intersections:
    - Intersection #32: Inter-Garrison Road / Reservation Road
    - Intersection #45: Davis Road / Reservation Road
    - Intersection #48 Davis Road / Blanco Road
- Payment of FORA fees for the improvements to the following intersections:
    - Intersection #21: Inter-Garrison Road / 2nd Avenue
- Payment of City of Seaside fair share fees for improvements at the following intersections:
    - Intersection #36: Coe Avenue and General Jim Moore Boulevard
    - Intersection #39: Broadway Avenue and General Jim Moore Boulevard

Prior to issuance of building of building permits the applicant shall submit the required fees to the appropriate jurisdiction. Prior to issues of building permits, the applicant shall provide evidence of fee payment to the City of Seaside.

Utilities and Service Systems

4.7. Project Alternatives

Relationship to Project Objectives

Alternatives Considered But Rejected

Alternative #1 – No Project Alternative – No Development

Characteristics

Comparative Analysis

Aesthetics and Visual Quality

Air Quality

Geology and Soils

Hazards and Hazardous Materials

Hydrology and Water Quality

Land Use and Planning

Noise

Public Services/Utilities.

Transportation/Circulation

Consistency with the Project Objectives

Alternative #2 – No Project Alternative – Existing Land Use Designations

Comparative Analysis

Aesthetics and Visual Quality

Air Quality

Geology and Soils

Hazards and Hazardous Materials

Hydrology and Water Quality

Land Use and Planning

Noise

Public Services/Utilities.

Transportation/Circulation

Consistency with the Project Objectives

Alternative #3 – California Central Coast Veterans Cemetery Alternative

Comparative Analysis

Aesthetics and Visual Quality

Air Quality

Geology and Soils

Hazards and Hazardous Materials

Hydrology and Water Quality

Land Use and Planning

Noise

Public Services/Utilities.

Transportation/Circulation

Consistency with the Project Objectives

Alternative #4 – Alternate Use for the Training Track and Arena

Comparative Analysis

Aesthetics and Visual Quality

Air Quality

Geology and Soils

Hazards and Hazardous Materials

Hydrology and Water Quality

Land Use and Planning

Noise

Public Services/Utilities.

Transportation/Circulation

Consistency with the Project Objectives

4.10.3 Environmentally Superior Alternative

CEQA Guidelines Section 15126(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the No Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives.

3.14 Utilities and Service Systems

This section of the EIR examines the public utilities impacts associated with proposed project, including water, reclaimed water, wastewater, solid waste, and dry utilities.

Information contained in this section is based on the *2004 City of Seaside General Plan*, *City of Seaside Municipal Code*, and the *Water Supply Assessment and Written Verification of Supply for the Monterey Downs Specific Plan* that was prepared by Schaaf & Wheeler (November 2012), the latter of which is included at Appendix I.

Environmental Setting

Water

The Marina Coast Water District (MCWD) provides potable water service to its residential, commercial, industrial, and institutional customers within its service area, which includes the project site and the former Fort Ord. The MCWD serves five major pressure zones that are served via booster stations. The MCWD's water system facilities include six groundwater wells, eight potable water storage tanks, five booster stations, and over 280 miles of pressured pipes ranging from 2 to 24 inches in diameter.

The MCWD's average water production over the period of 2001 through 2010 was 4,329 acre feet per year (AFY) with 2,018 AFY in the central Marina service area and 2,311 AFY in the Ord Community service area, as shown in Table 3.14-1: Water Production by Service Area (AF).

Table 3.14-1: Water Production by Service Area (AF)

Year	Central Marina	Ord Community	Total
2001	2,285	2,228	4,513
2002	2,306	2,137	4,443
2003	2,185	2,144	4,330
2004	2,262	2,423	4,685
2005	2,195	1,994	4,188
2006	1,786	2,509	4,295
2007	1,622	2,941	4,563
2008	1,833	2,269	4,102
2009	1,962	2,076	4,038
2010	1,744	2,389	4,133
Average	**2,018**	**2,311**	**4,329**

Source Marina Coast Water District and Schaaf and Wheeler 2012

Future Water Demands

Projected water demands for the MCWD through 2030, taken from the 2010 Urban Water Management Plan (UWMP) are shown in Table 3.14-2: 2010 Urban Water Management Plan Water Demands by Service Area (AF). The demand estimates for the City of Seaside and Monterey County include projections for elements within the Monterey Downs Specific Plan, including all of the residential units, one of the two hotels, the Seaside Corporation Yard, and allocations for office, retail, and light industrial space. The CCVC was not projected for construction during the planning period and therefore the water demand was not accounted for in the UWMP.

Table 3.14-2: 2010 Urban Water Management Plan Water Demands by Service Area (AF)

FORA Allocation	Annual Acre Feet Allotment or Supply	Allocation of Recycled Water
City of Marina	1,325	345
City of Seaside	1,012	435
CSUMB	1035	87
UCMBEST	230	60
City of Del Rey Oaks	242.5	280
City of Monterey	65	--
Monterey County	710	--
U.S. Army	1,577	--
County/State Parks	45	--
County/City of Marina (Sphere)	10	--
FORA Strategic Reserve	348.5	--
Subtotal	*6,600*	*1,427*
MCWD by Agreement with Monterey County Water Resources Agency (groundwater)	3,020	--
Armstrong Ranch (groundwater)	920	--
Lonestar Property (groundwater)	500	--
Total	**11,040**	**1,427**

Water Supply

The primary source of water for the MCWD is the Salinas Valley Groundwater Basin, as well as a small desalination plant in the Central Marina Service area. Under the Regional Urban Water Augmentation Project, the District is working to develop recycled water and a larger desalination plant to meet the projected demands of the Ord Community. None of the District's current water supply is purchased under a wholesale contract.

Within the Ord Community, the 6,600 AFY of existing groundwater supply has been allocated to the land use jurisdictions by the Fort Ord Reuse Authority. The jurisdictions then formally sub-allocate this supply to developments. Until additional water supplies are developed and allocated within the Ord Community, MCWD will only allow new service connections up to the usage totals allocated by the respective

jurisdictions. FORA has also formally allocated the recycled water supply from the Phase 1 Recycled Water Project. Of the 6,600 AFY allocated for groundwater and recycled water, 1,012 AFY of groundwater and 453 AFY of future recycled water was allocated to the City of Seaside and 710 AFY of groundwater was allocated to the County of Monterey.

Groundwater

The District supplies groundwater from the Salinas Valley Groundwater Basin, which is managed by the Monterey County Water Resources Agency (MCWRA). Under the "Agreement between the United States of America and the Monterey County Water Resources Agency concerning Annexation of Fort Ord into Zones 2 and 2A of the Monterey County Water Resources Agency, Agreement No. A-06404," dated September 21, 1993, the MCWRA (Successor to the United States) may withdraw up to 6,600 AFY from the Salinas Groundwater Basin for use in the MCWRA's Ord Community service area.

There are three defined aquifers within the MCWRA service area, the 180 foot, the 400 foot, and the 900-foot (or Deep Aquifer). The MCWD's municipal water system extracts water from eight groundwater wells with three wells located within Central Marina and five located within the former Fort Ord. The service areas are interconnected for reliability with meters at the points of connection to facilitate managing the two well fields to ensure each service area remains within its authorized withdrawal limit.

Desalinated Water

The District has a desalination plant located near Marina State Beach, which can contribute up to 300 AFY of potable water supply to the Central Marina service area. The plant was constructed in 1997 as a pilot project but is not currently in use. Under a 2006 agreement among the MCWD, Cypress Marina Heights, L.P, Marina Community Partners, LLC., and Cypress Knolls, LLC. the yield of this plant is dedicated to meeting the needs of the three developments in the Marina portion of the Ord Community service area. The developers may opt to terminate the agreement once new supply becomes available to the Ord Community from the Regional Urban Water Augmentation Project or the Regional Desalination Project.

