Traffic

GUIDE FOR THE PREPARATION OF TRAFFIC IMPACT STUDIES

MONTEREY COUNTY PUBLIC WORKS DEPARTMENT

October 2003

PREFACE

Monterey County Public Works has developed this County Guide for the Preparation of Traffic Impact Studies to improve the local development review process and its relationship with the California Environmental Quality Act (CEQA) process. This guide is modeled after Caltrans' "Guide for the Preparation of Traffic Impact Studies."

Monterey County Public Works has identified a need to provide better quality and consistency in the identification and analysis of traffic impacts generated by local development and land use change proposals affecting County roadway facilities.

This guide will help provide consistent guidance for review of local development and land use change proposals and inform others of information required by the Department in its analysis of traffic impacts on County roadway facilities. The guide will also benefit other agencies and the development community by facilitating more expeditious review of local development proposals.

Sound planning and engineering practices were used in developing this initial guide. It is understood, however, that the guide will undergo revision and periodic updates to incorporate new technologies and more efficient practices as they become available. Accordingly, Monterey County encourages all guide users to contact the Public Works development staff at the inception of their projects to ensure incorporation of any changes.

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I. INTRODUCTION

Monterey County desires to provide a safe and efficient County transportation system for the motoring public pursuant to various Sections of the California Streets and Highways Code and goals and policies of the Monterey County General Plan. This is done in partnership with other local and regional agencies through procedures established by CEQA and other land use planning processes. The intent of this guide is to provide a **starting point and a consistent basis** for evaluating traffic impacts to county roadway facilities.

The primary objectives of this guide are to provide:

- **guidance** in determining if and when a Traffic Impact Study (TIS) is needed,
- **consistency and uniformity** in the identification of traffic impacts generated by local land use proposals,
- **consistency and equity** in the identification of measures to mitigate the traffic impacts generated by land use proposals,
- the **information** necessary to make informed decisions regarding the existing and proposed transportation infrastructure (see Appendix A, Minimum Contents of a TIS),
- TIS **requirements** early in the planning phase of a project (i.e., initial study, notice of preparation, or earlier) to eliminate potential delays later, a quality TIS by agreeing to the assumptions, data requirements, study scenarios, and analysis methodologies in advance of beginning the study, and
- early **coordination** during the planning phase of a project to reduce the time and cost of preparing a TIS.

II. WHEN A TRAFFIC IMPACT STUDY IS NEEDED

A. Trip Generation Thresholds

The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a county roadway facility
2. Generates 50 to 100 peak hour trips assigned to a county roadway facility - and, affected county roadway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "D").
3. Generates 1 to 49 peak hour trips assigned to a county roadway facility - the following are examples that may require a full TIS or some lesser analysis[1]:
   a. Affected County roadway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
   b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
   c. Change in local circulation networks that impact a County facility (i.e., direct access to County roadway facility, a non-standard roadway geometric design, etc.).

Note: A traffic study may be as simple as providing a traffic count to as complex as a microscopic simulation. The appropriate level of study is determined by the particulars of a project, the prevailing roadway conditions, and the forecasted traffic.

B. Exceptions

Exceptions require consultation between Monterey County Public Works and those preparing the TIS. When a project's traffic impact to a County roadway facility can clearly be anticipated without a study and all the parties involved (lead agency, developer, and Monterey County Public Works Department) are able to negotiate appropriate mitigation, a TIS may not be necessary.

C. Updating An Existing Traffic Impact Study

A TIS requires updating when the amount or character of traffic is significantly different from an earlier study. Generally a TIS requires updating every two years. A TIS may require updating sooner in rapidly developing areas and not as often in slower developing areas. In these cases, consultation with Monterey County Public Works is recommended.

[1] A "lesser analysis" may include obtaining traffic counts, preparing signal warrants, or a focused TIS, etc

III. SCOPE OF TRAFFIC IMPACT STUDY

Consultation between the lead agency, Monterey County Public Works, other agencies, and those preparing the TIS is strongly recommended before commencing work on the study to establish the appropriate scope. At a minimum, the TIS should include the following:

A. Boundaries of the Traffic Impact Study

All County roadway and other agency facilities impacted in accordance with the criteria in Section II should be studied. Traffic impacts to public and private streets and roads can impact intersections with County roads and facilities. In these cases, the TIS should include an analysis of adjacent local facilities, upstream and downstream, of the intersection (i.e., driveways, intersections, and interchanges) and include the County road.

B. Traffic Analysis Scenarios

Monterey County Public Works is interested in the effects of general plan updates and amendments as well as the effects of specific project entitlements (i.e., site plans, conditional use permits, subdivisions, rezoning, etc.) that have the potential to impact a County roadway facility. The complexity or magnitude of the impacts of a project will normally dictate the scenarios necessary to analyze the project. Consultation between Monterey County Public Works and those preparing the TIS is recommended to determine the appropriate scenarios for the analysis. The following scenarios should be addressed in the TIS when appropriate:

a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of effected County roadway facilities.
b) Proposed Project Only - Trip generation, distribution, and assignment in the year the project is anticipated to complete construction.
c) Background Conditions (Existing Conditions Plus Other Approved and Pending Projects Without Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
d) Background Conditions Plus Proposed Project (Existing Conditions Plus Other Approved and Pending Projects Plus Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
e) Background Conditions Plus Proposed Phases (Interim Years) - Trip assignment and peak hour LOS analysis in the years the project phases are anticipated to complete construction.
f) Proposed Project Only with Select Zone[2] Analysis - Trip generation and assignment for build-out of general plan.
g) Cumulative Conditions (General Plan Build-out Only)[3] - Trip assignment and peak hour LOS analysis. Include current land uses and other pending general plan amendments.
h) Cumulative Conditions with Proposed Project (General Plan Build-out Plus Proposed Project)[4] - Trip assignment and peak hour LOS analysis. Include proposed project and other pending general plan amendments.

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[2] "Select Zone" analysis represents a project only traffic model run, where the project's trips are distributed and assigned along the roadway network. This procedure isolates the project's specific impact on the County roadway network.
[3] A cumulative traffic analysis based upon General Plan build-out conditions is consistent with Section 15130 and Section 152152 of the CEQA Guidelines.
[4] ibid

IV. TRAFFIC DATA

Prior to any fieldwork, consultation between Monterey County Public Works and those preparing the TIS is recommended to reach consensus on the data and assumptions necessary for the study. The following elements are a starting point in that consideration.

A. Trip Generation

The latest edition of the Institute of Transportation Engineers' (ITE) TRIP GENERATION report should be used for trip generation forecasts. Local trip generation rates are also acceptable if appropriate validation is provided to support them.

1. Trip Generation Rates - When the land use has a limited number of studies to support the trip generation rates or when the Coefficient of Determination (R^2) is below 0.75, consultation between Monterey County Public Works and those preparing the TIS is recommended.
2. Pass-by Trips[5] - Pass-by trips are only considered for retail oriented development. Reductions greater than 15% require consultation and acceptance by Monterey County Public Works. The justification for exceeding a 15% reduction should be discussed in the TIS.
3. Captured Trips[6] - Captured trip reductions greater than 5% requires consultation and acceptance by Monterey County Public Works. The justification for exceeding a 5% reduction should be discussed in the TIS.
4. Transportation Demand Management (TDM) - Consultation between the lead agency and Monterey County Public Works is essential before applying trip reduction for TDM strategies.

NOTE: Reasonable reductions to trip generation rates are considered when adjacent county roadway volumes are sufficient (at least 5000 ADT) to support reductions for the land use.

B. Traffic Counts

Prior to field traffic counts, consultation between Monterey County Public Works and those preparing the TIS is recommended to determine the level of detail (e.g., location, signal timing, travel speeds, turning movements, etc.) required at each traffic count site. All County roadway facilities within the boundaries of the TIS should be considered. Common rules for counting vehicular traffic include but are not limited to:

1. Vehicle counts should be conducted on Tuesdays, Wednesdays, or Thursdays during weeks not containing a holiday and conducted in favorable weather conditions.
2. Vehicle counts should be conducted during the appropriate peak hours (see peak hour discussion below).
3. Seasonal and weekend variations in traffic should also be considered where appropriate (i.e., recreational routes, tourist attractions, harvest season, etc.).

C. Peak Hours

To eliminate unnecessary analysis, consultation between Monterey County Public Works and those preparing the TIS is recommended during the early planning stages of a project. In general, the TIS should include morning (a.m.) and evening (p.m.) peak hour analyses. Other peak hours

[5] "Pass-by" trips are made as intermediate stops between an origin and primary trip destination (i.e., home to work, home to shopping, etc.).

[6] "Captured Trips" are trips that do not enter or leave the driveways of a project's boundary within a mixed-use development.

(e.g., 11:30 a.m. to 1:30 p.m., weekend, holidays, etc.) may also be required to determine the significance of the traffic impacts generated by a project.

D. Travel Forecasting (Transportation Modeling)

The regional traffic-forecasting model should reflect the most current land use and planned improvements (i.e., where programming or funding is secured). For interim years and when a general plan build-out model is not available, the closest forecast model year to should be used. The regional model should be modified as necessary to accurately evaluate the project traffic impacts. The TIS should clearly describe the changes. Any changes made in the model to accommodate the analysis of a proposed project need to be made in consultation with Monterey County Public Works, Association of Monterey Bay Area Governments (AMBAG), Transportation Agency for Monterey County (TAMC), and those preparing the TIS.

E. Operations and Safety

- Operational Characteristics

The TIS should accurately describe the operation of all impacted facilities during the peak hour and off-peak hours. The description should be both qualitative and quantitative, and supported by field observation.

- Safety Considerations

In the description of the impacted facilities, the TIS should identify existing safety deficiencies of the impacted facility. The TIS should state the proposed project effect on the deficiency. The TIS should recommend improvements that address the need.

V. TRAFFIC IMPACT ANALYSIS METHODOLOGIES

Typically, the traffic analysis methodologies for the facility types indicated below are used by Monterey County Public Works and will be accepted without prior consultation. When a County roadway has saturated flows, the use of a micro-simulation model is encouraged for the analysis. Other analysis methods may be accepted; however, consultation between the lead agency, Monterey County Public Works and those preparing the TIS is recommended to agree on the information necessary for the analysis.

A. Freeway Sections - Highway Capacity Manual (HCM)* Chapter 3, operational analysis
B. Weaving Areas - Caltrans Highway Design Manual (HDM) Chapter 500
C. Ramps and Ramp Junctions - HCM* Chapter 5, operational analysis or Caltrans HDM Chapters 400 and 500, Caltrans Ramp Metering Guidelines (most recent edition)
D. Multi-Lane Rural and Urban Highways - HCM* Chapter 7, operational analysis
E. Two-lane Highways - HCM* Chapter 8, operational analysis
F. Signalized intersections[7] - HCM* Chapter 9, Highway Capacity Software**, operational analysis, **, Synchro**, ICU 2000
G. Unsignalized Intersections - HCM* Chapter 10, operational analysis, Caltrans Traffic Manual for signal warrants if a signal is being considered
H. Transit Capacity - HCM* Chapter 12, operational analysis
I. Pedestrians - HCM* Chapter 13
J. Bicycles - HCM* Chapters 14, use operational analysis when applying Chapter 9 and 10 HCM methods to bicycle analysis
K. Caltrans Criteria/Warrants - Caltrans Traffic Manual (stop signs, traffic signals, freeway lighting, conventional highway lighting, school crossings)
L. Channelization on State Highways - Caltrans guidelines for Reconstruction of Intersections, August 1985, Ichiro Fukutome
M. County Policy on Left Turn Channelization

*The most current edition of the Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, should be used.

