



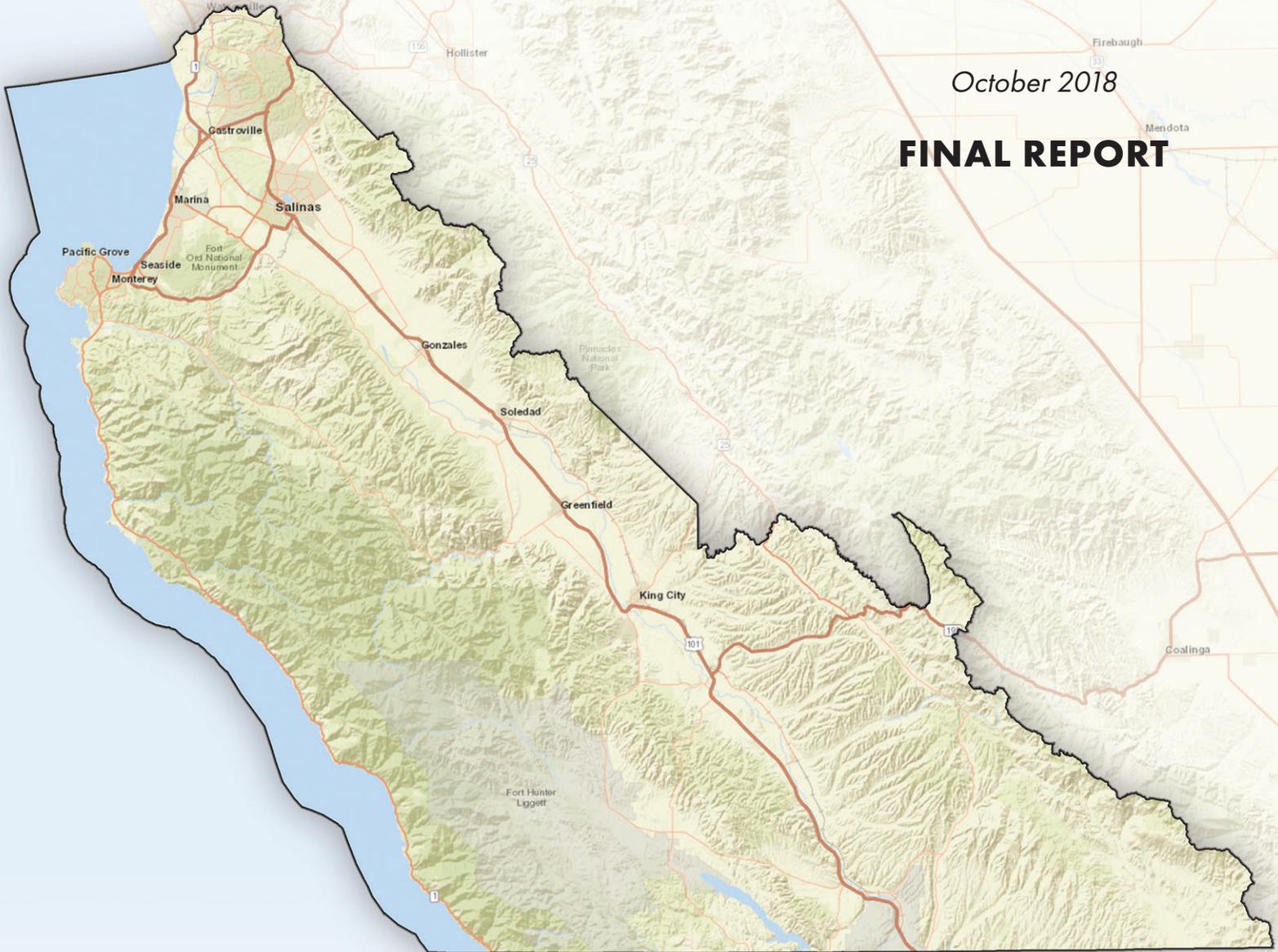
TAMC

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Regional Development Impact Fee Program Nexus Study Update 2018

October 2018

FINAL REPORT



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

**2018 REGIONAL DEVELOPMENT IMPACT FEE PROGRAM
NEXUS STUDY UPDATE**

FINAL REPORT

**Prepared For:
Transportation Agency for Monterey County**

Prepared By



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

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EXECUTIVE SUMMARY

The Transportation Agency for Monterey County (TAMC) Regional Development Impact Fee (RDIF) program was last updated in 2013 through the *2013 RDIF Nexus Study Update* (Wood Rodgers, July 2013). TAMC is legally mandated to update the RDIF program every five years. To that end, this 2018 RDIF Nexus Study Update consists of a comprehensive reevaluation of existing and projected Monterey County (County) roadway deficiencies, regional improvement projects that may address the deficiencies and provide other benefits, and a fee allocation scheme to fund those regional improvements.

Modifications to the methodology used in the *2013 RDIF Nexus Study Update* include utilizing a new horizon-year of 2035, and adding a new, fifth benefit zone for the Fort Ord Reuse Authority (FORA) area. This study documents the technical steps that were undertaken during the creation of updated fees that new development within Monterey County will be required to pay as mitigation for cumulative impacts to the regional road network.

Based on the forecasts of the latest version of the Association of Monterey Bay Area Governments' (AMBAG) Regional Travel Demand Model (RTDM), substantial future traffic volume growth is projected on regional corridors throughout Monterey County, which would result in deficiencies beyond those observed under existing conditions. In order to mitigate some of those deficiencies, the updated RDIF program proposes over \$710 million of transportation improvements, spread over 12 identified projects, as well as an additional \$10 million in transit capital improvements. The projects included in the updated 2018 RDIF program are:

1. SR-1 Corridor and Busway
2. SR-156 Widening
3. Marina-Salinas Corridor
4. Davis Road North
5. Davis Road South
6. Del Monte Corridor Improvements
7. US-101 South County Phase 1 (Frontage Roads – Salinas to Chualar)
8. US-101 South County Phase 2 (Harris Road Interchange)
9. SR-68 Commuter Improvements
10. US-101 Widening from Airport Boulevard to Boronda Road
11. County Road G12 San Miguel Canyon Improvements
12. Salinas Road Improvements

With the above proposed regional improvement projects in place, 18 County regional roadway segments are projected to go from unacceptable to acceptable Year 2035 LOS conditions. These improvements by themselves are not projected to mitigate the County's transportation issues completely; however, they will provide improved traffic flow throughout the County. All of the above improvement projects are included in the *Final Moving Forward Monterey Bay, 2040 Metropolitan Transportation Plan / Sustainable Communities Strategy (2040 MTP/SCS)* (AMBAG, June 2018) and the *2018 Monterey County Regional Transportation Plan (2040 RTP)* (TAMC, June 2018).

The RDIF program will provide up to approximately \$109 million (in 2018 dollars) to fund the fair-share portion of the \$710 million worth of capital improvements attributed to the planned new development in Monterey County. This funding only represents a portion of the required funding for each of the proposed projects. The share of funding corresponding to existing traffic and "External" (i.e. out-of-County) traffic is planned to come from other sources.

The nexus analysis completed as part of this 2018 RDIF Nexus Study Update proportionately allocated cost shares of each of the 12 regional transportation improvement projects to the five benefit zones based on land use growth projections for each zone. Cost allocation was achieved using select-link RTDM model runs to determine percentage of new growth occurring in each benefit zone. The allocated costs for each benefit zone were then distributed to each land use category within each zone based on projected trips generated by each use type, to derive the final fee rates by land use by zone. The final fee rates determined in this 2018 RDIF Nexus Study Update would be applied to all new development projects that cause a net increase in vehicle trips. **Table 1** presents a summary of the final 2018 RDIF Nexus Study Update rate schedule.

Table 1. 2018 RDIF Rate Schedule

Land Use Type (Unit)	Benefit Zone 1: North County	Benefit Zone 2: Greater Salinas	Benefit Zone 3: Peninsula and South Coast	Benefit Zone 4: South County	Benefit Zone 5: FORA
Residential Average (dwelling unit)	\$ 3,418	\$ 2,935	\$ 3,528	\$ 1,671	\$ 3,511
Single Family	\$ 3,857	\$ 3,312	\$ 3,982	\$ 1,886	\$ 3,962
Apartment	\$ 2,709	\$ 2,326	\$ 2,796	\$ 1,324	\$ 2,783
Condo/Townhome	\$ 2,362	\$ 2,028	\$ 2,438	\$ 1,155	\$ 2,427
Multi-Family	\$ 1,496	\$ 1,284	\$ 1,544	\$ 731	\$ 1,536
Retail (per 1,000 sq. ft.)	\$ 5,459	\$ 4,687	\$ 5,635	\$ 2,669	\$ 5,608
Office/Government (per 1,000 sq. ft.)	\$ 4,460	\$ 3,830	\$ 4,604	\$ 2,181	\$ 4,582
Industrial/Agriculture (per 1,000 sq. ft.)	\$ 1,540	\$ 1,322	\$ 1,590	\$ 753	\$ 1,582
Light Industrial	\$ 2,809	\$ 2,412	\$ 2,900	\$ 1,374	\$ 2,886
Heavy Industrial	\$ 605	\$ 519	\$ 624	\$ 296	\$ 621
Warehouse	\$ 1,999	\$ 1,717	\$ 2,064	\$ 978	\$ 2,054
Manufacturing	\$ 1,540	\$ 1,322	\$ 1,590	\$ 753	\$ 1,582
Lodging (per room)					
Hotel	\$ 3,293	\$ 2,827	\$ 3,399	\$ 1,610	\$ 3,383
Motel	\$ 2,269	\$ 1,948	\$ 2,343	\$ 1,110	\$ 2,331
Fee per trip	\$ 403	\$ 346	\$ 416	\$ 197	\$ 414

1. INTRODUCTION

The Transportation Agency for Monterey County maintains a Regional Development Impact Fee program in Monterey County, which helps to streamline the process for analyzing and mitigating transportation impacts. The RDIF program provides a mechanism through which land use growth pays for its fair share of regional roadway improvements needed to accommodate traffic growth in the County. The RDIF program was originally adopted by the County Board of Supervisors on August 27, 2008. The RDIF program was last updated in 2013 through the *2013 RDIF Nexus Study Update* (Wood Rodgers, July 2013).

TAMC is legally mandated to update the RDIF program every five years. To that end, this 2018 RDIF Nexus Study Update consists of a comprehensive reevaluation of existing and projected County roadway deficiencies, regional improvement projects that address the deficiencies, and an allocation of the fees to help fund those regional improvements. This study documents the technical steps that were undertaken during the creation of updated fees that new development within Monterey County would be required to pay as mitigation for cumulative impacts to the regional road network.

A horizon-year of 2035 was identified for use in this 2018 RDIF Nexus Study Update, consistent with the 20 year planning horizon defined in *Moving Forward Monterey Bay, 2035 Metropolitan Transportation Plan / Sustainable Communities Strategy (2035 MTP/SCS)* (AMBAG, amended January 11, 2017). The 2035 MTP/SCS was AMBAG's currently adopted Metropolitan Transportation Plan at the time of initiation of the 2018 RDIF Nexus Study Update.

The four (4) benefit zones (North County, Greater Salinas, Peninsula and South Coast, and South County) included in the *2013 RDIF Nexus Study Update* were retained, while an additional benefit zone was added for the Fort Ord Reuse Authority area. The Fort Ord Reuse Authority is an area located within the Peninsula and South Coast benefit zone, which had previously been excluded from analysis in the RDIF program as the Fort Ord Reuse Authority implements a separate Community Facilities District fee for growth within the FORA boundaries. With the planned sunset of FORA in 2020, this analysis was conducted to ensure that mitigations for cumulative impacts to the regional transportation network are still captured for growth in the FORA area if FORA were to transition those responsibilities to the RDIF program.

The benefit zone methodology used in the RDIF program allows the fee amounts collected from different areas of the County to be proportionate to the benefits those areas receive from the proposed regional improvement projects. In addition to the roadway improvements identified in the program, an additional fee is attributed to transit improvements. The different components that make up the RDIF are described in more detail below.

1.1 FEE COMPONENTS

The RDIF program will include fee components for the following three types of costs:

Roadway Impact Costs by Land Use: This component refers to the transportation impact fee attributed to addressing vehicular travel impacts on the regional roadway system caused by land development throughout the County. This is the primary fee component and represents, by far, the largest portion of the RDIF program. The following sections of this report describe in detail the technical steps and processes used to derive the costs associated with this component.

Transit and Administration Costs: The *2013 RDIF Nexus Study Update* selected a transit fee amount that the program should raise based on regional transit needs, and then distributed that fee to each of the benefit zones based on their relative transit usage. This 2018 RDIF Nexus Study Update

retains that methodology. Consistent with the 2013 *RDIF Nexus Study Update*, for the total fees to be collected by the 2018 RDIF program for funding transit improvements, TAMC proposed an amount of \$10 million. Total horizon-year transit trips by benefit zone were extracted from a run of the Year 2035 RTDM. Transit share was then calculated by dividing the total transit trips forecast to occur in each benefit zone by the total transit trips forecast to occur in the County. The majority of transit trips in Monterey County were observed to occur in the Greater Salinas and the Peninsula and South Coast Benefit Zones, and therefore the transit fee was applied primarily to those two zones. The results of this computation are summarized in **Table 2**. Note that the amount to be collected by the RDIF should be designated towards transit capacity-enhancing projects, as it cannot be used to offset operating costs.

Table 2. 2035 Transit Trips by Benefit Zone

Zone #	Benefit Zone	Transit Trips	Total Motorized Vehicular Trips	Total Motorized Person Trips	% of Person Trips by Transit	Relative Share of County Transit Trips
1	North County	791	84,371	134,994	0.58%	5.3%
2	Greater Salinas	6,621	357,385	571,816	1.14%	44.3%
3	Peninsula and South Coast	6,128	337,219	539,550	1.12%	41.0%
4	South County	809	123,586	197,738	0.41%	5.4%
5	Fort Ord Reuse Authority	607	34,999	55,998	1.07%	4.1%
Total		14,956	937,560	1,500,096	0.99%	100.00%

Appendix A provides a list of long- and short-term unfunded transit capital projects identified by Monterey-Salinas Transit (MST) for development over a 20-year planning horizon, with 2011-12 as the base year. The RDIF fee component collected and earmarked for transit capital expansion would likely be applied towards projects on this list. While specific transit projects have not been selected for funding in the fee program, TAMC prefers increasing transit service related to congested corridors on the regional transportation system, particularly where Bus Rapid Transit service is being considered along Highway 1 through Sand City and Seaside and the Marina-Salinas Multimodal Corridor.

In addition to the transit fee, an administrative fee totaling one percent of the Roadway Impact and Transit Costs was added to the total amount of the program. This administrative fee includes the cost required for the Transportation Agency for Monterey County to manage the program.

External/Other Components: There are cost/fee components that are only attributable to sources that are either exempt or otherwise excluded from the RDIF program. Existing development and traffic is considered exempt from impact fees. Growth outside of Monterey County boundaries is considered “External” and therefore exempt from the TAMC RDIF program.

2. SYSTEM DEFICIENCIES ANALYSIS

Existing and projected future conditions deficiencies on regional roadway facilities throughout Monterey County have been identified to assist the Transportation Agency for Monterey County (TAMC) with the selection of transportation improvement projects to be included in the current 2018 RDIF Nexus Study Update. Deficiencies were identified using current traffic count data, the latest available version of the Association of Monterey Bay Area Governments regional travel demand model, and standard Highway Capacity Manual methodologies. This chapter discusses the characteristics of Monterey County's regional transportation system as well as the specific steps taken to analyze system deficiencies.

2.1 EXISTING TRANSPORTATION SETTING

Monterey County covers over 3,300 square miles of coastal mountains and valleys stretching along 100 miles of the California coastline. The County is bordered by Santa Cruz County to the north, San Benito County and Fresno County to the east, Kings County to the southeast, San Luis Obispo County to the south, and the Pacific Ocean to the west. Monterey County's regional roadway network is made up of various freeways, highways, and county roads, as well as various arterials and collectors. For purposes of the TAMC 2018 RDIF Nexus Study Update, the regional transportation network as defined in the prior *2013 RDIF Nexus Study Update* and the *2014 Monterey County Regional Transportation Plan* (TAMC, amended April 27, 2016) was retained with adjustments/refinements as necessary. **Figure 1** illustrates the study area (Monterey County) and the regional transportation network analyzed in this RDIF Update. Monterey County's regional transportation network is also described in detail below.

2.1.1 REGIONAL ROADWAYS

Regional roadways facilitate the movement of people and goods in and through the region. Regional roadways generally provide connections between counties, cities, communities, or activity centers. Trips on regional roadways are generally longer on average than trips on local roads. Regional roadways often consist of state highways or freeways, county roads, or travel routes that consist of multiple arterials linked together. The following roadway segments represent key regional travel corridors that were evaluated as part of this RDIF Nexus Study Update.

US Route 101 (US 101), also called El Camino Real, is a north-south freeway of national and statewide importance that traverses the west coast of the United States. US 101 serves as the principal inter-regional auto and truck travel route that connects the California Central Coast to the San Francisco Bay Area to the north and the Los Angeles urban basin to the south. Within Monterey County, US 101 serves as an important north-south route for business, recreation, tourism, commuting, freight and goods movement, and national defense transport. US 101 is also one of the primary facilities connecting southern Monterey County, including the Salinas Valley cities of Gonzales, Soledad, Greenfield, and King City, to the greater Salinas area and smaller communities such as Prunedale to the north. US 101 in Monterey County is primarily four-lane divided freeway, however some segments are still classified as conventional highway and have at-grade connections to local roadways. Per year 2015 Caltrans traffic count data, US 101 mainline currently carries Annual Average Daily Traffic (AADT) varying from approximately 40,000 to 85,000 vehicles per day through the northern portion of the County, and between 10,000 to 35,000 vehicles per day through the southern portion of the County.

State Route 1 (SR 1), also called Cabrillo Highway, is a state highway that runs along California's Pacific coastline which accommodates interregional and local trips. State Route 1 serves various tourist destinations along Monterey Bay, is commonly used for commuter travel to the San Francisco

Bay Area from northern Monterey County, and provides access to unincorporated communities such as Big Sur and Moss Landing. Both the federal route classification system and Caltrans classify SR 1 as a Principal Arterial. State Route 1 is included in the National Highway System (NHS) and is a designated “Scenic Highway” in the state route classification system. The SR 1 corridor’s cross section varies from a six-lane freeway (near Marina) to a four lane freeway (near Castroville and Monterey) to a two-lane rural highway (for most of Monterey County south of Carmel). According to year 2015 Caltrans traffic count data, SR 1 mainline currently carries AADT varying from approximately 20,000 to 90,000 vehicles per day through the northern portion of the County, and between 2,000 to 15,000 vehicles per day through the southern portion of the County.

State Route 68 (SR 68) is an east-west state highway/arterial serving northern Monterey County. The primary segment of SR 68, also called Monterey Salinas Highway, serves as a regional facility connecting SR 1 in the City of Monterey to US 101 in the City of Salinas. The segment of SR 68 between Monterey and Salinas is approximately 18 miles long and generally has a two-lane highway cross section, except in Salinas where it becomes a four-lane highway/arterial. West of SR 68’s intersection with SR 1, SR 68 overlaps with SR 1 for approximately 2.5 miles (4-lane freeway) before separating into a 2-lane rural highway/arterial called W.R. Holman Highway which stretches approximately 4.5 miles north to the City of Pacific Grove. According to year 2015 Caltrans traffic count data, SR 68 mainline east of SR 1 (Monterey Salinas Highway) carries AADT varying from approximately 22,000 vehicles to 30,000 vehicles per day, and SR 68 mainline west of SR 1 (W.R. Holman Highway) carries AADT varying from approximately 15,000 to 25,000 vehicles per day.

State Route 146 (SR 146) is generally an east-west, two-lane state highway/arterial serving Monterey and San Benito Counties. SR 146 extends east from US 101 in the City of Soledad into Pinnacles National Park, where there is a break in the route. The highway resumes on the eastern side of Pinnacles National Park and continues to SR 25 in San Benito County. The entire length of the SR 146 segment in Monterey County is approximately 10 miles. According to year 2015 Caltrans traffic count data, SR 146 mainline in Monterey County carries AADT varying from approximately 500 vehicles to 11,000 vehicles per day.

State Route 156 (SR 156) is generally an east-west, two to four-lane state highway/arterial serving northern Monterey County. SR 156 extends from SR 1 in Castroville to US 101 in Prunedale, where it overlaps with US 101 for the next six miles to the Monterey County / San Benito County border. The entire length of the SR 156 segment in Monterey County is approximately 12 miles. According to year 2015 Caltrans traffic count data, SR 156 mainline in Monterey County carries AADT of approximately 30,000 vehicles per day.

State Route 183 (SR 183) is generally a two to four-lane state highway/arterial serving northern Monterey County. SR 183 extends northwest from US 101 in the City of Salinas to SR 1 in Castroville. The entire length of the SR 183 segment in Monterey County is approximately 10 miles. According to year 2015 Caltrans traffic count data, SR 183 mainline in Monterey County carries AADT varying from approximately 12,000 vehicles to 20,000 vehicles per day.

State Route 198 (SR 198) is generally a two-lane state highway/arterial serving Monterey, Fresno and Tulare Counties. SR 198 extends east from US 101 in San Lucas, intersects with SR 25, and crosses over into Fresno County, eventually connecting to Interstate 5. The entire length of the SR 198 segment in Monterey County is approximately 26 miles. According to year 2015 Caltrans traffic count data, SR 198 mainline in Monterey County carries AADT varying from approximately 700 vehicles to 2,500 vehicles per day.

State Route 25 (SR 25) is generally a north-south two-lane state highway/arterial serving Monterey and San Benito Counties. SR 25 originates at its junction with SR 198 east of San Lucas and

continues north until crossing into San Benito County, where it provides access to the City of Hollister and, eventually, US 101. The entire length of the SR 25 segment in Monterey County is approximately 12 miles. According to year 2015 Caltrans traffic count data, SR 25 mainline in Monterey County carries AADT of approximately 100 vehicles per day.

State Route 218 (SR 218), or Canyon del Rey Boulevard, is generally a two to four-lane state highway/arterial serving the City of Seaside in northern Monterey County. SR 218 originates at SR 1 and continues southeast through the community of Del Rey Oaks before terminating at SR 68. The entire length of the SR 218 segment in Monterey County is approximately three miles. According to year 2015 Caltrans traffic count data, SR 218 mainline in Monterey County carries AADT varying from approximately 12,000 vehicles to 23,000 vehicles per day.

County Road G11 (San Juan Road) is generally an east-west, two-lane County owned major roadway that originates at Main Street / Porter Drive in Pajaro and continues east to US 101 / SR 156 near the Monterey County / San Benito County border.

County Road G12 (Salinas Road/Hall Road/San Miguel Canyon Road) is generally a two-lane, east-west County owned major roadway that runs approximately parallel to and southwest of County Road G11. County Road G12 provides connectivity between the communities of Pajaro, Las Lomas and Prunedale. County Road G12 originates at Stender Avenue in Pajaro and continues southeast to US 101 / SR 156.

County Road G16 (Carmel Valley Road/Arroyo Seco Road/Elm Avenue) is generally an east-west, two-lane County owned major roadway that originates at SR 1 in Carmel and extends southeast to US 101 in Greenfield.

Marina-Salinas Corridor refers to the **Imjin Parkway/12th Street - Reservation Road - Davis Road** route, providing a two-lane, east-west connectivity between Marina and Salinas.

2.1.2 LOCAL ROADWAYS (BY JURISDICTION):

Local roadways provide connections within a city or community. Local roadways generally branch off of larger arterials or collectors and provide access to residential or commercial areas. Local roadways generally have low volumes and speeds. The following roadway segments represent key local travel corridors that were evaluated as part of this RDIF Nexus Study Update.

City of Monterey

- Foam Street – David Avenue to Lighthouse Avenue
- Lighthouse Avenue – David Avenue to Washington Street
- Del Monte Avenue – Washington Street to Monterey/Seaside City limit
- Fremont Street – Abrego Street to Camino Aguajito Road
- Munras Avenue/Abrego Street – Via Zaragoza to Fremont Street

City of Seaside

- Del Monte Boulevard – Seaside/Monterey City limit to Fremont Boulevard
- Fremont Boulevard – Del Monte Boulevard to SR 1

City of Marina

- Del Monte Boulevard – SR 1 to Reservation Road

City of Salinas

- Sanborn Road – Abbott Street to Alisal Street
- North Main Street – East Bernal Drive to East Boronda Road
- East Boronda Road –US 101 to North Main Street
- South Main Street (SR 68) – East Blanco Road to John Street
- John Street (SR 68) – South Main Street to US101
- Market Street (SR 183) – Davis Road to North Main Street
- Davis Road – West Laurel Drive to Blanco Road

Multiple Jurisdictions

- North Fremont Street – SR 68 / SR 1 to SR 218 (Cities of Monterey and Seaside)
- Blanco Road – Reservation Road to Abbott Street (City of Salinas and Monterey County unincorporated areas)
- Salinas Road – SR 1 to Elkhorn Road (Monterey County unincorporated areas)

2.2 EXISTING (2015) TRAFFIC COUNT DATA

In consultation with TAMC staff, and based on latest transportation data available, year 2015 conditions were identified to represent the existing conditions “base year” for purposes of the 2018 RDIF Nexus Study Update. Wood Rodgers reviewed and compiled base year 2015 traffic count data from the following sources:

- Caltrans Traffic Census Program latest available year 2015 AADT traffic counts from the Caltrans website (www.dot.ca.gov).
- Caltrans Freeway Performance Measurement (PeMS) System database counts from year 2015. Data was compiled and averaged for the entire year to obtain AADT traffic counts. Only data that reported acceptable levels of accuracy (per the PeMS user Manual) was used.
- Latest available TAMC regional traffic counts program data from year 2015 off-peak and peak periods. Off-peak and peak period daily counts were averaged to obtain volumes approximating AADT.
- For any study roadway segments where traffic counts were not available, the latest available 2014 Association of Monterey Bay Area Governments (AMBAG) regional travel demand model’s (RTDM) base year 2010 scenario (as supplied by AMBAG) was used to assist with the estimation of base year 2015 traffic volumes.

Year 2015 traffic count data was not available for some study roadway facilities. For these facilities, existing (2015) conditions daily traffic volumes were estimated by extracting volumes from the AMBAG RTDM base year 2010 scenario and balancing these volumes against traffic counts for adjacent roadway facilities and existing (year 2011-2012) traffic count volumes used in the prior *2013 RDIF Nexus Study Update*. Year 2015 (RDIF base year) counts were compared to year 2010 (AMBAG base year) counts where available, and it was determined that on average, volumes within Monterey County have increased by approximately four percent in that time. Therefore, some volumes extracted from the base year 2010 AMBAG RTDM scenario, to be used as existing conditions year 2015 volumes for this RDIF Nexus Stud Update, were increased by four percent as applicable. The existing (2015) AADT for study facilities are illustrated in **Appendix B**, along with the source of each volume.

2.3 REGULATORY POLICY SETTING

2.3.1 “LEVEL OF SERVICE” METHODOLOGY

Traffic operations were quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment, representing progressively worsening traffic operations. Level of Service values may be determined as a function of one or more measures of effectiveness, which include (but are not limited to) traffic operational delays, speeds, densities, and volume-to-capacity ratios. In this study, the system deficiency and LOS analysis was completed using roadway segment daily volume-to-capacity (V/C) ratio evaluation. Consistent with the prior RDIF Nexus Study Update and LOS thresholds used by neighboring counties, roadway segment capacities and LOS thresholds used in this study were based on Florida Department of Transportation (FDOT) Level of Service Threshold Tables 4-1 through 4-3 from the *Florida Department of Transportation Quality/Level of Service Handbook*, dated February 22, 2002, which were derived using standard Highway Capacity Manual methodologies. The *Florida Department of Transportation Quality/Level of Service Handbook* was used as it contains generalized LOS thresholds for various classifications of roadways based on typical Highway Capacity Manual methodologies and typical roadway characteristic assumptions that can generally be applied nationwide. The AADT Level of Service (LOS) volume thresholds used in this analysis are included in **Appendix C**.