Future Water Supply

The MCWD is working towards developing new sources of water to meet projected demand increases due to redevelopment within the Ord Community, as well as taking actions to address groundwater wells impacted by saltwater intrusion. The two major water supply projects are recycled water and desalinated water. Additionally, the MCWD has recently completed the construction of Wells 34 and 35, located further inland and completed in the Deep Aquifer to protect against the impacts of seawater intrusion.

Recycled Water

Recycled water, also referred to as reclaimed water, is sanitary sewage that undergoes treatment and disinfection, typically for non-potable uses such as agricultural and landscape irrigation. The Monterey Regional Water Pollution Control Agency (MRWPCA) operates a regional wastewater treatment facility in north Marina and produces reclaimed water for agricultural irrigation in the Castroville area. Through prior agreements with the MRWPCA, the MCWD is entitled to receive recycled water from the regional plant, up to the volume of wastewater generated within the City and sent to the plant. The MCWA and the MRWPCA have designed the distribution system to provide water from the plant to MCWA and construction is slated to occur within the next two to five years.

In the 2006 Basins of Design Report for the recycled water system, 2,635 AFY of urban irrigation demand which may utilize recycled water was identified in the Ord Community service area. Phase 1 of the Recycled Water Project was sized to deliver up to 1,727 AFY, based upon the quantity available to urban users from the MRWPCA. Phase 2 of the Recycled Water Project would deliver additional supplies, but would require developing a means of storing recycled water during the low demand months in the winter for delivery during the peak demand summer months.

The MCWD Water Master Plan calls for reclaimed water infrastructure to be constructed along General Jim Moore Boulevard west of the project site and along the reconstructed portions of Eucalyptus Road south of the project site. In addition, MCWD is planning to construct a 1.5 million gallon reclaimed water tank, which would be located at the same site as the current Zone D and Zone E tanks. The anticipated point of connection for reclaimed water would be near Reservoir D/E and would be extended north to the project site.

Desalinated Water

Desalinated water is another potential water supply for the MCWD. The District's existing 300 AFY desalination plant is relatively small, but a larger facility to serve the District is planned as a supplemental water supply. The Regional Urban Water Augmentation Project EIR includes a 1,500 AFY desalination facility for MCWD. The facility was sized to provide 1,200 AFY of new supply to the Ord Community and 300 AFY to Central Marina, allowing the MCWD to retire the existing plant.

Conservation

The MCWD has an active water conservation program. Under MCWD's water conservation ordinance, all new construction is required to incorporate water saving devices over and above the requirements of the state building code. Additionally, the District has adopted the State's Model Water Efficient Landscape Ordinance. The MCWD requires developers to install water conservation fixtures during construction;

landscapes which require high irrigation are discouraged; and a tiered water rate structure that discourages water waste. The MCWD offers rebate incentives to replace less efficient water fixtures and has recently started a rebate program for smart irrigation controllers.

The State of California has established a goal of reducing per person water use by 20 percent by the year 2020, compared to the 2008 baseline demands. Toward that end, the California Building Code was updated in 2010 with the goal of reducing indoor water use to 55 gallons per person per day. In the 2010 Urban Water Management Plan, the MCWD identified a year 2020 conservation target of 117 gallons per person per day.

Wastewater

Wastewater conveyance and disposal on the former Fort Ord is currently is provided by MCWD. Wastewater conveyance to the project site may either be provided by the MCWD or the Seaside County Sanitation District (SCSD), which is a special district responsible for the maintenance and operation of the sanitary sewer collection system serving the cities of Del Rey Oaks, Sand City, and Seaside. The District's sanitary sewer collection system serves an area of approximately 2,400 acres with a population of about 30,000. The sewer system consists of approximately 70 miles of pipeline with 930 manholes, 475 rod holes, and 4 lift stations. The wastewater is ultimately pumped to the MRWPCA regional treatment plant.

The MCWD and the SCSD has an agreement with the MRWPCA to have the district's wastewater treated at the regional treatment plant. The MCWD is a publicly owned water and wastewater district that services the former Fort Ord. The existing wastewater infrastructure points of connection are located at 7th Avenue and Gigling Road (an existing 8 inch sewer pipe line) and Parker Flats Road and Normandy Road (an existing 6 inch sewer pipe line that connects to an existing 12 inch sewer pipe line to the west of Brittany Road).

The regional treatment plant has a permitted capacity of 29.6 million gallons per day (mgd). The MRWPCA collects both connection fees and capacity fees from new users to off-set the cost of providing for their additional demands. The regional treatment plant is expected to have capacity through 2020-2028 to serve development within the boundaries of its member agencies (local cities and the County) without implementation of a water conservation program, and until 2030 if a water conservation program is fully implemented. Two capacity expansions were pre-designed when the wastewater treatment plant was initially designed and constructed, and these could expand the plant to an ultimate capacity of 37 million gallons per day.

Solid Waste

Solid waste on the former Fort Ord and in the City of Seaside is deposited in the Monterey Regional Waste Management District's landfill in Marina. The MRWMD has a permit capacity of 3,500 tons per day and receives an average of 1,100 tons per day. The facility was re-engineered to have a total capacity of 48,000,000 tons, of which approximately 47,900,000 tons are remaining. The expanded capacity would enable the MRWMD to provide service for approximately 150 years (Personal Communication between Rick Shedden, Monterey Regional Waste Management District and Erika Spencer, RBF Consulting on July 16, 2013).

Other Dry Utilities

Other dry utilities that will be required to serve the project area include natural gas, electricity, telephone services, and other data services. The provider for natural gas service in the project area includes Pacific Gas & Electric (PG&E). PG&E currently has facilities located west of the Specific Plan area in Normandy Road. PG&E is also the provider of electrical service to this area. The existing PG&E substation is 12 kV, but PG&E has plans to upgrade this to a 21 kV substation. Existing electrical lines are present along Gigling Road. The telephone provider for the area is AT&T. Existing service is located southwest of the site, but this service infrastructure was not installed with proper easements. Therefore, all new service will be required to be established for any development in the project area. Comcast is the cable provider for the project area. Comcast's existing facilities are located west of the project in General Jim Moore Boulevard.

Regulatory Setting

State

Water Supply and Distribution

Title 22 California Code of Regulations

The California Department of Public Health (CDPH) promulgates and enforces state regulations for drinking water treatment facilities and distribution systems. These state regulations are at least as strict as federal drinking water regulations, although not all federal regulations are currently incorporated into corresponding state regulations. These state drinking water regulations are contained in California Code of Regulations (CCR) Title 22. The CDPH also regulates the distribution and use of recycled water through CCR Title 22.

Urban Water Management Planning Act

The California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 to 10656) in 1983. In essence, the Act requires most urban

water suppliers to prepare Urban Water Management Plans (UWMPs) to ensure near and long-term viability and reliability of local water supplies.

The MCWD prepared the 2010 Urban Water Management Plan, which addresses the water district's groundwater, recycled water, and desalination supplies. The UWMP includes the following elements: existing and future water demand projections; existing and future water supply facilities; existing and future demand versus supply comparisons; groundwater basin conditions; water supply reliability; water demand management measures; water recycling; and water shortage contingency plans.

Portions of the proposed project were accounted for in the 2010 UWMP, although the overall project size and phasing was different than what is assumed in the Specific Plan. The UWMP included 2,040 dwelling units, 200 hotel rooms, and approximately 630,000 square feet of commercial/light industrial space, with a total projected water demand of 738.4 AFY.