** Monterey County Public Works does not officially advocate the use of any special software. However, consistency with the HCM is advocated in most but not all cases. Monterey County Public Works development review staff utilizes the software mentioned above. If different software or analytical techniques are used for the TIS, then consultation between the lead agency, Monterey County Public Works and those preparing the TIS is recommended. Results significantly different than those produced with the analytical techniques above should be challenged.

[7] The procedures in the Highway Capacity Manual "do not explicitly address operations of closely spaced signalized intersections. Under such conditions, several unique characteristics must be considered, including spillback potential from the downstream intersection to the upstream intersection, effects of downstream queues on upstream saturation flow rate, and unusual platoon dispersion or compression between intersections. An example of such closely spaced operations is signalized ramp terminals at urban interchanges. Queue interactions between closely spaced intersections may seriously distort the procedures in" the HCM. Scope of Manual, page 1-2, Highway Capacity Manual, Special Report 209, updated December 1997.

VI. MITIGATION MEASURES

The TIS should provide the nexus [Nollan v. California Coastal Commission, 1987, 483 U.S. 825 (108 S.Ct. 314)] between a project and the traffic impacts to County roadway facilities. The TIS should also establish the rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114 S. Ct. 2309)] between the mitigation measures and the traffic impacts. One method for establishing the rough proportionality or a project proponent's equitable responsibility for a project's impacts is provided in Appendix "B." Consultation between Monterey County Public Works and those preparing the TIS is recommended to reach consensus on the mitigation measures and who will be responsible.

Mitigation measures must be included in the traffic impact analysis. This determines if a project's impacts can be eliminated or reduced to a level of insignificance. Eliminating or reducing impacts to a level of insignificance is the standard pursuant to CEQA and the National Environmental Policy Act (NEPA). The lead agency is responsible for administering the CEQA review process and has the principal authority for approving a local development proposal or land use change. Monterey County Public Works, as a responsible agency, is responsible for reviewing the TIS for errors and omissions that pertain to County roadway facilities. The authority vested in the lead agency to administer the CEQA process does not take precedence over other authorities in law. The level of service (LOS) for operating County roadway facilities is based upon measures of effectiveness (MOEs). These MOEs (see Appendix "C-1") describe the measures best suited for analyzing county roadway facilities. The County endeavors to maintain a target LOS on county roadway facilities as determined in the Monterey County General Plan.

If the mitigation measures require work in the County road right-of-way an encroachment permit from Monterey County Public Works will be required. This work will also be subject to Monterey County Public Works standards and specifications. Consultation between the lead agency, Monterey County Public Works, and those preparing the TIS early in the planning process is strongly recommended to expedite the review of local development proposals and to reduce conflicts and misunderstandings in both the local agency CEQA review process as well as the Monterey County Public Works encroachment permit process.

APPENDIX A

MINIMUM CONTENTS

OF A

TRAFFIC IMPACT STUDY

MINIMUM CONTENTS OF TRAFFIC IMPACT STUDY REPORT

I. EXECUTIVE SUMMARY

II. TABLE OF CONTENTS

A. List of Figures (Maps)
B. List of Tables

III. INTRODUCTION

A. Description of the proposed project
B. Location of project
C. Site plan including all access to State highways (site plan, map)
D. Circulation network including all access to State highways (vicinity map)
E. Land use and zoning
F. Phasing plan including proposed dates of project (phase) completion
G. Project sponsor and contact person(s)
H. References to other traffic impact studies

IV. TRAFFIC ANALYSIS

A. Clearly stated assumptions
B. Existing and projected traffic volumes (including turning movements), facility geometry (including storage lengths), stopping sight distance, and traffic controls (including signal phasing and multi-signal progression where appropriate) (figure)
C. Project trip generation including references (table)
D. Project generated trip distribution and assignment (figure)
E. LOS and warrant analyses - existing conditions, cumulative conditions, and full build of general plan conditions with and without project

V. CONCLUSIONS AND RECOMMENDATIONS

A. LOS and appropriate MOE quantities of impacted facilities with and without mitigation measures
B. Mitigation phasing plan including dates of implementation for proposed mitigation measures
C. Define responsibilities for implementing mitigation measures
D. Current cost estimates for mitigation measures and financing plan

VI. APPENDICES

A. Description of how traffic data was collected
B. Description of methodologies and assumptions used in analyses
C. Worksheets used in analyses (i.e., signal warrant, LOS, traffic count information, etc.)

APPENDIX B

METHODOLOGY FOR

CALCULATING EQUITABLE

MITIGATION MEASURES

METHOD FOR CALCULATING EQUITABLE MITIGATION MEASURES

The methodology below is neither intended as, nor does it establish, a legal standard for determining equitable responsibility and cost of a project's traffic impact, the intent is to provide:

1. A starting point for early discussions to address traffic mitigation equitably.
2. A means for calculating the equitable share for mitigating traffic impacts.
3. A means for establishing rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114S.Ct.2309)].

The formulas should be used when:

- A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.
- A project has an immediate impact and the County has assumed responsibility for addressing operational improvements

NOTE: This formula is not intended for circumstances where a project proponent will be receiving a substantial benefit from the identified mitigation measures. In these cases, (e.g., mid-block access and signalization to a shopping center) the project should take full responsibility to toward providing the necessary infrastructure.

EQUITABLE SHARE RESPONSIBILITY: Equations C-l

$$P_E = \frac{T}{T_F} \qquad P_C = \frac{T}{T_F - T_E}$$

Where:

P_E = The equitable share for the proposed project's traffic impact (existing deficiency).
P_C = The equitable share for the proposed project's traffic impact (cumulative deficiency).
T = The vehicle trips generated by the project during the peak hour of adjacent County facility in vehicles per hour, vph.
T_F = The forecasted traffic volume on an impacted County roadway facility in future analysis year (e.g., 20 years or forecast model year), vph.
T_E = The traffic volume existing on the impacted County roadway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

EQUITABLE COST: Equation C-2

$$C = P * C_T$$

Where:

C = The equitable cost of traffic mitigation for the proposed development, ($).
P = The equitable share for the project being considered. (see equations C-1)
C_T = The total cost estimate for improvements necessary to mitigate the forecasted traffic demand on the impacted County roadway facility, ($).

NOTES:

1. Once the equitable share responsibility has been established on a per trip basis, these values can be utilized for all projects on that County roadway facility until the forecasted general plan build-out model is revised.
2. Truck traffic should be converted to passenger car equivalents before utilizing these equations (see the Highway Capacity Manual for converting to passenger car equivalents).

APPENDIX C

MEASURES OF EFFECTIVENESS

BY

FACILITY TYPE

APPENDIX C-1

MEASURES OF EFFECTIVENESS BY FACILITY TYPE

TYPE OF FACILITY	MEASURE OF EFFECTIVENESS
Freeways	
Basic Freeway Segments	Density (pc/mi/ln)
Weaving Areas	Density (pc/mi/ln)
Ramp Junctions	Avg. Control Delay (sec/veh)
Multi-Lane Highways	Density (pc/mi/ln); Free-Flow Speed (mph)
Two-Lane Highways	Pct. Time Spent Following; Volume-Capacity Ratio
Signalized Intersections	Avg. Control Delay (sec/veh); Volume-Capacity Ratio
Unsignalized Intersections	Avg. Control Delay (sec/veh); Volume-Capacity Ratio
Arterials	Average Travel Speed (mph)
Transit	Load Factor (pers/seat, veh/hr, people/hr)
Pedestrians	Space (sq. ft./ped)

Measures of effectiveness for level of service definitions in the latest edition of the Highway Capacity Manual, and Interim report #187, Transportation Research Board, National Research Council.

APPENDIX C-2

Level of Service Criteria

Basic Freeway Sections

LOS	Maximum Density (DC/mi/ln)	Minimum Speed (mph)	Maximum Service Flow Rate (DCDhpl)	Maximum Volume/Capacity Ratio
	Free-Flow Speed = 70 mph			
A	10.0	70.0	700	0.29
B	16.0	70.0	1120	0.47
C	24.0	68.0	1632	0.68
D	32.0	64.0	2048	0.85
E	45.0	53.0	2400	1.00
F	var	var	var	var

Ramp – Freeway Junction Areas Of Influence

LOS	Maximum Density (Primary Measure) (pc/mi/ln)	Minimum Speed (Secondary Measure) (MPH)
A	10	58
B	20	56
C	28	52
D	35	46
E	>35	42
F	a	a

Demand flows exceed limits of table 5-1.

Weaving Areas

	MAXIMUM DENSITY (pc/mi/ln)	
LOS	Freeway Weaving Area	Multi-lane & C - D Weaving Areas
A	10	12
B	20	24
C	28	32
D	35	36
E	<=43	<=40
F	>43	>40

Signalized Intersections

LOS	Control Delay Per Vehicle (sec)
A	10
B	20
C	35
D	55
E	80
F	>80

Dotted line represents the transition between LOS "C" and LOS "D"

APPENDIX D

DEFINITIONS

AND

SIGNIFICANCE CRITERIA

APPENDIX D-1

TRAFFIC IMPACT STUDIES
DEFINITIONS

1. **LOS** – Level of Service Defined by the Highway Capacity Manual.

2. **Significant Impact** – Substantial or potentially substantial change in the environment.

   a. Increase in either the number of vehicle trips, V/C ratio, or congestion at intersections.
   b. Exceed LOS standard established by county congestion management agency.
   c. Result in inadequate emergency access.
   d. Result in inadequate parking capacity.

3. **Project Significant Impact** – Significant Impact with project plus existing development.

4. **Cumulative Significant Impact** – Significant Impact with project plus existing plus buildout.

5. **Off-Site Local Significant Impact** – Local road facilities impacted significantly adjacent to project site.

6. **Off-Site Regional Significant Impact** – Regional road facilities impacted significantly by project trip distribution.

APPENDIX D-2

TRAFFIC IMPACT STUDIES
SIGNIFICANCE CRITERIA

For Signalized Intersections:
A significant impact would occur if an intersection operating at LOS A, B, or C, degrades to D, E, F. For intersections already operating at unacceptable levels D and E, a significant impact would occur if a project adds 0.01 during peak hour or more to the critical movement's volume-to-capacity ratio. If the intersection is already operating at LOS F any increase (one vehicle) in the critical movement's volume-to-capacity ratio is considered significant.