The AADT Level of Service (LOS) volume thresholds included in **Appendix C** are broken down into seven roadway functional classifications which have varying capacities. The seven functional classifications are as follows: Uninterrupted Flow Highway, Class I State Arterial, Class II State Arterial, Class III State Arterial, Major Roadway, Other Roadway, and Freeway. Each study area roadway segment was assigned one of the seven functional classifications based on the AMBAG model link classifications and review of aerial photographs of the segments. The functional classification assigned to each study area roadway segment is shown in **Appendix B**.

2.3.2 FEDERAL AND STATE POLICY

The Caltrans published Guide for the Preparation of Traffic Impact Studies (dated December 2002) states that:

“Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS”.

Caltrans District 5 is the responsible lead agency for any/all improvements on State transportation facilities throughout Monterey County, including but not limited to, design, construction, operations, and maintenance of such facilities. Caltrans also implements federal highway standards on all State facilities.

2.3.3 MONTEREY COUNTY POLICY

The 2010 Monterey County General Plan Circulation Element (dated October 26, 2010) states the following:

Policy C-1.1 – The acceptable level of service for County roads and intersections shall be Level of Service (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 prepared for County Planning Areas 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.*

For the purposes of identifying deficiencies on study area roadway facilities, this study assumes LOS “D” represents the minimum acceptable LOS for all County facilities analyzed.

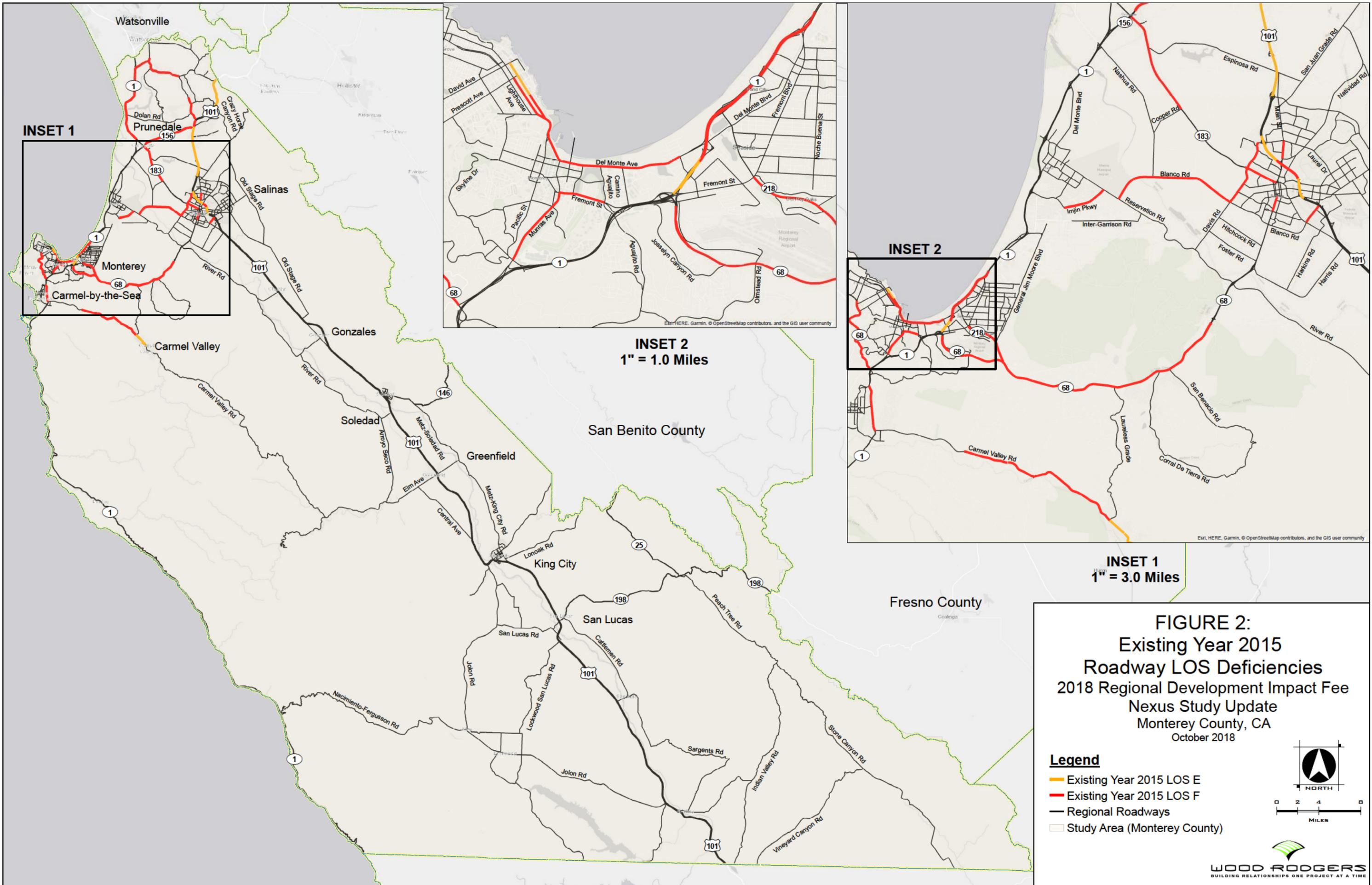
2.3.4 OTHER JURISDICTIONS’ LOS POLICY

Practically all local cities and jurisdictions in Monterey County use LOS “D” as the minimum acceptable LOS threshold for major travel corridors accessing or located within the vicinity of State highways, as well as within their general urban boundaries.

For purposes of this RDIF Nexus Study Update, system deficiencies are regarded as those facilities that are either currently exceeding or projected to exceed LOS D operations (i.e. operating at LOS E or worse) based on average daily traffic volume-to-capacity ratio conditions.

2.4 EXISTING SYSTEM CAPACITY DEFICIENCIES

Existing conditions V/C ratios and LOS were calculated for each study roadway segment based on Highway Capacity Manual methodologies and using existing (2015) AADT volumes and capacities. Existing (2015) study roadway segment volumes, capacities, V/C, and LOS are shown in **Appendix B. Figure 2** graphically illustrates existing (2015) conditions deficiencies for all study roadway segments.



INSET 1

INSET 2

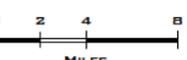
INSET 2
1" = 1.0 Miles

INSET 1
1" = 3.0 Miles

FIGURE 2:
Existing Year 2015
Roadway LOS Deficiencies
2018 Regional Development Impact Fee
Nexus Study Update
Monterey County, CA
October 2018

Legend

- Existing Year 2015 LOS E
- Existing Year 2015 LOS F
- Regional Roadways
- Study Area (Monterey County)



The following 24 study roadway segments currently operate at unacceptable LOS based on the AADT V/C analysis performed. Note that closely spaced segments operating at unacceptable LOS have been grouped together as a single segment for simplicity.

- US 101 – San Benito County / Monterey County border to John Street (Salinas)
- SR 1 – Salinas Road (south of Watsonville) to SR 183 (Castroville)
- SR 1 – Fremont Boulevard to North Fremont Street (Seaside)
- SR 1 – Carpenter Street to Carmel Valley Road (Carmel)
- SR 68 (W.R. Holman Highway) – Forest Avenue to SR 1 (Monterey Peninsula)
- SR 68 (Monterey Salinas Highway) – SR 1 (Monterey) to Portola Drive (south of Salinas)
- SR 156 – Castroville Boulevard to US 101
- SR 183 – SR 156 to Cooper Road
- SR 218 – Fremont Boulevard to SR 68
- County Road G12 – Werner Road to US 101
- County Road G16 (Carmel Valley Road) – Valley Greens Drive to Laureles Grade
- Foam Street – David Avenue to Lighthouse Avenue
- Lighthouse Avenue – Prescott Avenue to Washington Street
- Del Monte Avenue – Washington Street to Casa Verde Way
- Fremont Street – Abrego Street to Camino Aguajito
- Munras Avenue/Abrego Street – Fremont Street to Soledad Drive
- Sanborn Road – Abbott Street to US 101
- North Main Street – West Laurel Drive to East Bernal Street
- South Main Street – John Street to Romie Lane
- Market Street – Davis Road to North Main Street
- Davis Road – West Laurel Drive to West Blanco Road
- Blanco Road – Reservation Road to South Davis Road
- Imjin Parkway – Imjin Road to Abrams Drive
- Salinas Road – SR 1 to Elkhorn Road

2.5 TRAVEL DEMAND FORECASTS

2.5.1 TRAVEL DEMAND MODEL BACKGROUND

As directed by TAMC staff, the AMBAG RTDM, which is developed and maintained by AMBAG, was used to forecast future volumes on study roadway segments for this RDIF Nexus Study Update. Wood Rodgers obtained the latest available (as of Fall 2017) 2014 AMBAG RTDM (last updated January 2015) through coordination with TAMC and AMBAG staff for purposes of this RDIF Nexus Study Update. The 2014 AMBAG RTDM obtained for use in this study was calibrated and validated to 2010 base-year annual average daily (typical weekday) traffic conditions, and produces traffic forecasts under daily, AM peak period, mid-day period, PM peak period, and evening period conditions for base-year 2010 as well as future planning horizon-year 2035 conditions.

The AMBAG RTDM uses a traditional “four-step” travel demand forecasting process wherein the model translates inputs (land use and employment data) into outputs (trips) based on a series of computational steps. Those primary four steps are as follows:

1. Trip Generation
2. Trip Distribution

3. Mode-choice
4. Trip Assignment.

The AMBAG regional model network and land uses geographically cover Monterey County in its entirety, as well as areas of adjacent jurisdictions that fall within the AMBAG region, including San Benito County and Santa Cruz County. The model is a multi-modal model, accounting for auto drive alone, carpool, walk, bike, and transit modes when determining vehicular demand forecasts. The 2010 base year scenario was developed and calibrated to 2010 conditions using data from the 2010 California Household Travel Survey and United States Census.

2.5.2 TDM REVIEW & VALIDATION

The 2014 AMBAG RTDM was updated and validated for use in this RDIF Nexus Study Update via the following processes:

Update to Roadway Network: A general review and update of the base year 2010 AMBAG RTDM scenario roadway network was performed to verify consistency with existing conditions. A Project specific version of the AMBAG RTDM has been developed and documented as part of the *FORA Fee Reallocation Study: Deficiency Analysis and Fee Reallocation – Fiscal Year 2016/2017* (Kimley Horn, April 27, 2017). Wood Rodgers reviewed changes made to the project specific AMBAG RTDM as part of the 2017 FORA Fee Reallocation Study and applied any changes relevant to the regional roadway network to the version of the AMBAG RTDM used for this RDIF Nexus Study Update. These changes will help maintain consistency of FORA area results between the 2017 FORA Fee Reallocation Study and this 2018 TAMC RDIF Nexus Study Update, which includes the FORA area.

Additional improvements to the regional roadway network were also added to the base year 2010 RTDM network as identified based on discussion with TAMC staff and review of latest available study area aerial imagery. Additional improvements added to the base year network include: the SR 1 interchange with Salinas Road south of Watsonville, the Holman Highway 68 roundabout, and the US 101 interchanges with Sala Road, Crazy Horse Canyon Road, and San Juan Road north of Salinas.

Screenline Analysis:

Base year 2010 Average Daily Traffic (ADT) volumes produced by the AMBAG RTDM (with updates to roadway network) were compared against year 2010 as well as year 2015 (RDIF base year) AADT counts on a regional level. This regional analysis was performed by drawing “screenlines” through major areas of Monterey County, such as County borders and highly traveled mid-points, and comparing ADT projected by the RTDM along major routes that intersect each screenline to the corresponding counts for those facilities. This “Screenline Analysis” helps to check that the base year RTDM scenario is reasonably approximating existing conditions volumes throughout the County. **Figure 3** shows the screenline locations used in this RDIF Nexus Study Update. **Table 3** identifies the roadway segments evaluated for each screenline as well as summary of analysis results for each screenline, the County as a whole, and at County borders (to check that total traffic projected to enter/exit the County by the RTDM is reasonably in line with counts).

As shown in **Table 3**, the ADT volumes generated by the base year 2010 RTDM scenario are consistently higher than both 2010 and 2015 counts, but are generally closer to 2015 counts than 2010 counts. The base year 2010 RTDM scenario combined screenline volumes are 14.3% higher than 2010 counts, and 10.9% higher than 2015 counts. Therefore, while the base year RTDM scenario was originally calibrated to 2010 conditions, it could represent a reasonably conservative estimate of year 2015 volumes.

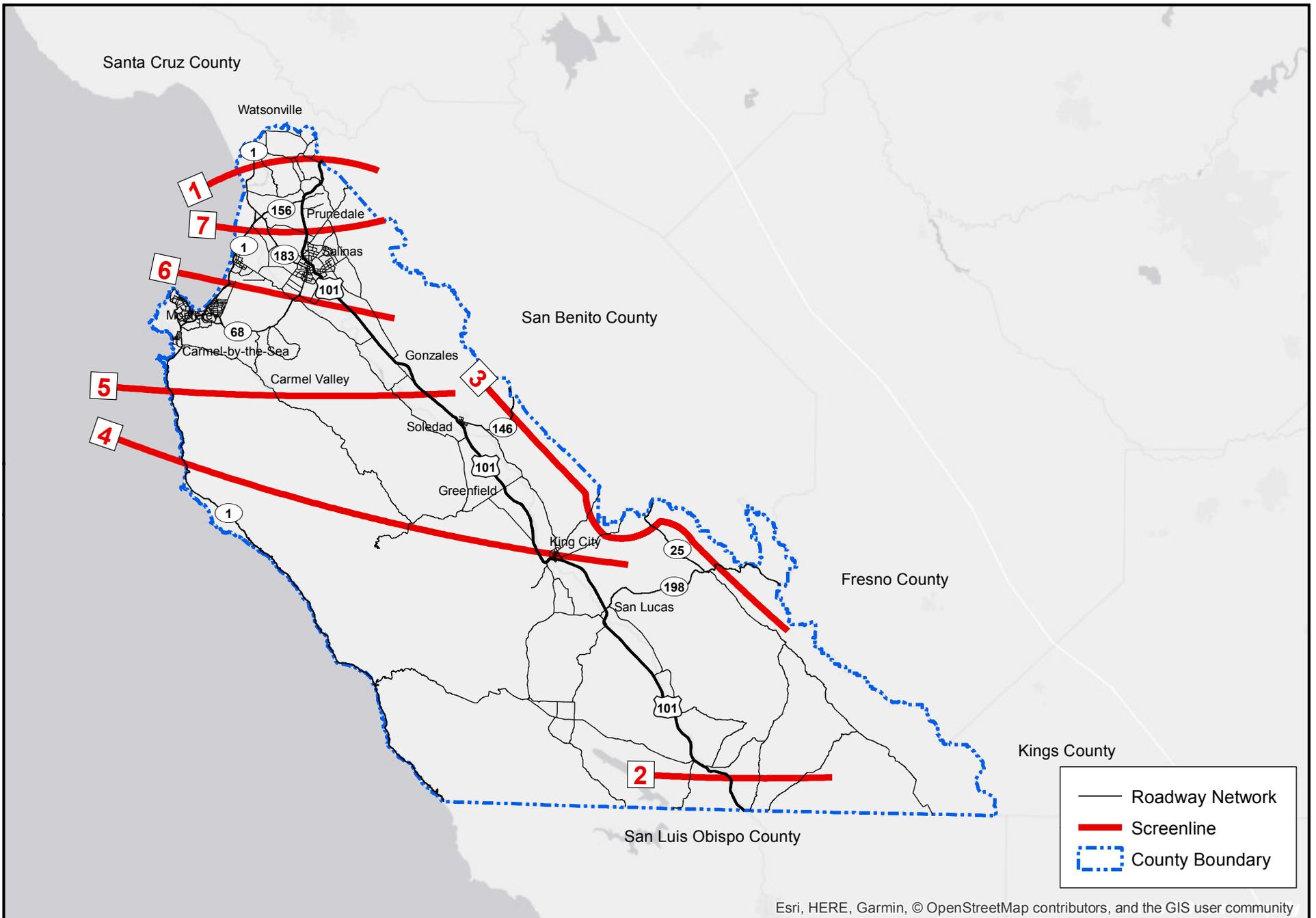


Figure 3 - Screenline Analysis Locations
 2018 Regional Development Impact Fee Nexus Study Update
 Monterey County, CA
 October 2018



Table 3. Base Year AMBAG RTDM Screenline Analysis

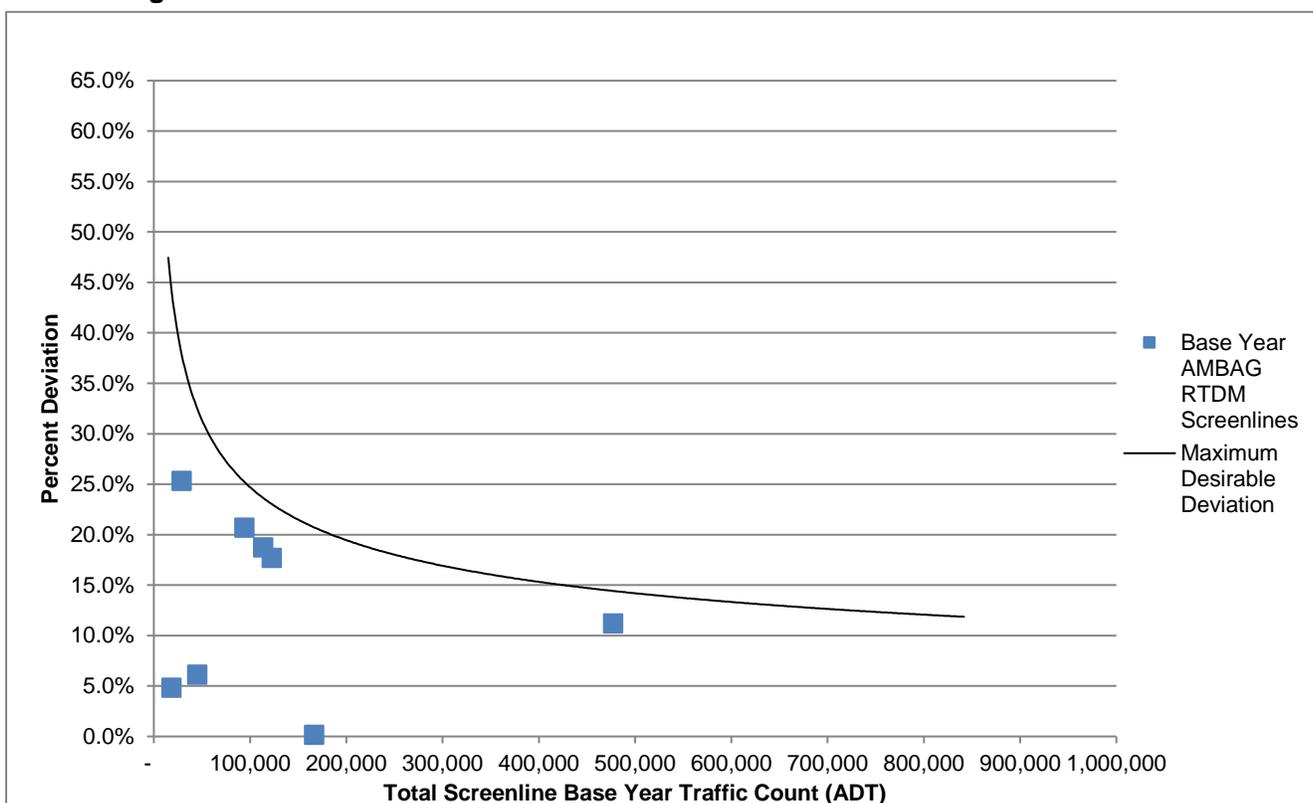
#/Route	Screenline/Segment	Year 2015 ADT			Growth b/w 2010- 2015	Difference (2010 Model - 2010 Count)		Difference (2010 Model - 2015 Count)		NCHRP 255 Tolerance
		2010 Counts	2015 Counts	2010 Model Volumes ¹	%	ADT	%	ADT	%	+/-%
1	North County Line									
US 101	County Border to Crazy Horse Canyon Rd	59,000	59,200	58,521	1.3%	18,662	20.1%	17,462	18.5%	+/-25%
SR-1	County Border to Salinas Rd	34,000	35,000	53,141						
Total		93,000	94,200	111,662						
2	South County Line									
US 101	Bradley Rd to Bradley Rd (exit 245)	16,200	18,300	19,185	13.0%	2,985	18.4%	885	4.8%	+/-44%
3	East County Line									
SR-25	County Border to SR-198	200	95	668	-11.3%	768	52.6%	933	72.1%	n/a
SR-146	County Road G-15 to Stonewall Canyon Rd	260	500	461						
SR-198	SR-25 to County Border	1,000	700	1,099						
Total		1,460	1,295	2,228						
4	Mid-County Line									
US 101	Central Ave (Teague Ave) to Jolon Rd	24,700	24,000	29,531	0.3%	7,463	25.7%	7,363	25.3%	+/-38%
SR-1	Coast Rd (North) to Coast Rd (South)	4,300	5,100	6,932						
Total		29,000	29,100	36,463						
5	Carmel Highlands-Gonzales									
US 101	S Alta St to Camphora Rd	38,700	40,100	38,882	5.1%	4,962	11.5%	2,762	6.1%	+/-32%
SR-1	Mal Paso Rd to Aurora del Mar	4,300	5,100	9,080						
Total		43,000	45,200	47,962						
6	Marinas-Salinas South									
US 101	Spence Rd to Chualar Rd	44,700	44,500	47,482	6.3%	10,165	6.5%	365	0.2%	+/-21%
SR-68	Reservation Rd to Spreckels Blvd	30,100	29,800	35,633						
SR-1	Light Fighter Dr to Fremont Blvd	82,000	92,300	83,849						

Table 3 (Continued). Base Year AMBAG RTDM Screenline Analysis

#/Route	Screenline/Segment	Year 2015 ADT			Growth b/w 2010-2015	Difference (2010 Model - 2010 Count)		Difference (2010 Model - 2015 Count)		NCHRP 255 Tolerance
		2010 Counts	2015 Counts	2010 Model Volumes ¹	%	ADT	%	ADT	%	+/-%
7	Marina-Salinas North									
US 101	Pesante Rd to Espinosa Rd	61,700	59,400	71,198	-0.9%	21,127	17.1%	22,227	18.1%	+/-23%
SR-183	Espinosa Rd to Cooper Rd	16,900	18,100	17,358						
SR-1	SR-156 to Del Monte Blvd	45,000	45,000	56,171						
Total		123,600	122,500	144,727						
Total Summary (Screenlines 1-7)										
Total		463,060	477,195	529,192	3.1%	66,132	14.3%	51,997	10.9%	+/-14%
County Boundaries Summary										
US 101	County Border to Crazy Horse Canyon Rd	59,000	59,200	58,521	2.8%	22,415	20.3%	19,280	16.9%	+/-24%
SR-1	County Border to Salinas Rd	34,000	35,000	53,141						
US 101	Bradley Rd to Bradley Rd (exit 245)	16,200	18,300	19,185						
SR-25	County Border to SR-198	200	95	668						
SR-146	County Road G-15 to Stonewall Canyon Rd	260	500	461						
SR-198	SR-25 to County Border	1,000	700	1,099						
Total		110,660	113,795	133,075						
¹ 2010 Model Volumes = Raw volume forecasts from calibrated 2010 AMBAG model.										

The percent difference of the RTDM volumes versus the 2010 and 2015 traffic counts was calculated for each screenline, as well as the totals, and compared to screenline validation targets (maximum desirable deviation) as defined in the *National Cooperative Highway Research Program (NCHRP) Report 255: Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board, December 1982) and the *NCHRP Report 765: Analytical Travel Forecasting Approaches for Project-Level Planning and Design* (Transportation Research Board, 2014) which is an update to the NCHRP Report 255. The calculated percent differences and NCHRP Report 255 based validation targets for each screenline are shown in **Table 3**. The NCHRP Report 255 represents the maximum desirable deviation for model screenlines as a curve which generally shows that maximum desirable deviation decreases as the screenline traffic count volume increases. **Figure 4** shows the percent difference for all screenline locations plotted against the maximum desirable deviation curve. Screenlines that fall below the curve are considered acceptable while screenlines that fall above the curve are considered unacceptable.

Figure 4. NCHRP 255 Maximum Desirable Deviation in Total Screenline Volumes



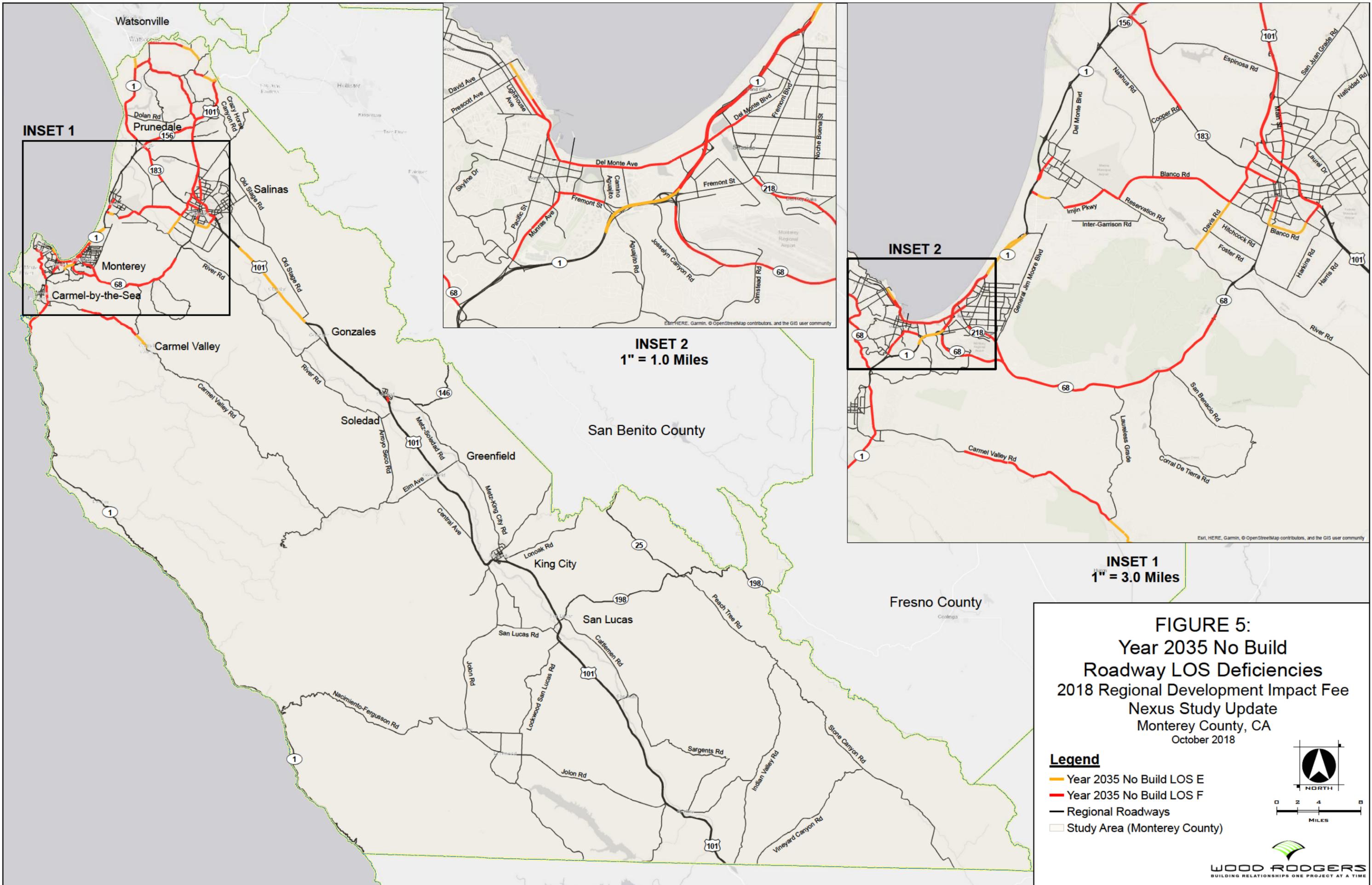
As shown in **Table 3** and **Figure 4**, all percent deviation for all screenlines fall below the maximum desirable deviation, and therefore the AMBAG RTDM is considered to meet validation targets at a regional level. Note that the model volumes and counts for Screenline #3 are low enough that the NCHRP Report 255 does not specify a corresponding maximum desirable deviation (the maximum desirable deviation curve is trending upwards towards some large number). However, the NCHRP Report 255 states: “the maximum permissible deviation of a screenline traffic estimate should be such that a highway design would not vary by more than one roadway lane.” Since the volumes on Screenline #3 are significantly below the capacity of one roadway lane, Screenline #3 can be considered to meet validation targets. Based on the screenline analysis summarized above, it has been determined that the AMBAG RTDM base year 2010 scenario, with updates to the roadway

network, is a reasonable predictor of existing 2015 traffic volumes throughout Monterey County, and can be used to represent existing conditions without further modifications.