State Assembly Bills 610 and 221

In response to its concern about the approval of large new developments without proof that water supply is available to serve them, in 2002 the State of California passed Senate Bill 610 (SB 610). SB 610 amended Section 10910 of the California Water Code. It requires that a water supply assessment be prepared and incorporated into the CEQA process for new development projects that meet certain size and development intensity criteria.

Projects of the following sizes require preparation of a Water Supply Assessment (WSA):

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project

The proposed project exceeds the size and development intensity variables noted above and therefore, it is subject to the requirements of SB 610. A water supply assessment must include analysis of the estimated water demands and proposed water sources for a new project. In order for a proposed project to be approved, the water supply assessment must conclude that the supply of domestic water available to the development is adequate, and will continue to be adequate over the next 20 years during normal, dry, and multiple dry years. The water supply assessment must be included in the CEQA document for the proposed project.

The legislation describes how responsibility for preparing a water supply assessment is to be assigned. Typically, the water purveyor which would serve a proposed project must prepare the water supply assessment. The MCWD would provide water to the project area and is therefore required to prepare a water supply assessment for the proposed project. The *Water Supply Assessment and Written Verification of Supply for the Monterey Downs Specific Plan* (WSA), prepared by Schaaf & Wheeler for the MCWD (November 2012), was prepared to assist the City of Seaside and the MCWD in satisfying the requirements of SB 610. The WSA is specific to the proposed project and addresses the potential impacts of the project's water demands on the district wide water supplies, information on current water demands and projected water demands, a comparison of water supplies and water demands for normal, single, and multiple dry years, and information to make the sufficiency findings required by CEQA. The WSA for the proposed project is included in Appendix I of the Draft EIR.

Wastewater Treatment

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972 (CWA (33 U.S.C. 1251 et seq.)) have as their goal the restoration of the physical, chemical, and biological integrity of the nation's waters. The primary regulatory mechanism to achieve the goal is the National Pollutant Discharge Elimination System (NPDES). The CWA requires that parties seeking to discharge pollutants to the water of the United States obtain a permit under the NPDES. The federal government has delegated responsibilities for implementing the CWA NPDES program in California to the State. A discharge of pollutants from a source with a single readily identifiable point of discharge, such as a municipal wastewater outfall, is only permitted if it meets certain quality standards, known as effluent limits. Effluent limits are based on available wastewater treatment technology. For surface water discharges of stormwater runoff, additional regulations may apply, as discussed further below.

CWA Section 303(d)(1)(A) requires states to identify surface waters within their boundaries where numeric or narrative water quality objectives are not being achieved or maintained and/or where beneficial uses are not fully protected after application of technology-based controls. Section 401 of the CWA requires applicants for federal

licenses or permits to obtain safe certification that any discharge of pollutants to surface waters from a proposed activity will comply with the CWA, including applicable water quality standards. CWA Section 404(b)(1) Guidelines (40 CFR 230) regulate dredge and fill activities that affect jurisdictional wetlands and waters, including water quality aspects of such activities.

California Porter-Cologne Act

The California Porter-Cologne Act created an administrative structure and procedures for management of water quality in the state. California's water quality program is administered by the State Water Resources Control Board (SWRCB) and by nine Regional Water Quality Control Boards (RWQCBs). Each RWQCB is responsible for regulating water quality within their watershed. In accordance with the Porter-Cologne Act, each RWQCB implements the Basin Plan developed for its region by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges can affect water quality. These requirements can be either waste discharge requirements (WDRs) for discharges to land (which may impact groundwater), or federally delegated NPDES permits for discharges to surface water.

Solid Waste

Integrated Waste Management Act

The Integrated Waste Management Act (AB 939) mandates that communities reduce their solid waste. The Act requires local jurisdictions to divert 25 percent of their solid waste by 1995 and 50 percent by 2000, compared to a baseline of 1990. AB 939 also establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance.

Local

City of Seaside General Plan

Land Use Element

Policy LU-6.2: Ensure new development and redevelopment projects provide adequate sewage collection infrastructure.

> **Implementation Plan LU-6.2.1** Adequate Sewer Facilities. During the processing of development proposals, have City staff verify that adequate sewer collection and treatment facilities are available to meet the needs of the development without negatively impacting the existing community. Additionally, all sewer collection facilities shall receive approval from the Marina Coast Water District. Where determined appropriate, use Redevelopment Agency funds to improve the sewage collection system and/or payment of appropriate sewage hook-up fees by the developer.

Goal LU-7: *Collaborate effectively with local providers of solid waste collection and disposal to provide a sufficient level of solid waste disposal.*

Implementation Plan LU-7.1.1 Integrated Waste Management Act. Continue to comply with the State's Integrated Waste Management Act, which requires cities and counties to divert at least 50 percent of its waste from area landfills, through 1) recycling and reuse educational brochures and 2) working with regional agencies to properly maintain and upgrade the City's recycling center.

Policy LU-8.2: Ensure that developers provide stormwater retention/detention facilities and institute Best Management Practices that regulate runoff and siltation that meets local, State, and federal standards.

Implementation Plan LU-8.2.1 Adequate Drainage Systems. Apply appropriate development standards and fees to improve present drainage systems and provide adequate stormwater detention basins and sedimentary ponds with new construction. To ensure the best flood control facilities are provided and maintained, require new development to provide facilities that are visually attractive and ecologically beneficial. Ensure the development funds the on-going maintenance of the facilities. Require all drainage improvements to be constructed and maintained to the standards of the appropriate agency, and that all necessary encroachment permits are obtained from the City and Caltrans.

Policy LU-8.2: Ensure that developers provide stormwater retention/detention facilities and institute Best Management Practices that regulate runoff and siltation that meets local, State, and federal standards.

Implementation Plan LU-8.2.1 Adequate Drainage Systems. Apply appropriate development standards and fees to improve present drainage systems and provide adequate stormwater detention basins and sedimentary ponds with new construction. To ensure the best flood control facilities are provided and maintained, require new development to provide facilities that are visually attractive and ecologically beneficial. Ensure the development funds the on-going maintenance of the facilities. Require all drainage improvements to be constructed and maintained to the standards of the appropriate agency, and that all necessary encroachment permits are obtained from the City and Caltrans.

Policy LU-5.3: Actively promote water conservation by City residents and businesses.

Implementation Plan LU-5.3.1 Water Conservation. Continue to require new public and private development and redevelopment projects to install and

utilize water conservation measures per Section 13.18.010 of the Seaside Municipal Code. Section 13.18.010 requires:

1) The installation of low water-use plumbing fixtures, and low water-use landscape materials in new construction.
2) The installation of low water-use plumbing fixtures in existing hotels and motels.
3) The retrofitting of plumbing fixtures in all existing residential buildings at the time of change of ownership or physical expansion, or in the cases of commercial property, at the time of change of ownership, or change or expansion of use.

Policy LU-5.4: Promote the use of recycled water for irrigation of parks, golf courses, and public landscaped areas in the community.

Goal LU-7: *Collaborate effectively with local providers of solid waste collection and disposal to provide a sufficient level of solid waste disposal.*

Implementation Plan LU-7.1.1 Integrated Waste Management Act. Continue to comply with the State's Integrated Waste Management Act, which requires cities and counties to divert at least 50 percent of its waste from area landfills, through 1) recycling and reuse educational brochures and 2) working with regional agencies to properly maintain and upgrade the City's recycling center.

Policy LU-8.1: Maintain necessary flood control facilities.