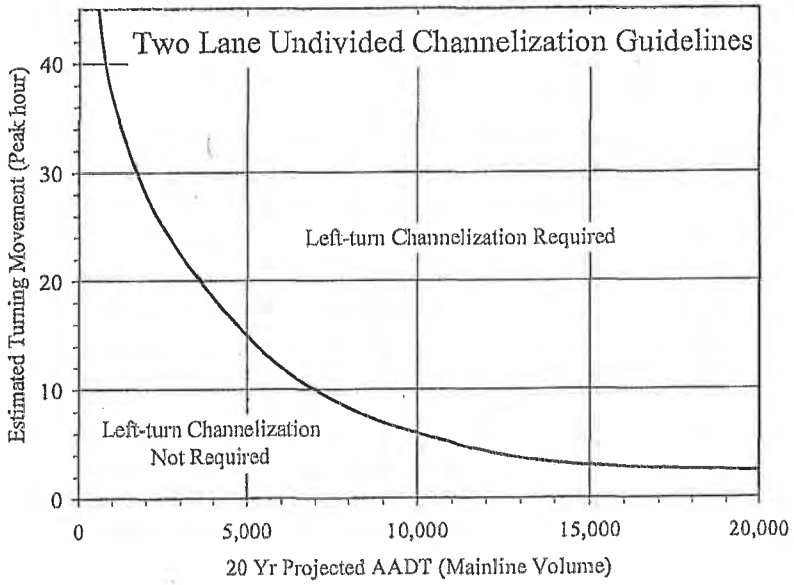
For Unsignalized Intersections:
A significant impact would occur if any traffic movement has LOS F or any traffic signal warrant is met.

For Roadway Segments:
A significant impact would occur if a roadway segment operating at A through E degrades to a lower level of service of D, E, or F. If a segment is already operating at LOS F any increase during peak hour (one vehicle) is considered significant.

Use the latest edition of the Highway Capacity Manual to determine levels of service.

Left Turn Channelization Policy

Left turn lanes (pockets) are required based on a policy adopted by Monterey County. Below is the nomograph for said policy. Trip rates generated would normally be based on the ITE Trip Generation Manual fitted-curve equation for the specific land use proposed.



TAMC

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Agenda Item: 5

Memorandum

To:	Board of Directors
From:	Michael Zeller, Senior Transportation Planner
Meeting Date:	June 26, 2013
Subject:	2013 Regional Development Impact Fee Update

RECOMMENDED ACTION:

APPROVE finalized regional development impact fee schedule and supporting documents for the update to the Regional Development Impact Fee program.

SUMMARY:

The agency is required to update the fee program once every five years. The draft fees include updates to the regional travel forecast model, general plan updates, project financing, and population growth projections that have occurred since the program started in August 2008. Both the Executive and Technical Advisory Committees have recommended approval.

FINANCIAL IMPACT:

Over 20 years, the draft Regional Development Impact Fee program is expected to generate $129 million, with one-percent reimbursing the agency's fee program administrative expenses. The agency has budgeted $100,000 in fiscal year 2012/13 for the 2013 Nexus Study Update.

DISCUSSION:

The Regional Development Impact Fee program was adopted by the Transportation Agency Board of Directors in August 2008. As part of the Joint Powers Agreement that established the program, the agency is required to update the fee program once every five years. The initial step of the update process was to run the regional travel demand forecast model to identify the base year (2013) and horizon year (2030) travel conditions, and the number of new trips generated between those years. The regional travel demand model has undergone several iterations since the regional fees were initially calculated. The currently available version of the model forecasts considerably fewer trips than from the 2007 regional fee nexus study, with the majority of trip reductions coming from the Greater Salinas and South County zones.

With the modeling and deficiency analysis complete, agency staff used the project list from the 2007 regional fee as a starting point to identify transportation improvement projects that would be necessary to address horizon year impacts to regional roadways. From the original list of seventeen projects, there were several updates that staff recommends:

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www.tamcmonterey.org

1. **US-101 Widening through Salinas**: The Westside Bypass project was originally included in the regional fee program as an alternative to widening US-101 through Salinas. The City of Salinas has since made US-101 widening a priority project and requested that this project be included and the Westside Bypass be removed. Both projects cost the same and address the same impacts to US-101, so there is no net change.
2. **County Projects**: The County requested that three north county projects be included with the regional fee: G11 (San Juan Road), G12 (San Miguel Canyon) and Salinas Road.
3. **South County Interchanges**: Staff recommends phasing these projects at 70% of the total project cost (see discussion below).
4. **US 101 / San Juan Road Interchange**: This project has been fully funded up to the regional fee threshold and was removed from the list of projects.
5. **Del Monte Corridor**: Improvements to Lighthouse Avenue were removed from this project and the cost was adjusted accordingly.

With these adjustments to the project list, the total cost of all projects is $820 million (consistent with the 2007 study total of $871 million). Of that amount, the draft regional fees would fund $118 million plus expenses for transit capacity and administrative costs, which brings the total to $129 million. This amount is less than the 2007 regional fee fund estimate of $216 million in revenues due to the aforementioned reduction in new vehicle trips.

At the May 22nd Transportation Agency Board meeting, staff presented the updated fee schedule in draft form with several scenario options. The City of Soledad requested additional time to meet with agency staff to discuss options for reducing the regional fees in the South County zone. Agency staff met with representatives from the Salinas Valley on May 28th and presented them with an alternative of phasing the US-101 interchange projects in their cities to address their concerns over the level of the updated regional fees.

By phasing the interchange projects to 70% of the total project costs, the baseline regional fees for the South County zone would remain the same as present levels. This proposal would not remove any projects from the fee program, allowing the program to continue to serve as mitigation, and maintain a consistent level of regional fees in the South County zone. After factoring in the credit that each city receives for overlap with their local fee programs, the regional fees for the South County zone would be lower with this proposal than present levels.

The cities met again on June 12th to discuss TAMC staff's proposal and indicated their support for the project phasing. The attached documents for approval related to the regional fee update take the project phasing for the US-101 interchange projects in the South County into account.

Approved by: _____ Date signed: _____
Debra L. Hale, Executive Director

Regular Agenda Counsel Review: N/A

Attachment: 1) Letters regarding the regional fees in the South County zone
2) Regional Development Impact Fee Improvement Projects List
3) Benefit Zone Cost Allocation for Fee Program Projects
4) Draft Fee Schedule by Land Use

REGIONAL IMPACT FEE NEXUS STUDY UDPATE -

Prepared for:

TRANSPORTATION AGENCY • FOR MONTEREY COUNTY •

Prepared by:

Kimley-Horn
and Associates, Inc.

March 26 2008

REGIONAL IMPACT FEE NEXUS STUDY UDPATE -

Prepared for:

Transportation Agency for Monterey County
55-B Plaza Circle
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Prepared by:

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March 26, 2008

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Executive Summary

In 2004, the Transportation Agency for Monterey County released the *Nexus Study for a Regional Development Impact Fee* which outlined a development fee program for Monterey County. The proposed development impact fee program was not implemented due to local concerns about its fairness as applied in different parts of the county. Therefore, in 2006, the Transportation Agency decided to update the development impact fee program to address these concerns, and engaged Kimley-Horn and Associates to conduct the update. A complete analysis was performed for the update, beginning with the new region-wide model, and culminating with the proposal of new development fees.

In order to determine future traffic conditions, the trips generated by future development, and to develop the program's project list, the Association of Monterey Bay Area Governments Travel Demand Model was run under several scenarios. The regional transportation model forecasts substantial traffic congestion in Monterey County. In order to address this forecast congestion, the program proposes over $1 billion of transportation improvements, spread over 17 identified projects, and an additional $10 million in transit capital improvements. The projects included in the program are:

- State Route 1 - Sand City / Seaside Widening
- State Route 68 – Community Hospital of Monterey Peninsula (CHOMP) Widening
- State Route 156 Widening
- Marina - Salinas Corridor Widening
- Del Monte - Lighthouse Corridor Improvements
- US Highway 101 - San Juan Road Interchange
- US Highway 101 - South County Frontage Roads
- Westside Bypass
- State Route 68 Commuter Improvements
- Harris Road / Eastside Connector
- County Road G-12 South Widening
- County Road G-12 North Widening
- US Highway 101 - Gloria Road Interchange
- US Highway 101 - South Soledad Interchange
- US Highway 101 – North Soledad Interchange
- US Highway 101 - Walnut Avenue Interchange
- US Highway 101 - King City Loop Road Extension

Many of these projects were previously included in the Regional Transportation Plan, local General Plans, or the Monterey County 14-Year Plan. The total cost of these projects is $1.18 billion.

The fee program itself seeks to raise over $328 million (in 2007 dollars) to compensate for future development's impact on Monterey County roads and fund the fair share portion of the $1 billion worth of improvements. This funding mechanism only represents a portion of the required funding for each of the proposed projects. The share of funding corresponding to existing traffic

and out-of county traffic is planned to come from other sources. With the proposed improvements, a number of major transportation links both in developed and undeveloped areas will experience lessened congestion and reduced travel time. These improvements by themselves won't solve the County's traffic issues, but they will allow for improved traffic flow throughout the County.

In addressing equity concerns, three scenarios of benefit zones were analyzed. The first scenario assumes one countywide zone in which all development throughout the county pays the same impact fee. The second scenario assumes five Monterey County zones: North County, Greater Salinas, Peninsula, South Coast, and South County. The third scenario assumes that the Peninsula and South Coast zones are combined for a total of four zones: North County, Greater Salinas, Peninsula-South Coast, and South County. Finally, the fourth scenario assumes aggregation of the above-mentioned five zones into three zones: North County-Greater Salinas, Peninsula-South Coast, and South County. For all scenarios, trips associated with vehicles traveling to and from outside of the county on project roads were removed from the calculations. The total fee is distributed over all new development in each zone. Generally, the zones with a greater fee apportioned are forecast to have greater future development. Therefore, the fees are dependent on the extent of benefits to each zone from the projects.

The countywide zone has a fee per trip of $459. The range of fees in the five zone scenario is from $184 per trip to $644 per trip. The range of fees in the four zone scenario is from $375 per trip to $644 per trip. These fees should be applied to all new development projects that cause an increase in trips compared to existing uses or are built on vacant parcels.

Using trip ends calculated by Institute of Transportation Engineers' trip generation rates with some adjustments, the share of total trips generated by each land use could be determined. Using this share, the total fee to be collected from each zone was distributed to each land use in each zone. The countywide zone yields a fee of $3,977 per residential unit. The five zone scenario yields a wide range of fees per zone, varying from $1,563 to $5,464 per residential unit. The four zone scenario yields a range of $3,154 to $5,464 per residential unit. The three zone scenario yields a narrower range of $3,154 to $4,608 per residential unit. These fee rates represent the fee per average residential dwelling. The fee per single family housing unit is slightly higher, while the fee per apartment or condo/townhouse is slightly less, relative to the Institute of Transportation Engineers trip generation rates for each of these housing types.

In order to receive input from the affected parties during the development of the study, the Transportation Agency established a Task Force comprised of key stakeholders including local government and business community members, which reviewed the fee program work, including the study area, noted deficiencies, proposed projects, and the proposed fee. Approximately seven meetings of this group were held at each key project milestone and as deliverables were completed to ensure transparency and receive feedback from member jurisdictions and developers on the work results throughout the update process. In addition to the Task Force, Transportation Agency staff regularly presented status reports and provided materials for review at the monthly meetings of the Transportation Agency's Technical Advisory Committee. Feedback received from these meetings, as well as from presentations made to City Councils,

builders' exchanges, and chambers of commerce, was discussed throughout the groups and helped to resolve issues early in the process.