2.6 YEAR 2035 NO BUILD SYSTEM DEFICIENCIES

The 2014 AMBAG RTDM uses a planning horizon of year 2035 for predicting future travel demand forecasts, which is consistent with the horizon-year identified for this RDIF Nexus Study Update. In order to determine where roadway improvements will be needed by the 2035 horizon-year, a model scenario was run that assumed full buildout of all population and employment growth over the next approximately 20 years, but no roadway improvements over existing conditions. The AMBAG RTDM was run using the horizon-year 2035 land use database and base-year 2010 (with updates to better reflect existing conditions) roadway network. This run has been labeled the “Year 2035 No Build” model run since no planned system improvements over existing circulation/capacity conditions are assumed. The raw “Year 2035 No Build” traffic volume generated by this model run were extracted, and final “Year 2035 No Build” volumes were calculated using the difference method (i.e. Year 2035 No Build Forecast = raw Year 2035 model No Build volume – raw base year model volume + 2015 count). The difference method was used to ensure that any inconsistencies between the base year AMBAG RTDM scenario volumes and existing counts were not carried over to the future forecasts.

“Year 2035 No Build” conditions V/C ratios and LOS were calculated for each study roadway segment based on Highway Capacity Manual methodologies and using “Year 2035 No Build” AADT volumes and capacities (note that all “Year 2035 No Build” capacities are assumed to be the same as existing conditions capacities). “Year 2035 No Build” study roadway segment volumes, capacities, V/C, and LOS are shown in **Appendix D. Figure 5** graphically illustrates “Year 2035 No Build” conditions deficiencies for all study roadway segments.



INSET 1

INSET 2

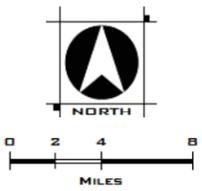
INSET 1
1" = 3.0 Miles

INSET 2
1" = 1.0 Miles

FIGURE 5:
Year 2035 No Build
Roadway LOS Deficiencies
2018 Regional Development Impact Fee
Nexus Study Update
Monterey County, CA
October 2018

Legend

- Year 2035 No Build LOS E
- Year 2035 No Build LOS F
- Regional Roadways
- Study Area (Monterey County)



Generally, “Year 2035 No Build” conditions indicate a substantial increase in traffic demands and a significant increase in V/C ratio over base year 2015 conditions. The following 31 study roadway segments are projected to operate at unacceptable LOS under “Year 2035 No Build” conditions based on the AADT V/C analysis performed. Note that closely spaced segments operating at unacceptable LOS have been grouped together as a single segment for simplicity.

- US 101 – San Benito County / Monterey County border to Old Stage Road (Gonzales)
- SR 1 – Santa Cruz County / Monterey County border to SR 183 (Castroville)
- SR 1 – Light Fighter Drive to Aguajito Road (Seaside)
- SR 1 – Carpenter Street to Highlands Drive (Carmel)
- SR 68 (W.R. Holman Highway) – 17 Miles Drive to SR 1 (Monterey Peninsula)
- SR 68f (Monterey Salinas Highway) – SR 1 (Monterey) to Portola Drive (south of Salinas)
- SR 146 (Front Street) – US 101 to East Street
- SR 156 – Castroville Boulevard to US 101
- SR 183 – SR 156 to Cooper Road
- SR 218 – Fremont Boulevard to SR 68
- County Road G11 (San Juan Road) – Salinas Road to US 101
- County Road G12 – Werner Road to US 101
- County Road G16 (Carmel Valley Road) – Valley Greens Drive to Laureles Grade
- County Road G17 (Reservation Road/River Road) – Imjin Parkway to Blanco Road
- Foam Street – David Avenue to Lighthouse Avenue
- Lighthouse Avenue – Prescott Avenue to Washington Street
- Del Monte Avenue – Washington Street to SR 1
- Fremont Street – Abrego Street to Camino Aguajito
- Munras Avenue/Abrego Street – Fremont Street to Via Zaragoza
- Del Monte Boulevard – SR 1 to Broadway Avenue (Seaside)
- Del Monte Boulevard – SR 1 to Reservation Road (Marina)
- Sanborn Road – Abbott Street to US 101
- North Main Street – San Juan Grade Road to East Bernal Street
- South Main Street – John Street to East Blanco Road
- Market Street – Davis Road to North Main Street
- Davis Road – West Laurel Drive to Reservation Road
- Blanco Road – Reservation Road to South Davis Road
- Blanco Road – SR 68 to Abbott Street
- SR 1 to 4th Avenue
- Imjin Parkway – Imjin Road to Reservation Road
- Salinas Road – SR 1 to Elkhorn Road

Existing conditions and “Year 2035 No Build” conditions deficiencies for FORA area facilities were compared to results presented in the 2017 FORA Fee Reallocation Study to maintain consistency between the two documents. Based on a review of both sets of data, it was determined that deficiencies calculated for this RDIF Nexus Study Update are reasonably consistent with deficiencies identified by the 2017 FORA Fee Reallocation Study.

3. IMPROVEMENT PROJECTS

3.1 IMPROVEMENT PROJECT DESCRIPTIONS

A list of regional transportation improvement projects were identified that would address some of the roadway deficiencies identified under “Year 2035 No Build” conditions. The list of 17 regional transportation improvement projects included in the *2013 RDIF Nexus Study Update* was used as the starting point. All projects from the prior list were reviewed by TAMC and Wood Rodgers staff, and projects were added, removed, or modified as appropriate. Based on the improvement project review, 12 regional improvement projects were identified for consideration through the updated 2018 RDIF program. Major projects identified include the SR 1 Corridor and Busway in Seaside / Sand City, the SR 156 Widening near Castroville, and the US 101 Widening in Salinas, among others. In some cases, projects have remained on the RDIF list but the project description has been changed. For example, the SR 1 improvements project in Seaside was a roadway widening project in the 2013 RDIF list, but now also includes transit focused improvements in the 2018 RDIF list. All of the regional projects identified for inclusion in the list are also included in the *Final Moving Forward Monterey Bay, 2040 Metropolitan Transportation Plan / Sustainable Communities Strategy (2040 MTP/SCS)* (AMBAG, June 2018) and the *2018 Monterey County Regional Transportation Plan (2040 RTP)* (TAMC, June 2018). The updated list of 12 regional improvement projects considered for analysis is shown in **Table 4**. Project locations are shown in **Figure 6**.

3.2 YEAR 2035 BUILD SYSTEM OPERATIONS

The AMBAG RTDM was run using the horizon-year 2035 land use database and a version of the future-year 2035 (with updates to better reflect existing conditions) roadway network that had been updated to include all 12 projects identified for analysis in the regional improvement projects list. This run has been labeled the “Year 2035 Build” model run since construction of all 12 of the 2018 RDIF improvements is assumed. The raw “Year 2035 Build” traffic volumes generated by this model run were extracted, and final “Year 2035 Build” volumes were calculated using the difference method (i.e. Year 2035 Build Forecast = raw Year 2035 Build model volume – raw base year model volume + 2015 count).

“Year 2035 Build” conditions V/C ratios and LOS were calculated for each study roadway segment based on Highway Capacity Manual methodologies and using “Year 2035 Build” AADT volumes and capacities (note that all “Year 2035 Build” capacities are based on capacities from the AMBAG RTDM year 2035 network). “Year 2035 Build” study roadway segment volumes, capacities, V/C, and LOS are shown in **Appendix E**. **Figure 7** graphically illustrates projected “Year 2035 Build” conditions LOS for all study roadway segments. **Table 5** compares study area roadway segment LOS under Year 2035 No Build and Build conditions for all segments that are projected to be measurably affected by the 2018 RDIF regional improvement projects. In some cases, an improvement project was predicted to affect adjacent, parallel, or intersecting roadway segments in addition to the roadway segments that were being directly improved; these adjacent roadway segments were also included in **Table 5**.

As shown in **Table 5**, 18 study roadway segments are projected to go from unacceptable to acceptable Year 2035 LOS conditions with construction of the 2018 RDIF regional improvement projects. The V/C ratio and LOS of some segments are projected to worsen with construction of the 2018 RDIF regional improvement projects. This generally occurs on unimproved roadway segments adjacent to proposed improvement projects. These unimproved segments experience an increase in traffic due to the increase in demand accessing the adjacent improved segment. Note that not all

Table 4. Regional Improvement Projects List

#	Project	Location	Description	2018 Estimated Project Cost
1	SR-1 Corridor & Busway	Seaside / Sand City	Capacity and operational improvements to State Route 1 corridor from Fremont Ave to at least Canyon Del Rey and make interchange and related local road improvements in the vicinity of the intersections of Canyon Del Rey and Fremont Avenues; includes rapid bus corridor.	\$ 26,481,000
2	SR-156 Widening	Between Castroville and Prunedale	Capacity and operational improvements to State Route 156 from Castroville Boulevard to just west of the State Route 156 / US 101 interchange. This RDIF only includes Segment 1 (Castroville Boulevard Interchange) and Segment 2 (SR 156 widening to four lanes) of this project.	\$ 149,175,000
3	Marina-Salinas Corridor	South of Salinas	Multimodal capacity improvements to Reservation Rd from Davis Rd to existing 4 lane section adjacent to East Garrison; multimodal capacity improvements to Imjin Pkwy from Reservation Rd to Imjin Rd; multimodal capacity improvements to Blanco Road from Davis Rd to Reservation Rd.	\$ 74,556,000
4	Davis Road North	South of Salinas	Widen to 4 lanes from SR 183 bridge to Blanco Rd.	\$ 7,736,000
5	Davis Road South	South of Salinas	Widen to 4 lanes from Blanco to Reservation; Build 4 lane bridge over Salinas River.	\$ 15,736,000
6	Del Monte Corridor Improvements	Monterey	Capacity improvements from El Estero to Sloat Ave. Intersection upgrades to Sloat Ave and Aguajito Ave with left turn and signal operations improvements.	\$ 49,616,000
7	US-101 - South County Phase 1 (Frontage Rds - Salinas to Chualar)	Between Salinas and Chualar	Construct 2-lane frontage roads on west-side of US-101 from Harris Rd/Abbott St interchange to Chualar. Remove existing segment of Abbott St from US-101 to Harris Rd. Additional 2-lane frontage rd on east side of US-101 from Chualar to Harris Rd.	\$ 108,096,000
8	US-101 South County Phase 2 (Harris Road)	Southeast Salinas	Construct an interchange at Harris Rd / US 101.	\$ 59,850,000
9	SR-68 Commuter Improvements	Corral De Tierra	Capacity and operational improvements to State Route 68 from existing 4 lane section adjacent to Toro park west to Olmsted.	\$ 79,955,000
10	US 101 Widening from Airport Blvd to Boronda Rd	Salinas	Capacity improvements to US 101 from south of Airport Boulevard to Boronda Road, within the existing right-of-way, at locations where feasible.	\$ 57,863,000
11	G12 San Miguel Canyon Improvements	Between Prunedale and Las Lomas	Operational and capacity improvements along San Miguel Canyon Road from Castroville Boulevard to Hall Road, and along Hall Road / Elkhorn Road from San Miguel Canyon Road to the Monterey County border	\$ 74,221,000
12	Salinas Road Improvements	South Pajaro	Capacity improvements to Salinas Road from Werner Road to Elkhorn Road; install intersection control device and construct intersection improvements at Salinas Road/Werner Road intersection; install intersection control device on Elkhorn road at Salinas Road. Re-align Salinas Road and Werner Road to intersect Elkhorn Road at a single location with an intersection control device.	\$ 7,516,000

Source: Transportation Agency for Monterey County.

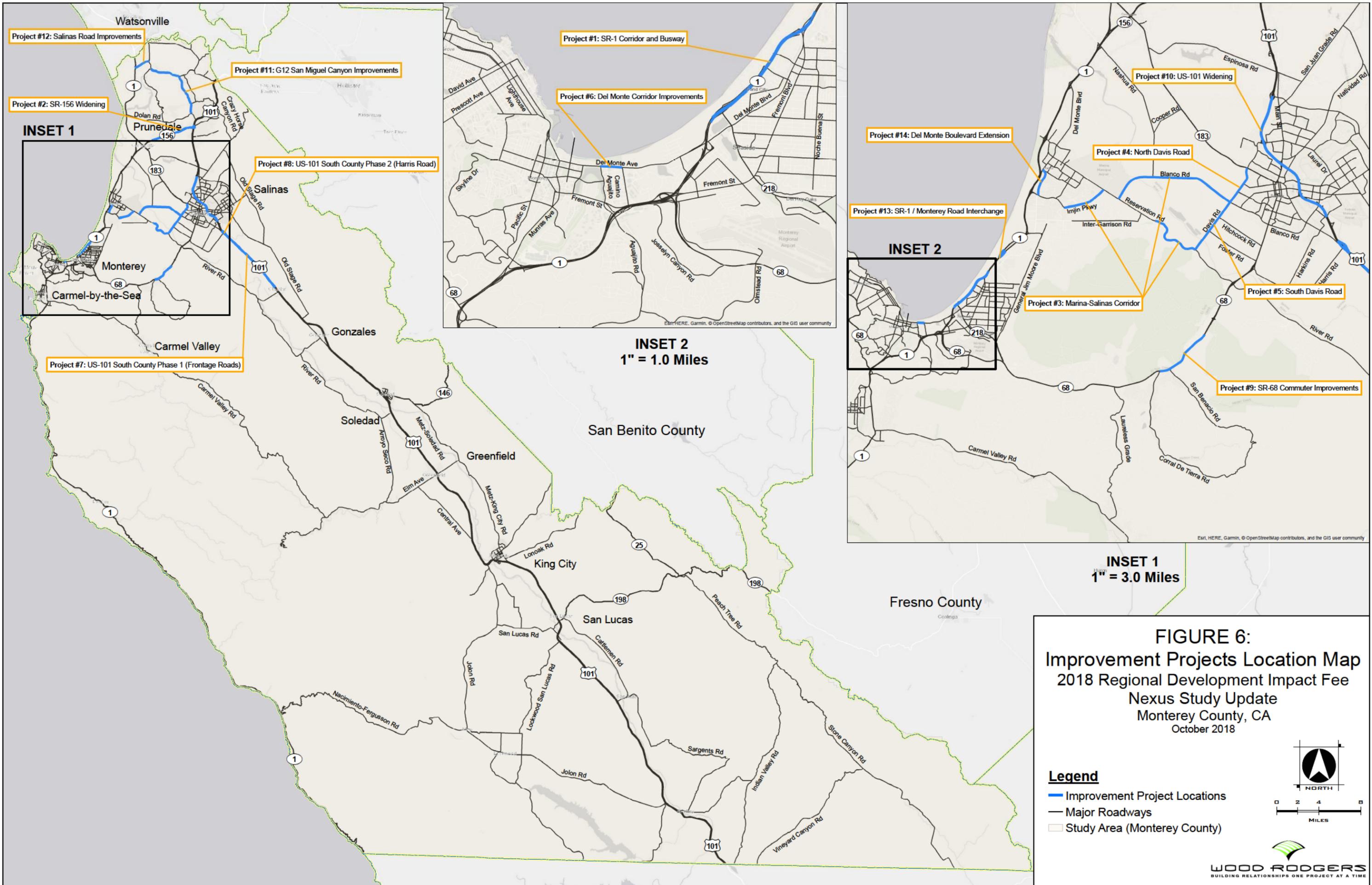
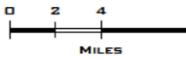


FIGURE 6:
Improvement Projects Location Map
 2018 Regional Development Impact Fee
 Nexus Study Update
 Monterey County, CA
 October 2018

Legend

- Improvement Project Locations
- Major Roadways
- Study Area (Monterey County)


 NORTH

 0 2 4 8
 MILES


WOOD RODGERS
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

Table 5. 2018 RDIF Improvement Projects Effects on Study Area LOS

#	Regional Improvement Project	Roadway Segment	Year 2035 No Build Conditions					Year 2035 Build Conditions						
			Roadway Classification	FC#	Roadway Capacity	ADT	V/C Ratio	LOS	Roadway Classification	FC#	Roadway Capacity	ADT	V/C Ratio	LOS
1	SR-1 Corridor & Busway	SR-1: Light Fighter Dr to Fremont Blvd	6-Lane Freeway	14002	106,700	106,345	0.997	E	6-Lane Freeway	14002	106,700	107,126	1.004	F
		SR-1: Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	14001	69,100	79,651	1.153	F	4-Lane Freeway	14001	69,100	80,585	1.166	F
		SR-1: Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	14001	69,100	79,055	1.144	F	4-Lane Freeway	14001	69,100	79,606	1.152	F
2	SR-156 Widening	SR-156: SR-1 to SR-183	4-Lane Freeway	14001	69,100	37,734	0.546	B	4-Lane Freeway	14001	69,100	39,623	0.573	C
		SR 156: SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	39,701	0.618	C	4-Lane Uninterrupted Flow Highway	11003	64,200	41,832	0.652	C
		SR 156: Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	12101	16,300	35,964	2.206	F	4-Lane Freeway	14001	69,100	35,977	0.521	B
3	Marina-Salinas Corridor	Blanco Rd: Reservation Rd to Cooper Rd	2-Lane Major Roadway	13001	14,600	30,374	2.080	F	4-Lane Major Roadway	13003	30,900	28,894	0.935	D
		Blanco Rd: Cooper Rd to S Davis Rd	2-Lane Major Roadway	13001	14,600	29,916	2.049	F	4-Lane Major Roadway	13003	30,900	28,414	0.920	D
		Reservation Rd: Imjin Pkwy to Blanco Rd	4-Lane Major Roadway	13003	30,900	32,587	1.055	F	4-Lane Major Roadway	13003	30,900	39,635	1.283	F
		Reservation Rd: Blanco Rd to S Davis Rd	2-Lane Major Roadway	13001	14,600	9,060	0.621	D	4-Lane Major Roadway	13003	30,900	17,620	0.570	D
		Imjin Pkwy: California Ave to Imjin Rd	4-Lane Major Roadway	13003	30,900	24,187	0.783	D	4-Lane Major Roadway	13003	30,900	27,642	0.895	D
		Imjin Pkwy: Imjin Rd to Abrams Dr	2-Lane Major Roadway	13001	14,600	22,273	1.526	F	4-Lane Major Roadway	13003	30,900	28,690	0.928	D
		Imjin Pkwy: Abrams Dr to Reservation Rd	2-Lane Major Roadway	13001	14,600	22,644	1.551	F	4-Lane Major Roadway	13003	30,900	29,023	0.939	D
4	Davis Road North	North Davis Rd: SR-183 to W Blanco Rd	2-Lane Major Roadway	13001	14,600	30,208	2.069	F	4-Lane Major Roadway	13003	30,900	37,948	1.228	F
5	Davis Road South	South Davis Rd: W Blanco Rd to Reservation Rd	2-Lane Major Roadway	13001	14,600	14,214	0.974	E	4-Lane Major Roadway	13003	30,900	22,004	0.712	D
6	Del Monte Corridor Improvements	Del Monte Ave: Camino Aguajito to Casa Verde Way	4-Lane Major Roadway	13003	30,900	44,260	1.432	F	5-Lane Major Roadway	13004	38,650	45,081	1.166	F
7	US-101 South County Phase 1 (Frontage Roads - Salinas to Chualar)	US 101: Airport Blvd to Abbott St	4-Lane Freeway	14001	69,100	50,573	0.732	C	4-Lane Freeway	14001	69,100	50,030	0.724	C
		US 101: Abbott St to Spence Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	61,006	0.950	E	4-Lane Freeway	14001	69,100	60,482	0.875	D
		US 101: Spence Rd to Chualar Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	61,745	0.962	E	4-Lane Freeway	14001	69,100	61,418	0.889	D
		SB Frontage Rd - US 101: Harris Rd to Chualar River Rd	-	-	-	-	-	-	2-Lane Major Roadway	13001	14,600	443	0.030	C
		NB Frontage Rd - US 101: Harris Rd to Payson St	-	-	-	-	-	-	2-Lane Major Roadway	13001	14,600	253	0.017	C
8	US-101 South County Phase 2 (Harris Road Interchange)	Harris Rd: At Proposed Interchange	-	-	-	-	-	-	4-Lane Major Roadway	13003	30,900	11,787	0.381	C
		NB US 101 Off-Ramp	-	-	-	-	-	-	1-Lane Freeway Ramp	15001	21,000	10,629	0.506	C
		NB US 101 On-Ramp	-	-	-	-	-	-	1-Lane Freeway Ramp	15001	21,000	1,058	0.050	C
		SB US 101 Off-Ramp	-	-	-	-	-	-	1-Lane Freeway Ramp	15001	21,000	1,041	0.050	C
		SB US 101 On-Ramp	-	-	-	-	-	-	1-Lane Freeway Ramp	15001	21,000	9,902	0.472	C
9	SR-68 Commuter Improvements	SR 68: Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	12101	16,300	27,982	1.717	F	4-Lane Class I Two-Way State Arterial	12103	34,201	30,583	0.894	C
10	US 101 Widening from Airport Boulevard to Boronda Road	US 101: E Boronda Rd to W Laurel Dr	4-Lane Freeway	14001	69,100	69,540	1.006	F	6-Lane Freeway	14002	106,700	77,931	0.730	C
		US 101: W Laurel Dr to N Main St	4-Lane Freeway	14001	69,100	71,615	1.036	F	6-Lane Freeway	14002	106,700	78,150	0.732	C
		US 101: N Main St to E Market St	4-Lane Freeway	14001	69,100	84,261	1.219	F	6-Lane Freeway	14002	106,700	85,203	0.799	D
		US 101: E Market St to John St	4-Lane Freeway	14001	69,100	76,416	1.106	F	6-Lane Freeway	14002	106,700	79,865	0.749	C
		US 101: John St to S Sanborn Rd	4-Lane Freeway	14001	69,100	70,912	1.026	F	6-Lane Freeway	14002	106,700	71,599	0.671	C
		US 101: S Sanborn Rd to Airport Blvd	4-Lane Freeway	14001	69,100	60,873	0.881	D	6-Lane Freeway	14002	106,700	60,232	0.564	C

Table 5 (Continued). 2018 RDIF Improvement Projects Effects on Study Area LOS

#	Regional Improvement Project	Roadway Segment	Year 2035 No Build Conditions					Year 2035 Build Conditions						
			Roadway Classification	FC#	Roadway Capacity	ADT	V/C Ratio	LOS	Roadway Classification	FC#	Roadway Capacity	ADT	V/C Ratio	LOS
11	County Route G12 San Miguel Canyon Improvements	San Miguel Canyon Rd: Castroville Blvd to Strawberry Rd	2-Lane Major Roadway	13001	14,600	19,209	1.316	F	4-Lane Major Roadway	13003	30,900	22,319	0.722	D
		San Miguel Canyon Rd: Strawberry Rd to Hall Rd	2-Lane Major Roadway	13001	14,600	14,985	1.026	F	4-Lane Major Roadway	13003	30,900	18,095	0.586	D
		Hall Rd: San Miguel Canyon Rd to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	24,907	1.706	F	4-Lane Major Roadway	13003	30,900	28,498	0.922	D
12	Salinas Road Improvements	Salinas Rd: SR-1 to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	18,910	1.295	F	4-Lane Major Roadway	13003	30,900	21,488	0.695	D

benefits of the proposed regional improvement projects can be quantified by a traditional volume to capacity-based LOS analysis. Projects such as the SR-1 Corridor and Busway, and proposed new interchanges at SR-1 and US 101 have additional benefits, which may include safety improvements, encouraging multi-modal use, and providing better local access. Therefore, the improvement projects' benefits should not be evaluated based on LOS alone.

3.3 COST ESTIMATES

Planning level cost estimates for all 12 regional improvement projects were developed using current project descriptions, as defined by TAMC, and latest available unit costs based on Caltrans' Basic Engineering Estimate System (BEES). The planning-level costs of all improvements are summarized in **Table 4**. The total updated cost estimate for these 12 projects is approximately \$710 million. Planning level cost estimate technical worksheets for each of the 12 projects, including all engineering assumptions made during their development, are included in **Appendix F**. It is important to note that all cost estimates were done at a high level of detail, and should be regarded as being sufficient for planning purposes only.

4. FEE METHODOLOGY

4.1 BACKGROUND

Transportation Impact Fees are one-time fees typically paid by private development when a building permit is issued and imposed by the local municipality responsible for regulating land use (typically Cities and Counties). To guide the widespread imposition of public facilities fees, the State Legislature adopted the *Mitigation Fee Act* (Act) with *Assembly Bill 1600* (AB 1600) in 1987 and subsequent amendments. The Act, contained in *California Government Code* §§66000-66025, establishes requirements on local agencies for the imposition and administration of fee programs. These requirements also apply to regional planning jurisdictions and Joint Powers Authorities such as TAMC. The Act requires lead agencies to document the following four (4) findings when taking any action establishing, increasing, or imposing a fee as a condition of approval of a development project:

1. Purpose of Fee

For the first finding, the agency shall: *Identify the purpose of the fee.* (§66001(a)(1))

TAMC's policy is that new development will not burden existing development with the cost of public facilities, including transportation facilities, required to accommodate growth. The purpose of the RDIF is to implement this policy by enacting countywide fees to fund the fair-share cost burdens of regional transportation improvements required within the County to accommodate projected growth.

2. Use of Fee Revenues

For the second finding, the agency shall: *Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified. That identification may, but need not, be made by reference to a capital improvement plan as specified in Section 65403 or 66002, may be made in applicable general or specific plan requirements, or may be made in other public documents that identify the public facilities for which the fee is charged.* (§66001(a)(2))

The fees collected by the RDIF are intended to be used to fund the public facility improvements listed in **Table 4**. Note that the RDIF may also be used by TAMC or local agency to reimburse a private developer for the actual cost of improvements funded by the developer that directly benefit new development within the County.

3. Benefit Relationship

For the third finding, the agency shall: *Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.* (§66001(a)(3))

TAMC has determined that the improvements listed in the RDIF program are necessary to accommodate projected growth in regional traffic demand, including demand generated by land use growth within the County, on the County's transportation network. Transportation facilities funded by the RDIF fees will provide a regional network of facilities accessible to the residents and workers associated with new development in the County. Therefore, there is a reasonable benefit relationship between the use of fee revenues and the new development that will pay the fee.

4. Burden Relationship

For the fourth finding, the agency shall: *Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.* (§66001(a)(4))

Per the Institute of *Transportation Engineers Trip Generation Manual, 9th Edition* (Institute of Transportation Engineers, 2012), new residential dwelling units and commercial/industrial building square footage correlate with new transportation trips and demand. AMBAG long-term land use forecasts, travel demand modeling, and standard trip generation rates are used to predict how many trips each land use type will generate, where those trips will go, and how they will get there (i.e. which facilities they will use). As additional dwelling units and building square footage are created, the occupants of these structures will place additional burdens on nearby regional transportation facilities. Thus, there is a reasonable burden relationship between the need for the planned regional improvements and developments that will pay the fee.