Conservation/Open Space Element

Goal COS-2: Provide a safe and adequate water supply to meet the needs of the community.

Policy COS-2.1: Work with regional and local water providers to ensure that adequate supplies of water are available to meet existing development and future growth.

Policy COS-2.2: Encourage the production, distribution, and use of recycled water.

Policy COS-2.3: Participate in and implement local and regional programs that promote water conservation as a means of improving water supply and water.

Policy COS-3.1: Eliminate long-term groundwater overdrafting as soon as feasible.

Water Supply Management Plans

The California Urban Water Management Planning Act (Section 10610 et. seq. of the California Water Code requires urban water suppliers supplying over 3,000 AFY of water or having a minimum of 3,000 service connections to prepare plans (urban water management plans or UWMPs).

Water Supply Assessment

In response to its concern about the approval of large new development without proof that water supply is available to serve them, in 2002 the State of California passed Senate Bill 610 (SB 610). SB 610 amended Section 10910 of the California Water Code. It requires that a water supply assessment be prepared and incorporated into the CEQA process for new development projects that meet a certain size and development intensity criteria.

Section 10912(a) defines a Project for WSA purposes to include any of the following:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A mixed-use project that includes one or more of the projects identified on this list;
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The proposed project includes over 1,500 dwelling units and 700,000 square feet of commercial space and therefore a water supply assessment is required.

City of Seaside Municipal Code, Title 13, Public Services

Chapter 13.18, Residential and Commercial Conservation Measures

Chapter 13.18 of the Seaside Municipal Code sets forth a number of water conservation measures applicable to the residential and commercial properties. This Chapter requires implementation of water conservation measures in new construction, as well as upon the change of ownership of use, including expansions of certain existing uses. The proposed project would be subject to Chapter 13.18, in addition to other water conservation measures included as part of the proposed Specific Plan.

Chapter 13.04 - Sewer System

Chapter 13.04 provides provisions that requires every building where persons reside, congregate or are employed which abuts a street or alley in which there is an approved public sanitary sewer, or which is within two hundred feet of any approved public

sanitary sewer, provided a right-of-way can be obtained, and if possible grade is present, shall be connected to the sewer, by the owner or agent of the premises, in the most direct manner possible.

Chapter 13.10 - Municipal Water System

Chapter 13.10 requires that no person whose premises is not connected with the municipal water system upon the beginning of operation of the system shall connect any premises or cause any premises to be connected with the municipal water system without first obtaining a permit to do so from the city engineer. The city shall determine the type and description of water services, including but not limited to, size of service pipes, number of meters, and number of services per meter.

Chapter 13.16 - Allocation of Sewer Capacity and Water

Chapter 13.16 of the Seaside Municipal Code relates to the allocation of sewer and water capacity. On April 24, 1989, the MRWPCA released the city's final one-third allocation of housing units and sewer flow capacity and the City modified its restriction on residential development imposed by Ordinances 730 and 748. The purpose and intent of this ordinance to maintain compliance with the allocation plans of the MRWPCA and the MPWMD as they affect residential and commercial development in the City of Seaside. In order to insure the availability of sewer connection permits for the future development of vacant legal lots of record, as well as to insure an adequate supply of sewer and water for existing and future development, it is necessary for the public health, safety and welfare to regulate project approvals as discussed below.

No application for a permit or other applicable entitlement for use which has as its result the approval or allowance of a residential subdivision in excess of four lots or otherwise results in the creation of more than four lots, shall be accepted, processed, acted upon, granted or approved by any employee, department or commission of the city.

Chapter 13.30 - Storm water Management Utility

The intent and purpose of Chapter 13.30 of the Seaside Municipal Code is to provide a management system that allows for the protection of the health, safety and general welfare of citizens, and protection and enhancement the water quality of water courses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C § 1251 et seq.) by reducing pollutants in storm water discharges to the maximum extent practicable and by prohibiting non-storm water discharges to the storm drain system.

Relevant Project Characteristics

The proposed project includes development standards, which address water conservation including the following: using reclaimed water for commercial and multi-family housing when available for both interior and exterior use; ensuring that at least

80 percent of single family lots are non-turf; that if a rainwater harvesting system is utilized that it not be hooked to the public water supply system; installation of low flow plumbing fixtures and energy star appliances; ensuring that cisterns and wastewater pipes are not connected; ensuring that if a rainwater harvesting system is utilized that it not be hooked to the public water supply system, etc.

The proposed Specific Plan also includes development standards for landscape irrigation, including irrigating at night and in the early morning to reduce evaporation due to sun and wind per the City of Seaside's irrigation requirements; irrigating turf areas with low flow spray heads having a minimum of six-inch pop-up body; ensure that irrigation water is not applied to walks, driveways, walls, fences, and building faces. Irrigation runoff water shall not flow on to other properties or on the public right-of-way.

Impacts and Mitigation Measures

Thresholds of Significance

In accordance with the CEQA, *State CEQA Guidelines*, agency and professional standards, a project impact would be considered significant if the proposed project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- 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;
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- 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;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that is has sufficient capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- Comply with federal, state and local statutes and regulations related to solid waste.

Project Impacts and Mitigation Measures

Increased Water Demand

Impact 3.12-1: The proposed project would result in a water demand of 852.5 AFY. As the project area includes portions of the City of Seaside and the County of Monterey, the proposed project would utilize allocations from each of these jurisdictions existing groundwater allocations to the former Fort Ord. The remaining unallocated supply totals 382.2 AFY and 157 AFY of available recycled water is sufficient to meet Phases I and II of the proposed project. **Please see NOTE at the end of this analysis.** However, the remainder of the potential Specific Plan development (Phases III and IV) would need to account for additional water supply demand. Thus, the proposed project's increased water demand is a **potentially significant impact**.

Monterey Downs and Horse Park

Sports Arena and Equine Training Facility

The sports arena and equine training facility includes a track, infield, stable areas (backstretch), equine veterinarian clinic, amenity pond/irrigation water storage, sports arena, recreational vehicle (RV) facilities, and parking facilities. The track is planned to have both turf and dirt surfaces on which horses can train to run in races at other tracks. The training center is proposed to be modeled after the Del Mar Thoroughbred Club.

Water demands for the track and training fields were estimated in the WSA using demand factors based upon similar facilities (Golden Gate Fields and Del Mar Thoroughbred Club). The water demand for stable facilities is 75 gallons per day (gpd) per horse. The annual water demand for the stabling facilities was estimated based on the average occupancy for each type of facility. Recycled water, when it becomes available, may be used for facility wash-down inside the stables. Under the current Public Health Code, potable water must be used for horse drinking and animal washing. The training facilities will also require watering for dust control. Watering at 0.1 inch per day, 200 days per year produces an annual demand factor of 1.67 AFY. The remaining facilities were estimated using the District's standard demand factors. It should be noted that for all non-residential areas, estimates for interior water demands (e.g. toilet flushing, etc.) may be met using recycled water.

Mixed Use Pedestrian Village (Country Walk)

The mixed use commercial center known as the Country Walk would include restaurants, movie theatres, offices, museums and cultural facilities, hotel, and retail uses. Water demand estimates for the Country Walk facilities use the District's standard demand factors for indoor water demands. For landscape irrigation demands,

the WSA assumed that 15 percent of non-building areas would be landscaped. The non-turf demand factor of 2.1 AFY per acre was applied.