In order to minimize the complexity of the program, Transportation Agency staff and the Task Force have recommended implementation of the four-zone scenario. The proposed fee structure recommended is shown in the table below:

Fees By Land Use for Four Zone Scenario

LAND USE DESIGNATION	NORTH COUNTY	GREATER SALINAS	PENINSULA / SOUTH COAST	SOUTH COUNTY
Residential Average (dwelling unit)	$5,464	$3,644	$3,154	$4,608
Single-Family	$6,167	$4,113	$3,586	$5,200
Apartment	$4,330	$2,888	$2,518	$3,652
Condo/Townhome	$3,776	$2,518	$2,196	$3,184
Multi-Family / Secondary Unit	$4,330	$2,888	$2,518	$3,652
Retail (1,000 Sq. Ft.)	$8,732	$5,824	$5,267	$7,364
Office / Government (1,000 Sq. Ft.)	$7,131	$4,756	$4,324	$6,014
General Office	$2,139	$1,427	$1,244	$1,804
Government Office	$780	$520	$453	$658
Industrial / Agriculture (1,000 Sq. Ft.)	$1,373	$915	$826	$1,157
Light Industrial	$4,491	$2,995	$2,612	$3,788
Heavy Industrial	$967	$645	$562	$815
Warehouse	$290	$193	$169	$245
Manufacturing	$2,462	$1,642	$1,431	$2,076
Lodging (room)				
Hotel	$5,265	$3,511	$3,061	$4,440
Motel	$3,628	$2,420	$2,110	$3,059
Fee per Trip	$644	$430	$375	$543

With implementation of this program and the collection of the fees outlined in this report, the impact of future development on regional roadways can be equitably addressed.

1. Introduction

In 2004, the Transportation Agency for Monterey County released the *Nexus Study for a Regional Development Impact Fee* which outlined a development fee program for Monterey County. The study was based on a 2025 horizon year and utilized the 1982 County of Monterey General Plan to develop model land use assumptions. The proposed development impact fee program was not implemented due to local concerns about its fairness as applied in different parts of the county. Therefore, in 2006, the Transportation Agency decided to update the development impact fee program to address these concerns, and engaged Kimley-Horn and Associates to conduct the update. A complete analysis was performed for the update, beginning with the new region-wide model, and culminating with the proposal of new development fees. Existing and forecast roadway deficiencies were determined, improvement projects were proposed and incorporated into the model, and the share of traffic from future development on each of these improved roads was calculated.

The Task Force, established by the Transportation Agency and comprised of key stakeholders including local government and business community members, reviewed the fee program work, including the study area, noted deficiencies, proposed projects, and the proposed fee. Approximately seven meetings of this group were held at each key project milestone and as deliverables were completed to ensure transparency and receive feedback from member jurisdictions and developers on the work results throughout the update process. In addition to the Task Force, Transportation Agency staff regularly presented status reports and provided materials for review at the monthly meetings of the Transportation Agency's Technical Advisory Committee. Feedback received from these meetings, as well as from presentations made to City Councils, builders' exchanges, and chambers of commerce, was discussed throughout the groups and helped to resolve issues early in the process.

The Regional Development Impact Fee program as a funding mechanism for regional transportation improvements only represents a portion of the required funding for each of the proposed projects. The program will raise money to account for future development's share of traffic on identified roads in Monterey County. The share of funding corresponding to existing traffic and out-of county traffic is planned to come from other sources.

In order to develop an equitable fee program, a scenario with four benefit zones within Monterey County was prepared. This allows larger fee amounts to be collected from the portions of the county reaping greater benefits from the proposed improvements. Therefore, development will not be paying for improvements from which it does not receive any benefit. In addition to the roadway improvements identified in the program, an additional fee is attributed to transit improvements. While this program does not identify specific transit improvements, the total fee to be collected is based on the Regional Transportation Plan and forecasted needs for the region. The fee is distributed to each of these benefit zones based on forecasted transit use in the region, ensuring equitable distribution of costs.

The regional transportation model forecasts substantial traffic congestion in Monterey County. Many major regional transportation links are forecast to become saturated with traffic. In order

to address this forecasted congestion, the program proposes over $1 billion of transportation improvements, spread over 16 identified projects, and an additional $10 million in transit improvements. The fee program itself seeks to raise over $328 million (in 2007 dollars) to compensate for future development's impact on Monterey County roads and fund the fair share portion of those $1 billion worth of improvements. With the proposed improvements, a number of major transportation links both in developed and undeveloped areas will experience lessened congestion and reduced travel time. These improvements by themselves won't solve the County's traffic issues, but they will allow for improved traffic flow throughout the County.

2. Methodology

2.1. Modeling

In order to determine future traffic conditions, the trips generated by future development, and to develop the program's project list, the Association of Monterey Bay Area Governments' Regional Travel Demand Model was run under several scenarios. The model was provided by the Association with the Year 2000 transportation network, Year 2000 land uses and Year 2030 land uses. The regional forecast Year 2030 network was provided as well but was not utilized for this study since it includes unfunded projects. The model includes a number of inputs for each link in the multi-county area, including number of lanes, free flow travel time, and roadway classification. Some of these Year 2000 inputs were observed to be not current with present roadway conditions based on recent aerial photography. Where noted, these inputs were adjusted to reflect existing conditions.

2.1.1. Model Validation

Current Validation Status

The Association of Monterey Bay Area Governments develops and maintains the Regional Travel Demand Model used in this analysis. The validated base year for the model represents the year 2000. The model is calibrated and produces traffic forecasts for daily, AM peak-hour and PM peak-hour conditions. According to the Association, the model was validated for daily conditions representing a 'typical weekday', which was conducted with countywide screen line counts. Association of Monterey Bay Area Governments staff is currently in the process of updating the model and indicated the results of the updated model will be released when available. Subsequent revisions of this Nexus Study will use the latest approved version of the Regional Travel Demand Model that is available.

Furthermore, the model is multi-modal, accounting for highway and local street links, as well as the transit network, in determining demand forecast volumes.

Summary of Fehr & Peers Evaluation of Model

The City of Salinas hired the firm of Fehr & Peers Associates to evaluate the Regional Travel Demand Model as part of a sub area analysis of the city's Future Growth Area. The Fehr & Peers review focused on conditions in and around the City of Salinas. Key findings of the Fehr & Peers review were:

- The base year (2000) model was validated to daily traffic conditions;
- Trip generation rates may under-predict traffic generation;
- The model is adequate for forecasting regional traffic volumes but under-predicts traffic on lower-order local streets.

Kimley-Horn & Associates Validation Review

Kimley-Horn & Associates performed a review of Average Annual Daily Volumes derived from the model. For the 2000 base year model, daily traffic volumes predicted by the model were compared with year 2000 traffic counts published by Caltrans. For purposes of checking the model for the *Fee Update*, only US-101 and state highway volumes were considered in the review. **Appendix Table B-1** compares Year 2000 Average Daily Traffic volumes generated by the Association of Monterey Bay Area Governments Regional Travel Demand Model with Year 2000 Average Daily Traffic volumes counted by Caltrans. Weighted by volume, the model predicted about 4.8% more traffic on state highways than was counted in 2000 by Caltrans. This represents a reasonable level of variance for the model as a whole.

To further evaluate the calibrated traffic model, a screenline analysis was undertaken. This analysis involves comparing the combined daily traffic of modeled versus observed traffic on all routes crossing each of the screenlines. **Figure 1** depicts the locations where screenlines were assessed, while **Table 1** identifies the roadway segments evaluated along with the analysis results.

As shown in the Table, the screenline model volumes are fairly close to the screenline Caltrans volumes. The difference for 5 of the 8 screenlines is less than 15%, and for none of the screenlines does the model differ from Caltrans counts more than 20.5%. For certain screenlines the model produces the higher traffic volume, for others Caltrans counts are higher. Therefore, it can be concluded that the model does not consistently exaggerate or discount volumes along the state highways.

Conclusion

The conclusion drawn from these reviews is that the model is appropriately validated for use in the *Fee Update* provided that the analysis is done using weekday daily traffic projections, given that the current peak hour model has not been validated.

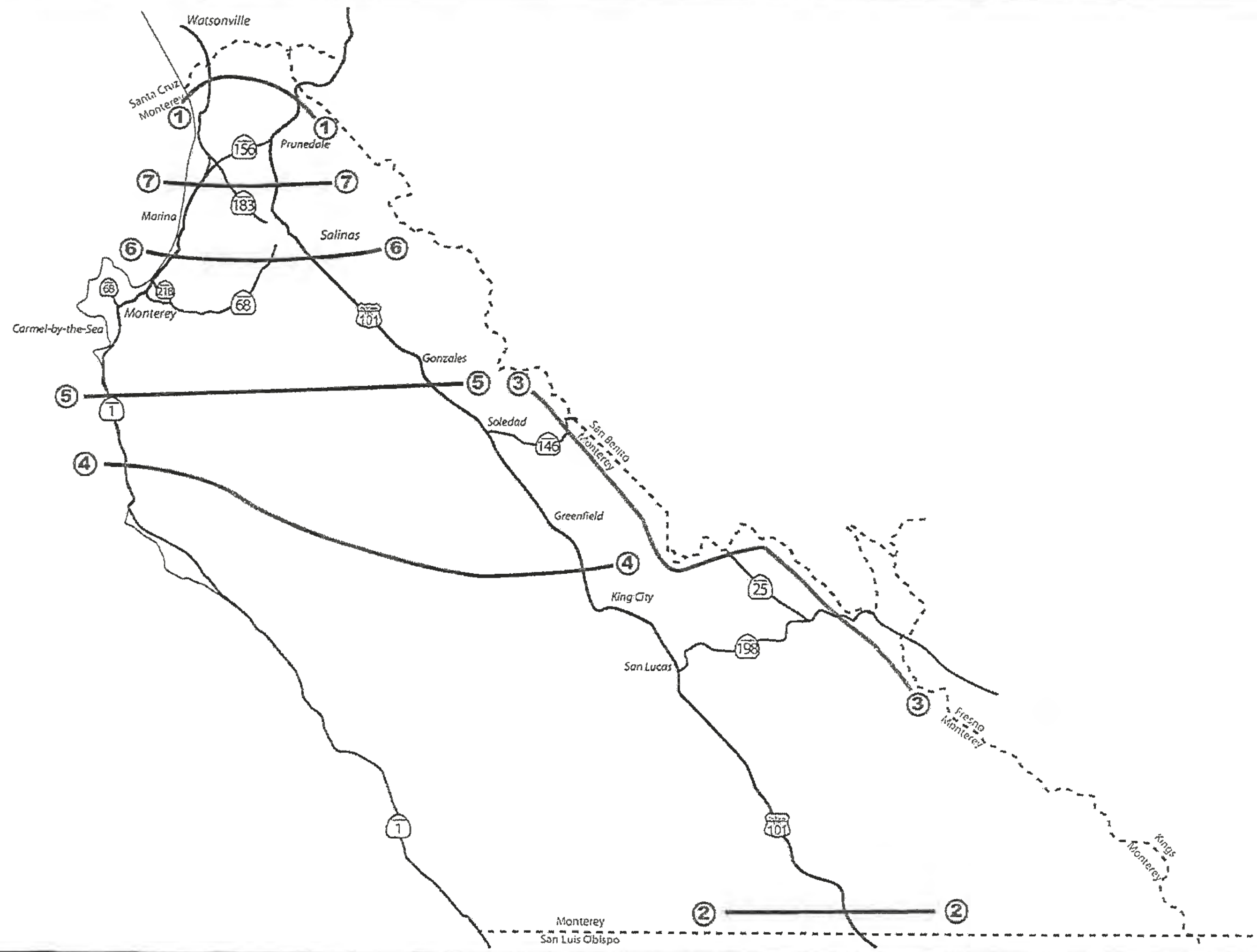
2.1.2. Model Runs

The following model runs were conducted using the provided Association of Monterey Bay Area Governments' Regional Travel Demand Model:

1) 2000 base year scenario (Year 2000 network and 2000 land uses);
2) 2030 No Project scenario (Year 2000 network and 2030 future land uses as projected by the Association of Monterey Bay Area Governments).