The Act also requires lead agencies to document the following one (1) additional finding when taking any action imposing a fee as a condition of approval of a development project:

5. Proportionality

For the fifth finding, the agency shall: *Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.* (§66001(b))

The total fee for a specific development is computed based on number of new dwelling units for residential development and building square footage for non-residential development. As part of the RDIF, a fee schedule is developed which defines how much each type of land use in each County benefit zone will pay per unit (dwelling units or square feet). The fee schedule is developed by attributing growth in trips to the planned new developments in each benefit zone using AMBAG's land use projections and RTDM, and to the need for the RDIF improvement projects. The fee rate schedule is used to convert the proposed units or square footage of a development project into a proportionate fee. Thus, the fee schedule ensures a reasonably proportional relationship between the amount of the fee for a specific development and the cost of improvements benefitting that development.

The steps taken to develop fees in accordance with the *Mitigation Fee Act* and California Government Code §66000-66025 (which are summarized above) are described in further detail in the following sections.

4.2 NEXUS EVALUATION

A nexus evaluation was completed in order to determine and quantify a “reasonable relationship” and “rough proportionality” between impact fees assessed on new development and the cost of the portion of regional improvement projects attributable to the new development. The following key steps were completed as part of the nexus evaluation:

- Update to the County’s benefit zone structure.
- Completion of “select-link” RTDM runs to determine overall planned new development’s share of cost for each 2018 RDIF regional transportation improvement project, as well as proportionate distribution of new development’s share of improvement costs by benefit zone.
- Identification of revenue sources outside of the RDIF program that may be used to fund regional transportation improvement cost shares not funded by the RDIF program.

The following sections describe in detail each of the above steps.

4.3 BENEFIT ZONES

The prior, *2013 RDIF Nexus Study Update* analyzed four benefit zones within Monterey County as follows:

1. North County
2. Greater Salinas
3. Peninsula and South Coast
4. South County

The *2013 RDIF Nexus Study Update* did not consider the Fort Ord Reuse Authority area as part of the benefit zone structure defined above. In the past, the FORA area network deficiencies, fee reallocation, and Capital Improvement Program (CIP) roadway projects were analyzed separately from the rest of the County. The most recent fee reallocation study prepared for the FORA area is the *Fort Ord Reuse Authority Fee Reallocation Study: Deficiency Analysis and Fee Reallocation – Fiscal Year 2016/2017* (Kimley Horn, April 27, 2017).

Based on direction from TAMC, the FORA area was included as a fifth benefit zone in the 2018 RDIF Nexus Study Update. The 2018 RDIF Nexus Study Update analyzes five benefit zones within Monterey County as follows:

1. North County
2. Greater Salinas
3. Peninsula and South Coast
4. South County
5. Fort Ord Reuse Authority

All regional improvements, and some off-site improvements that were considered to benefit regional traffic, included in the 2017 FORA Fee Reallocation Study, were also included in the 2018 RDIF Nexus Study Update. All FORA area network deficiencies and fees calculated in this 2018 RDIF Nexus Study Update were compared against values in the 2017 FORA Fee Reallocation Study to maintain consistency between the two documents. **Figure 8** shows the updated TAMC benefit Zone boundaries as defined in this 2018 RDIF Nexus Study Update.

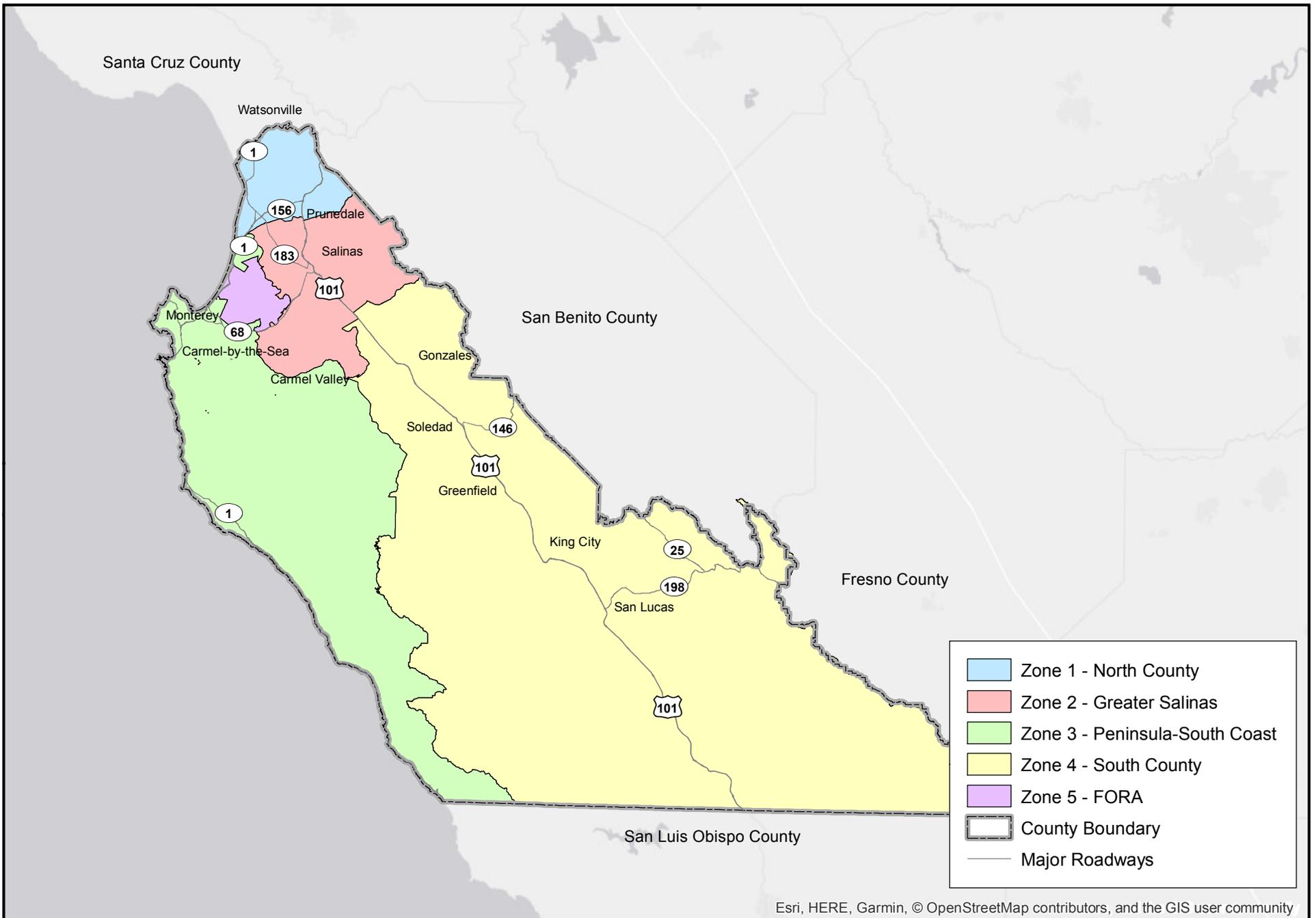


Figure 8 - Updated TAMC Benefit Zone Boundaries
 2018 Regional Development Impact Fee Nexus Study Update
 Monterey County, CA
 October 2018



4.4 SELECT LINK ANALYSIS AND NEW DEVELOPMENT SHARE OF PROJECT COSTS

This step involves determining the percentage of future-year 2035 average daily traffic (ADT) on the 2018 RIDF regional transportation improvement project facilities that could be reasonably attributed to planned new land development projected to occur between RDIF program base-year (2015) and horizon-year (2035). The ADT attributed to planned new land development is then further aggregated by benefit zone and by land use type. The following computational steps were undertaken:

4.4.1 SELECT LINK ANALYSIS

Year 2010 (which was determined to reasonably represent the 2015 base year) and Year 2035 AMBAG RTDM scenarios were both prepared with the 12 regional improvement projects coded as part of the model network. These updated model scenarios are regarded as “Base Year Build” and “Year 2035 Build” models, respectively, since they assume the regional improvement projects to be constructed. The “Base Year Build” and “Year 2035 Build” models were then run using a “select-link” procedure. The select-link modeling procedure tracks the origins and destinations of all trips that pass through certain user-specified “links” (i.e. roadway segments). For this study, the links of each of the 12 regional improvement projects were specified as 12 different select-link scenarios in order to have the models track where all trips that use each proposed improvement start and end. For each regional improvement project, all links that were anticipated to experience a significant benefit were specified in the select-link analysis. For example, the US 101 South County Phase 1 select-link scenario included both the links for the proposed frontage roads and the adjacent segments of US 101 mainline, since the mainline would also experience improved operations with construction of the proposed frontage roads.

Once the 12 select-link model runs had been completed for both “Base Year Build” and “Year 2035 Build” scenarios, origin-destination data for each regional improvement project was extracted. The RTDM provides origin-destination data by Traffic Analysis Zones (TAZs). TAZs are geographical areas typically used in transportation planning which contain socio-economic information such as number of houses, jobs, residents, etc., and are typically defined along major features such as roads, rivers, and jurisdictional boundaries. TAZ based origin-destination trip data was then aggregated into the five (5) benefit zones used in this 2018 RIDF Nexus Study Update.

4.4.2 OVERALL NEW DEVELOPMENT COST SHARE

In order to determine the percentage of future ADT on each RDIF improvement project attributable to overall new development (i.e. growth), the daily origin-destination trip data for each of the 12 regional improvement project scenarios was aggregated for both “Base Year Build” and “Year 2035 Build” conditions, and then differenced. The resulting new development daily trips for each regional improvement project were then divided by the corresponding “Year 2035 Build” daily trips to determine percentage of trips due to new development. “Base Year Build” trips were subtracted from “Year 2035 Build” trips because this results in growth due solely to changes in land uses, and therefore gives the best estimate of daily trips attributable to new development. Note that the methodology used extracts future ADT attributable to “new growth” only and therefore the portion of cost attributable to existing traffic is automatically excluded from impact fee consideration. New development cost share of each of the 12 regional improvement projects is shown in **Table 6**.

Table 6. New Development Share of Trips and Cost for Improvement Projects

#	2018 RDIF Regional Improvement Project	Base Year Raw Model Trips	Year 2035 Raw Model Trips	Growth in Project Trips	% of Project Trips from New Development	2018 Estimated Project Cost	New Development Share
1	SR-1 Corridor & Busway	92,604	104,977	12,373	11.8%	\$ 26,481,000	\$ 3,121,155
2	SR-156 Widening	33,161	42,792	9,631	22.5%	\$ 149,175,000	\$ 33,574,136
3	Marina-Salinas Corridor	42,590	56,324	13,734	24.4%	\$ 74,556,000	\$ 18,179,677
4	Davis Road North	27,576	33,826	6,250	18.5%	\$ 7,736,000	\$ 1,429,374
5	Davis Road South	4,465	10,970	6,505	59.3%	\$ 15,736,000	\$ 9,331,147
6	Del Monte Corridor Improvements	33,841	41,591	7,750	18.6%	\$ 49,616,000	\$ 9,245,366
7	US-101 South County Phase 1 (Frontage Roads - Salinas to Chualar)	52,079	69,526	17,447	25.1%	\$ 108,096,000	\$ 27,125,837
8	US-101 South County Phase 2 (Harris Road Interchange)	18,855	22,738	3,883	17.1%	\$ 59,850,000	\$ 10,220,669
9	SR-68 Commuter Improvements	60,658	64,148	3,490	5.4%	\$ 79,955,000	\$ 4,349,987
10	US 101 Widening from Airport Boulevard to Boronda Road	122,554	142,182	19,628	13.8%	\$ 57,863,000	\$ 7,987,896
11	County Route G12 San Miguel Canyon Improvements	40,326	47,340	7,014	14.8%	\$ 74,221,000	\$ 10,996,749
12	Salinas Road Improvements	22,047	26,009	3,962	15.2%	\$ 7,516,000	\$ 1,144,927
Total						\$ 710,801,000	\$ 136,706,920

4.4.3 NEW DEVELOPMENT COST SHARE BY BENEFIT ZONE

All new development considered in this study was divided into six (6) distinct zones: the five (5) Monterey County benefit zones defined above, and an “External” zone which represents all land use growth that occurs out-of-County but generates trips which travel to/from Monterey County. In order to determine the percentage of future ADT on each regional improvement project attributable to each zone, the daily origin-destination trip data for each of the 12 regional improvement project scenarios was aggregated at a benefit zone level for both “Base Year Build” and “Year 2035 Build” scenarios, and then differenced. The resulting new development daily trips for each regional improvement project and benefit zone were then divided by the total new development daily trips for each regional improvement project to determine percentage of daily trips due to new development for each benefit zone.

Using the percentage daily trips due to new development for each benefit zone, a portion of the planning-level cost estimate for each regional improvement project was allocated to each benefit zone and the “External” zone. The resulting zonal distribution for each of the regional improvement project costs is included in **Table 7**. This table also lists the cost of each regional improvement project, the total cost share of new development in the RDIF area (i.e. the sum of the five benefit zones) for each improvement project, and the total fee amounts to be funded by each benefit zone.

4.5 OTHER FUNDING SOURCES

The goal and purpose of this 2018 RDIF Nexus Study Update is solely to update the RDIF program and not to provide or ensure a mechanism for complete funding of all identified improvement projects. However, the following options were generally identified as potential additional funding sources that could be utilized for full funding of the 2018 RDIF regional improvement projects. These funding sources include (but are not limited to):

- Direct construction responsibilities conditioned on new private development (that may or may not be eligible for later reimbursement through lead public agency)
- Local agency (Cities and County) Transportation Impact Fee Programs
- Local agency (Cities and County) General Funds
- Accrued funds from pre-existing TAMC RDIF program
- Special-funded districts such as Community Financing Districts (CFD’s)
- Caltrans Funding through State Transportation Improvement Program (STIP) and/or State Highway Operational Improvements Program (SHOPP)
- Potential Gas Tax Measures / Bonds / Sales Tax (or other voter-approved) Measures
- Federal Funding
- Federal/State/Local Grant funds and miscellaneous programs

Note that the percentage contribution, if any, from the aforementioned funding sources are generally unknown or un-ascertainable at this time. Also note that travel demand management (TDM) programs (such as carpool/rideshare programs, incentives for use of alternative modes, smart-growth planning initiatives, etc.), while not considered fee sources, can be regarded as alternative impact mitigation strategies that either alleviate or postpone the need for capacity-enhancing transportation improvements.

Table 7. Benefit Zone Cost Share for RDIF Improvement Projects

#	2018 RIDF Regional Improvement Project	2018 Estimated Project Cost	New RDIF Development Percent Share ¹	New RDIF Development Cost Share ²	Benefit Zone 1 - North County		Benefit Zone 2 - Greater Salinas		Benefit Zone 3 - Peninsula and South Coast		Benefit Zone 4 - South County		Benefit Zone 5 - FORA		External	
					%	Cost	%	Cost	%	Cost	%	Cost	%	Cost	%	Cost
1	SR-1 Corridor & Busway	\$ 26,481,000	8.5%	\$ 2,238,907	0.0%	\$ -	0.0%	\$ 8,763	6.5%	\$ 1,722,142	0.0%	\$ 12,901	1.9%	\$ 495,101	3.3%	\$ 882,248
2	SR-156 Widening	\$ 149,175,000	12.7%	\$ 19,005,313	2.4%	\$ 3,508,084	0.2%	\$ 276,954	9.1%	\$ 13,551,584	0.0%	\$ -	1.1%	\$ 1,668,691	9.8%	\$ 14,568,824
3	Marina-Salinas Corridor	\$ 74,556,000	23.3%	\$ 17,377,545	0.3%	\$ 187,958	8.7%	\$ 6,495,153	5.1%	\$ 3,821,379	0.5%	\$ 399,081	8.7%	\$ 6,473,974	1.1%	\$ 802,132
4	Davis Road North	\$ 7,736,000	16.8%	\$ 1,296,946	0.4%	\$ 29,733	8.1%	\$ 622,914	3.5%	\$ 269,887	0.0%	\$ -	4.8%	\$ 374,412	1.7%	\$ 132,428
5	Davis Road South	\$ 15,736,000	54.9%	\$ 8,636,152	0.7%	\$ 107,584	23.7%	\$ 3,733,176	5.5%	\$ 861,392	0.9%	\$ 145,597	24.1%	\$ 3,788,403	4.4%	\$ 694,995
6	Del Monte Corridor Improvements	\$ 49,616,000	17.0%	\$ 8,440,668	0.1%	\$ 34,598	0.4%	\$ 190,288	14.9%	\$ 7,404,524	0.1%	\$ 30,422	1.6%	\$ 780,836	1.6%	\$ 804,697
7	US-101 South County Phase 1 (Frontage Roads - Salinas to Chualar)	\$ 108,096,000	16.6%	\$ 17,937,753	0.0%	\$ -	6.3%	\$ 6,829,956	1.8%	\$ 1,905,746	8.1%	\$ 8,800,106	0.4%	\$ 401,945	8.5%	\$ 9,188,084
8	US-101 South County Phase 2 (Harris Road Interchange)	\$ 59,850,000	12.5%	\$ 7,463,476	0.0%	\$ -	3.0%	\$ 1,775,464	3.7%	\$ 2,201,053	4.9%	\$ 2,938,654	0.9%	\$ 548,305	4.6%	\$ 2,757,191
9	SR-68 Commuter Improvements	\$ 79,955,000	3.9%	\$ 3,100,668	0.0%	\$ -	0.7%	\$ 534,146	2.2%	\$ 1,776,319	0.5%	\$ 368,603	0.5%	\$ 421,600	1.6%	\$ 1,249,319
10	US-101 Widening from Airport Boulevard to Boronda Road	\$ 57,863,000	8.2%	\$ 4,773,297	0.0%	\$ -	5.8%	\$ 3,368,419	0.1%	\$ 35,310	2.1%	\$ 1,209,254	0.3%	\$ 160,314	5.6%	\$ 3,214,599
11	County Route G12 San Miguel Canyon Improvements	\$ 74,221,000	9.4%	\$ 6,971,847	6.6%	\$ 4,890,406	0.3%	\$ 200,696	0.5%	\$ 373,954	1.9%	\$ 1,426,042	0.1%	\$ 80,749	5.4%	\$ 4,024,903
12	Salinas Road Improvements	\$ 7,516,000	8.4%	\$ 628,280	5.2%	\$ 393,147	0.0%	\$ -	0.1%	\$ 4,988	3.0%	\$ 229,066	0.0%	\$ 1,079	6.9%	\$ 516,646
Total		\$ 710,801,000		\$ 97,870,852		\$ 9,151,510		\$ 24,035,929		\$ 33,928,278		\$ 15,559,726		\$ 15,195,409		\$ 38,836,066

¹Indicates total percentage of new trips from the RDIF study area that use the corresponding Improvement Project (i.e. sum of percentages of new trips from Benefit Zones 1-5).

²Indicates the total RDIF cost for each Improvement Project that will need to be collected from the RDIF study area (i.e. sum of costs from Benefit Zones 1-5).

5. FEE RATE SCHEDULE

5.1 TOTAL RDIF-FUNDED COSTS

The total cost assigned to each benefit zone includes an aggregate of three components: roadway impact costs, transit impact costs, and administrative costs. Using cost data summarized in **Table 2** and **Table 7**, the RDIF-funded cost components were summed to obtain total fees by benefit zone, and are shown in **Table 8**. As shown in **Table 8**, the updated RDIF program is expected to collect approximately \$109 million (in 2018 dollars).

Table 8. Year 2035 Fee by Benefit Zone

Zone #	Benefit Zone	Benefit Zone Contribution			
		2018 Estimated Projects Cost	Transit Component	Administrative Costs	Total Fee
1	North County	\$ 9,151,510	\$ 528,885	\$ 96,804	\$ 9,777,199
2	Greater Salinas	\$ 24,035,929	\$ 4,426,986	\$ 284,629	\$ 28,747,544
3	Peninsula and South Coast	\$ 33,928,278	\$ 4,097,352	\$ 380,256	\$ 38,405,887
4	South County	\$ 15,559,726	\$ 540,920	\$ 161,006	\$ 16,261,652
5	Fort Ord Reuse Authority	\$ 15,195,409	\$ 405,857	\$ 156,013	\$ 15,757,279
	Total	\$ 97,870,852	\$ 10,000,000	\$ 1,078,709	\$ 108,949,561

5.2 FEE COMPUTATION BY LAND USE AND BY TRIPS

To derive “fee per trip” and “fee per unit of land use” numbers for each benefit zone, the total number of new trips projected to be generated by each zone needed to be determined by land use type. For this purpose, the TAZ-level land use data/projections in the base-year 2010 and horizon-year 2035 AMBAG RTDM models were reviewed and aggregated at a benefit zone level. The RTDM uses several land use categories, including households, service, retail, government, industrial, construction, and farm. The latter three categories were compiled into an “other” category for the purposes of this analysis. The base-year and horizon-year RTDM land use data were then differenced to derive “net new growth” of each land use type by benefit zone.

In order to convert land uses to trips, *ITE Trip Generation Manual, 9th Edition* based trip generation rates were used. Representative land uses were selected for each of the model-based land use categories. For residential uses, a blend of single-family, apartment, and condominium rates were used. Applying these trip generation rates to the “net new growth” obtained from the AMBAG RTDM provided the total daily trip ends generated by each land use category for each benefit zone.

There are several advantages to using ITE-based trip estimates instead of RTDM based trip estimates. The outputs from the RTDM select-link runs do not provide the level of detail required as it is difficult to separate out RTDM trips by the land use type that generated them. It is also difficult to use the trip generation rates contained in the RTDM as the RTDM trip generation rates are variable and dependent on additional factors (such as vehicle ownership or zonal income level) which have been estimated for modeling purposes only. ITE trip generation rates provide consistent results between all proposed developments.

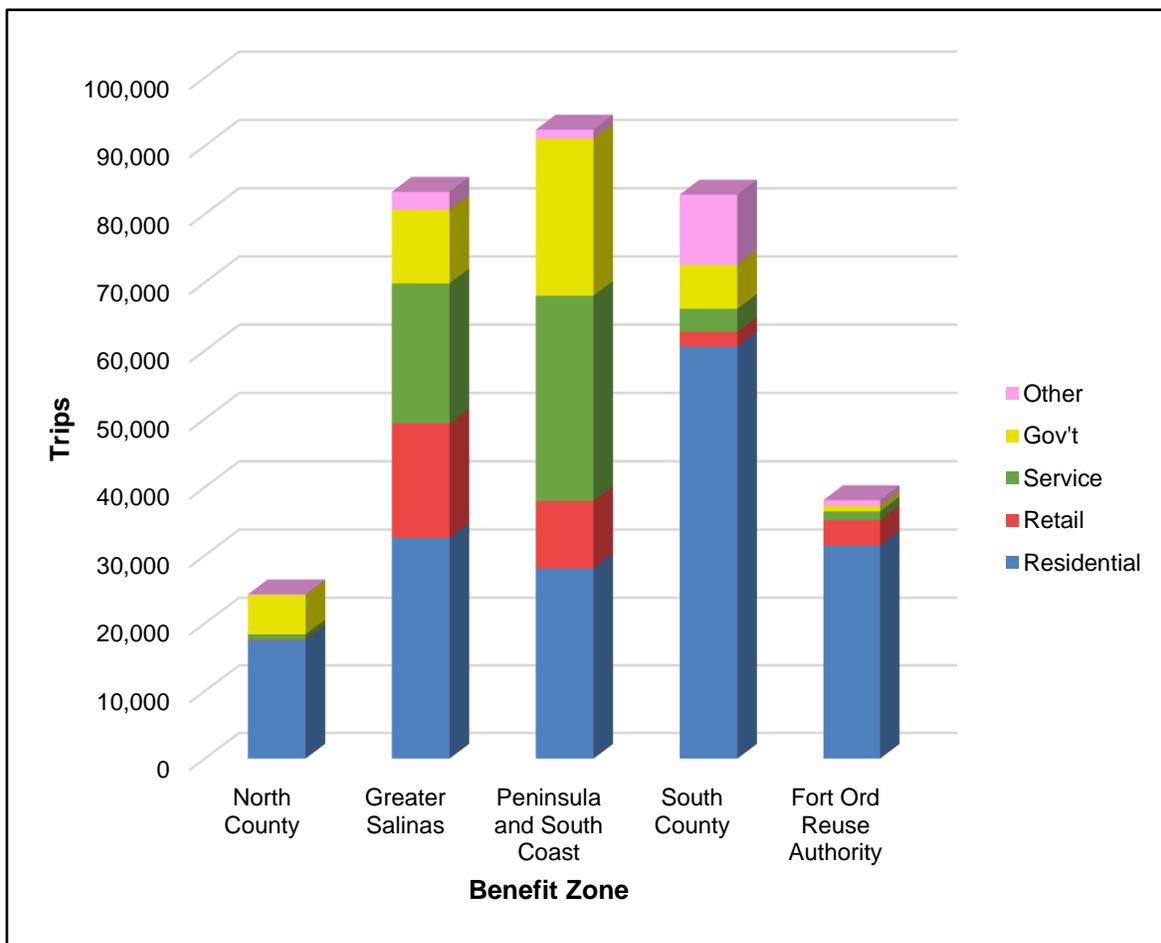
Consistent with the methodology of the *2013 RDIF Nexus Study Update*, half of the retail trip-ends were removed from the calculations since retail trips are generally of shorter distance and many are already on the roadway (otherwise known as “pass-by trips”). Many retail trips are linked or diverted trips between home, work, or school. Retail trips are also generally concentrated more on local roads

than regional routes. **Table 9** shows the projected new trips (growth) attributable to new development between base-year 2015 and horizon-year 2035 for each benefit zone by land use type. **Figure 9** illustrates the same data graphically.

Table 9. New Development (Base Year to 2035) Trip Generation by Benefit Zone

Zone #	Benefit Zone	Residential	Retail	Service	Gov't	Other	Total Trips
1	North County	17,537	100	750	5,823	100	24,310
2	Greater Salinas	32,563	16,800	20,484	10,783	2,658	83,289
3	Peninsula and South Coast	28,103	9,871	30,076	23,014	1,314	92,378
4	South County	60,607	2,146	3,390	6,428	10,301	82,870
5	Fort Ord Reuse Authority	31,444	3,755	1,268	777	869	38,113
Countywide		170,253	32,671	55,969	46,825	15,242	320,960

Figure 9. New Development Trips by Land Use and Benefit Zone



Using the total fee per benefit zone summarized in **Table 8**, and the total projected new development trips per benefit zone summarized in **Table 9**, a “fee per trip” was calculated for each benefit zone. The “fee per trips” numbers were then converted to “fee per unit of land use” using the ITE-based trip generation rates discussed above. The fees for residential land uses are expressed in “fees per dwelling unit”. For non-residential land uses, the fees were initially calculated as “fee per employee” since the AMBAG RTDM uses “employee” as the unit for all non-residential land use data. The “fee per employee” numbers were then converted into “fee per thousand square feet (KSF) gross floor

area” using typical ITE-based employee-to-floor-area conversion factors by use type, consistent with methods used in the 2013 RDIF Nexus Study Update. The resulting general fee rate schedule by benefit zone and by land use category is show in **Table 10**. **Table 11** breaks down the residential “fees per dwelling unit” down further into fee rates for various residential unit types. **Table 12** defines the fee rate schedule for specific industrial and lodging land use types, such as manufacturing and hotels.