Monterey Horse Park

The Monterey Horse Park would be dedicated to sand-based outdoor arenas, a Grand Prix sized field, and other equine facilities, as well as permanent and temporary stalls to house horses. In addition, the Monterey Horse Park will include a visitors center, care taker residences, office spaces, RV facilities, and a veterinarian clinic. Facilities will offer programs for the public, such as riding programs for the disabled, local equestrian teams, and youth-oriented programs. Within the Horse Park will be a staging area and stabling facility. The facility will be designed to offer up to 100 horse stalls for regular and temporary use. Users will be able to board their horses at the facility and have access to the adjacent the United States Bureau of Land Management (BLM) and County open spaces.

Water demands for the horse park are similar to those for the Sports Arena and Equine Training Facility, based upon a demand factor of 75 gallons per day per horse and the estimated stable occupancy throughout the year. The Horse Park also proposes multiple training facilities that require watering for dust control for an estimated 200 days of the year.

Habitat Area

The habitat area will not have any irrigation or water-using facilities.

Open Space/Trails

The proposed project includes a well-connected network of open space and trails that will provide for a scenic drive along Parker Flats Road and the future Eastside Parkway. These areas will also allow for oak habitat preservation and mitigation. The majority of the open space will not be irrigated. Two sites totaling approximately nine acres have been identified as potential storm water retention basins. To allow for the planting of screening landscaping, 3.7 AFY of irrigation supply is estimated.

Affordable Workforce Housing

The 256 high density affordable units are intended to operate as an extended stay hotel rather than traditional apartments and would be provided adjacent to the backstretch of the Training Facility for the workers who must live on-site to care for the horses since workers travel up and down the state during the horse racing season. Therefore, the MCWD standard demand factor for hotel rooms, 0.17 AFY per unit was applied resulting in a demand estimate of 43.5 AFY.

Residential

Approximately 800 single family homes of various sizes are proposed for the residential component of the proposed project. An additional 400 apartment units are anticipated adjacent to the "Country Walk" and approximately 76 courtyard style homes are planned in the Specific Plan area. The total estimated water demand for residential uses is anticipated at 324.2 AFY. Water demand for residential uses was estimated using the state indoor water use target of 55 gallons per person per day. These values are less than the District standard residential demand factors, which pre-date the 2010 Code Update. The high density affordable units (34 dwelling units per acre) will operate as an extended hotel to support those working at the equestrian training facility, so the hotel demand factor was used for that housing type.

Residential outdoor water use was estimated to be 30 percent turf and 70 percent non-turf. The residential front yards would be irrigated using recycled water when it becomes available and maintained by a Home Owners Association (HOA). Residential backyards may only be irrigated with potable water. The average residential landscape is 1,050 square feet, requiring 2.2 AFY per acre for a total residential landscape demand of 48.6 AFY.

Neighborhood Parks

The WSA utilized a landscape water demand factor of 2.05 AFY per acre was developed for parks based on a typical mix of hardscape, turf, non-turf, and non-irrigated land use.

Hotel/Office/Government

The proposed project includes a hotel site, office uses, tennis and swim facilities, an aquatic center, a park, and a fire station. Water demands were estimated for these facilities and irrigation demands use the 2.1 AFY per acre demand factor and assume that 15 percent of the land area is landscaped.

Monterey Downs and Horse Park Water Demand Estimate

As shown in Table 3.12-3: Monterey Downs and Horse Park Water Demand Estimate, the total projected water demand for the proposed project is 840.3 AFY. Potential non-potable water demands are interior demands that may be met using recycled water, but will require the buildings to be dual-plumbed. The Outdoor Non-Potable Water Demand reflects exterior uses for landscape irrigation and dust control.

580 **Table 3.12-3: Monterey Downs and Horse Park Water Demand Estimate**

Project Component	Potable Water Demand	Potential Non-Potable Water Demand	Outdoor Non-Potable Water Demand (AFY)	Total Demand (AFY)
Training Track	40.7	37.9	88.3	166.8
Horse Park	34.3	16.4	78.7	129.4
Country Walk	82.9	13.5	1.6	98.0
Office Park/Hotel	44.3	10.3	2.6	57.3
Affordable MFR (34 du/acre)	43.5	0.0	0.5	44.1
MFR (20 du/acre)	72..0	0.0	1.4	73.4
MFR (9 du/acre)	20.2	0.0	2.2	22.4
SFR (9 du/acre)	204.9	0.0	21.4	226.2
Parks/Open Space	0.0	0.0	22.8	22.8
Total	**542.9**	**78.0**	**219.4**	**840.3**

Source: MCWD and Schaaf and Wheeler 2012

581

582 *Central Coast Veterans Cemetery*

583 The CCVC will consist of burial sites, administration offices, maintenance yard and
584 building, and memorial areas. The proposed ancillary facilities consist of a veterans hall
585 and non-denominational chapel, located on 1.5 acres in Seaside, an amphitheater located
586 on 2.3 acres in Monterey County, and endowment parcel (now included in the
587 Monterey Downs portion of the proposed project) and a development area with habitat
588 restoration opportunity. The development area with habitat restoration opportunity is
589 assumed to remain as a habitat restoration area and therefore no water use is assumed
590 for this area.

591 The Cemetery Master Plan states that all plantings will be drought tolerant and the
592 graves will be covered with crushed granite instead of grass allowing for minimal
593 landscape irrigation demands. As shown in Table 3.12-4: Central Coast Veterans
594 Cemetery Water Demand Estimate, the CCVC will result in a total water demand of
595 3.9 AFY.

596 **Table 3.12-4: Central Coast Veterans Cemetery Water Demand Estimate**

Project Component	Potable Water Demand (AFY)	Potential Recycled Demand (AFY)	Recycled Water Demand (AFY)	Total Demand (AFY)
Office	0.4	0.1	--	0.5
Maintenance Building	0.0	0.0	--	0.1
Chapel	0.6	0.2	--	0.8
Veterans Hall	0.9	0.2	--	1.1
Amphitheater	0.0	0.0	--	0.0
Landscape with CCVC	--	--	1.1	1.1
Landscape, Chapel and Veterans Hall	--	--	0.5	0.5
Total	**1.9**	**0.5**	**1.5**	**3.9**
Source: MCWD and Schaaf & Wheeler 2012				

597

598 *Seaside Corporation Yard*

599 The 15 acre Seaside Corporation Yard will include an administration building, an
600 equipment maintenance building, a crew facility, parking and storage yards, and the
601 police impound lot. Water demands for the corporation yard use the MCWD standard
602 demand factors from the District's Code of Ordinances. As shown in Table 3.12-5:
603 Seaside Corporation Yard Water Demand Estimate, the Seaside Corporation Yard will
604 result in a total water demand of 8.2 AFY.

605 *Total Project Estimated Water Demand*

606 As shown in Table 3.12-6: Total Estimated Water Demand, the proposed project will
607 result in a total estimated water demand of 852.5 AFY. The potential non-potable
608 water demands are interior demands (e.g., toilet flushing and horse stall washing) that
609 may be met using recycled water, but would require the buildings to be dual-plumbed.
610 The recycled water demand reflects exterior uses for landscape irrigation and dust
611 control. The residential front yards would be maintained by a HOA, so those irrigation
612 demands are included in the recycled water demand totals.

613 **Table 3.12-5: Seaside Corporation Yard Water Demand Estimate**

Project Component	Potable Water Demand (AFY)	Potential Recycled Demand (AFY)	Recycled Water Demand (AFY)	Total Demand (AFY)
Administration, 1st Floor	1.9	0.5	--	2.4
Administration, 2nd Floor	0.8	0.2	--	1.0
Maintenance	1.2	0.3	--	1.5
Crew Facilities	1.4	0.4	--	1.8
Landscape	--	--	1.6	1.6
Total	**5.3**	**1.3**	**1.6**	**8.2**

Notes:
Recycled water demand includes only commercial irrigation, HOA irrigation, and dust control. Potential non-potable demand includes non-residential toilet flushing and stable wash-down.