Once the project list was developed, the following additional model runs were conducted incorporating the Year 2000 network plus the program projects:

3) 2000 with Projects scenario (improved network and 2000 land uses);
4) 2030 with Projects scenario (improved network and 2030 future land uses as projected by the Association of Monterey Bay Area Governments).



Kimley-Horn and Associates, Inc.

FIGURE 1
Screenline Analysis Locations

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TABLE 1
SCREENLINE ANALYSIS

#/ROUTE	SEGMENT	YEAR 2000 ADT		DIFFERENCE (MODEL-COUNT)	
		MODEL	COUNT	ADT	%
1	**North County Line**				
US 101	County Border to Crazy Horse Canyon Rd	66,978	54,000		
SR-1	County Border to Salinas Rd	34,713	31,000		
	Total	101,691	85,000	16,691	19.6%
2	**South County Line**				
US 101	Bradley Rd to Bradley Rd (exit 245)	17,473	16,000	1,473	9.2%
3	**East County Line**				
SR-25	County Border to SR-198	206	350		
SR-146	County Road G-15 to Stonewall Canyon Rd	425	330		
SR-198	SR-25 to County Border	841	900		
	Total	1,472	1,580	-108	-6.8%
4	**Mid-County Line**				
US 101	Central Ave to Jolon Rd	17,392	23,300		
SR-1	Aurora del Mar to Garrapata Ridge Rd	5,992	6,100		
	Total	23,384	29,400	-6,016	-20.5%
5	**Carmel Highlands-Gonzales**				
US 101	S Alta St to Camphora Rd	29,260	30,000		
SR-1	Mal Paso Rd to Aurora del Mar	5,992	6,100		
	Total	35,252	36,100	-848	-2.3%
6	**Marinas-Salinas South**				
US 101	Spence Rd to Chualar Rd	40,587	40,500		
SR-68	Reservation Rd to Spreckels Blvd	28,686	32,000		
SR-1	Light Fighter Dr to Fremont Blvd	101,050	95,000		
	Total	170,323	167,500	2,823	1.7%
7	**Marina-Salinas North**				
US 101	Pesante Rd to Espinosa Rd	47,824	54,000		
SR-183	Espinosa Rd to Cooper Rd	14,060	17,000		
SR-1	SR-156 to Del Monte Blvd	59,191	39,000		
	Total	121,075	110,000	11,075	10.1%
County Cordon					
US 101	County Border to Crazy Horse Canyon Rd	66,978	54,000		
SR-1	County Border to Salinas Rd	34,713	31,000		
US 101	Bradley Rd to Bradley Rd (exit 245)	17,473	16,000		
SR-25	County Border to SR-198	206	350		
SR-146	County Road G-15 to Stonewall Canyon Rd	425	330		
SR-198	SR-25 to County Border	841	900		
	Total	120,636	102,580	18,056	17.6%

The 2000 with Project scenario run is strictly used to determine the share of traffic generated by future development. By analyzing what traffic would have been like on project improved roads with 2000 land uses, it is possible to isolate the traffic generated by future development from traffic generated by improved circulation patterns.

While the model runs discussed above provide the daily volume on each link in the model network, it does not indicate the origin or destination of those volumes. The origin and destination of trips on project roadways is the key information in determining zonal fee contributions. Therefore, select link runs were also conducted for each of the improved projects. The select link runs indicate the start and end location of each trip on a specific roadway or selection of multiple roadways. For the purposes of this study, the origin/destination location for each trip on a specific roadway was aggregated into the specified benefit zones. The select link model runs were conducted on the improved roadway network using both Year 2000 and Year 2030 land uses. Since the origin and destination pattern for each project roadway is unique, one set of select link model runs was conducted for each of the different fee program projects.

2.2. Deficiency Analysis

The deficiency analysis was based on a link level volume to capacity ratio. Link capacities are based on daily volume level of service thresholds published in the Florida Department of Transportation Quality/Level of Service Handbook. The Florida Department of Transportation capacities were derived based on methods in the Highway Capacity Manual (Transportation Research Board Special Report 209). The level of service thresholds used in this analysis are included in **Appendix A**. The classification of each study area roadway segment was based on the Association of Monterey Bay Area Governments' model and aerial photographs.

Caltrans has identified a level of service objective of C/D (i.e. on the "cusp" or threshold between level of service C and D), while the Transportation Agency and Monterey County have adopted a level of service standard of D. For purposes of this analysis, deficiencies are identified as those facilities operating at level of service E or worse.

2.3. New Development Share of Fee Calculation Methodology

Since the fee program would not be implemented until 2008, it is necessary to project conditions for this time frame in order to avoid over-estimating the amount of development that will occur between now and 2030, namely taking into account development which occurred from the Year 2000 through the Year 2007 that will not subject to the development impact fee.

This section identifies the means for projecting the Baseline Traffic Conditions for the fee program.

2.3.1. Baseline (Year 2007) Traffic Volumes

Based on a comparison of roadway daily traffic projections from the Association of Monterey Bay Area Governments Regional Travel Demand Model for the Year 2000 and the Year 2030 conditions, the growth rate in traffic volumes assigned to study area facilities was computed to be 42.5%. This equates to an annualize growth rate of 1.2% for all facilities. Since the traffic growth varies by facility, the following computation was made to determine Year 2007 (Baseline) Traffic on each facility:

$$2007\ Volume = 2000\ Volume + \frac{7\ years}{30\ years} * (2030\ Volume - 2000\ Volume)$$

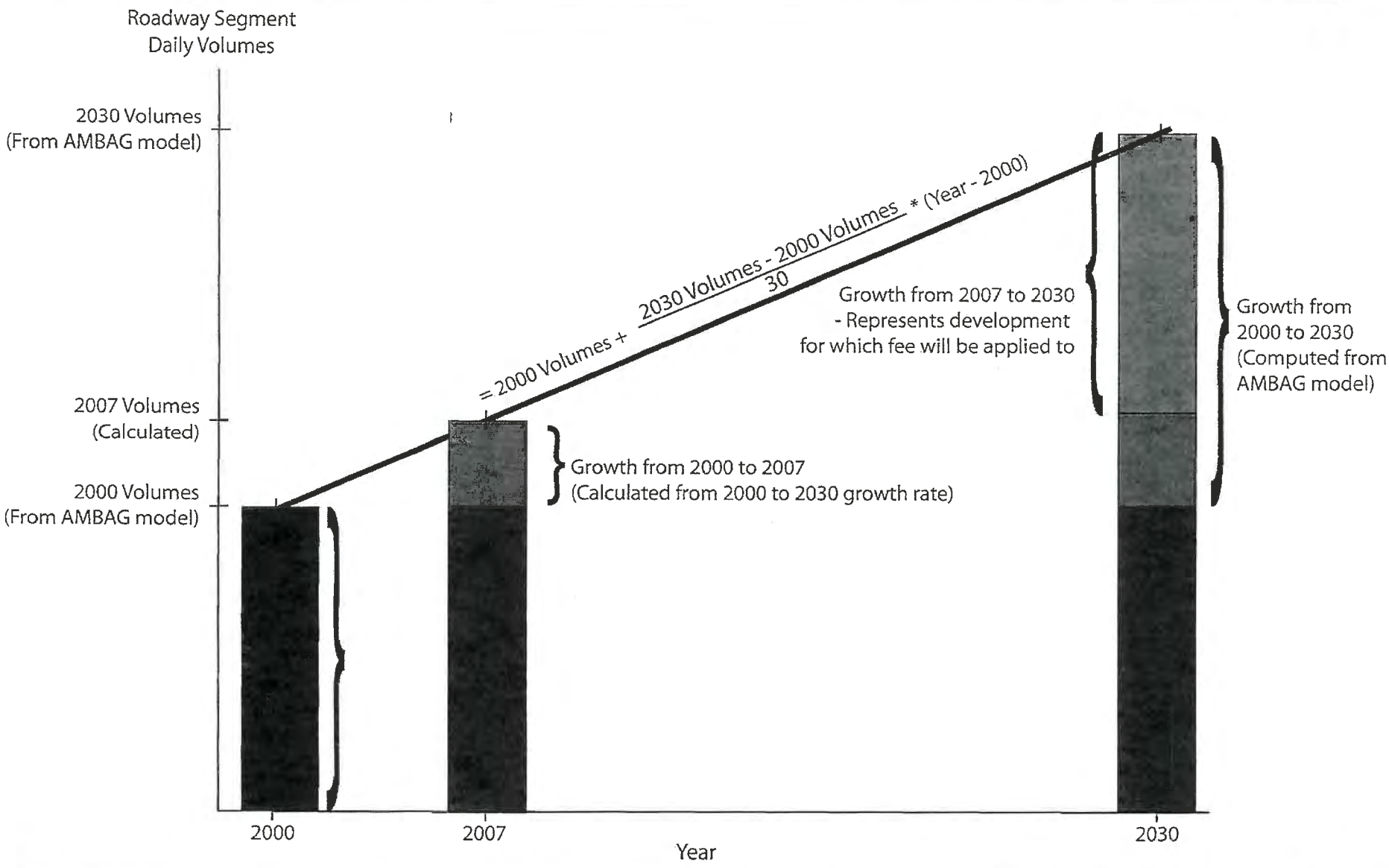
This computation is graphically depicted in **Figure 2.**

2.3.2. Baseline (Year 2007) Trip Generation

According to the Regional Travel Demand Model, a total trip generation of approximately 2,101,000 trip ends per day in the Year 2000 and 3,021,700 trip ends per day in the Year 2030 have been assumed/projected for Monterey County. This results in a trip generation growth of 43.8%, annualized to 1.2% per year. Thus, as anticipated, trip generation growth from the model closely matches the growth in traffic volumes on study area roadways. Applying this annualized growth rate over the seven year period, from 2000 to 2007, results in a 2007 total county trip generation estimate of 2,287,000 trip ends per day. Thus, between 2007 and 2030, it is assumed that new development will generate 734,700 new trip ends in the County of Monterey.