Table 10. General Fee Rate Schedule by Benefit Zone and by Land Use Category

Zone #	Benefit Zone	Fee / Trip	Fee / DU ¹ Average Residential	Fee / KSF ² Retail	Fee / KSF ² Service	Fee / KSF ² Office - Government	Fee / KSF ² Other
1	North County	\$ 403	\$ 3,418	\$ 5,459	\$ 4,460	\$ 4,460	\$ 859
2	Greater Salinas	\$ 346	\$ 2,935	\$ 4,687	\$ 3,830	\$ 3,830	\$ 737
3	Peninsula and South Coast	\$ 416	\$ 3,528	\$ 5,635	\$ 4,604	\$ 4,604	\$ 887
4	South County	\$ 197	\$ 1,671	\$ 2,669	\$ 2,181	\$ 2,181	\$ 420
5	Fort Ord Reuse Authority	\$ 414	\$ 3,511	\$ 5,608	\$ 4,582	\$ 4,582	\$ 882

¹DU = Dwelling Unit
²KSF = 1,000 square feet gross floor area

Table 11. Fee Rate Schedule for Specific Residential Unit Types

Zone #	Benefit Zone	Fee / DU ¹ Average Residential	Fee / DU ¹ Single Family	Fee / DU ¹ Apartment	Fee / DU ¹ Condo- Townhouse	Fee / DU ¹ Multi-Family
1	North County	\$ 3,418	\$ 3,857	\$ 2,709	\$ 2,362	\$ 1,496
2	Greater Salinas	\$ 2,935	\$ 3,312	\$ 2,326	\$ 2,028	\$ 1,284
3	Peninsula and South Coast	\$ 3,528	\$ 3,982	\$ 2,796	\$ 2,438	\$ 1,544
4	South County	\$ 1,671	\$ 1,886	\$ 1,324	\$ 1,155	\$ 731
5	Fort Ord Reuse Authority	\$ 3,511	\$ 3,962	\$ 2,783	\$ 2,427	\$ 1,536

¹DU = Dwelling Unit

Table 12. Fee Rate Schedule for Industrial and Lodging Land Use Types

Zone #	Benefit Zone	Fee / KSF ¹ Industrial- Agricultural	Fee / KSF ¹ Light Industrial	Fee / KSF ¹ Heavy Industrial	Fee / KSF ¹ Warehouse	Fee / KSF ¹ Manufacturing	Fee / Room Hotel	Fee / Room Motel
1	North County	\$ 1,540	\$ 2,809	\$ 605	\$ 1,999	\$ 1,540	\$ 3,293	\$ 2,269
2	Greater Salinas	\$ 1,322	\$ 2,412	\$ 519	\$ 1,717	\$ 1,322	\$ 2,827	\$ 1,948
3	Peninsula and South Coast	\$ 1,590	\$ 2,900	\$ 624	\$ 2,064	\$ 1,590	\$ 3,399	\$ 2,343
4	South County	\$ 753	\$ 1,374	\$ 296	\$ 978	\$ 753	\$ 1,610	\$ 1,110
5	Fort Ord Reuse Authority	\$ 1,582	\$ 2,886	\$ 621	\$ 2,054	\$ 1,582	\$ 3,383	\$ 2,331

¹KSF = 1,000 square feet gross floor area

As shown in **Table 10**, the updated 2018 RDIF benefit zone fees range from \$416 per trip to \$197 per trip. The newly added FORA Benefit Zone (Zone 5) has a fee of \$414 per trip. As compared to the *2013 RDIF Nexus Study Update*, the draft 2018 regional fee schedule shows a minor increase in the fee per trip for the Greater Salinas zone, an increase of \$209 to the fee per trip for the Peninsula and South Coast zone (from \$207 to \$416), and a slight decrease in the fee per trip for the North County and South County zones. Part of the reason for the change in the fees is that this 2018 study used a newer version of the AMBAG model that forecasts slightly different travel patterns as well as fewer vehicle trips countywide from the version used in the 2013 study. In addition, the costs for several projects included in the 2018 study, such as the proposed improvements to State Routes 68 and 156, have increased significantly since the previous study. The share of the increased costs were weighted more towards the Greater Salinas and Peninsula and South Coast zones based on the distribution of new vehicle trips and locations of the proposed improvements around the County. This increase in the share of costs for the Greater Salinas and Peninsula and South Coast zones coupled with a decrease in the number of vehicle trips is the primary reason for the increases in the fee per trip for these zones. The fee per trip for the North County and South County zones decreased as the share of improvement project costs attributable to these zone decreased. The share of improvement project costs attributable to the North County and South County zones decreased as several improvement projects which were included in the *2013 RDIF Nexus Study Update* and primarily benefitted these zones, such as the G11 San Juan Road Improvements and several US 101 interchanges in Gonzales/Soledad/Greenfield, were removed from the 2018 RDIF Nexus Study Update. The fees shown in **Table 10**, **Table 11**, and **Table 12** would be applied to all new development projects that cause a net increase in trips. **Table 13** provides an updated revenue and expenditure summary by benefit zone for this 2018 RIDF Nexus Study Update.

Table 13. Revenue and Expenditure Summary by Benefit Zone

Revenues						
Zone #	Benefit Zone	Land Use Quantity	Unit	Fee/Unit	Revenue	%
1	North County					
	Residential	2,068	DU	\$3,418	\$ 7,068,424	6.47%
	Retail	8	KSF	\$5,459	\$ 43,672	0.04%
	Office/Government	594	KSF	\$4,460	\$ 2,649,240	2.43%
	Other	47	KSF	\$859	\$ 40,373	0.04%
	North County Revenue:				\$ 9,801,709	8.98%
2	Greater Salinas					
	Residential	3,840	DU	\$2,935	\$ 11,270,400	10.32%
	Retail	1,241	KSF	\$4,687	\$ 5,816,567	5.33%
	Office/Government	2,826	KSF	\$3,830	\$ 10,823,580	9.91%
	Other	1,248	KSF	\$737	\$ 919,776	0.84%
	Greater Salinas Revenue:				\$ 28,830,323	26.40%
3	Peninsula and South Coast					
	Residential	3,314	DU	\$3,528	\$ 11,691,792	10.71%
	Retail	729	KSF	\$5,635	\$ 4,107,915	3.76%
	Office/Government	4,798	KSF	\$4,604	\$ 22,089,992	20.23%
	Other	617	KSF	\$887	\$ 547,279	0.50%
	Peninsula and South Coast Revenue:				\$ 38,436,978	35.20%
4	South County					
	Residential	7,147	DU	\$1,671	\$ 11,942,637	10.94%
	Retail	159	KSF	\$2,669	\$ 424,371	0.39%
	Office/Government	888	KSF	\$2,181	\$ 1,936,728	1.77%
	Other	4,836	KSF	\$420	\$ 2,031,120	1.86%
	South County Revenue:				\$ 16,334,856	14.96%
5	FORA					
	Residential	3,708	DU	\$3,511	\$ 13,018,788	11.92%
	Retail	278	KSF	\$5,608	\$ 1,559,024	1.43%
	Office/Government	185	KSF	\$4,582	\$ 847,670	0.78%
	Other	408	KSF	\$882	\$ 359,856	0.33%
	FORA Revenue:				\$ 15,785,338	14.46%
	Countywide					
	Residential	20,077	DU	-	\$ 54,992,041	50.36%
	Retail	2,415	KSF	-	\$ 11,951,549	10.95%
	Office/Government	9,291	KSF	-	\$ 38,347,210	35.12%
	Other	7,156	KSF	-	\$ 3,898,404	3.57%
	Countywide Revenue:				\$ 109,189,204	100.00%
Expenditures						
Source					Expenditure	%
Improvement Projects					\$ 97,870,852	89.83%
Transit Projects					\$ 10,000,000	9.18%
Administrative Costs					\$ 1,078,709	0.99%
Total for all Projects Expenditures:					\$ 108,949,561	100.00%

APPENDIX

Appendix A

List of Long and Short-Term Transit Capital Projects

APPENDIX A

List of Long- and Short-Term Transit Capital Projects

Table D-1
Monterey-Salinas Transit
Unfunded Capital Projects

Project	Cost	Funded	Short / (Excess)
Funding 2008 - 2012			
Marina Transit Exchange	\$ 8,454,932	\$ 6,655,792	\$ 1,799,140
Monterey Transit Center	\$ 2,000,000		\$ 2,000,000
FJL Monterey Bay Operations Center	\$ 27,923,900	\$ 306,993	\$ 27,616,907
Renvue Collection Equipment	\$ 1,800,000		\$ 1,800,000
Bus Replacement - 46 buses	\$ 19,145,474	\$ 16,021,126	\$ 3,124,348
Security Upgrades - TDA/CJW	\$ 500,000		\$ 500,000
Bus Stop Shelters	\$ 1,500,000	\$ 470,000	\$ 1,030,000
Bus Stop Benches	\$ 400,000	\$ 217,500	\$ 182,500
Salinas Transit Center Improvements	\$ 500,000	\$ 621,719	\$ (121,719)
Bus Replacement - 31 buses	\$ 12,400,000	\$ 8,290,000	\$ 4,110,000
RIDES Minibus Replacement - 17 units	\$ 1,360,000	\$ 448,000	\$ 912,000
Support Vehicles Replacement - 32 units	\$ 960,000	\$ 546,000	\$ 414,000
Subtotal: Years 1 through 5	<u>\$ 75,984,306</u>	<u>\$ 33,031,130</u>	<u>\$ 43,367,176</u>
Funding 2013 - 2017			
Bus Stop ADA Compliance	\$ 6,500,000		\$ 6,500,000
Monterey Transit Plaza Upgrades	\$ 5,000,000		\$ 5,000,000
East Salinas Transit Center	\$ 12,000,000		\$ 12,000,000
Intermodal Transportation Center: Salinas	\$ 7,000,000		\$ 7,000,000
Intermodal Transportation Center: South Marina	\$ 7,000,000		\$ 7,000,000
Bus Stops	\$ 500,000		\$ 500,000
Shelters and Benches	\$ 1,500,000		\$ 1,500,000
Bus Replacement - 37 buses	\$ 14,800,000		\$ 14,800,000
RIDES Minibus Replacement - 23 units	\$ 1,840,000		\$ 1,840,000
Support Vehicles Replacement - 32 units	\$ 960,000		\$ 960,000
Subtotal: Years 6 through 10	<u>\$ 56,140,000</u>		<u>\$ 56,140,000</u>
Funding 2018 - 2027			
North Salinas Transit Center	\$ 12,000,000		\$ 12,000,000
Carmel Valley Transit Exchange	\$ 7,500,000		\$ 7,500,000
South County Transit Center	\$ 12,000,000		\$ 12,000,000
Bus Replacement - 61 units	\$ 21,520,000		\$ 21,520,000
Bus Stops	\$ 500,000		\$ 500,000
Shelters and Benches	\$ 1,500,000		\$ 1,500,000
Replace Automated Communications System	\$ 5,000,000		\$ 5,000,000
RIDES Minibus Replacement - 44 units	\$ 3,520,000		\$ 3,520,000
Support Vehicles Replacement - 57 units	\$ 1,710,000		\$ 1,710,000
Subtotal: Years 11 through 20	<u>\$ 63,540,000</u>		<u>\$ 63,540,000</u>
Total shortage			<u>\$ 163,047,176</u>

Source: Monterey-Salinas Transit

Appendix B

Existing (2015) Conditions Roadway Segment Level of Service Summary

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
US Highway 101							
San Benito/Monterey County Border to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,200	0.922	E	Caltrans 2015 Countbook
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	55,700	0.868	D	Caltrans 2015 Countbook
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	11003	64,200	84,000	1.308	F	Caltrans 2015 Countbook
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	62,000	0.966	E	Caltrans 2015 Countbook
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,400	0.925	E	Caltrans 2015 Countbook
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,400	0.925	E	Caltrans 2015 Countbook
E Boronda Rd to W Laurel Dr	4-Lane Freeway	14001	69,100	59,100	0.855	D	Caltrans 2015 Countbook
W Laurel Dr to N Main St	4-Lane Freeway	14001	69,100	63,100	0.913	E	Caltrans 2015 Countbook
N Main St to E Market St	4-Lane Freeway	14001	69,100	74,200	1.074	F	Caltrans 2015 Countbook
E Market St to John St	4-Lane Freeway	14001	69,100	66,300	0.959	E	Caltrans 2015 Countbook
John St to S Sanborn Rd	4-Lane Freeway	14001	69,100	59,900	0.867	D	Caltrans 2015 Countbook
S Sanborn Rd to Airport Blvd	4-Lane Freeway	14001	69,100	49,100	0.711	C	Caltrans 2015 Countbook
Airport Blvd to Abbott St	4-Lane Freeway	14001	69,100	39,000	0.564	C	Caltrans 2015 Countbook
Abbott St to Spence Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	44,500	0.693	D	Caltrans 2015 Countbook
Spence Rd to Chualar Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	44,500	0.693	D	Caltrans 2015 Countbook
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	43,500	0.678	C	Caltrans 2015 Countbook
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	11003	64,200	39,800	0.620	C	Caltrans 2015 Countbook
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	11003	64,200	37,700	0.587	C	Caltrans 2015 Countbook
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	40,100	0.625	C	Caltrans 2015 Countbook
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	39,000	0.607	C	Caltrans 2015 Countbook
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	11003	64,200	37,200	0.579	C	Caltrans 2015 Countbook
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	37,500	0.584	C	Caltrans 2015 Countbook
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	11003	64,200	34,700	0.540	C	Caltrans 2015 Countbook
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	11003	64,200	32,400	0.505	C	Caltrans 2015 Countbook
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	11003	64,200	24,100	0.375	B	Caltrans 2015 Countbook
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	11003	64,200	24,000	0.374	B	Caltrans 2015 Countbook
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	24,000	0.374	B	Caltrans 2015 Countbook
Jolon Rd to Broadway St	4-Lane Freeway	14001	69,100	14,400	0.208	A	Caltrans 2015 Countbook
Broadway St to S 1st St	4-Lane Freeway	14001	69,100	11,100	0.161	A	Caltrans 2015 Countbook
S 1st St to Wildhorse Rd	4-Lane Freeway	14001	69,100	17,300	0.250	A	Caltrans 2015 Countbook

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
Wildhorse Rd to SR-198	4-Lane Freeway	14001	69,100	17,500	0.253	A	Caltrans 2015 Countbook
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	14001	69,100	16,100	0.233	A	Caltrans 2015 Countbook
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	14001	69,100	15,800	0.229	A	Caltrans 2015 Countbook
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	14001	69,100	15,400	0.223	A	Caltrans 2015 Countbook
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	14001	69,100	14,700	0.213	A	Caltrans 2015 Countbook
Alvarado Rd to Jolon Rd	4-Lane Freeway	14001	69,100	16,200	0.234	A	Caltrans 2015 Countbook
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	14001	69,100	18,100	0.262	A	Caltrans 2015 Countbook
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	14001	69,100	18,300	0.265	A	Caltrans 2015 Countbook
Bradley Rd to Monterey/SLO County Border	4-Lane Freeway	14001	69,100	18,600	0.269	A	Caltrans 2015 Countbook
SR-1							
Monterey/Santa Cruz County Border to Salinas Rd	3-Lane Uninterrupted Flow Highway	11002	44,550	35,000	0.786	D	Caltrans 2015 Countbook
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	34,800	1.398	F	Caltrans 2015 Countbook
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	37,000	1.486	F	Caltrans 2015 Countbook
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	31,000	1.245	F	Caltrans 2015 Countbook
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	11001	24,900	28,700	1.153	F	Caltrans 2015 PeMS
SR-183 to SR-156	4-Lane Freeway	14001	69,100	17,600	0.255	A	Caltrans 2015 PeMS
SR-156 to Del Monte Blvd	4-Lane Freeway	14001	69,100	45,000	0.651	C	Caltrans 2015 Countbook
Del Monte Blvd to Reservation Rd	4-Lane Freeway	14001	69,100	42,400	0.614	C	Caltrans 2015 PeMS
Reservation Rd to Del Monte Blvd	4-Lane Freeway	14001	69,100	43,700	0.632	C	Caltrans 2015 Countbook
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	14002	106,700	64,900	0.608	C	Caltrans 2015 Countbook
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	14002	106,700	79,000	0.740	C	Caltrans 2015 Countbook
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	14002	106,700	92,300	0.865	D	Caltrans 2015 PeMS
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	14001	69,100	71,000	1.027	F	Caltrans 2015 Countbook
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	14001	69,100	72,000	1.042	F	Caltrans 2015 Countbook
Del Monte Ave to N Fremont St	4-Lane Freeway	14001	69,100	62,800	0.909	E	Caltrans 2015 PeMS
N Fremont St to Aguajito Rd	4-Lane Freeway	14001	69,100	59,600	0.863	D	Caltrans 2015 PeMS
Aguajito Rd to Munras Ave	4-Lane Freeway	14001	69,100	50,000	0.724	C	Caltrans 2015 Countbook
Munras Ave to Holman Hwy	4-Lane Freeway	14001	69,100	52,000	0.753	C	Caltrans 2015 Countbook
Holman Hwy to Carpenter St	4-Lane Freeway	14001	69,100	46,100	0.667	C	Caltrans 2015 Countbook
Carpenter St to Ocean Ave	4-Lane Class I State Arterial	12103	34,201	43,000	1.257	F	Caltrans 2015 Countbook
Ocean Ave to Carmel Valley Rd	3-Lane Class I State Arterial	12101	16,300	34,800	2.135	F	Caltrans 2015 Countbook

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I State Arterial	12101	16,300	14,800	0.908	D	Caltrans 2015 Countbook
Riley Ranch Rd to Highlands Dr	2-Lane Class I State Arterial	12101	16,300	14,800	0.908	D	Caltrans 2015 Countbook
Highlands Dr to Spindrift Rd	2-Lane Class I State Arterial	12101	16,300	8,400	0.515	C	Caltrans 2015 Countbook
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	0.205	B	Caltrans 2015 Countbook
Mal Paso Rd to Aurora del Mar	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	0.205	B	Caltrans 2015 Countbook
Aurora del Mar to Weston Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	0.205	B	Caltrans 2015 Countbook
Weston Ridge Rd to Palo Colorado Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	0.205	B	Caltrans 2015 Countbook
Palo Colorado Canyon Rd to Coast Rd (North)	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	0.205	B	Caltrans 2015 Countbook
Coast Rd (North) to Coast Rd (South)	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	0.205	B	Caltrans 2015 Countbook
Coast Rd (South) to Clear Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	0.181	B	Caltrans 2015 Countbook
Clear Ridge Rd to Sycamore Canyon Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	0.181	B	Caltrans 2015 Countbook
Sycamore Canyon Rd to Mule Canyon	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	0.181	B	Caltrans 2015 Countbook
Mule Canyon to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,900	0.116	B	Caltrans 2015 Countbook
Partington Ridge Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,900	0.116	B	Caltrans 2015 Countbook
Dolan Rd to Nacimiento-Fergusson Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	0.096	B	Caltrans 2015 Countbook
Nacimiento-Fergusson Rd to Plasket Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	0.096	B	Caltrans 2015 Countbook
Plasket Ridge Rd to Willow Creek-Los Burros Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	0.096	B	Caltrans 2015 Countbook
Willow Creek-Los Burros Rd to Monterey/SLO County Border	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	0.096	B	Caltrans 2015 Countbook
SR-25							
San Benito/Monterey County Border to SR-198	2-Lane Class I State Arterial	12101	16,300	95	0.006	B	Caltrans 2015 Countbook
SR-68 (Holman Highway)							
17 Mile Drive to Forest Ave	2-Lane Class I State Arterial	12101	16,300	15,400	0.945	D	Caltrans 2015 Countbook
Forest Ave to Skyline Forest Dr	2-Lane Class I State Arterial	12101	16,300	25,000	1.534	F	Caltrans 2015 Countbook
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I State Arterial	12101	16,300	25,000	1.534	F	Caltrans 2015 Countbook
CHOMP Dwy to SR-1	2-Lane Class I State Arterial	12101	16,300	25,400	1.558	F	Caltrans 2015 Countbook
SR-68 (Monterey Salinas Highway)							
SR-1 to Olmsted Rd	2-Lane Class II State Arterial	12201	15,300	22,300	1.458	F	Caltrans 2015 Countbook
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II State Arterial	12201	15,300	22,300	1.458	F	Caltrans 2015 Countbook
Canyon del Rey Blvd to Bit Rd	2-Lane Class I State Arterial	12101	16,300	22,800	1.399	F	Caltrans 2015 Countbook
Bit Rd to Laureles Grade	2-Lane Class I State Arterial	12101	16,300	22,800	1.399	F	Caltrans 2015 Countbook
Laureles Grade to Corral de Tierra	2-Lane Class I State Arterial	12101	16,300	23,600	1.448	F	Caltrans 2015 Countbook

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
Corral de Tierra to Portola Dr	2-Lane Class I State Arterial	12101	16,300	25,700	1.577	F	Caltrans 2015 Countbook
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	25,700	0.400	B	Caltrans 2015 Countbook
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	29,800	0.464	B	Caltrans 2015 Countbook
Spreckels Blvd to E Blanco Rd	4-Lane Class I State Arterial	12103	34,201	28,300	0.827	C	Caltrans 2015 Countbook
SR-146							
US-101 to East St (on Front St)	2-Lane Class III State Arterial	12301	14,600	11,200	0.767	D	Calibrated AMBAG Model
Front St to Metz Rd (on East St)	2-Lane Class III State Arterial	12301	14,600	2,100	0.144	C	Calibrated AMBAG Model
East St to County Road G-15 (on Metz Rd)	2-Lane Class III State Arterial	12301	14,600	3,300	0.226	C	Calibrated AMBAG Model
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III State Arterial	12301	14,600	500	0.034	C	Calibrated AMBAG Model
Stonewall Canyon Rd to San Benito/Monterey County Border	2-Lane Class III State Arterial	12301	14,600	280	0.019	C	Caltrans 2015 Countbook
SR-156							
SR-1 to SR-183	4-Lane Freeway	14001	69,100	30,000	0.434	B	Caltrans 2015 Countbook
SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	31,000	0.483	C	Caltrans 2015 Countbook
Castroville Blvd to US-101	2-Lane Class I State Arterial	12101	16,300	29,000	1.779	F	Caltrans 2015 Countbook
SR-183							
SR-1 to SR-156	2-Lane Class II State Arterial	12201	15,300	12,500	0.817	D	Caltrans 2015 Countbook
SR-156 to Espinosa Rd	2-Lane Class I State Arterial	12101	16,300	19,100	1.172	F	Caltrans 2015 Countbook
Espinosa Rd to Cooper Rd	2-Lane Class I State Arterial	12101	16,300	18,100	1.110	F	Caltrans 2015 Countbook
Cooper Rd to S Davis Rd	4-Lane Class I State Arterial	12103	34,201	18,100	0.529	B	Caltrans 2015 Countbook
SR-198							
US-101 to Cattlemen Rd	2-Lane Class III State Arterial	12301	14,600	2,200	0.151	C	Caltrans 2015 Countbook
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III State Arterial	12301	14,600	2,200	0.151	C	Caltrans 2015 Countbook
Freeman Flat Rd to SR-25	2-Lane Class III State Arterial	12301	14,600	875	0.060	C	Caltrans 2015 Countbook
SR-25 to County Border	2-Lane Class III State Arterial	12301	14,600	700	0.048	C	Caltrans 2015 Countbook
SR-218 (Canyon del Rey Blvd)							
SR-1 to Del Monte Blvd	4-Lane Class III State Arterial	12303	30,800	23,000	0.747	D	Caltrans 2015 Countbook
Del Monte Blvd to Fremont Blvd	4-Lane Class III State Arterial	12303	30,800	12,500	0.406	D	Caltrans 2015 Countbook
Fremont Blvd to Carlton Dr	2-Lane Class III State Arterial	12301	14,600	19,100	1.308	F	Caltrans 2015 Countbook
Carlton Dr to SR-68	2-Lane Class III State Arterial	12301	14,600	14,600	1.000	F	Caltrans 2015 Countbook
County Road G11 (San Juan Rd)							
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway	13001	14,600	10,600	0.726	D	Calibrated AMBAG Model

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway	13001	14,600	9,700	0.664	D	Calibrated AMBAG Model
Aromas Rd to Tarpey Rd	2-Lane Major Roadway	13001	14,600	8,500	0.582	D	Calibrated AMBAG Model
Tarpey Rd to Carpenteria Rd	2-Lane Major Roadway	13001	14,600	10,800	0.740	D	Calibrated AMBAG Model
Carpenteria Rd to US-101	2-Lane Major Roadway	13001	14,600	9,616	0.659	D	2015 TAMC Traffic Counts
County Road G12 (Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)							
Werner Rd to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	25,300	1.733	F	Calibrated AMBAG Model
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway	13001	14,600	22,400	1.534	F	Calibrated AMBAG Model
Hall Rd to Strawberry Rd	2-Lane Major Roadway	13001	14,600	12,739	0.873	D	2015 TAMC Traffic Counts
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway	13001	14,600	17,000	1.164	F	Calibrated AMBAG Model
Castroville Blvd to US-101	2-Lane Major Roadway	13001	14,600	20,300	1.390	F	Calibrated AMBAG Model
County Road G16 (Carmel Valley Road)							
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	13003	30,900	22,246	0.720	D	2015 TAMC Traffic Counts
Carmel Rancho Blvd to Valley Greens Dr	4-Lane Major Roadway	13003	30,900	23,059	0.746	D	2015 TAMC Traffic Counts
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	13001	14,600	16,311	1.117	F	2015 TAMC Traffic Counts
Robinson Canyon Rd to Laureles Grade	2-Lane Major Roadway	13001	14,600	20,927	1.433	F	2015 TAMC Traffic Counts
Laureles Grade to Ford Rd	2-Lane Major Roadway	13001	14,600	13,900	0.952	E	Calibrated AMBAG Model
Ford Rd to Holman Rd	2-Lane Major Roadway	13001	14,600	9,500	0.651	D	Calibrated AMBAG Model
Holman Rd to Cachagua Rd	2-Lane Major Roadway	13001	14,600	3,400	0.233	C	Calibrated AMBAG Model
Cachagua Rd to Tassajara Rd	2-Lane Major Roadway	13001	14,600	1,900	0.130	C	Calibrated AMBAG Model
Tassajara Rd to Arroyo Seco Rd	2-Lane Major Roadway	13001	14,600	600	0.041	C	Calibrated AMBAG Model
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	13001	14,600	800	0.055	C	Calibrated AMBAG Model
Elm Ave to Central Ave	2-Lane Major Roadway	13001	14,600	500	0.034	C	Calibrated AMBAG Model
Central Ave to US-101	2-Lane Major Roadway	13001	14,600	1,200	0.082	C	Calibrated AMBAG Model
US-101 to Metz Rd	2-Lane Major Roadway	13001	14,600	1,500	0.103	C	Calibrated AMBAG Model
County Road G17 (Reservation Rd/River Rd)							
SR-1 to Beach Rd	4-Lane Major Roadway	13003	30,900	13,390	0.433	C	TAMC 2015 Traffic Counts
Beach Rd to Del Monte Blvd	4-Lane Major Roadway	13003	30,900	8,800	0.285	C	Calibrated AMBAG Model
Del Monte Blvd to Bayer St	4-Lane Major Roadway	13003	30,900	17,869	0.578	D	TAMC 2015 Traffic Counts
Bayer St to Imjin Pkwy	4-Lane Major Roadway	13003	30,900	14,400	0.466	C	Calibrated AMBAG Model
Imjin Pkwy to Blanco Rd	4-Lane Major Roadway	13003	30,900	27,140	0.878	D	TAMC 2015 Traffic Counts
Blanco Rd to S Davis Rd	2-Lane Major Roadway	13001	14,600	6,071	0.416	C	TAMC 2015 Traffic Counts