Source: MCWD and Schaaf and Wheeler 2012

614

615 **Table 3.12-6: Total Estimated Water Demand**

Project Component	Potable Water Demand (AFY)	Potential Recycled Demand (AFY)	Recycled Water Demand (AFY)	Total Demand (AFY)	Land Area (acre)
Monterey Downs and Horse Park	542.9	78.0	219.4	840.3	548.2
CCVC	1.9	0.5	1.5	3.9	135.8
Seaside Corporation Yard	5.3	1.3	1.6	8.2	17.3
Road Right of Way	--	--	--	--	9.2
	550.1	**79.8**	**222.5**	**852.5**	**710.5**

Notes:
Recycled water demand includes only commercial irrigation, HOA irrigation, and dust control. Potential non-potable demand includes non-residential toilet flushing and stable wash-down.

Source: MCWD and Schaaf and Wheeler 2012

616

617 As the project area includes portions of the City of Seaside and the County of
618 Monterey, the existing development within the project area utilizes allocations set by

the MCWD based on the existing availability of water. The remaining unallocated water supply from the MCWD totals 382.2 AFY, which is not sufficient to meet the total projected water demand of 852.5 AFY for the proposed project. However, the proposed project would be phased. As shown in Table 3.12-7: Phased Estimated Water Demand, Phase I of the project is estimated to require approximately 172 AFY and Phase II would require 72 AFY of potable water. Thus, development of Phase I and Phase II would have a total potable water demand of 333.3 AFY, in which case, the existing unallocated water supply of 382.2 AFY would be sufficient. **NOTE TO CITY:** The WSA identifies both the City of Seaside and County of Monterey as having future jurisdiction of the Specific Plan. However, since finalization of the WSA, the proposed Specific Plan is now being completely annexed into the City of Seaside. Please confirm if the original unallocated amount of 382.2 AFY still applies (which includes unallocated water from both the City and County), or if only the unallocated amount of 199.7 AFY for the City of Seaside applies.

The proposed project is also projected to use up to 302 AFY of recycled water. The City of Seaside and Monterey County have a combined allocation of 587 AFY from the Phase I Recycled Water Project (proposed to be developed within the next two to five years). However, the City of Seaside has committed to supply recycled water for irrigation of the Bayonet/Blackhorse Golf Courses, which are currently being irrigated with Salinas Valley Groundwater. The annual irrigation demand for the golf course is approximately 430 AFY leaving about 157 AFY for allocation to the proposed project once the recycled water project is constructed. Thus, development of Phase I and Phase II would total a water demand of 144.8 AFY (37.7 AFY for Phase I and 107.1 AFY for Phase II), in which case the future available recycled water supply of 157 AFY would be sufficient for the first two phases of the project (assuming completion of the recycled water project). **NOTE TO CITY:** As discussed above, please confirm if the original unallocated amount of 157 AFY still applies (which includes unallocated recycled water from both the City and County), or if only the unallocated amount for the City of Seaside applies (which was not specified in the WSA).

The remainder of the projects water demand (for Phases III and IV) would fall short of the City/County's available water by 246.3 AFY **(SEE NOTE ABOVE)**. Additional water supplies would need to be acquired. As such, the remainder of future development (Phases III and IV) would not be approved for development (via issuance of a building permit) until additional water supplies are developed, per recommended mitigation and as required by law (SB 610).

655 **Table 3.12-7: Phased Estimated Water Demand**

Proposed Land Use	Units Proposed	Total Potable Demand (AFY)	Total Non-Potable Demand (AFY)	Total Demand (AFY)
Phase I				
R-1	473 units	149.9	25.9	175.8
R-2	124 units	20.2	9.8	30
CCVC	Buildout of CCVC	1.9	2.0	3.9
Phase I Total		*172*	*37.7*	*209.7*
Phase II				
REC-1 (Buildout of Horse Park)	15,000 sq. ft.	34.3	95.0	129.3
R-3	257 units	55	10.7	65.7
RM	426 units	72.0	1.4	73.4
Phase II Total		*161.3*	*107.1*	*268.4*
Subtotal of Phase I and Phase II		**333.3**	**144.8**	**478.1**
Total Existing Available Water Supply		**382.2**	**157**	**539.2**
Phase III				
C-2 (Build out of Country Walk)	330,000 sq. ft. 200 hotel rooms	82.9	15.1	98.0
Phase III Total		*82.9*	*15.1*	*98.0*
Phase IV				
REC-2 (Equestrian Training Track and Sports Arena)	225,000 sq. ft. 256 hotel rooms	40.7 43.5	126.1 0.6	166.8 44.1
C-1	100,000 sq. ft. (commercial use) 100,000 sq. ft. (hotel use) 200 hotel rooms 5,000 sq. ft. (recreation use)	44.3	13.0	57.3
PF (Build out of the Seaside Corporation Yard)	52,200 sq. ft.	5.3	2.9	8.2
Phase IV Total		*133.8*	*142.6*	*276.4*
Total Water Demand		**550**	**302.5**	**852.5**

Total Existing Available Water Supply	**382.2**	**157**	**539.2**
Total Water Shortage for Future Development	**-167.8**	**-145.5**	**-313.3**

Notes:
Recycled water demand includes only commercial irrigation, HOA irrigation, and dust control. Potential non-potable demand includes non-residential toilet flushing and stable wash-down.

Source: MCWD and Schaaf and Wheeler 2012

Plans for Acquiring Additional Water Supplies

Under the provisions of Section 10911 of the California Water Code, if the water supplier concludes that water supplies will be insufficient for the proposed project, the water supplier shall provide its plans for acquiring additional water supplies. The MCWD is currently pursuing two water supply projects, the Recycled Water Project and the Desalination Project, which are intended to allow MCWD to develop 2,400 AFY of new supply to meet the projected Ord Community demand.

The Salinas Valley Groundwater Basin has a large storage volume and is recharged by the Salinas River, which is augmented by upstream reservoirs managed by the MCWRA. Therefore, the aquifer does not experience variations due to climatic conditions. The MCWD water demand accounts for less than one percent of the total groundwater pumped from the Salinas Groundwater basin in 2009, the latest year reported. Therefore, the MCWD's supply is considered reliable on a quantity basis. The upper aquifers in the Salinas Valley Groundwater basin along the coast are experiencing high salinity due to seawater intrusion. The MCWD's wells in Central Marina are in the Deep Aquifer, which has not experienced signs of seawater intrusion and is considered to have reliable quality. In the Ord Community, the MCWD has two wells in the deep aquifer and three wells in the upper aquifers, but outside of the area currently affected by seawater intrusion. The MCWD is closely monitoring the quality in these wells.

The planned additional sources of water supply are recycled wastewater and seawater desalination. The source of water supply for recycled water is wastewater return flows, which originate for indoor water use. Indoor water use is not subject to the same levels of curtailment during drought periods as outdoor water use, so the source of recycled water supply is considered drought-proof. The Regional Wastewater Treatment Plant (located at 14811 Del Monte Boulevard, Marina) operated by MRWPCA has reliably produced recycled water meeting the requirements of Title 22 for over a decade. Similarly, seawater desalination is considered a reliable source of supply.

Once the recycled wastewater system and the seawater desalination project are online, the proposed project would have the additional 246.3 AFY of water supply needed to serve future phases of the proposed project (Phases III and IV). Thus, with implementation of the recommended mitigation, impacts in this regard would be reduced to **less than significant levels**.