2.3.3. Validation of Growth Assumptions

A comparison of model projected growth was made to measured growth on facilities in the study area. Caltrans traffic counts for state routes in Monterey County were compared for the Years 2000 and 2005 (years where data was readily available). Based on this comparison, the overall growth in traffic was computed to be 6.0% (averaging all volumes recorded). By way of comparison, a five year projection of traffic volumes based on the Regional Travel Demand Model assigned traffic would result in a 6.2% increase in traffic between the Year 2000 and the Year 2005. This indicates that the interpolation of traffic volumes produces volumes similar to actual Year 2007 traffic conditions. In addition, since the modeled growth is slightly higher than the observed growth, we would not be over-estimating the amount of development yet to be built and eligible for fee assessments. **Appendix Table B-2** details highway Average Daily Traffic growth between Year 2000 and Year 2005, according to Caltrans counts.



Kimley-Horn and Associates, Inc.

FIGURE 2
Volume Growth Calculation Methodology

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2.3.4. Application of Baseline Traffic and Trips to Fee Computations

In order to equitably identify the proportion of improvement costs to be paid for by new development, the following formula will be applied:

$$\textit{New Development Share} = \textit{Cost of Improvement} * \frac{\textit{(2030 volume – 2007 volume)}}{\textit{2030 volume}}$$

This computation would be made for each improvement identified in the fee program.

2.4. Fee Calculation Methodology

2.4.1. Transit and Administration Fee Component

The 2004 Nexus Study based the fee program's transit fee component on the roadway volume distribution for the proposed projects. For this *Fee Update,* it was determined more logical to select a transit fee amount that the program should raise, based on regional transit needs, and then distribute that fee to each of the benefit zones based on their relative transit usage. For example, the vast majority of transit trips in Monterey County are taken in either Greater Salinas or the Peninsula, and therefore the fee was applied primarily to these two areas. The exact calculation of the transit share is the total transit trips forecast to be taken in each zone divided by the total transit trips forecast to be taken in Monterey County. The 2030 Regional Travel Demand Model was used in this determination, the results of which are shown in **Table 2**. For the total fee to be collected by the program for transit, $10 million was selected. The prior study proposed to collect a little over $6 million in transit fees. The amount to be collected by the program should be designated towards capacity-enhancing capital projects, as it cannot be used to offset operating costs.

Appendix D provides a listing of long- and short-term unfunded transit capital projects identified by Monterey-Salinas Transit for development over a 20-year planning horizon, with 2008 as the base year. Regional Development Impact Fees 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, the Transportation Agency prefers increasing transit service related to congested corridors on the regional transportation system, particularly where Bus Rapid Transit service is being considered along Lighthouse Avenue, Davis Road, and the Monterey Branch Line.

In addition to the transit fee, a one percent administrative fee, as incorporated into the 2004 fee program, was added to the total amount of the program. This administrative fee includes the cost required for future updates to the program.

TABLE 2
TRANSIT TRIPS BY ZONE

ZONE	TRANSIT TRIPS	TOTAL MOTORIZED PERSON TRIPS	% OF MOTORIZED TRIPS BY TRANSIT	RELATIVE SHARE OF COUNTY TRANSIT TRIPS
Scenario 2: 5 Monterey County Zones				
1	1,261	260,132	0.48%	2.6%
2	22,923	1,779,380	1.29%	48.0%
3	22,468	1,360,186	1.65%	47.1%
4	599	200,665	0.30%	1.3%
5	490	633,845	0.08%	1.0%
Total	47,741	4,234,207	1.13%	100.0%
Scenario 3: 4 Monterey County Zones				
1	1,261	260,132	0.48%	2.6%
2	22,923	1,779,380	1.29%	48.0%
3	23,067	1,560,851	1.48%	48.3%
4	490	633,845	0.08%	1.0%
Total	47,741	4,234,207	1.13%	100.0%
Scenario 4: 3 Monterey County Zones				
1	24,184	2,039,511	1.19%	50.7%
2	23,067	1,560,851	1.48%	48.3%
3	490	633,845	0.08%	1.0%
Total	47,741	4,234,207	1.13%	100.0%

2.4.2. Fee by Land Use

A number of steps were completed in order to convert the model output and project list into a fee by land use. These steps, discussed below, are also illustrated in **Figure 3**.

Future development in the county by zone was obtained from the Regional Travel Demand Model. The model contains 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. In order to convert land uses to trips, Institute of Transportation Engineers' trip rates were used. Representative land uses were selected for each of the land use categories. For households, a blend of single-family, apartment, and condominium rates were used. The blend was based on economic data provided by Applied Development Economics. This provided the total daily trip ends generated by each land use category for each benefit zone. The total number of trip ends obtained using the Institute of Transportation Engineers methodology was similar to the total trip ends forecast to be generated in Monterey County by the Regional Travel Demand Model. Model trips and Institute of Transportation Engineers' trips are not quite the same, since they are based on different factors with different land use categories. The benefit of using Institute of Transportation Engineers trips in determining the fee is that they can be applied to a wide variety of land uses and aren't dependent on vehicle ownership or income level, factors that aren't known for planned developments.

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. Many retail trips are linked trips or are diverted trips between home and work or home and school. Furthermore, these trips are also frequently not on regional roadways, instead affecting local or community streets. Therefore, many retail trips aren't impacting roadways within the fee program's study area. This reduction in trips will not affect the total amount collected by the program, but rather serves to reduce the retail component of the fee program.

Using the trip ends calculated by Institute of Transportation Engineers' trip generation rates and adjusted as described above, the share of total trips generated by each land use could be determined. Using this share, the total fee to be collected from each zone was distributed to each land use in each zone. The fee by zone by land use is then divided by the number of units of each land use in each zone to arrive at a unit fee. The units for non-residential land uses are in employees, since that is the unit for land use data provided by the model. The fee per employee is converted into a fee per thousand square feet (ksf) using conversion factors provided by Applied Development Economics and based on research conducted in Monterey County. These calculations are repeated for each scenario and provide a fee per residential unit or per ksf.

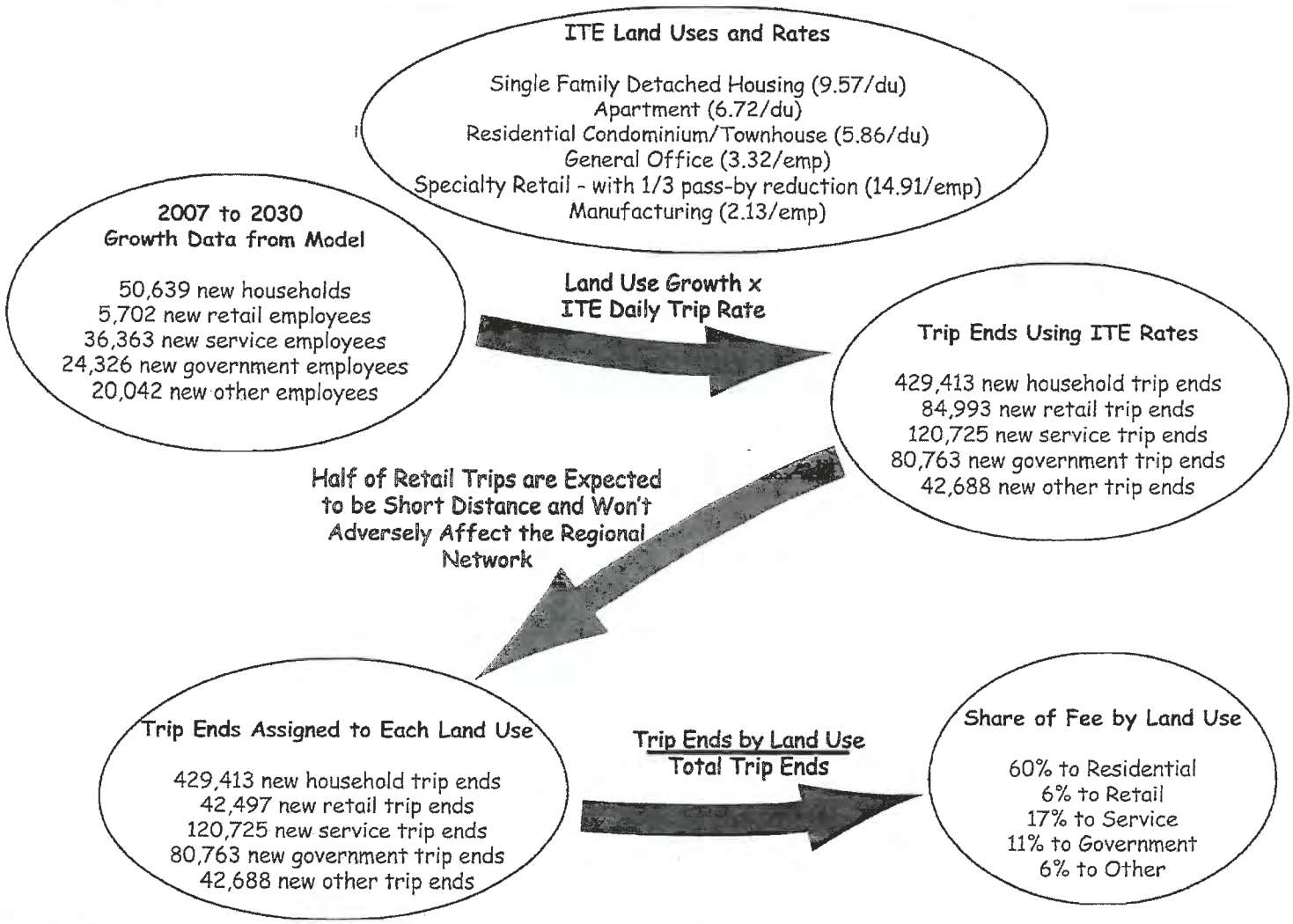

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FIGURE 3

Fee Calculation Process

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2.5. Fort Ord Reuse Authority

The Ford Ord Reuse Authority area is located within the Peninsula benefit zone in Monterey County. **Appendix Figure E-1** shows the location of the Authority. The figure is excerpted from the *Ford Ord Reuse Plan Volume I: Context and Framework (EMC Planning Group Inc. and EDAW Inc., Adopted June 13, 1997).* The Fort Ord Reuse Authority area contains numerous development proposals that will impact the regional road system. Development associated with the Authority is included in the Regional Travel Demand Model and in the forecast development and trip generation of the Peninsula benefit zone under this Nexus Study Update. The Fort Ord Reuse Authority has implemented separate development impact fees for traffic mitigation that include improvements to the regional roadway system. The traffic impact fee attributable to regional trips currently assessed by the Authority is approximately $7,000 per residential dwelling unit, which is substantially greater than the fee determined by this study and tabulated in a later section of this report. Because development in the Fort Ord Reuse Authority area is already paying for regional mitigation, it is the position of the Transportation Agency that no additional fee need be applied to this development. Also, since traffic in the Fort Ord Reuse Authority area is included in the Peninsula trip generation, the total fee applied to the Peninsula zone is spread over trips associated with the Authority area, as well as trips associated with other new development. Consequently, new development outside of the Fort Ord Reuse Authority area would not be paying for impacts associated with traffic originating inside the area.

3. Study Area

It was assumed the *Regional Impact Fee Nexus Study Update* will use the regional transportation network set forth in the *Nexus Study for Regional Development Impact Fee – Final Report* (DKS Associates, May 14, 2004) with some refinements. **Figures 4** and **5** illustrate the transportation network analyzed in this fee update, also listed below.