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
S Davis Rd to SR-68	2-Lane Major Roadway	13001	14,600	4,400	0.301	C	Calibrated AMBAG Model
SR-68 to Las Palmas Pkwy	2-Lane Major Roadway	13001	14,600	8,900	0.610	D	Calibrated AMBAG Model
Las Palmas Pkwy to Laguna Rd	2-Lane Major Roadway	13001	14,600	3,200	0.219	C	Calibrated AMBAG Model
Laguna Rd to Chualar River Rd	2-Lane Major Roadway	13001	14,600	2,683	0.184	C	TAMC 2015 Traffic Counts
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway	13001	14,600	400	0.027	C	Calibrated AMBAG Model
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway	13001	14,600	500	0.034	C	Calibrated AMBAG Model
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway	13001	14,600	1,600	0.110	C	Calibrated AMBAG Model
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	13001	14,600	600	0.041	C	Calibrated AMBAG Model
County Road G20 (Laureles Grade)							
SR-68 to Camino Escondido Rd	2-Lane Major Roadway	13001	14,600	12,400	0.849	D	Calibrated AMBAG Model
Camino Escondido Rd to W Carmel Valley Rd	2-Lane Major Roadway	13001	14,600	4,979	0.341	C	TAMC 2015 Traffic Counts
Foam St							
David Ave to Prescott Ave	2-Lane Other Roadway	13006	12,000	10,700	0.892	E	Calibrated AMBAG Model
Prescott Ave to Drake Ave	2-Lane Other Roadway	13006	12,000	10,700	0.892	E	Calibrated AMBAG Model
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	13006	12,000	14,410	1.201	F	TAMC 2015 Traffic Counts
Lighthouse Ave							
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	13003	30,900	600	0.019	C	Calibrated AMBAG Model
17 Mile Dr to Del Monte Blvd	4-Lane Major Roadway	13003	30,900	5,374	0.174	C	TAMC 2015 Traffic Counts
Del Monte Blvd to Pacific Ave	4-Lane Major Roadway	13003	30,900	4,100	0.133	C	Calibrated AMBAG Model
Pacific Ave to Forest Ave	4-Lane Major Roadway	13003	30,900	7,948	0.257	C	TAMC 2015 Traffic Counts
Forest Ave to Monterey Ave	4-Lane Major Roadway	13003	30,900	9,515	0.308	C	TAMC 2015 Traffic Counts
Monterey Ave to David Ave	4-Lane Major Roadway	13003	30,900	10,800	0.350	C	Calibrated AMBAG Model
David Ave to Prescott Ave	4-Lane Major Roadway	13003	30,900	20,300	0.657	D	Calibrated AMBAG Model
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	13003	30,900	40,710	1.317	F	TAMC 2015 Traffic Counts
Private Bolio Rd to Pacific St	4-Lane Major Roadway	13003	30,900	54,248	1.756	F	TAMC 2015 Traffic Counts
Pacific St to Washington St	4-Lane Major Roadway	13003	30,900	41,932	1.357	F	TAMC 2015 Traffic Counts
Del Monte Ave							
Washington St to Camino Aguajito	4-Lane Major Roadway	13003	30,900	32,491	1.051	F	TAMC 2015 Traffic Counts
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	13003	30,900	36,000	1.165	F	Calibrated AMBAG Model
Casa Verde Wy to SR-1	4-Lane Major Roadway	13003	30,900	27,513	0.890	D	TAMC 2015 Traffic Counts

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
Fremont St							
Abrego St to Camino Aguajito	4-Lane Major Roadway	13003	30,900	33,937	1.098	F	TAMC 2015 Traffic Counts
Munras Ave/Abrego St							
Fremont St to Soledad Dr	4-Lane Other Roadway	13008	24,000	27,677	1.153	F	TAMC 2015 Traffic Counts
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	13008	24,000	18,100	0.754	D	Calibrated AMBAG Model
Del Monte Blvd							
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	13003	30,900	27,513	0.890	D	TAMC 2015 Traffic Counts
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	13003	30,900	25,290	0.818	D	TAMC 2015 Traffic Counts
Broadway Ave to Playa Ave	4-Lane Major Roadway	13003	30,900	9,900	0.320	C	Calibrated AMBAG Model
Playa Ave to Fremont Blvd	4-Lane Major Roadway	13003	30,900	7,200	0.233	C	Calibrated AMBAG Model
Fremont Blvd							
N Del Monte Blvd to SR-1	4-Lane Major Roadway	13003	30,900	23,381	0.757	D	TAMC 2015 Traffic Counts
Del Monte Blvd							
SR-1 to Reindollar Ave	4-Lane Major Roadway	13003	30,900	27,317	0.884	D	TAMC 2015 Traffic Counts
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	13003	30,900	26,200	0.848	D	Calibrated AMBAG Model
Sanborn Rd							
Abbott St to US-101	4-Lane Major Roadway	13003	30,900	33,347	1.079	F	TAMC 2015 Traffic Counts
US-101 to Alisal St	4-Lane Major Roadway	13003	30,900	25,525	0.826	D	TAMC 2015 Traffic Counts
N Main St							
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	13005	46,400	16,640	0.359	C	TAMC 2015 Traffic Counts
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	13004	38,650	30,500	0.789	D	Calibrated AMBAG Model
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	13003	30,900	67,154	2.173	F	TAMC 2015 Traffic Counts
E Boronda Rd							
US-101 to N Main St	6-Lane Major Roadway	13005	46,400	35,058	0.756	D	TAMC 2015 Traffic Counts
S Main St (SR 68)							
John St to Romie Ln	4-Lane Other Roadway	13008	24,000	24,000	1.000	F	Calibrated AMBAG Model
Romie Ln to E Blanco Rd	4-Lane Other Roadway	13008	24,000	20,100	0.838	D	Calibrated AMBAG Model
John St							
S Main St to Abbott St	4-Lane Major Roadway	13003	30,900	13,716	0.444	C	TAMC 2015 Traffic Counts
Abbott St to US-101	4-Lane Major Roadway	13003	30,900	20,395	0.660	D	TAMC 2015 Traffic Counts

APPENDIX B

Existing (2015) Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	V/C Ratio ⁴	LOS ⁵	Volume Source
Market St							
Davis Rd to N Main St	4-Lane Other Roadway	13008	24,000	25,700	1.071	F	Calibrated AMBAG Model
N Fremont St							
SR-1 to Casa Verde Wy	4-Lane Major Roadway	13003	30,900	18,666	0.604	D	TAMC 2015 Traffic Counts
Casa Verde Wy to SR-218	4-Lane Major Roadway	13003	30,900	26,020	0.842	D	TAMC 2015 Traffic Counts
Davis Rd							
W Laurel Dr to SR-183	4-Lane Major Roadway	13003	30,900	43,264	1.400	F	Calibrated AMBAG Model
SR-183 to W Blanco Rd	2-Lane Major Roadway	13001	14,600	27,478	1.882	F	Calibrated AMBAG Model
W Blanco Rd to Reservation Rd	2-Lane Major Roadway	13001	14,600	8,544	0.585	D	Calibrated AMBAG Model
Blanco Rd							
Reservation Rd to Cooper Rd	2-Lane Major Roadway	13001	14,600	27,164	1.861	F	TAMC 2015 Traffic Counts
Cooper Rd to S Davis Rd	2-Lane Major Roadway	13001	14,600	26,759	1.833	F	TAMC 2015 Traffic Counts
S Davis Rd to W Alisal St	4-Lane Major Roadway	13003	30,900	17,730	0.574	D	TAMC 2015 Traffic Counts
W Alisal St to SR-68	4-Lane Major Roadway	13003	30,900	21,248	0.688	D	TAMC 2015 Traffic Counts
SR-68 to Abbott St	4-Lane Major Roadway	13003	30,900	23,561	0.762	D	TAMC 2015 Traffic Counts
Imgin Pkway							
SR 1 to 2nd Ave	4-Lane Major Roadway	13003	30,900	28,128	0.910	D	TAMC 2015 Traffic Counts
2nd Ave to 4th Ave	4-Lane Major Roadway	13003	30,900	28,128	0.910	D	TAMC 2015 Traffic Counts
4th Ave to California Ave	4-Lane Major Roadway	13003	30,900	22,983	0.744	D	TAMC 2015 Traffic Counts
California Ave to Imgin Rd	4-Lane Major Roadway	13003	30,900	22,983	0.744	D	TAMC 2015 Traffic Counts
Imgin Rd to Abrams Dr	2-Lane Major Roadway	13001	14,600	21,212	1.453	F	TAMC 2015 Traffic Counts
Abrams Dr to Reservation Rd	2-Lane Major Roadway	13001	14,600	21,212	1.453	F	TAMC 2015 Traffic Counts
Salinas Rd							
SR-1 to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	16,300	1.116	F	Calibrated AMBAG Model

Notes:

¹Functional Classification of existing roadways based on the AMBAG Regional Travel Demand Model link classifications and aerial review of the study area.

²FC# = Functional Classification Number

³Existing ADT values were obtained from year 2015 counts available from Caltrans and TAMC databases. If data was not available for certain segments, the ADT was estimated using the calibrated base year (2010) AMBAG model and adjacent counts for adjacent roadway segments.

⁴V/C Ratio = Existing ADT / LOS E Capacity

⁵Orange and Red highlighted values indicate roadway segments operating at unacceptable LOS.

Appendix C
Annual Average Daily Traffic Level of Service Volume Thresholds

APPENDIX C

Annual Average Daily Traffic Level of Service Volume Thresholds							
Functional Classification	FC #	# Lanes	Level of Service Thresholds (AADT) ¹				
			A	B	C	D	E
Uninterrupted Flow Highway	11001	2	2,100	6,900	12,900	18,200	24,900
	11002	3	10,350	18,550	28,250	37,350	44,550
	11003	4	18,600	30,200	43,600	56,500	64,200
	11004	5	23,250	37,700	54,550	70,600	80,200
	11005	6	27,900	45,200	65,500	84,700	96,200
Class I State Arterial ²	12101	2	**	4,000	13,100	15,500	16,300
	12102	3	2,300	15,950	22,950	24,850	25,251
	12103	4	4,600	27,900	32,800	34,200	34,201
	12104	5	5,750	35,350	41,050	42,800	42,801
	12105	6	6,900	42,800	49,300	51,400	51,401
Class II State Arterial ³	12201	2	**	**	10,500	14,500	15,300
	12202	3	**	1,850	17,450	22,550	23,750
	12203	4	**	3,700	24,400	30,600	32,200
	12204	5	**	4,850	31,200	38,350	40,300
	12205	6	**	6,000	38,000	46,100	48,400
Class III State Arterial ⁴	12301	2	**	**	5,000	11,800	14,600
	12302	3	**	**	8,350	19,500	22,700
	12303	4	**	**	11,700	27,200	30,800
	12304	5	**	**	15,050	34,650	38,550
	12305	6	**	**	18,400	42,100	46,300
Major Roadway	13001	2	**	**	7,000	13,600	14,600
	13002	3	**	**	11,700	21,450	22,750
	13003	4	**	**	16,400	29,300	30,900
	13004	5	**	**	21,050	36,700	38,650
	13005	6	**	**	25,700	44,100	46,400
Other Roadway	13006	2	**	**	4,400	9,400	12,000
	13007	3	**	**	7,350	14,800	18,000
	13008	4	**	**	10,300	20,200	24,000
Freeway	14001	4	23,500	38,700	52,500	62,200	69,100
	14002	6	36,400	59,800	81,100	96,000	106,700
	14003	8	49,100	80,900	109,600	129,800	144,400
	14004	10	61,800	101,800	138,400	163,800	182,000

Notes:

¹All LOS thresholds were based on Florida Department of Transportation Level of Service Threshold Tables 4-1 through 4-3 from the *Florida Department of Transportation Quality/Level of Service Handbook*, dated February 22, 2002, which were derived using standard Highway Capacity Manual methodologies.

²A "Class I State Arterial" is defined as an arterial with 0 to 1.99 signalized intersections per mile.

³A "Class II State Arterial" is defined as an arterial with 2.00 to 4.50 signalized intersections per mile.

⁴A "Class III State Arterial" is defined as having more than 4.50 signalized intersections per mile.

**LOS cannot be achieved for corresponding facility.

Appendix D

“Year 2035 No Build” Conditions Roadway Segment Level of Service Summary

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
US Highway 101									
San Benito/Monterey County Border to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,200	81,462	22,262	38%	1.269	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	55,700	74,742	19,042	34%	1.164	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	11003	64,200	84,000	102,396	18,396	22%	1.595	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	62,000	73,961	11,961	19%	1.152	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,400	71,935	12,535	21%	1.120	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,400	71,935	12,535	21%	1.120	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	14001	69,100	59,100	69,540	10,440	18%	1.006	F
W Laurel Dr to N Main St	4-Lane Freeway	14001	69,100	63,100	71,615	8,515	13%	1.036	F
N Main St to E Market St	4-Lane Freeway	14001	69,100	74,200	84,261	10,061	14%	1.219	F
E Market St to John St	4-Lane Freeway	14001	69,100	66,300	76,416	10,116	15%	1.106	F
John St to S Sanborn Rd	4-Lane Freeway	14001	69,100	59,900	70,912	11,012	18%	1.026	F
S Sanborn Rd to Airport Blvd	4-Lane Freeway	14001	69,100	49,100	60,873	11,773	24%	0.881	D
Airport Blvd to Abbott St	4-Lane Freeway	14001	69,100	39,000	50,573	11,573	30%	0.732	C
Abbott St to Spence Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	44,500	61,006	16,506	37%	0.950	E
Spence Rd to Chualar Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	44,500	61,745	17,245	39%	0.962	E
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	43,500	59,732	16,232	37%	0.930	E
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	11003	64,200	39,800	52,769	12,969	33%	0.822	D
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	11003	64,200	37,700	49,200	11,500	31%	0.766	D
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	40,100	52,259	12,159	30%	0.814	D
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	39,000	51,235	12,235	31%	0.798	D
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	11003	64,200	37,200	48,534	11,334	30%	0.756	D
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	37,500	50,077	12,577	34%	0.780	D
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	11003	64,200	34,700	46,887	12,187	35%	0.730	D
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	11003	64,200	32,400	43,877	11,477	35%	0.683	D
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	11003	64,200	24,100	36,224	12,124	50%	0.564	C
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	11003	64,200	24,000	36,526	12,526	52%	0.569	C
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	24,000	36,582	12,582	52%	0.570	C
Jolon Rd to Broadway St	4-Lane Freeway	14001	69,100	14,400	27,149	12,749	89%	0.393	B
Broadway St to S 1st St	4-Lane Freeway	14001	69,100	11,100	22,336	11,236	101%	0.323	A
S 1st St to Wildhorse Rd	4-Lane Freeway	14001	69,100	17,300	29,180	11,880	69%	0.422	B

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Wildhorse Rd to SR-198	4-Lane Freeway	14001	69,100	17,500	29,478	11,978	68%	0.427	B
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	14001	69,100	16,100	27,870	11,770	73%	0.403	B
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	14001	69,100	15,800	27,544	11,744	74%	0.399	B
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	14001	69,100	15,400	27,486	12,086	78%	0.398	B
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	14001	69,100	14,700	26,786	12,086	82%	0.388	B
Alvarado Rd to Jolon Rd	4-Lane Freeway	14001	69,100	16,200	28,286	12,086	75%	0.409	B
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	14001	69,100	18,100	30,368	12,268	68%	0.439	B
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	14001	69,100	18,300	30,596	12,296	67%	0.443	B
Bradley Rd to Monterey/SLO County Border	4-Lane Freeway	14001	69,100	18,600	30,905	12,305	66%	0.447	B
SR-1									
Monterey/Santa Cruz County Border to Salinas Rd	3-Lane Uninterrupted Flow Highway	11002	44,550	35,000	40,312	5,312	15%	0.905	E
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	34,800	37,939	3,139	9%	1.524	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	37,000	40,251	3,251	9%	1.617	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	31,000	34,811	3,811	12%	1.398	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	11001	24,900	28,700	32,457	3,757	13%	1.304	F
SR-183 to SR-156	4-Lane Freeway	14001	69,100	17,600	21,538	3,938	22%	0.312	A
SR-156 to Del Monte Blvd	4-Lane Freeway	14001	69,100	45,000	57,280	12,280	27%	0.829	D
Del Monte Blvd to Reservation Rd	4-Lane Freeway	14001	69,100	42,400	54,479	12,079	28%	0.788	D
Reservation Rd to Del Monte Blvd	4-Lane Freeway	14001	69,100	43,700	52,995	9,295	21%	0.767	D
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	14002	106,700	64,900	79,403	14,503	22%	0.744	C
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	14002	106,700	79,000	93,618	14,618	19%	0.877	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	14002	106,700	92,300	106,345	14,045	15%	0.997	E
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	14001	69,100	71,000	79,651	8,651	12%	1.153	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	14001	69,100	72,000	79,055	7,055	10%	1.144	F
Del Monte Ave to N Fremont St	4-Lane Freeway	14001	69,100	62,800	69,796	6,996	11%	1.010	F
N Fremont St to Aguajito Rd	4-Lane Freeway	14001	69,100	59,600	66,806	7,206	12%	0.967	E
Aguajito Rd to Munras Ave	4-Lane Freeway	14001	69,100	50,000	55,107	5,107	10%	0.797	D
Munras Ave to Holman Hwy	4-Lane Freeway	14001	69,100	52,000	56,443	4,443	9%	0.817	D
Holman Hwy to Carpenter St	4-Lane Freeway	14001	69,100	46,100	50,455	4,355	9%	0.730	C
Carpenter St to Ocean Ave	4-Lane Class I Two-Way State Arterial	12103	34,201	43,000	45,405	2,405	6%	1.328	F
Ocean Ave to Carmel Valley Rd	3-Lane Class I Two-Way State Arterial	12101	16,300	34,800	36,540	1,740	5%	2.242	F

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	14,800	16,305	1,505	10%	1.000	F
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	12101	16,300	14,800	17,599	2,799	19%	1.080	F
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	8,400	10,870	2,470	29%	0.667	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,653	2,553	50%	0.307	C
Mal Paso Rd to Aurora del Mar	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,653	2,553	50%	0.307	C
Aurora del Mar to Weston Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,653	2,553	50%	0.307	C
Weston Ridge Rd to Palo Colorado Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,653	2,553	50%	0.307	C
Palo Colorado Canyon Rd to Coast Rd (North)	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,445	2,345	46%	0.299	C
Coast Rd (North) to Coast Rd (South)	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,445	2,345	46%	0.299	C
Coast Rd (South) to Clear Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	6,845	2,345	52%	0.275	B
Clear Ridge Rd to Sycamore Canyon Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	5,910	1,410	31%	0.237	B
Sycamore Canyon Rd to Mule Canyon	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	5,910	1,410	31%	0.237	B
Mule Canyon to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,900	4,215	1,315	45%	0.169	B
Partington Ridge Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,900	4,215	1,315	45%	0.169	B
Dolan Rd to Nacimiento-Fergusson Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,743	1,343	56%	0.150	B
Nacimiento-Fergusson Rd to Plasket Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,845	1,445	60%	0.154	B
Plasket Ridge Rd to Willow Creek-Los Burros Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,845	1,445	60%	0.154	B
Willow Creek-Los Burros Rd to Monterey/SLO County Border	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,845	1,445	60%	0.154	B
SR-25									
San Benito/Monterey County Border to SR-198	2-Lane Class I Two-Way State Arterial	12101	16,300	95	459	364	384%	0.028	B
SR-68 (Holman Highway)									
17 Mile Drive to Forest Ave	2-Lane Class I Two-Way State Arterial	12101	16,300	15,400	17,195	1,795	12%	1.055	F
Forest Ave to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	12101	16,300	25,000	26,305	1,305	5%	1.614	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	12101	16,300	25,000	26,250	1,250	5%	1.610	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	12101	16,300	25,400	27,255	1,855	7%	1.672	F
SR-68 (Monterey Salinas Highway)									
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	12201	15,300	22,300	23,914	1,614	7%	1.563	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	12201	15,300	22,300	23,665	1,365	6%	1.547	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	22,800	25,167	2,367	10%	1.544	F
Bit Rd to Laureles Grade	2-Lane Class I Two-Way State Arterial	12101	16,300	22,800	24,554	1,754	8%	1.506	F
Laureles Grade to Corral de Tierra	2-Lane Class I Two-Way State Arterial	12101	16,300	23,600	25,570	1,970	8%	1.569	F

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	12101	16,300	25,700	27,982	2,282	9%	1.717	F
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	25,700	28,337	2,637	10%	0.441	B
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	29,800	32,942	3,142	11%	0.513	C
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	12103	34,201	28,300	29,933	1,633	6%	0.875	C
SR-146									
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	12301	14,600	11,200	14,835	3,635	32%	1.016	F
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	12301	14,600	2,100	2,599	499	24%	0.178	C
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	12301	14,600	3,300	5,011	1,711	52%	0.343	D
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	12301	14,600	500	566	66	13%	0.039	C
Stonewall Canyon Rd to San Benito/Monterey County Border	2-Lane Class III Two-Way State Arterial	12301	14,600	280	294	14	5%	0.020	C
SR-156									
SR-1 to SR-183	4-Lane Freeway	14001	69,100	30,000	37,734	7,734	26%	0.546	B
SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	31,000	39,701	8,701	28%	0.618	C
Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	12101	16,300	29,000	35,964	6,964	24%	2.206	F
SR-183									
SR-1 to SR-156	2-Lane Class II Two-Way State Arterial	12201	15,300	12,500	13,125	625	5%	0.858	D
SR-156 to Espinosa Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	19,100	21,055	1,955	10%	1.292	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	18,100	19,543	1,443	8%	1.199	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	12103	34,201	18,100	19,005	905	5%	0.556	B
SR-198									
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	12301	14,600	2,200	3,226	1,026	47%	0.221	C
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	12301	14,600	2,200	3,044	844	38%	0.208	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	12301	14,600	875	1,523	648	74%	0.104	C
SR-25 to County Border	2-Lane Class III Two-Way State Arterial	12301	14,600	700	1,009	309	44%	0.069	C
SR-218 (Canyon del Rey Blvd)									
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	12303	30,800	23,000	24,851	1,851	8%	0.807	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	12303	30,800	12,500	15,832	3,332	27%	0.514	D
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	12301	14,600	19,100	22,226	3,126	16%	1.522	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	12301	14,600	14,600	15,698	1,098	8%	1.075	F
County Road G11 (San Juan Rd)									
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway	13001	14,600	10,600	15,878	5,278	50%	1.088	F

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway	13001	14,600	9,700	14,317	4,617	48%	0.981	E
Aromas Rd to Tarpey Rd	2-Lane Major Roadway	13001	14,600	8,500	12,552	4,052	48%	0.860	D
Tarpey Rd to Carpenteria Rd	2-Lane Major Roadway	13001	14,600	10,800	15,283	4,483	42%	1.047	F
Carpenteria Rd to US-101	2-Lane Major Roadway	13001	14,600	9,616	14,102	4,487	47%	0.966	E
County Road G12 (Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)									
Werner Rd to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	25,300	28,199	2,899	11%	1.931	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway	13001	14,600	22,400	24,907	2,507	11%	1.706	F
Hall Rd to Strawberry Rd	2-Lane Major Roadway	13001	14,600	12,739	14,985	2,246	18%	1.026	F
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway	13001	14,600	17,000	19,209	2,209	13%	1.316	F
Castroville Blvd to US-101	2-Lane Major Roadway	13001	14,600	20,300	22,380	2,080	10%	1.533	F
County Road G16 (Carmel Valley Road)									
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	13003	30,900	22,246	23,358	1,112	5%	0.756	D
Carmel Rancho Blvd to Valley Greens Dr	4-Lane Major Roadway	13003	30,900	23,059	24,212	1,153	5%	0.784	D
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	13001	14,600	16,311	17,127	816	5%	1.173	F
Robinson Canyon Rd to Laureles Grade	2-Lane Major Roadway	13001	14,600	20,927	21,973	1,046	5%	1.505	F
Laureles Grade to Ford Rd	2-Lane Major Roadway	13001	14,600	13,900	14,595	695	5%	1.000	E
Ford Rd to Holman Rd	2-Lane Major Roadway	13001	14,600	9,500	9,975	475	5%	0.683	D
Holman Rd to Cachagua Rd	2-Lane Major Roadway	13001	14,600	3,400	3,570	170	5%	0.245	C
Cachagua Rd to Tassajara Rd	2-Lane Major Roadway	13001	14,600	1,900	1,995	95	5%	0.137	C
Tassajara Rd to Arroyo Seco Rd	2-Lane Major Roadway	13001	14,600	600	630	30	5%	0.043	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	13001	14,600	800	882	82	10%	0.060	C
Elm Ave to Central Ave	2-Lane Major Roadway	13001	14,600	500	596	96	19%	0.041	C
Central Ave to US-101	2-Lane Major Roadway	13001	14,600	1,200	1,399	199	17%	0.096	C
US-101 to Metz Rd	2-Lane Major Roadway	13001	14,600	1,500	1,611	111	7%	0.110	C
County Road G17 (Reservation Rd/River Rd)									
SR-1 to Beach Rd	4-Lane Major Roadway	13003	30,900	13,390	16,309	2,919	22%	0.528	C
Beach Rd to Del Monte Blvd	4-Lane Major Roadway	13003	30,900	8,800	11,693	2,893	33%	0.378	C
Del Monte Blvd to Bayer St	4-Lane Major Roadway	13003	30,900	17,869	23,975	6,106	34%	0.776	D
Bayer St to Imjin Pkwy	4-Lane Major Roadway	13003	30,900	14,400	19,402	5,002	35%	0.628	D
Imjin Pkwy to Blanco Rd	4-Lane Major Roadway	13003	30,900	27,140	32,587	5,447	20%	1.055	F
Blanco Rd to S Davis Rd	2-Lane Major Roadway	13001	14,600	6,071	9,060	2,990	49%	0.621	D

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
S Davis Rd to SR-68	2-Lane Major Roadway	13001	14,600	4,400	4,903	503	11%	0.336	C
SR-68 to Las Palmas Pkwy	2-Lane Major Roadway	13001	14,600	8,900	9,345	445	5%	0.640	D
Las Palmas Pkwy to Laguna Rd	2-Lane Major Roadway	13001	14,600	3,200	3,360	160	5%	0.230	C
Laguna Rd to Chualar River Rd	2-Lane Major Roadway	13001	14,600	2,683	2,869	186	7%	0.196	C
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway	13001	14,600	400	420	20	5%	0.029	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway	13001	14,600	500	588	88	18%	0.040	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway	13001	14,600	1,600	1,876	276	17%	0.128	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	13001	14,600	600	668	68	11%	0.046	C
County Road G20 (Laureles Grade)									
SR-68 to Camino Escondido Rd	2-Lane Major Roadway	13001	14,600	12,400	13,120	720	6%	0.899	D
Camino Escondido Rd to W Carmel Valley Rd	2-Lane Major Roadway	13001	14,600	4,979	5,649	670	13%	0.387	C
Foam St									
David Ave to Prescott Ave	2-Lane Other Roadway	13006	12,000	10,700	11,235	535	5%	0.936	E
Prescott Ave to Drake Ave	2-Lane Other Roadway	13006	12,000	10,700	11,235	535	5%	0.936	E
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	13006	12,000	14,410	16,947	2,537	18%	1.412	F
Lighthouse Ave									
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	13003	30,900	600	657	57	10%	0.021	C
17 Mile Dr to Del Monte Blvd	4-Lane Major Roadway	13003	30,900	5,374	5,773	399	7%	0.187	C
Del Monte Blvd to Pacific Ave	4-Lane Major Roadway	13003	30,900	4,100	4,583	483	12%	0.148	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	13003	30,900	7,948	8,345	397	5%	0.270	C
Forest Ave to Monterey Ave	4-Lane Major Roadway	13003	30,900	9,515	10,756	1,241	13%	0.348	C
Monterey Ave to David Ave	4-Lane Major Roadway	13003	30,900	10,800	12,437	1,637	15%	0.403	C
David Ave to Prescott Ave	4-Lane Major Roadway	13003	30,900	20,300	23,717	3,417	17%	0.768	D
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	13003	30,900	40,710	45,640	4,930	12%	1.477	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	13003	30,900	54,248	62,896	8,649	16%	2.035	F
Pacific St to Washington St	4-Lane Major Roadway	13003	30,900	41,932	48,642	6,710	16%	1.574	F
Del Monte Ave									
Washington St to Camino Aguajito	4-Lane Major Roadway	13003	30,900	32,491	39,845	7,354	23%	1.289	F
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	13003	30,900	36,000	44,260	8,260	23%	1.432	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	13003	30,900	27,513	34,317	6,805	25%	1.111	F

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Fremont St									
Abrego St to Camino Aguajito	4-Lane Major Roadway	13003	30,900	33,937	38,670	4,733	14%	1.251	F
Munras Ave/Abrego St									
Fremont St to Soledad Dr	4-Lane Other Roadway	13008	24,000	27,677	29,632	1,955	7%	1.235	F
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	13008	24,000	18,100	19,438	1,338	7%	0.810	D
Del Monte Blvd									
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	13003	30,900	27,513	35,100	7,587	28%	1.136	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	13003	30,900	25,290	32,184	6,894	27%	1.042	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	13003	30,900	9,900	14,416	4,516	46%	0.467	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	13003	30,900	7,200	10,900	3,700	51%	0.353	C
Fremont Blvd									
N Del Monte Blvd to SR-1	4-Lane Major Roadway	13003	30,900	23,381	26,223	2,842	12%	0.849	D
Del Monte Blvd									
SR-1 to Reindollar Ave	4-Lane Major Roadway	13003	30,900	27,317	32,524	5,208	19%	1.053	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	13003	30,900	26,200	31,485	5,285	20%	1.019	F
Sanborn Rd									
Abbott St to US-101	4-Lane Major Roadway	13003	30,900	33,347	37,454	4,107	12%	1.212	F
US-101 to Alisal St	4-Lane Major Roadway	13003	30,900	25,525	29,148	3,623	14%	0.943	D
N Main St									
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	13005	46,400	16,640	21,397	4,758	29%	0.461	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	13004	38,650	30,500	40,089	9,589	31%	1.037	F
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	13003	30,900	67,154	76,040	8,886	13%	2.461	F
E Boronda Rd									
US-101 to N Main St	6-Lane Major Roadway	13005	46,400	35,058	39,647	4,590	13%	0.854	D
S Main St (SR 68)									
John St to Romie Ln	4-Lane Other Roadway	13008	24,000	24,000	28,951	4,951	21%	1.206	F
Romie Ln to E Blanco Rd	4-Lane Other Roadway	13008	24,000	20,100	23,466	3,366	17%	0.978	E
John St									
S Main St to Abbott St	4-Lane Major Roadway	13003	30,900	13,716	16,746	3,030	22%	0.542	D
Abbott St to US-101	4-Lane Major Roadway	13003	30,900	20,395	27,189	6,794	33%	0.880	D

APPENDIX D

"Year 2035 No Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Market St									
Davis Rd to N Main St	4-Lane Other Roadway	13008	24,000	25,700	26,985	1,285	5%	1.124	F
N Fremont St									
SR-1 to Casa Verde Wy	4-Lane Major Roadway	13003	30,900	18,666	19,730	1,064	6%	0.639	D
Casa Verde Wy to SR-218	4-Lane Major Roadway	13003	30,900	26,020	29,132	3,112	12%	0.943	D
Davis Rd									
W Laurel Dr to SR-183	4-Lane Major Roadway	13003	30,900	43,264	46,339	3,076	7%	1.500	F
SR-183 to W Blanco Rd	2-Lane Major Roadway	13001	14,600	27,478	30,208	2,731	10%	2.069	F
W Blanco Rd to Reservation Rd	2-Lane Major Roadway	13001	14,600	8,544	14,214	5,670	66%	0.974	E
Blanco Rd									
Reservation Rd to Cooper Rd	2-Lane Major Roadway	13001	14,600	27,164	30,374	3,210	12%	2.080	F
Cooper Rd to S Davis Rd	2-Lane Major Roadway	13001	14,600	26,759	29,916	3,158	12%	2.049	F
S Davis Rd to W Alisal St	4-Lane Major Roadway	13003	30,900	17,730	23,823	6,093	34%	0.771	D
W Alisal St to SR-68	4-Lane Major Roadway	13003	30,900	21,248	25,586	4,338	20%	0.828	D
SR-68 to Abbott St	4-Lane Major Roadway	13003	30,900	23,561	30,452	6,892	29%	0.986	E
Imjin Pkwy									
SR 1 to 2nd Ave	4-Lane Major Roadway	13003	30,900	28,128	32,013	3,885	14%	1.036	F
2nd Ave to 4th Ave	4-Lane Major Roadway	13003	30,900	28,128	29,803	1,675	6%	0.964	E
4th Ave to California Ave	4-Lane Major Roadway	13003	30,900	22,983	24,787	1,804	8%	0.802	D
California Ave to Imjin Rd	4-Lane Major Roadway	13003	30,900	22,983	24,187	1,204	5%	0.783	D
Imjin Rd to Abrams Dr	2-Lane Major Roadway	13001	14,600	21,212	22,273	1,061	5%	1.526	F
Abrams Dr to Reservation Rd	2-Lane Major Roadway	13001	14,600	21,212	22,644	1,432	7%	1.551	F
Salinas Rd									
SR-1 to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	16,300	18,910	2,610	16%	1.295	F

Notes:

¹Functional Classification of existing roadways based on the AMBAG Regional Travel Demand Model link classifications and aerial review of the study area. Under "Year 2035 No Build Conditions", all roadway functional classifications are assumed to be the same as Existing conditions.