Mitigation Measure

MM PU-1 **Water Service Agreement.** Prior to issuance of a building permit, the project applicant shall provide evidence of water service agreement (i.e., a "will serve" letter) from the water provider to the City of Seaside Public Works Director ensuring that current unused water supply is allocated to that said proposed development. If available, the project may offset needed potable water supply with recycled water to the City of Seaside, such that all recycled water supplied to the City shall apply to the existing potable supply available to the proposed development.

Water Infrastructure

Impact 3.12-2 The proposed project would require the construction of new water infrastructure in order to address existing infrastructure deficiencies identified by the Marina Coast Water District (MCWD). Thus, the proposed project's increased need for water infrastructure is a **potentially significant impact.**

The proposed project would be fully connected with existing facilities to provide standard pressure service within pressure Zone D consistent with the MCWD *Urban Water Master Plan* (MCWD 2010). Zone D is served by an existing water tank located southwest of the project area. The proposed project includes a connection to the existing water system at Normandy Road and the Parker Flats Cut-off.

Figure 2-20: Proposed Backbone Domestic Water Improvements illustrates the proposed water infrastructure improvements. A second connection would be established near the Colonel Durham Street and 8th Avenue. Currently, the nearest point of connection for Zone D is located at Colonel Durham Street and 6th Avenue. From the existing points of connection, water main pipe lines would be extended approximately two blocks to bring water within the project area. The water pipelines would then be extended beneath Eastside Parkway to create the main project loop. This looped backbone water pipeline will service multiple properties (including the project site). These improvements are anticipated to be a MCWD Capital Improvement Program project, in which case future development within the Specific Plan area would pay their fair share allocation. The project applicant may consider constructing the improvements subject to the provisions of a reimbursement agreement. This agreement would establish mechanisms for compensation as other developments tie into the system.

As development proceeds within each phase of the proposed project, each project would connect to the backbone infrastructure system in Eastside Parkway or in Parker Flats Road. Service mains would be extended beneath the internal streets and service laterals would be extended to each individual residence. Within the areas proposed for

commercial development, larger service mains would be extended from the backbone to provide water to the individual components. Given, the large geographic area planned for uses within the Rec-1 and Rec-2 Planning Areas, multiple service mains and an internally looped system may be required. With implementation of the recommended mitigation, adequate infrastructure improvements and payment of development impact fees would be required and would ensure that a **less than significant impact** would result with regard to water infrastructure.

Mitigation Measures

MM PU-2 ***Obtain MCWD Water Permits.*** To ensure that water infrastructure is adequate to serve the proposed project, the project applicant shall submit design-level infrastructure plans to the satisfaction of the City of Seaside Public Works Director and the Marina Coast Water District prior to the issuance of any grading and/or building permit. Project plans shall be designed by a registered engineer and shall be in conformance with Marina Coast Water District engineering specifications. The project applicant shall obtain a water permit from Marina Coast Water District prior to issuance of any grading and/or building permit. All applicable fees, as determined by Marina Coast Water District at the time of application submittal, shall be paid to Marina Coast Water District prior to the issuance of any grading and/or building permit by the City of Seaside. The project proponent shall submit an approved water system permit to the City of Seaside as evidence documenting compliance with this mitigation measure.

MM PU-3 ***Payment of FORA Fees for Water Supply Augmentation Improvements.*** To ensure that the project contributes its proportional share towards regional infrastructure improvements related to water supply as identified by FORA, the project proponent shall be responsible for paying the appropriate FORA fees, a portion of which is allocated for water supply augmentation improvements, as identified in the most recent version of the FORA Capital Improvement Plan. This fee shall be paid prior to the issuance of any building permits. The project proponent shall submit evidence to the City of Seaside demonstrating that FORA impact fees have been paid, prior to the issuance of any certificate of occupancy.

Reclaimed Water

Impact 3.13-3 The proposed project would require the construction of new reclaimed water infrastructure in order to address existing infrastructure deficiencies identified by the Marina Coast Water District (MCWD).

Thus, the proposed project's increased need for reclaimed water infrastructure is a **potentially significant impact**.

The proposed project would construct reclaimed water service infrastructure as part of its water service infrastructure development program to prepare for the availability of recycled water within the project area. The anticipated point of connection for reclaimed water would be near Reservoir D/E and would be extended north to the project site. At full build-out, the proposed project's total reclaimed water demand would be 302.5 AFY. New reclaimed water mains will be extended south from the existing recycled water system connection point located at Intergarrison Road and the 5th Avenue intersection. See Figure 2-22: Backbone Wastewater Infrastructure for points of connection and pump station location. From this intersection, the main pipe line would continue east along Intergarrison Road and south along 8th Avenue to Gigling Road. The pipe line mains would be extended to the eastern portion of the project area along Gigling Road and east from Colonel Durham Street and the 8th Avenue intersection.

These reclaimed water mains would also be extended to the southwestern portions of the project area. The system will extend from the Eastside Parkway through the main pipe lines in Parker Flats Road and the Gigling Extension Road. The service mains would also be extended to the individual project components that will be utilizing reclaimed water.

To increase the availability of reclaimed water for the project area, a reclaimed water storage reservoir is proposed within the Rec-1 Planning Area. The interior portions of the equestrian training track (the "Infield") would also be designed to include a reclaimed water reservoir with the ability to provide an additional 300 AFY of recycled water. Thus, the proposed project would construct water infrastructure necessary to support the proposed Specific Plan development. With implementation of the recommended mitigation, impacts in this regard are reduced to **less than significant levels**.

Mitigation Measures

MM PU-4 ***Obtain Recycled Water Improvement Plans and Permits.*** To ensure that recycled water infrastructure is adequate to serve the proposed project, the project proponent shall submit design-level infrastructure plans to the satisfaction of the City of Seaside Public Works Director and the Marina Coast Water District during each phase of the proposed project prior to the issuance of any grading and/or building permit.

Project plans shall be designed by a registered engineer and shall be in conformance with MCWD's engineering specifications. The project proponent shall obtain a applicable permit(s) from Marina Coast Water

District prior to issuance of any grading and/or building permit. All applicable fees, as determined by the MCWD at the time of application submittal, shall be paid to MCWD prior to the issuance of any grading and/or building permit by the City of Seaside. The project applicant shall submit approved permit(s), as applicable, to the City of Seaside as evidence documenting compliance with this measure.

Wastewater Infrastructure

Impact 3.12-4 Wastewater generated by the proposed project would be collected and conveyed by either the Marina Coast Water District or the Seaside Sanitation District. Development of the proposed project would require new wastewater infrastructure to serve the proposed project. Thus, the proposed project's increased need for wastewater infrastructure is a **potentially significant impact**.

Wastewater conveyance and disposal for the proposed project may either be provided by the MCWD or by the SCSD. The wastewater would be ultimately pumped to the MRWPCA regional treatment plant. At full build-out, the wastewater generated by the proposed project would be 1.3 million gallons per day (MGD).

Based on the location of the existing wastewater infrastructure improvements, two wastewater points of connection are anticipated for the proposed project. See Figure 2-22: Backbone Wastewater Infrastructure for points of connection and pump station location. One of these connection points would be at or near Gigling Road and 7th Avenue and could be adjusted to Intergarrison Road and 8th Avenue (the northern point of connection). The other point of connection would be at the intersection of Parker Flats Cut-off and Normandy Road (the southern connection). From the northern point of connection, backbone wastewater infrastructure would be constructed beneath a portion of the Gigling Extension Road and Eastside Parkway. From the southern point of connection, backbone wastewater infrastructure would be constructed beneath Parker Flats Road.