3.1. Regional Roadways:

- US Highway 101
- State Route 1
- State Route 25
- State Route 68
- State Route 146
- State Route 156
- State Route 183
- State Route 198
- State Route 218 (Canyon del Rey Blvd)
- County Road G11 (San Juan Road)
- County Road G12 (Hall Road/San Miguel Canyon Road)
- County Road G16 (Carmel Valley Road)
- County Road G17 (Reservation Road)
- County Road G20 (Laureles Grade Road)

3.2. Local Roadways:

City of Monterey

- Foam Street – Lighthouse Avenue to the Monterey/Pacific Grove City limit
- Lighthouse Avenue – Monterey/Pacific Grove City limit to Washington Street
- Del Monte Avenue – Washington Street to Monterey/Seaside City limit
- Fremont Street – Abrego Street to Camino Aguajito
- Munras Avenue/Abrego Street– from Fremont Street to Via Zaragoza

City of Seaside

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

City of Marina

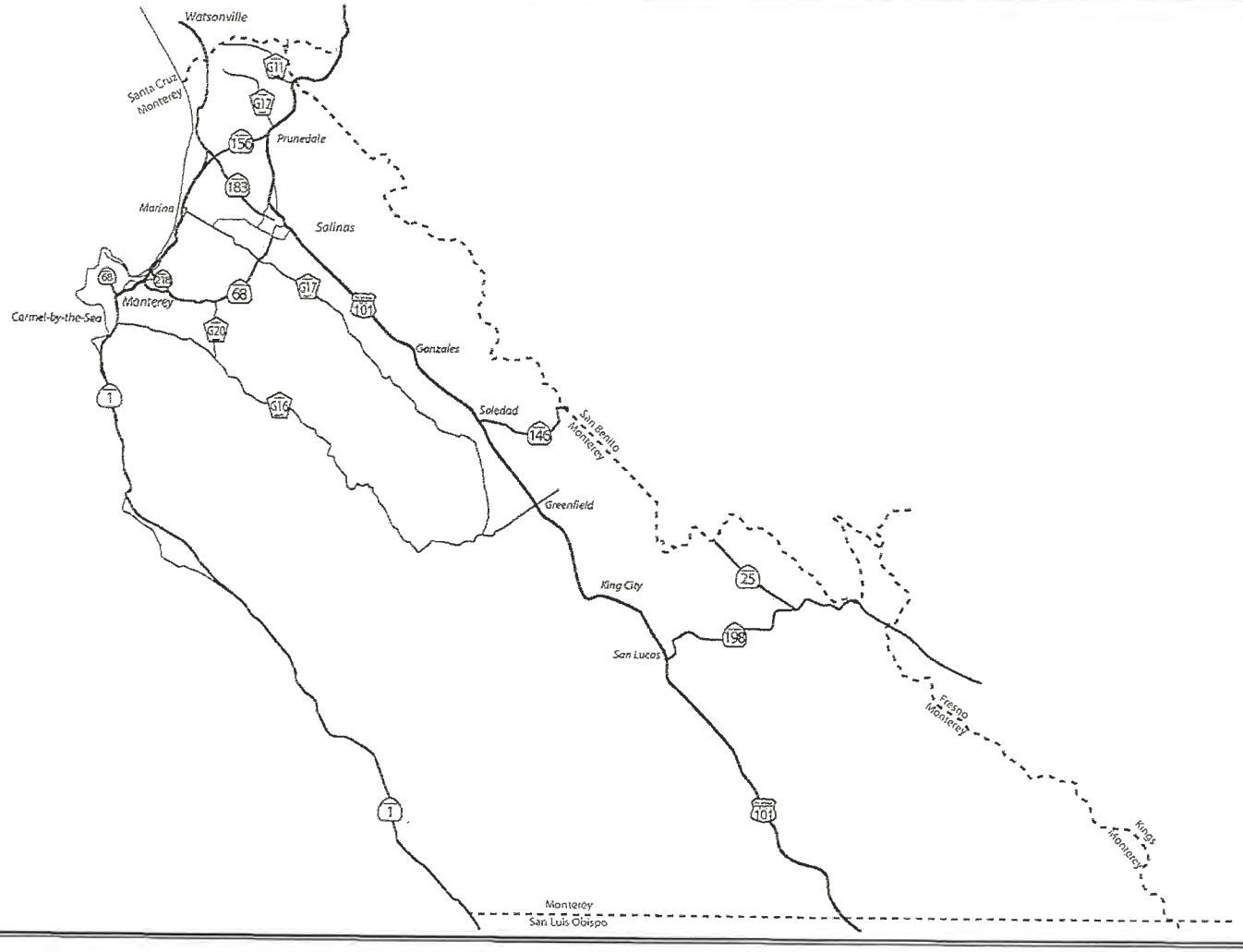
- Del Monte Boulevard – Highway 1 to Reservation Road

City of Salinas

- Sanborn Road – Blanco Circle to Highway 101
- North Main Street – E Bernal Drive to E Boronda Road
- East Boronda Road – North Main Street to Highway 101
- South Main Street – from E Blanco Road to John Street (State Highway)
- John Street – from S Main Street to Highway 101 (State Highway)
- Market Street – from Davis Road to N Main Street (State Highway)

Multiple Jurisdictions

- North Fremont Street – Highway 68 overcrossing to Highway 218 within boundaries of Cities of Monterey and Seaside
- Davis Road – W Laurel Drive to W Blanco Road within boundaries of City of Salinas and Monterey County unincorporated area
- Blanco Road – Reservation Road to Blanco Circle within boundaries of City of Salinas and Monterey County unincorporated area



Kimley-Horn and Associates, Inc.

FIGURE 4
Monterey County Regional Transportation Roadways

vicinity map monterey.ai

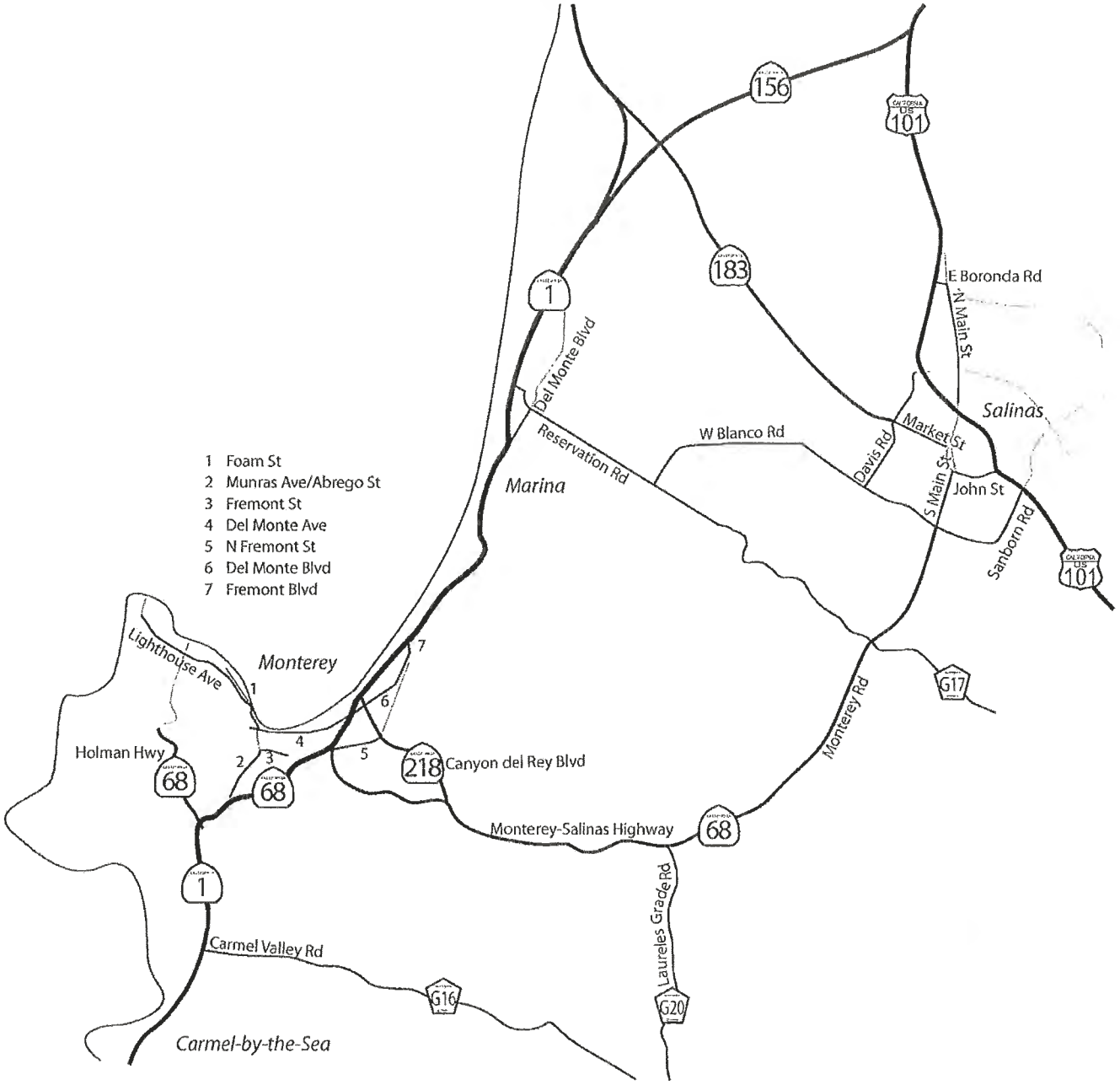


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FIGURE 5

Monterey-Salinas Area Regional Transportation Roadways

097968000/Figures/base north monterey.ai

4. Regional Deficiencies

4.1. Baseline Forecast

Baseline forecasts were prepared to establish existing (2000) and future (2030) deficiencies within the regional network without implementation of transportation improvements.

The deficiency analysis evaluates the following scenarios:

4.1.1. Year 2000 Deficiencies

Figures 6 and 7 graphically present Year 2000 level of service information for each segment in the study area. **Appendix Table C-1** lists Year 2000 average daily traffic volumes, roadway capacity, volume to capacity ratio and resulting level of service for each roadway segment included in the *Fee Update.*

4.1.2. Year 2030 No Project Deficiencies

Figures 8 and 9 graphically present Year 2030 level of service information for each segment in the study area. **Appendix Table C-2** lists Year 2030 average daily traffic volumes, roadway capacity, volume to capacity ratio and resulting level of service for each roadway segment included in the *Fee Update.* Generally, Year 2030 conditions indicate a substantial increase in traffic volumes and a significant increase in volume to capacity ratio over Year 2000.