²FC# = Functional Classification Number

³Existing ADT values were obtained from year 2015 counts available from Caltrans and TAMC databases. If data was not available for certain segments, the ADT was estimated using the calibrated base year (2010) AMBAG model and adjacent counts for adjacent roadway segments.

⁴2035 ADT = (2035 AMBAG TDM Volume - Calibrated 2010 AMBAG TDM Volume) + Existing ADT

⁵V/C Ratio = Existing ADT / LOS E Capacity

⁶Orange and Red highlighted values indicate roadway segments operating at unacceptable LOS.

Appendix E

“Year 2035 Build” Conditions Roadway Segment Level of Service Summary

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
US Highway 101									
San Benito/Monterey County Border to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,200	85,053	25,853	44%	1.325	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	55,700	79,236	23,536	42%	1.234	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	11003	64,200	84,000	98,913	14,913	18%	1.541	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	62,000	74,006	12,006	19%	1.153	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,400	72,998	13,598	23%	1.137	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	59,400	72,998	13,598	23%	1.137	F
E Boronda Rd to W Laurel Dr	6-Lane Freeway	14002	106,700	59,100	77,931	18,831	32%	0.730	C
W Laurel Dr to N Main St	6-Lane Freeway	14002	106,700	63,100	78,150	15,050	24%	0.732	C
N Main St to E Market St	6-Lane Freeway	14002	106,700	74,200	85,203	11,003	15%	0.799	D
E Market St to John St	6-Lane Freeway	14002	106,700	66,300	79,865	13,565	20%	0.749	C
John St to S Sanborn Rd	6-Lane Freeway	14002	106,700	59,900	71,599	11,699	20%	0.671	C
S Sanborn Rd to Airport Blvd	6-Lane Freeway	14002	106,700	49,100	60,232	11,132	23%	0.564	C
Airport Blvd to Abbott St	4-Lane Freeway	14001	69,100	39,000	50,030	11,030	28%	0.724	C
Abbott St to Spence Rd	4-Lane Freeway	14001	69,100	44,500	60,482	15,982	36%	0.875	D
Spence Rd to Chualar Rd	4-Lane Freeway	14001	69,100	44,500	61,418	16,918	38%	0.889	D
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	43,500	60,048	16,548	38%	0.935	E
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	11003	64,200	39,800	52,941	13,141	33%	0.825	D
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	11003	64,200	37,700	49,570	11,870	31%	0.772	D
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	40,100	52,711	12,611	31%	0.821	D
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	39,000	51,719	12,719	33%	0.806	D
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	11003	64,200	37,200	48,785	11,585	31%	0.760	D
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	37,500	50,306	12,806	34%	0.784	D
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	11003	64,200	34,700	47,099	12,399	36%	0.734	D
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	11003	64,200	32,400	44,077	11,677	36%	0.687	D
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	11003	64,200	24,100	36,357	12,257	51%	0.566	C
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	11003	64,200	24,000	36,637	12,637	53%	0.571	C
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	24,000	36,692	12,692	53%	0.572	C
Jolon Rd to Broadway St	4-Lane Freeway	14001	69,100	14,400	27,255	12,855	89%	0.394	B
Broadway St to S 1st St	4-Lane Freeway	14001	69,100	11,100	22,573	11,473	103%	0.327	A
S 1st St to Wildhorse Rd	4-Lane Freeway	14001	69,100	17,300	29,218	11,918	69%	0.423	B

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Wildhorse Rd to SR-198	4-Lane Freeway	14001	69,100	17,500	29,514	12,014	69%	0.427	B
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	14001	69,100	16,100	27,871	11,771	73%	0.403	B
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	14001	69,100	15,800	27,547	11,747	74%	0.399	B
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	14001	69,100	15,400	27,491	12,091	79%	0.398	B
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	14001	69,100	14,700	26,791	12,091	82%	0.388	B
Alvarado Rd to Jolon Rd	4-Lane Freeway	14001	69,100	16,200	28,291	12,091	75%	0.409	B
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	14001	69,100	18,100	30,369	12,269	68%	0.439	B
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	14001	69,100	18,300	30,596	12,296	67%	0.443	B
Bradley Rd to Monterey/SLO County Border	4-Lane Freeway	14001	69,100	18,600	30,905	12,305	66%	0.447	B
SR-1									
Monterey/Santa Cruz County Border to Salinas Rd	3-Lane Uninterrupted Flow Highway	11002	44,550	35,000	42,382	7,382	21%	0.951	E
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	34,800	37,183	2,383	7%	1.493	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	37,000	39,459	2,459	7%	1.585	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	31,000	34,576	3,576	12%	1.389	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	11001	24,900	28,700	32,226	3,526	12%	1.294	F
SR-183 to SR-156	4-Lane Freeway	14001	69,100	17,600	20,851	3,251	18%	0.302	A
SR-156 to Del Monte Blvd	4-Lane Freeway	14001	69,100	45,000	58,495	13,495	30%	0.847	D
Del Monte Blvd to Reservation Rd	4-Lane Freeway	14001	69,100	42,400	55,617	13,217	31%	0.805	D
Reservation Rd to Del Monte Blvd	4-Lane Freeway	14001	69,100	43,700	53,481	9,781	22%	0.774	D
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	14002	106,700	64,900	77,581	12,681	20%	0.727	C
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	14002	106,700	79,000	95,401	16,401	21%	0.894	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	14002	106,700	92,300	107,126	14,826	16%	1.004	F
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	14001	69,100	71,000	80,585	9,585	13%	1.166	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	14001	69,100	72,000	79,606	7,606	11%	1.152	F
Del Monte Ave to N Fremont St	4-Lane Freeway	14001	69,100	62,800	70,044	7,244	12%	1.014	F
N Fremont St to Aguajito Rd	4-Lane Freeway	14001	69,100	59,600	67,354	7,754	13%	0.975	E
Aguajito Rd to Munras Ave	4-Lane Freeway	14001	69,100	50,000	55,551	5,551	11%	0.804	D
Munras Ave to Holman Hwy	4-Lane Freeway	14001	69,100	52,000	56,746	4,746	9%	0.821	D
Holman Hwy to Carpenter St	4-Lane Freeway	14001	69,100	46,100	50,543	4,443	10%	0.731	C
Carpenter St to Ocean Ave	4-Lane Class I Two-Way State Arterial	12103	34,201	43,000	45,497	2,497	6%	1.330	F
Ocean Ave to Carmel Valley Rd	3-Lane Class I Two-Way State Arterial	12101	16,300	34,800	36,540	1,740	5%	2.242	F

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	14,800	16,740	1,940	13%	1.027	F
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	12101	16,300	14,800	17,631	2,831	19%	1.082	F
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	8,400	10,886	2,486	30%	0.668	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,671	2,571	50%	0.308	C
Mal Paso Rd to Aurora del Mar	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,671	2,571	50%	0.308	C
Aurora del Mar to Weston Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,671	2,571	50%	0.308	C
Weston Ridge Rd to Palo Colorado Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,671	2,571	50%	0.308	C
Palo Colorado Canyon Rd to Coast Rd (North)	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,453	2,353	46%	0.299	C
Coast Rd (North) to Coast Rd (South)	2-Lane Uninterrupted Flow Highway	11001	24,900	5,100	7,453	2,353	46%	0.299	C
Coast Rd (South) to Clear Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	6,853	2,353	52%	0.275	B
Clear Ridge Rd to Sycamore Canyon Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	5,925	1,425	32%	0.238	B
Sycamore Canyon Rd to Mule Canyon	2-Lane Uninterrupted Flow Highway	11001	24,900	4,500	5,925	1,425	32%	0.238	B
Mule Canyon to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,900	4,220	1,320	46%	0.169	B
Partington Ridge Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,900	4,220	1,320	46%	0.169	B
Dolan Rd to Nacimiento-Fergusson Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,746	1,346	56%	0.150	B
Nacimiento-Fergusson Rd to Plasket Ridge Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,846	1,446	60%	0.154	B
Plasket Ridge Rd to Willow Creek-Los Burros Rd	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,846	1,446	60%	0.154	B
Willow Creek-Los Burros Rd to Monterey/SLO County Border	2-Lane Uninterrupted Flow Highway	11001	24,900	2,400	3,846	1,446	60%	0.154	B
SR-25									
San Benito/Monterey County Border to SR-198	2-Lane Class I Two-Way State Arterial	12101	16,300	95	425	330	347%	0.026	B
SR-68 (Holman Highway)									
17 Mile Drive to Forest Ave	2-Lane Class I Two-Way State Arterial	12101	16,300	15,400	17,266	1,866	12%	1.059	F
Forest Ave to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	12101	16,300	25,000	26,525	1,525	6%	1.627	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	12101	16,300	25,000	26,250	1,250	5%	1.610	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	12101	16,300	25,400	27,795	2,395	9%	1.705	F
SR-68 (Monterey Salinas Highway)									
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	12201	15,300	22,300	23,852	1,552	7%	1.559	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	12201	15,300	22,300	23,600	1,300	6%	1.542	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	22,800	25,025	2,225	10%	1.535	F
Bit Rd to Laureles Grade	2-Lane Class I Two-Way State Arterial	12101	16,300	22,800	24,860	2,060	9%	1.525	F
Laureles Grade to Corral de Tierra	2-Lane Class I Two-Way State Arterial	12101	16,300	23,600	27,533	3,933	17%	1.689	F

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Corral de Tierra to Portola Dr	4-Lane Class I Two-Way State Arterial	12103	34,201	25,700	30,583	4,883	19%	0.894	C
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	11003	64,200	25,700	31,108	5,408	21%	0.485	C
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	29,800	33,649	3,849	13%	0.524	C
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	12103	34,201	28,300	30,092	1,792	6%	0.880	C
SR-146									
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	12301	14,600	11,200	13,647	2,447	22%	0.935	E
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	12301	14,600	2,100	2,975	875	42%	0.204	C
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	12301	14,600	3,300	5,171	1,871	57%	0.354	D
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	12301	14,600	500	563	63	13%	0.039	C
Stonewall Canyon Rd to San Benito/Monterey County Border	2-Lane Class III Two-Way State Arterial	12301	14,600	280	294	14	5%	0.020	C
SR-156									
SR-1 to SR-183	4-Lane Freeway	14001	69,100	30,000	39,623	9,623	32%	0.573	C
SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	11003	64,200	31,000	41,832	10,832	35%	0.652	C
Castroville Blvd to US-101	4-Lane Freeway	14001	69,100	29,000	35,977	6,977	24%	0.521	B
SR-183									
SR-1 to SR-156	2-Lane Class II Two-Way State Arterial	12201	15,300	12,500	13,125	625	5%	0.858	D
SR-156 to Espinosa Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	19,100	21,233	2,133	11%	1.303	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	12101	16,300	18,100	19,941	1,841	10%	1.223	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	12103	34,201	18,100	19,366	1,266	7%	0.566	B
SR-198									
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	12301	14,600	2,200	3,191	991	45%	0.219	C
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	12301	14,600	2,200	3,010	810	37%	0.206	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	12301	14,600	875	1,489	614	70%	0.102	C
SR-25 to County Border	2-Lane Class III Two-Way State Arterial	12301	14,600	700	1,009	309	44%	0.069	C
SR-218 (Canyon del Rey Blvd)									
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	12303	30,800	23,000	25,306	2,306	10%	0.822	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	12303	30,800	12,500	15,890	3,390	27%	0.516	D
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	12301	14,600	19,100	22,163	3,063	16%	1.518	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	12301	14,600	14,600	15,565	965	7%	1.066	F
County Road G11 (San Juan Rd)									
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway	13001	14,600	10,600	14,877	4,277	40%	1.019	F

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway	13001	14,600	9,700	13,683	3,983	41%	0.937	E
Aromas Rd to Tarpey Rd	2-Lane Major Roadway	13001	14,600	8,500	11,240	2,740	32%	0.770	D
Tarpey Rd to Carpenteria Rd	2-Lane Major Roadway	13001	14,600	10,800	14,700	3,900	36%	1.007	F
Carpenteria Rd to US-101	2-Lane Major Roadway	13001	14,600	9,616	13,535	3,920	41%	0.927	D
County Road G12 (Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)									
Werner Rd to Elkhorn Rd	2-Lane Major Roadway	13001	14,600	25,300	31,538	6,238	25%	2.160	F
Elkhorn Rd to San Miguel Canyon Rd	4-Lane Major Roadway	13003	30,900	22,400	28,498	6,098	27%	0.922	D
Hall Rd to Strawberry Rd	4-Lane Major Roadway	13003	30,900	12,739	18,095	5,356	42%	0.586	D
Strawberry Rd to Castroville Blvd	4-Lane Major Roadway	13003	30,900	17,000	22,319	5,319	31%	0.722	D
Castroville Blvd to US-101	2-Lane Major Roadway	13001	14,600	20,300	23,521	3,221	16%	1.611	F
County Road G16 (Carmel Valley Road)									
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	13003	30,900	22,246	23,358	1,112	5%	0.756	D
Carmel Rancho Blvd to Valley Greens Dr	4-Lane Major Roadway	13003	30,900	23,059	24,212	1,153	5%	0.784	D
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	13001	14,600	16,311	17,127	816	5%	1.173	F
Robinson Canyon Rd to Laureles Grade	2-Lane Major Roadway	13001	14,600	20,927	21,973	1,046	5%	1.505	F
Laureles Grade to Ford Rd	2-Lane Major Roadway	13001	14,600	13,900	14,595	695	5%	1.000	E
Ford Rd to Holman Rd	2-Lane Major Roadway	13001	14,600	9,500	9,975	475	5%	0.683	D
Holman Rd to Cachagua Rd	2-Lane Major Roadway	13001	14,600	3,400	3,570	170	5%	0.245	C
Cachagua Rd to Tassajara Rd	2-Lane Major Roadway	13001	14,600	1,900	1,995	95	5%	0.137	C
Tassajara Rd to Arroyo Seco Rd	2-Lane Major Roadway	13001	14,600	600	630	30	5%	0.043	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	13001	14,600	800	881	81	10%	0.060	C
Elm Ave to Central Ave	2-Lane Major Roadway	13001	14,600	500	593	93	19%	0.041	C
Central Ave to US-101	2-Lane Major Roadway	13001	14,600	1,200	1,394	194	16%	0.095	C
US-101 to Metz Rd	2-Lane Major Roadway	13001	14,600	1,500	1,608	108	7%	0.110	C
County Road G17 (Reservation Rd/River Rd)									
SR-1 to Beach Rd	4-Lane Major Roadway	13003	30,900	13,390	16,382	2,992	22%	0.530	C
Beach Rd to Del Monte Blvd	4-Lane Major Roadway	13003	30,900	8,800	11,407	2,607	30%	0.369	C
Del Monte Blvd to Bayer St	4-Lane Major Roadway	13003	30,900	17,869	23,936	6,067	34%	0.775	D
Bayer St to Imjin Pkwy	4-Lane Major Roadway	13003	30,900	14,400	19,858	5,458	38%	0.643	D
Imjin Pkwy to Blanco Rd	4-Lane Major Roadway	13003	30,900	27,140	39,635	12,495	46%	1.283	F
Blanco Rd to S Davis Rd	4-Lane Major Roadway	13003	30,900	6,071	17,620	11,550	190%	0.570	D

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
S Davis Rd to SR-68	2-Lane Major Roadway	13001	14,600	4,400	6,520	2,120	48%	0.447	C
SR-68 to Las Palmas Pkwy	2-Lane Major Roadway	13001	14,600	8,900	9,345	445	5%	0.640	D
Las Palmas Pkwy to Laguna Rd	2-Lane Major Roadway	13001	14,600	3,200	3,360	160	5%	0.230	C
Laguna Rd to Chualar River Rd	2-Lane Major Roadway	13001	14,600	2,683	2,868	185	7%	0.196	C
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway	13001	14,600	400	420	20	5%	0.029	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway	13001	14,600	500	583	83	17%	0.040	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway	13001	14,600	1,600	1,883	283	18%	0.129	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	13001	14,600	600	671	71	12%	0.046	C
County Road G20 (Laureles Grade)									
SR-68 to Camino Escondido Rd	2-Lane Major Roadway	13001	14,600	12,400	13,417	1,017	8%	0.919	D
Camino Escondido Rd to W Carmel Valley Rd	2-Lane Major Roadway	13001	14,600	4,979	6,088	1,109	22%	0.417	C
Foam St									
David Ave to Prescott Ave	2-Lane Other Roadway	13006	12,000	10,700	11,235	535	5%	0.936	E
Prescott Ave to Drake Ave	2-Lane Other Roadway	13006	12,000	10,700	11,235	535	5%	0.936	E
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	13006	12,000	14,410	17,001	2,591	18%	1.417	F
Lighthouse Ave									
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	13003	30,900	600	656	56	9%	0.021	C
17 Mile Dr to Del Monte Blvd	4-Lane Major Roadway	13003	30,900	5,374	5,772	398	7%	0.187	C
Del Monte Blvd to Pacific Ave	4-Lane Major Roadway	13003	30,900	4,100	4,585	485	12%	0.148	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	13003	30,900	7,948	8,345	397	5%	0.270	C
Forest Ave to Monterey Ave	4-Lane Major Roadway	13003	30,900	9,515	10,779	1,265	13%	0.349	C
Monterey Ave to David Ave	4-Lane Major Roadway	13003	30,900	10,800	12,472	1,672	15%	0.404	C
David Ave to Prescott Ave	4-Lane Major Roadway	13003	30,900	20,300	23,771	3,471	17%	0.769	D
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	13003	30,900	40,710	45,684	4,974	12%	1.478	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	13003	30,900	54,248	63,000	8,752	16%	2.039	F
Pacific St to Washington St	4-Lane Major Roadway	13003	30,900	41,932	48,710	6,778	16%	1.576	F
Del Monte Ave									
Washington St to Camino Aguajito	4-Lane Major Roadway	13003	30,900	32,491	40,289	7,798	24%	1.304	F
Camino Aguajito to Casa Verde Wy	5-Lane Major Roadway	13004	38,650	36,000	45,081	9,081	25%	1.166	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	13003	30,900	27,513	34,936	7,423	27%	1.131	F

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Fremont St									
Abrego St to Camino Aguajito	4-Lane Major Roadway	13003	30,900	33,937	38,335	4,398	13%	1.241	F
Munras Ave/Abrego St									
Fremont St to Soledad Dr	4-Lane Other Roadway	13008	24,000	27,677	29,616	1,939	7%	1.234	F
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	13008	24,000	18,100	19,398	1,298	7%	0.808	D
Del Monte Blvd									
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	13003	30,900	27,513	35,140	7,628	28%	1.137	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	13003	30,900	25,290	32,013	6,723	27%	1.036	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	13003	30,900	9,900	14,350	4,450	45%	0.464	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	13003	30,900	7,200	11,060	3,860	54%	0.358	C
Fremont Blvd									
N Del Monte Blvd to SR-1	4-Lane Major Roadway	13003	30,900	23,381	26,581	3,200	14%	0.860	D
Del Monte Blvd									
SR-1 to Reindollar Ave	4-Lane Major Roadway	13003	30,900	27,317	30,217	2,900	11%	0.978	E
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	13003	30,900	26,200	31,541	5,341	20%	1.021	F
Sanborn Rd									
Abbott St to US-101	4-Lane Major Roadway	13003	30,900	33,347	36,313	2,966	9%	1.175	F
US-101 to Alisal St	4-Lane Major Roadway	13003	30,900	25,525	28,092	2,567	10%	0.909	D
N Main St									
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	13005	46,400	16,640	22,562	5,923	36%	0.486	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	13004	38,650	30,500	37,016	6,516	21%	0.958	E
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	13003	30,900	67,154	74,015	6,861	10%	2.395	F
E Boronda Rd									
US-101 to N Main St	6-Lane Major Roadway	13005	46,400	35,058	42,580	7,522	21%	0.918	D
S Main St (SR 68)									
John St to Romie Ln	4-Lane Other Roadway	13008	24,000	24,000	28,651	4,651	19%	1.194	F
Romie Ln to E Blanco Rd	4-Lane Other Roadway	13008	24,000	20,100	23,276	3,176	16%	0.970	E
John St									
S Main St to Abbott St	4-Lane Major Roadway	13003	30,900	13,716	15,733	2,017	15%	0.509	C
Abbott St to US-101	4-Lane Major Roadway	13003	30,900	20,395	26,732	6,337	31%	0.865	D

APPENDIX E

"Year 2035 Build" Conditions Roadway Segment Level of Service Summary

Roadway Segment	Functional Classification ¹	FC# ²	Roadway Capacity	Existing ADT ³	2035 ADT ⁴	Growth (ADT)	Percent Growth	V/C Ratio ⁵	LOS ⁶
Market St									
Davis Rd to N Main St	4-Lane Other Roadway	13008	24,000	25,700	26,985	1,285	5%	1.124	F
N Fremont St									
SR-1 to Casa Verde Wy	4-Lane Major Roadway	13003	30,900	18,666	19,746	1,080	6%	0.639	D
Casa Verde Wy to SR-218	4-Lane Major Roadway	13003	30,900	26,020	29,056	3,037	12%	0.940	D
Davis Rd									
W Laurel Dr to SR-183	4-Lane Major Roadway	13003	30,900	43,264	48,440	5,176	12%	1.568	F
SR-183 to W Blanco Rd	4-Lane Major Roadway	13003	30,900	27,478	37,948	10,470	38%	1.228	F
W Blanco Rd to Reservation Rd	4-Lane Major Roadway	13003	30,900	8,544	22,004	13,460	158%	0.712	D
Blanco Rd									
Reservation Rd to Cooper Rd	4-Lane Major Roadway	13003	30,900	27,164	28,894	1,730	6%	0.935	D
Cooper Rd to S Davis Rd	4-Lane Major Roadway	13003	30,900	26,759	28,414	1,655	6%	0.920	D
S Davis Rd to W Alisal St	4-Lane Major Roadway	13003	30,900	17,730	24,144	6,414	36%	0.781	D
W Alisal St to SR-68	4-Lane Major Roadway	13003	30,900	21,248	27,036	5,788	27%	0.875	D
SR-68 to Abbott St	4-Lane Major Roadway	13003	30,900	23,561	31,296	7,736	33%	1.013	F
Imjin Pkwy									
SR 1 to 2nd Ave	4-Lane Major Roadway	13003	30,900	28,128	31,457	3,330	12%	1.018	F
2nd Ave to 4th Ave	4-Lane Major Roadway	13003	30,900	28,128	32,743	4,615	16%	1.060	F
4th Ave to California Ave	4-Lane Major Roadway	13003	30,900	22,983	27,629	4,647	20%	0.894	D
California Ave to Imjin Rd	4-Lane Major Roadway	13003	30,900	22,983	27,642	4,659	20%	0.895	D
Imjin Rd to Abrams Dr	4-Lane Major Roadway	13003	30,900	21,212	28,690	7,478	35%	0.928	D
Abrams Dr to Reservation Rd	4-Lane Major Roadway	13003	30,900	21,212	29,023	7,811	37%	0.939	D
Salinas Rd									
SR-1 to Elkhorn Rd	4-Lane Major Roadway	13003	30,900	16,300	21,488	5,188	32%	0.695	D

Notes:

¹Functional Classification of existing roadways based on the AMBAG Regional Travel Demand Model link classifications, aerial review of the study area, and TAMC RDIF Improvement Project descriptions.

²FC# = Functional Classification Number

³Existing ADT values were obtained from year 2015 counts available from Caltrans and TAMC databases. If data was not available for certain segments, the ADT was estimated using the calibrated base year (2010) AMBAG model and adjacent counts for adjacent roadway segments.

⁴2035 ADT = (2035 AMBAG TDM Volume - Calibrated 2010 AMBAG TDM Volume) + Existing ADT

⁵V/C Ratio = Existing ADT / LOS E Capacity

⁶Orange and Red highlighted values indicate roadway segments operating at unacceptable LOS.