Portions of the wastewater infrastructure would gravity flow to each point of connection. However, wastewater would require pumping via an onsite lift station and force mains in order to establish direct flow to the more northerly point of connection. The proposed sewer lift station would be located within the Rec-1 planning area, between the training track and the OS planning area. This lift station would convey flows from the lower elevations via force main to the northern point. The C-1 planning area would also gravity flow to this northern point of connection. The remaining parcels, including the majority of the residential dwellings located within the R-1, R-2, and R- 3 planning areas would gravity flow to the southern point of connection.

For the CVCC, sewer service would be provided by a septic system due to the minimal sewage flows anticipated and the distance to an existing sewer system. If sewer service is required at the proposed amphitheater in the southern corner of the CCVC, it would be served by a septic system, or a pump station and force main at the Parker Flats Cut-off. With implementation of the recommended mitigation, adequate infrastructure improvements and payment of development impact fees would be required and would ensure that a **less than significant impact** would result with regard to water infrastructure.

Mitigation Measures

MM PU-5 ***Obtain Waste Water Improvement Plans and Permits*** To ensure that project infrastructure is adequate to serve the proposed project, the project proponent shall submit design-level infrastructure plans to the satisfaction of the City of Seaside Public Works Director and the Marina Coast Water District during each phase of the proposed project prior to the issuance of any grading and/or building permit.

Project plans shall be designed by a registered engineer and shall be in conformance with MCWD's engineering specifications. The project proponent shall obtain a sewer permit from Marina Coast Water District prior to issuance of any grading and/or building permit. All applicable fees, as determined by the MCWD at the time of application submittal, shall be paid to MCWD prior to the issuance of any grading and/or building permit by the City of Seaside. The project applicant shall submit an approved sewer permit to the City of Seaside as evidence documenting compliance with this measure.

Increased Generation of Solid Waste

Impact 3.12-5: Implementation of the proposed project would increase the generation of solid waste, but would be served by landfills with adequate capacity to accommodate the increase. Therefore, a **less than significant impact** would result.

Development within the project area would result in an increase in the generation of solid waste. Solid waste services in the City are currently provided by Waste Management, including pick up of recycling and yard waste. All solid waste generated by development under the proposed project would be deposited at the Monterey Regional Waste Management District (MRWMD) landfill located in the City of Marina. The MRWMD has a permit capacity of 3,500 tons per day and receives an average of 1,100 tons per day. The facility was re-engineered to have a total capacity of 48,000,000 tons, of which approximately 47,900,000 tons are remaining. The expanded capacity would enable the MRWMD to provide service for approximately 150 years (Personal

Communication between Rick Shedden, Monterey Regional Waste Management District and Erika Spencer, RBF Consulting on July 16, 2013).

To estimate the amount of solid waste that may be generated by the proposed project, waste generation rates complied by CalRecycle were used. The CalRecycle generation rates were compiled a list from past environmental documents that have been used for different uses. As shown in Table 3.12-8: Solid Waste Generation from Buildout of the Proposed Project, the proposed project is estimated to generate approximately 19,819 pounds per day (or 10 tons per day) of solid waste **(NOTE TO APPLICANT: Please see note in Table 3.12-8 below)**. Development of the proposed project would occur over an extended period of time, meaning the MRWMD landfill would see an incremental increase in additional project solid waste until ultimate buildout of the proposed project.

Table 3.12-8: Solid Waste Generation from Buildout of the Proposed Project

Proposed Land Use	Potential New Development	Solid Waste Generation Rate*	Solid Waste Generation
Non-Residential (Commercial)	330,000 sq. ft.	2.5 lbs./1000 sq. ft./day	825 lbs./day
Non-Residential (Office)	100,000 sq. ft.	6 lbs./1000 sq. ft./day	600 lbs./day
Residential	1,280 residential units	12.23 lbs./household/day	15,654 lbs./day
Neighborhood Recreation Center	5,000 sq. ft.	0.007 lbs./sq. ft./day	35 lbs./day
Hotel	456 Hotel Rooms	4 lbs./room/day	1,824 lbs./day
Equestrian Training Track and Sports Arena	6,500 sq. ft. arena	3.12 lbs./100 sq. ft./day	203 lbs./day
Horse Park	680 permanent horse stalls; 3,000 square foot horse park; 7,000 square foot visitors center	3.12 lbs./100 sq. ft./day	312 lbs./day
Fire Station and Police Sub-station	52,200 sq. ft.	0.007 lbs./sq. ft./day	365.4 lbs./day
CCVC (Administration Building and Maintenance Building)	XX sq. ft. **NOTE TO APPLICANT: Please provide potential maximum square footage of these facilities.**	13 lbs./1000 sq. ft./day	XXX lbs./day
Projected Total			**19,819 lbs./day 10 tons/day (Missing CCVC info as described)**

Source: CalRecycle Website: http://www.calrecycle.ca.gov/. August 2013.

Using the CIWMB rates and as shown in Table 3.12-8 above, at build out the proposed project would generate an approximate total of 19,819 pounds per day (or 10 tons per day) of solid waste. As previously discussed, the MRWMD has a permit capacity of 3,500 tons per day and receives an average of 1,100 tons per day. The facility was re-engineered to have a total capacity of 48,000,000 tons, of which approximately 47,900,000 tons are remaining. The proposed project represents a less than 0.001 percent decrease in the available landfill capacity. Thus, the Marina landfill has adequate capacity for the amount of solid waste estimated to be generated by the proposed project. The impact from solid waste generated by the project is **less than significant**.

Other Dry Utilities

Impact 3.12-6: Implementation of the proposed project would increase the need for other dry utility services (i.e., natural gas, electricity, telephone, and cable services). Implementation of the proposed Specific Plan is anticipated to be served by these service providers. Thus, a **less than significant impact** would result.

PG&E currently provides natural gas to the project vicinity. It is anticipated that PG&E would extend this system through Eastside Parkway to form a backbone gas main pipe line. Depending on the timing of the Eastside Parkway construction, these gas main pipe lines would loop through the site and also connect to facilities located in Intergarrison Road. Smaller gas conduits will be installed through the residential streets or commercial areas for individual services.

Electrical service (also provided by PG&E) is anticipated to extend from the existing lines along Gigling Road and then along Eastside Parkway within the development to serve as a backbone system. Smaller electrical conduits will be installed through the residential streets or commercial areas for individual services. All future facilities would be installed underground with no overhead lines.

The telephone provider for the area is AT&T. Existing service is located southwest of the site, but this service infrastructure was not installed with proper easements. Therefore, all new service will be established by constructing new infrastructure along with the recordation of all necessary easements. Future data and telephone service lines are expected to be composed of fiber optic cable. Service is expected to be extended from the Gigling Road and 6th Avenue area. From this location, the lines will be constructed beneath the Eastside Parkway, Gigling Road, and/or Parker Flats Road. Each individual development project within the Specific Plan Area would tie into this backbone system. Wireless communication infrastructure may also be constructed within the project area. All future facilities would be installed underground with no overhead lines.

Comcast is the cable provider for the project area. Comcast's existing facilities are located west of the project in General Jim Moore Boulevard. Although the cable infrastructure is not adjacent to the project site, it is expected that Comcast will extend their facilities to the project. It is expected that service would be extended either through Gigling Road or Normandy Road and Parker Flats Road. From either of these locations, the infrastructure would continue through the project site beneath Eastside Parkway. Individual development within the Specific Plan would tie into this backbone system. All future facilities would be installed underground with no overhead lines.

Thus, as discussed above, it is anticipated that other dry utilities (i.e., natural gas, electricity, telephone, and cable services) would serve the proposed Specific Plan and a **less than significant impact** would result in this regard.