Appendix F

Improvement Project Planning-Level Cost Estimate Worksheets

APPENDIX F

Project #1

SR 1 Corridor and Busway

Description	Quantity	Total Quantity	Unit Cost	Unit	Total Cost
Length	7,300	7,300	-	LF	-
Grading/Excavation	13,000	13,000	\$15.00	CY	\$195,000.00
Clearing/Grubbing	175,200	175,200	\$0.50	SF	\$88,000.00
Asphalt Concrete	6,800	6,800	\$100.00	TON	\$680,000.00
Aggregate Base	9,730	9,730	\$50.00	CY	\$487,000.00
Striping	29,200	29,200	\$1.25	LF	\$37,000.00
Signing	146	146	\$500.00	EA	\$73,000.00
Pavement Marking	1,970	1,970	\$8.00	SF	\$16,000.00
Drainage	7,300	7,300	\$50.00	LF	\$365,000.00
Median Barrier	7,300	7,300	\$200.00	LF	\$1,460,000.00
Freemont Boulevard Interchange	1	1	\$5,000,000.00	LS	\$5,000,000.00
Canyon Del Rey Boulevard Interchange	1	1	\$5,000,000.00	LS	\$5,000,000.00
Bridge Widening	2	2	\$1,000,000.00	EA	\$2,000,000.00
Staging	1	1	\$500,000.00	LS	\$500,000.00
Utility Relocation	1	1	\$500,000.00	LS	\$500,000.00
Environmental Mitigation	1	1	\$500,000.00	LS	\$500,000.00
Right-of-Way Acquisition	14,600	14,600	\$20.00	SF	\$292,000.00
Construction Subtotal					\$17,193,000.00
Project Development Support					
Construction Support			10%	LS	\$1,720,000.00
Engineering Design			8%	LS	\$1,376,000.00
Environmental			5%	LS	\$860,000.00
Right-of-Way Support			12%	LS	\$36,000.00
			Subtotal		\$21,185,000.00
Contingency			25%	LS	\$5,296,000.00
Total					\$26,481,000.00

ASSUMPTIONS

- Add one 12' lane in each direction on SR 1 for busway between Freemont Boulevard interchange and Canyon Del Rey Boulevard interchange
- Make improvements to Freemont Boulevard interchange and Canyon Del Rey Boulevard interchange
- Assume 12' widening of two bridges on SR 1 over Monterey Peninsula Recreation Trail
- Assume 6" AC, 1.5" AB structural section for new pavement
- Assume installing median barrier as part of SR 1 widening
- Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.
- Assume the project will pay utility relocation costs at the interchanges

APPENDIX F

Project #2 SR 156 Widening

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length	16,000		16,000	-	LF	-
Grading/Excavation	426,700		426,700	\$15.00	CY	\$6,401,000.00
Clearing/Grubbing	1,920,000		1,920,000	\$0.50	SF	\$960,000.00
Asphalt Concrete	49,600		49,600	\$95.00	TON	\$4,712,000.00
Aggregate Base	71,110		71,110	\$45.00	CY	\$3,200,000.00
Striping	96,000		96,000	\$1.30	LF	\$125,000.00
Signing	320		320	\$500.00	EA	\$160,000.00
Pavement Marking	2,060		2,060	\$8.00	SF	\$16,000.00
Drainage	16,000		16,000	\$50.00	LF	\$800,000.00
Castroville Boulevard Interchange	1		1	\$22,500,000.00	LS	\$22,500,000.00
Bridge	2		2	\$3,000,000.00	EA	\$6,000,000.00
Staging	1		1	\$2,000,000.00	LS	\$2,000,000.00
Utility Relocation	1		1	\$5,000,000.00	LS	\$5,000,000.00
Environmental Mitigation	1		1	\$3,000,000.00	LS	\$3,000,000.00
Right-of-Way Acquisition	1,920,000		1,920,000	\$20.00	SF	\$38,400,000.00
Construction Subtotal						\$93,274,000.00
Project Development Support						
Construction Support				10%	LS	\$9,328,000.00
Engineering Design				8%	LS	\$7,462,000.00
Environmental				5%	LS	\$4,664,000.00
Right-of-Way Support				12%	LS	\$4,608,000.00
Subtotal						\$119,336,000.00
Contingency				25%	LS	\$29,839,000.00
Total						\$149,175,000.00

ASSUMPTIONS

Costs for interchanges based on recent cost estimates prepared by Caltrans.
 Assume constructing new 4-lane expressway south of existing SR 156. Existing SR 156 becomes frontage road
 Assume 2 new bridges built east of Castroville Boulevard
 Assume 6" AC, 1.5" AB structural section for new pavement
 Assume acquiring right of way for entire width and length of 4-lane expressway
 Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.
 Assume right of way acquisition will cost \$20 per square foot due to acquisition being a combination of open farmland, open space, and developed land.
 Assume the project will pay the utility relocation costs

APPENDIX F

Project #3 Marina-Salinas Corridor

Description	Reservation Road	Imjin Parkway	Blanco Road	Total Quantity	Unit Cost	Unit	Total Cost	
Length	11,000	8,000	22,700	41,700	-	LF	-	
Grading/Excavation	97,800	14,200	50,400	162,400	\$15.00	CY	\$2,436,000.00	
Clearing/Grubbing	440,000	192,000	681,000	1,313,000	\$0.50	SF	\$657,000.00	
Overlay (2" A.C.)	5,800	5,060	11,960	22,820	\$100.00	TON	\$2,282,000.00	
Asphalt Concrete	17,100	7,400	26,400	50,900	\$100.00	TON	\$5,090,000.00	
Aggregate Base	24,440	10,670	37,830	72,940	\$50.00	CY	\$3,647,000.00	
Striping	66,000	56,000	113,500	235,500	\$1.25	LF	\$294,000.00	
Signing	44	32	91	167	\$500.00	EA	\$83,000.00	
Pavement Marking	2,010	1,980	2,130	6,120	\$8.00	SF	\$49,000.00	
Traffic Signal Modification	1	2	0	3	\$200,000.00	EA	\$600,000.00	
Drainage	11,000	8,000	22,700	41,700	\$100.00	LF	\$4,170,000.00	
Existing Bridge Widening	0	0	1	1	\$5,000,000.00	LF	\$5,000,000.00	
Staging	1	1	1	1	\$1,200,000.00	LS	\$1,200,000.00	
Utility Relocation	1	1	1	1	\$1,200,000.00	LS	\$1,200,000.00	
Environmental Mitigation	1	1	1	1	\$2,000,000.00	LS	\$2,000,000.00	
Right-of-Way Acquisition	440,000	320,000	908,000	1,668,000	\$10.00	LS	\$16,680,000.00	
Construction Subtotal								\$45,388,000.00
Project Development Support								
Construction Support					12%	LS	\$5,447,000.00	
Engineering Design					10%	LS	\$4,539,000.00	
Environmental					5%	LS	\$2,269,000.00	
Right-of-Way Support					12%	LS	\$2,002,000.00	
					Subtotal		\$59,645,000.00	
Contingency					25%	LS	\$14,911,000.00	
Total								\$74,556,000.00

ASSUMPTIONS

- Reservation Road will be widened by 40' from E. Garrison Drive to S Davis Road
- Imjin Parkway will be widened by 24' from Imjin Road to Reservation Road
- Blanco Road will be widened by 30' from Research Drive to S Davis Road
- Assume 6" AC, 1.5" AB structural section for new pavement
- Assume Salinas River Bridge on Blanco Road will be widened
- Assume modifying Reservation Road/S Davis Road intersection traffic signal
- Assume modifying Imjin Parkway/Abrams Drive and Imjin Parkway/Reservation Road intersections traffic signals
- Assume 40' wide right of way acquisition for each roadway
- Assume existing roadway will be overlaid
- Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.
- Assume right of way acquisition will cost \$10 per square foot due to acquisition being a combination of open farmland and open space
- Assume projects will pay a portion of the utility relocation costs

APPENDIX F

Project #4

Davis Road North

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length	7,000		7,000	-	LF	-
Grading/Excavation	16,600		16,600	\$15.00	CY	\$249,000.00
Clearing/Grubbing	224,000		224,000	\$0.50	SF	\$112,000.00
Overlay (2" A.C.)	2,210		2,210	\$100.00	TON	\$221,000.00
Asphalt Concrete	8,700		8,700	\$100.00	TON	\$870,000.00
Aggregate Base	12,440		12,440	\$50.00	CY	\$622,000.00
Striping	42,000		42,000	\$1.25	LF	\$53,000.00
Signing	28		28	\$500.00	EA	\$14,000.00
Pavement Marking	1,970		1,970	\$8.00	SF	\$16,000.00
Traffic Signal Modification	1		1	\$200,000.00	EA	\$200,000.00
Drainage	7,000		7,000	\$50.00	LF	\$350,000.00
Staging	1		1	\$200,000.00	LS	\$200,000.00
Utility Relocation	1		1	\$1,000,000.00	LS	\$1,000,000.00
Environmental Mitigation	1		1	\$200,000.00	LS	\$200,000.00
Right-of-Way Acquisition	140,000		140,000	\$5.00	LS	\$700,000.00
Construction Subtotal						\$4,807,000.00
Project Development Support						
Construction Support				12%	LS	\$577,000.00
Engineering Design				10%	LS	\$481,000.00
Environmental				5%	LS	\$240,000.00
Right-of-Way Support				12%	LS	\$84,000.00
Subtotal						\$6,189,000.00
Contingency				25%	LS	\$1,547,000.00
Total						\$7,736,000.00

ASSUMPTIONS

S Davis Road will be widened by 32' between Blanco Road and SR 183

Assume 6" AC, 1.5" AB structural section for new pavement

Assume modifying S Davis Road/Blanco Road intersection traffic signal

Assume 20' wide right of way acquisition

Assume existing roadway will be overlaid

Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.

Assume right of way acquisition will cost \$5 per square foot due to acquisition being open farmland

Assume project will pay utility relocation costs

APPENDIX F

Project #5

Davis Road South

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length	11,000		11,000	-	LF	-
Grading/Excavation	26,100		26,100	\$15.00	CY	\$392,000.00
Clearing/Grubbing	352,000		352,000	\$0.50	SF	\$176,000.00
Overlay (2" A.C.)	3,480		3,480	\$100.00	TON	\$348,000.00
Asphalt Concrete	13,600		13,600	\$100.00	TON	\$1,360,000.00
Aggregate Base	19,560		19,560	\$50.00	CY	\$978,000.00
Striping	55,000		55,000	\$1.25	LF	\$69,000.00
Signing	44		44	\$500.00	EA	\$22,000.00
Pavement Marking	2,010		2,010	\$8.00	SF	\$16,000.00
Traffic Signal Modification	2		2	\$200,000.00	EA	\$400,000.00
Drainage	11,000		11,000	\$50.00	LF	\$550,000.00
Existing Bridge Widening	1		1	\$3,000,000.00	LS	\$3,000,000.00
Staging	1		1	\$500,000.00	LS	\$500,000.00
Utility Relocation	1		1	\$1,000,000.00	LS	\$1,000,000.00
Environmental Mitigation	1		1	\$500,000.00	LS	\$500,000.00
Right-of-Way Acquisition	110,000		110,000	\$5.00	LS	\$550,000.00
Construction Subtotal						\$9,861,000.00
Project Development Support						
Construction Support				12%	LS	\$1,183,000.00
Engineering Design				10%	LS	\$986,000.00
Environmental				5%	LS	\$493,000.00
Right-of-Way Support				12%	LS	\$66,000.00
				Subtotal		\$12,589,000.00
Contingency				25%	LS	\$3,147,000.00
Total						\$15,736,000.00

ASSUMPTIONS

S Davis Road will be widened by 32' between Reservation Road and Blanco Road

Assume 6" AC, 1.5" AB structural section for new pavement

Assume modifying S Davis Road/Reservation Road intersection and S Davis Road/Blanco Road intersection traffic signals

Assume 10' wide right of way acquisition

Assume existing roadway will be overlaid

Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.

Assume right of way acquisition will cost \$5 per square foot due to acquisition being open farmland

Assume project will pay utility relocation costs

APPENDIX F

Project #6

Del Monte Corridor Improvements

Description	Quantity			Total Quantity	Unit Cost	Unit	Total Cost	
Length	4,000			4,000	-	LF	-	
Grading/Excavation	11,900			11,900	\$15.00	CY	\$179,000.00	
Clearing/Grubbing	160,000			160,000	\$0.50	SF	\$80,000.00	
Overlay (2" A.C.)	3,160			3,160	\$100.00	TON	\$316,000.00	
Asphalt Concrete	1,900			1,900	\$100.00	TON	\$190,000.00	
Aggregate Base	2,670			2,670	\$50.00	CY	\$134,000.00	
Concrete	4,340			4,340	\$50.00	CY	\$217,000.00	
Striping	20,000			20,000	\$1.25	LF	\$25,000.00	
Signing	160			160	\$500.00	EA	\$80,000.00	
Pavement Marking	890			890	\$8.00	SF	\$7,000.00	
Traffic Signal Modification	3			3	\$200,000.00	EA	\$600,000.00	
Drainage	4,000			4,000	\$100.00	LF	\$400,000.00	
Staging	1			1	\$200,000.00	LS	\$200,000.00	
Utility Relocation	1			1	\$3,000,000.00	LS	\$3,000,000.00	
Environmental Mitigation	1			1	\$500,000.00	LS	\$500,000.00	
Right-of-Way Acquisition	16,000			16,000	\$1,500.00	SF	\$24,000,000.00	
Construction Subtotal							\$29,928,000.00	
Project Development Support								
Construction Support					10%	LS	\$2,993,000.00	
Engineering Design					8%	LS	\$2,395,000.00	
Environmental					5%	LS	\$1,497,000.00	
Right-of-Way Support					12%	LS	\$2,880,000.00	
Subtotal							\$9,923,000.00	
Contingency								
Total							\$49,616,000.00	

ASSUMPTIONS

Del Monte Avenue will be widened by 12' between Camino El Estero and Sloat Avenue

Assume 6" AC, 1.5" AB structural section for new pavement

Assume modifying Del Monte Avenue/Camino El Estero intersection, Del Monte Avenue/Camino Aguajito intersection, and Del Monte Avenue/Sloat Avenue intersection traffic signals

Assume existing roadway will be overlaid

Assume 12' wide right of way acquisition, 1300' long. Remainder of needed right of way is owned by City of Monterey.

Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.

Assume right of way acquisition will cost \$1500 per square foot due to acquisition being developed urban environment

Assume project will pay utility relocation costs

APPENDIX F

Project #7

US 101 - South County Phase 1 (Frontage Roads: Salinas to Chualar)

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length	94,600		94,600	-	LF	-
Grading/Excavation	299,500		299,500	\$15.00	CY	\$4,493,000.00
Clearing/Grubbing	3,784,000		3,784,000	\$0.50	SF	\$1,892,000.00
Asphalt Concrete	124,700		124,700	\$100.00	TON	\$12,470,000.00
Aggregate Base	240,500		240,500	\$50.00	CY	\$12,025,000.00
Striping	283,800		283,800	\$1.25	LF	\$355,000.00
Signing	380		380	\$500.00	EA	\$190,000.00
Pavement Marking	1,840		1,840	\$8.00	SF	\$15,000.00
Drainage	94,600		94,600	\$10.00	LF	\$946,000.00
Box Culvert	8		8	\$200,000.00	EA	\$1,600,000.00
Bridge Structure at Creek	1		1	\$1,000,000.00	EA	\$1,000,000.00
Spence Road Overcrossing	1		1	\$3,200,000.00	EA	\$3,200,000.00
Abbott Street Interchange Removal	1		1	\$2,000,000.00	EA	\$2,000,000.00
Staging	1		1	\$1,200,000.00	LS	\$1,200,000.00
Utility Relocation	1		1	\$3,000,000.00	LS	\$3,000,000.00
Environmental Mitigation	1		1	\$1,000,000.00	LS	\$1,000,000.00
Right-of-Way Acquisition	5,676,000		5,676,000	\$4.00	SF	\$22,704,000.00
Construction Subtotal						\$68,090,000.00
Project Development Support						
Construction Support				10%	LS	\$6,809,000.00
Engineering Design				8%	LS	\$5,448,000.00
Environmental				5%	LS	\$3,405,000.00
Right-of-Way Support				12%	LS	\$2,725,000.00
				Subtotal		\$86,477,000.00
Contingency				25%	LS	\$21,619,000.00
Total						\$108,096,000.00

ASSUMPTIONS

Frontage roads will be built from Harris Road to Chualar
Proposed frontage roads 40 foot wide (2-12' travel lanes, 2-8' shoulder/bike lane)
Drainage assumes culvert crossing every 500 LF
Assume 6" AC, 1.5" AB structural section for new pavement
Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.
Assume right of way acquisition will cost \$4 per square foot due to acquisition being open farmland
Assume project will pay utility relocation costs

APPENDIX F

Project #8

US 101 - South County Phase 2 (Harris Road Interchange)

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length			0	-	LF	-
Grading/Excavation			0	\$15.00	CY	\$0.00
Clearing/Grubbing			0	\$0.50	SF	\$0.00
Asphalt Concrete			0	\$100.00	TON	\$0.00
Aggregate Base			0	\$50.00	CY	\$0.00
Striping			0	\$1.25	LF	\$0.00
Signing			0	\$500.00	EA	\$0.00
Pavement Marking			0	\$8.00	SF	\$0.00
Drainage			0	\$10.00	LF	\$0.00
Harris Road Interchange	1		1	\$36,000,000.00	EA	\$36,000,000.00
Staging	1		1	\$500,000.00	LS	\$500,000.00
Utility Relocation	1		1	\$500,000.00	LS	\$500,000.00
Environmental Mitigation	1		1	\$500,000.00	LS	\$500,000.00
Right-of-Way Acquisition	260,000		260,000	\$5.00	SF	\$1,300,000.00
Construction Subtotal						\$38,800,000.00
Project Development Support						
Construction Support				10%	LS	\$3,880,000.00
Engineering Design				8%	LS	\$3,104,000.00
Environmental				5%	LS	\$1,940,000.00
Right-of-Way Support				12%	LS	\$156,000.00
				Subtotal		\$47,880,000.00
Contingency				25%	LS	\$11,970,000.00
Total						\$59,850,000.00

ASSUMPTIONS

Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.
 Assume right of way acquisition will cost \$5 per square foot due to acquisition being open farmland
 Assume project will pay utility relocation costs

APPENDIX F

Project #9

State Route 68 Commuter Improvements

Description	Quantity			Total Quantity	Unit Cost	Unit	Total Cost	
Length	7,000			7,000	-	LF	-	
Grading/Excavation	20,700			20,700	\$15.00	CY	\$311,000.00	
Clearing/Grubbing	280,000			280,000	\$5.00	SF	\$1,400,000.00	
Overlay (2" A.C.)	3,690			3,690	\$100.00	TON	\$369,000.00	
Asphalt Concrete	10,900			10,900	\$100.00	TON	\$1,090,000.00	
Aggregate Base	15,560			15,560	\$50.00	CY	\$778,000.00	
Striping	42,000			42,000	\$1.25	LF	\$53,000.00	
Signing	28			28	\$500.00	EA	\$14,000.00	
Pavement Marking	1,970			1,970	\$8.00	SF	\$16,000.00	
Roundabout	11			11	\$3,000,000.00	EA	\$33,000,000.00	
Drainage	7,000			7,000	\$15.00	LF	\$105,000.00	
Box Culvert	3			3	\$200,000.00	LS	\$600,000.00	
Staging	1			1	\$500,000.00	LS	\$500,000.00	
Utility Relocation	1			1	\$3,000,000.00	LS	\$3,000,000.00	
Environmental Mitigation	1			1	\$3,000,000.00	LS	\$3,000,000.00	
Right-of-Way Acquisition	280,000			280,000	\$20.00	LS	\$5,600,000.00	
Construction Subtotal								\$49,836,000.00
Project Development Support								
Construction Support					12%	LS	\$5,980,000.00	
Engineering Design					10%	LS	\$4,984,000.00	
Environmental					5%	LS	\$2,492,000.00	
Right-of-Way Support					12%	LS	\$672,000.00	
					Subtotal		\$63,964,000.00	
Contingency					25%	LS	\$15,991,000.00	
Total								\$79,955,000.00

ASSUMPTIONS

SR 68 will be widened to 4 lanes east of Toro Creek Road

Assume 6" AC, 1.5" AB structural section for new pavement

Assume existing roadway will be overlaid at 4-lane widening section

Assume roundabouts at: Olmsted Road, SR 218, New Torero Drive, Corral de Tierra, San Benancio, Josselyn Canyon Road, York Road, Pasadera Drive, Laureles Grade, Business Park Driveway

Assume 3 new box culverts for wildlife crossings

Cost of a roundabout varies by many factors such as size and terrain. Assume average cost of \$3,000,000

Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.

Assume right of way acquisition will cost \$20 per square foot due to acquisition being developed rural environment

Assume project will pay utility relocation costs

APPENDIX F

Project #10

US 101 Widening From Airport Boulevard to Boronda Road

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length	29,000		29,000	-	LF	-
Grading/Excavation	85,900		85,900	\$15.00	CY	\$1,289,000.00
Clearing/Grubbing	1,160,000		1,160,000	\$1.00	SF	\$1,160,000.00
Asphalt Concrete	45,000		45,000	\$100.00	TON	\$4,500,000.00
Aggregate Base	64,400		64,400	\$50.00	CY	\$3,220,000.00
Striping	116,000		116,000	\$1.25	LF	\$145,000.00
Signing	120		120	\$500.00	EA	\$60,000.00
Pavement Marking	1,150		1,150	\$8.00	SF	\$9,000.00
Drainage	29,000		29,000	\$50.00	LF	\$1,450,000.00
Median Barrier	29,000		29,000	\$200.00	LF	\$5,800,000.00
Retaining Wall	50,000		50,000	\$100.00	SF	\$5,000,000.00
Overhead Signs	1		1	\$5,000,000.00	LS	\$5,000,000.00
Staging	1		1	\$3,000,000.00	LS	\$3,000,000.00
Bridge Widening	3		3	\$1,500,000.00	EA	\$4,500,000.00
Utility Relocation	1		1	\$500,000.00	LS	\$500,000.00
Environmental Mitigation	1		1	\$2,000,000.00	LS	\$2,000,000.00
Right-of-Way Acquisition	0		0	\$5.00	SF	\$0.00
Construction Subtotal						\$37,633,000.00
Project Development Support						
Construction Support				10%	LS	\$3,764,000.00
Engineering Design				8%	LS	\$3,011,000.00
Environmental				5%	LS	\$1,882,000.00
Right-of-Way Support				12%	LS	\$0.00
				Subtotal		\$46,290,000.00
Contingency				25%	LS	\$11,573,000.00
Total						\$57,863,000.00

ASSUMPTIONS

US 101 pavement will be widened by 40' (2 travel lanes, shoulders, and median) between Airport Boulevard and Boronda Road

Assume 6" AC, 1.5" AB structural section for new pavement

Assume installing median barrier as part of widening

Assume widening bridges at Sanborn Road, Alisal Street, and E Market Street

Assume widening can occur in center of US 101 so no new right of way required

APPENDIX F

Project #11

G12 San Miguel Canyon Improvements

Description	Quantity			Total Quantity	Unit Cost	Unit	Total Cost	
Length	50,000			50,000	-	LF	-	
Grading/Excavation	133,300			133,300	\$15.00	CY	\$2,000,000.00	
Clearing/Grubbing	1,800,000			1,800,000	\$1.00	SF	\$1,800,000.00	
Asphalt Concrete	46,500			46,500	\$100.00	TON	\$4,650,000.00	
Aggregate Base	66,700			66,700	\$50.00	CY	\$3,335,000.00	
Striping	300,000			300,000	\$1.25	LF	\$375,000.00	
Signing	500			500	\$500.00	EA	\$250,000.00	
Pavement Marking	1,370			1,370	\$8.00	SF	\$11,000.00	
Drainage	50,000			50,000	\$50.00	LF	\$2,500,000.00	
Staging	1			1	\$3,000,000.00	LS	\$3,000,000.00	
Traffic Signal	5			5	\$300,000.00	EA	\$1,500,000.00	
Traffic Signal Modification	2			2	\$200,000.00	EA	\$400,000.00	
Bridge Widening	1			1	\$1,500,000.00	EA	\$1,500,000.00	
Utility Relocation	1			1	\$3,000,000.00	LS	\$3,000,000.00	
Environmental Mitigation	1			1	\$2,000,000.00	LS	\$2,000,000.00	
Right-of-Way Acquisition	1,000,000			1,000,000	\$20.00	SF	\$20,000,000.00	
Construction Subtotal								\$46,321,000.00
Project Development Support								
Construction Support					10%	LS	\$4,633,000.00	
Engineering Design					8%	LS	\$3,706,000.00	
Environmental					5%	LS	\$2,317,000.00	
Right-of-Way Support					12%	LS	\$2,400,000.00	
					Subtotal		\$59,377,000.00	
Contingency					25%	LS	\$14,844,000.00	
Total								\$74,221,000.00

ASSUMPTIONS

- Assumes San Miguel Canyon Road will be widened by 36' between Castroville Boulevard and Hall Road for turn lanes and bike lanes
- Assumes Hall Road will be widened by 36' between San Miguel Canyon Road and Elkhorn Road for turn lanes and bike lanes
- Assumes Elkhorn Road will be widened by 36' between Hall Road and Salinas Road for turn lanes and bike lanes
- Assumes Salinas Road will be widened by 36' between Elkhorn Road and San Juan Road for turn lanes and bike lanes
- Assume 6" AC, 1.5" AB structural section for new pavement
- Assume modifying Hall Road/Las Lomas Drive intersection and Hall Road/San Miguel Canyon Road intersection traffic signals
- Assume new traffic signals at Castroville Boulevard, Johnson Road, Sill Road, Willow Road, and Elkhorn Road intersections
- Assume widening Elkhorn Road bridge over railroad tracks
- Assume 20' wide right of way acquisition
- Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.
- Assume right of way acquisition will cost \$20 per square foot due to acquisition being a combination of open farmland, open space, and developed land.
- Assume project will pay utility relocation costs

APPENDIX F

Project #12

Salinas Road Improvements

Description	Quantity		Total Quantity	Unit Cost	Unit	Total Cost
Length	3,300		3,300	-	LF	-
Grading/Excavation	14,700		14,700	\$15.00	CY	\$221,000.00
Clearing/Grubbing	198,000		198,000	\$1.00	SF	\$198,000.00
Asphalt Concrete	2,300		2,300	\$100.00	TON	\$230,000.00
Aggregate Base	3,300		3,300	\$50.00	CY	\$165,000.00
Striping	19,800		19,800	\$1.25	LF	\$25,000.00
Signing	40		40	\$500.00	EA	\$20,000.00
Pavement Marking	880		880	\$8.00	SF	\$7,000.00
Drainage	3,300		3,300	\$50.00	LF	\$165,000.00
Staging	1		1	\$500,000.00	LS	\$500,000.00
Traffic Signal	2		2	\$300,000.00	EA	\$600,000.00
Utility Relocation	1		1	\$500,000.00	LS	\$500,000.00
Environmental Mitigation	1		1	\$500,000.00	LS	\$500,000.00
Right-of-Way Acquisition	80,000		80,000	\$20.00	SF	\$1,600,000.00
Construction Subtotal						\$4,731,000.00
Project Development Support						
Construction Support				10%	LS	\$474,000.00
Engineering Design				8%	LS	\$379,000.00
Environmental				5%	LS	\$237,000.00
Right-of-Way Support				12%	LS	\$192,000.00
Subtotal						\$6,013,000.00
Contingency						
25%						\$1,503,000.00
Total						\$7,516,000.00

ASSUMPTIONS

Assume realigning Salinas Road between Werner Road and Elkhorn Road

Assumes Salinas Road will be 60' wide

Assume 6" AC, 1.5" AB structural section for new pavement

Assume new traffic signals at Salinas Road/Elkhorn Road intersection and at Salinas Road/Werner Road intersection

Assume 80' wide right of way acquisition

Right-of-Way support includes obtaining temporary construction easements, Title Reports, etc.

Assume right of way acquisition will cost \$20 per square foot due to acquisition being a combination of open farmland, open space, and developed land.

Assume project will pay utility relocation costs