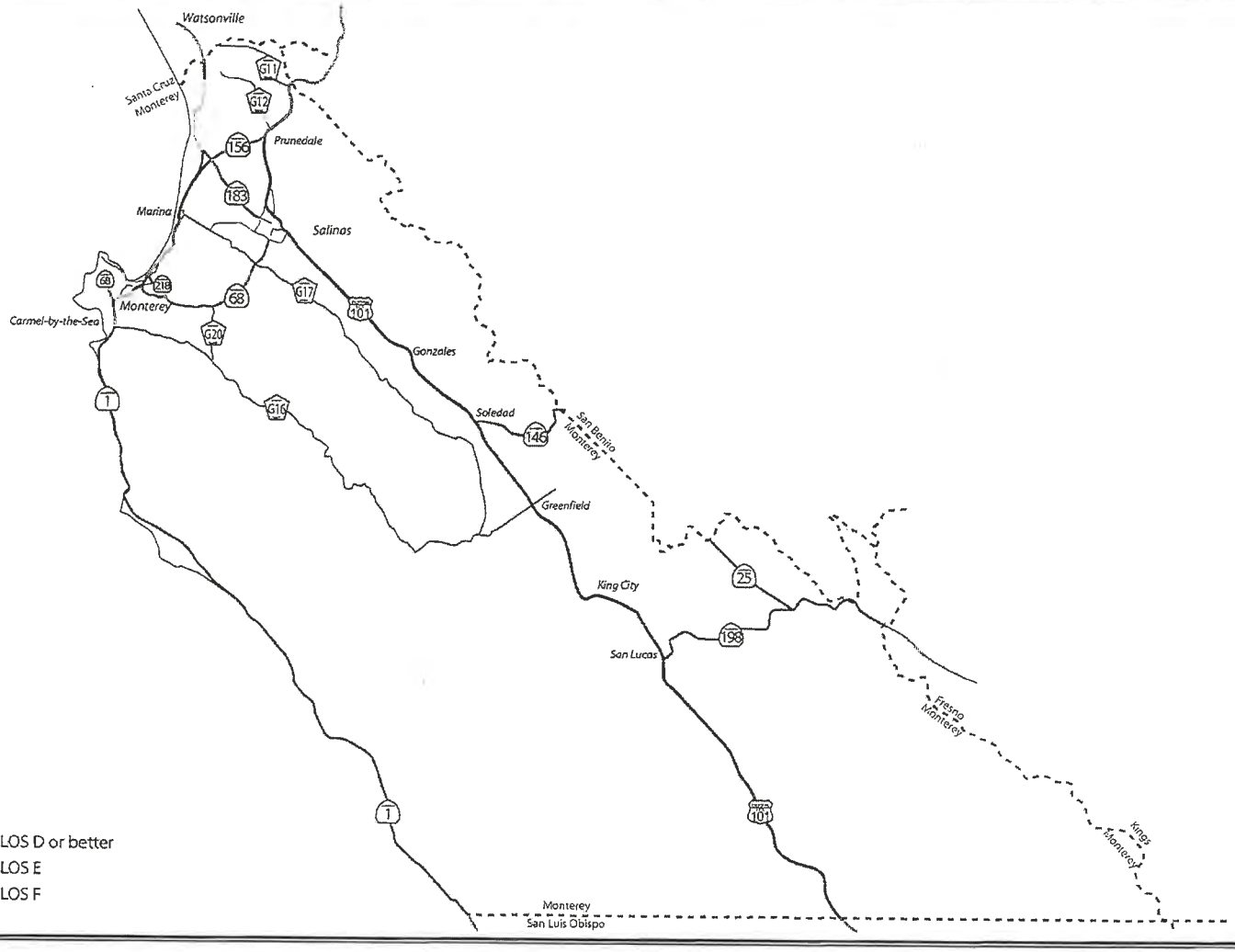

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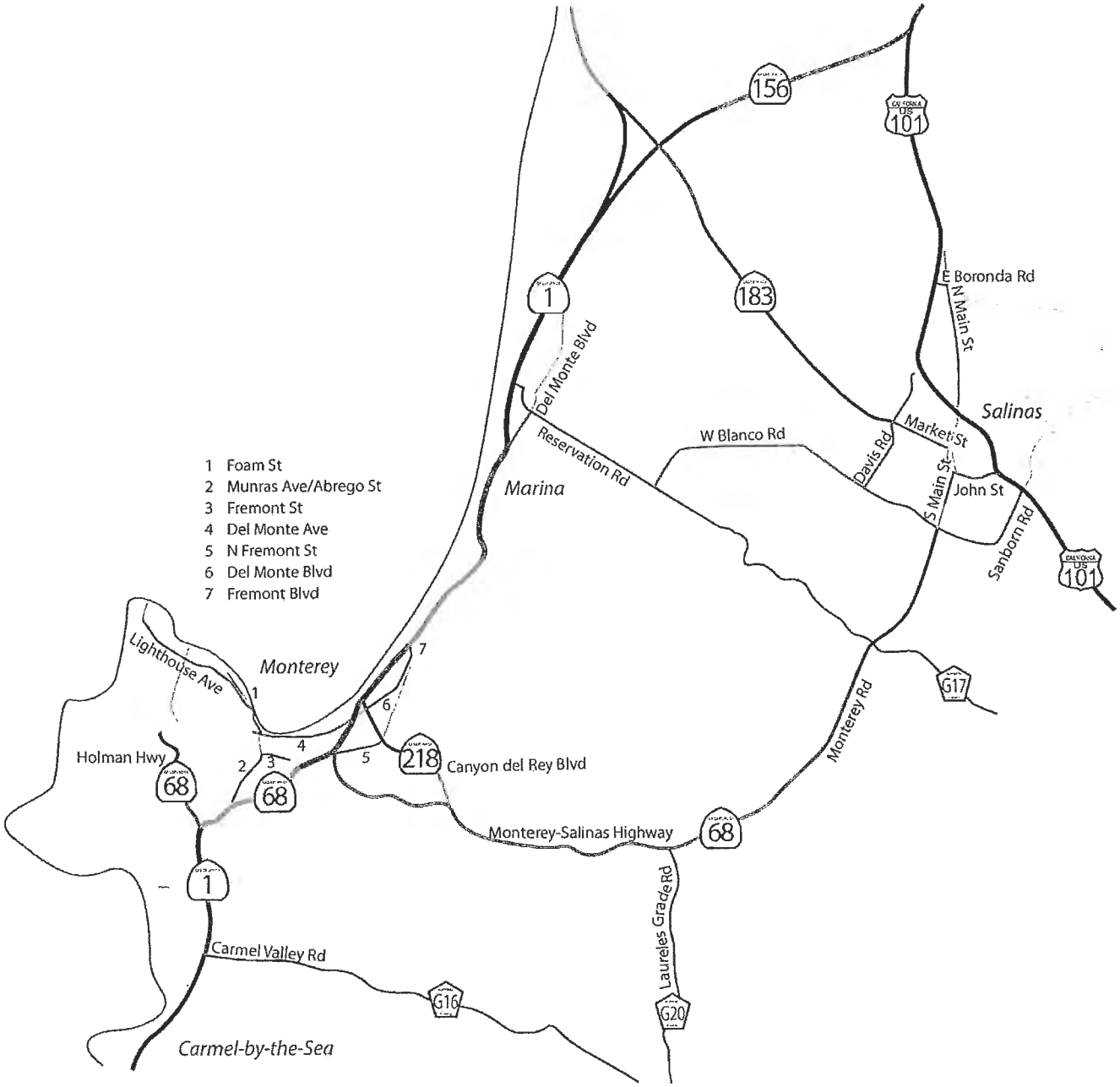
FIGURE 6

Monterey County Year 2000 AMBAG Model Level of Service

097968002/Figures/2000 LOS County.pl



Legend:

- Roadway segment operating at LOS D or better
- Roadway segment operating at LOS E
- Roadway segment operating at LOS F

NOT TO SCALE

Kimley-Horn and Associates, Inc.

FIGURE 7

North Monterey County Year 2000 AMBAG Model Level of Service

097968000/Figures/2000 LOS N County.ai

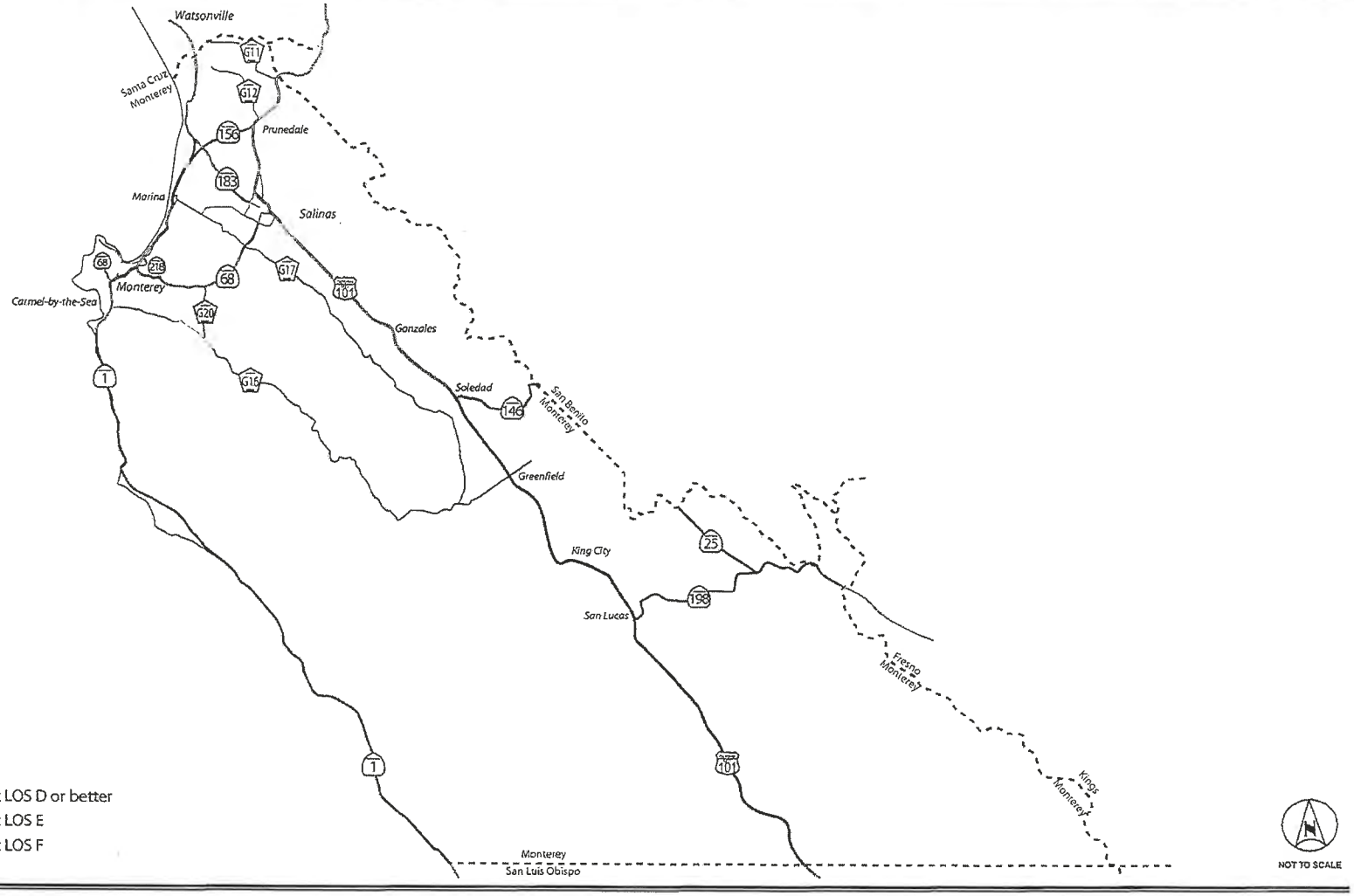


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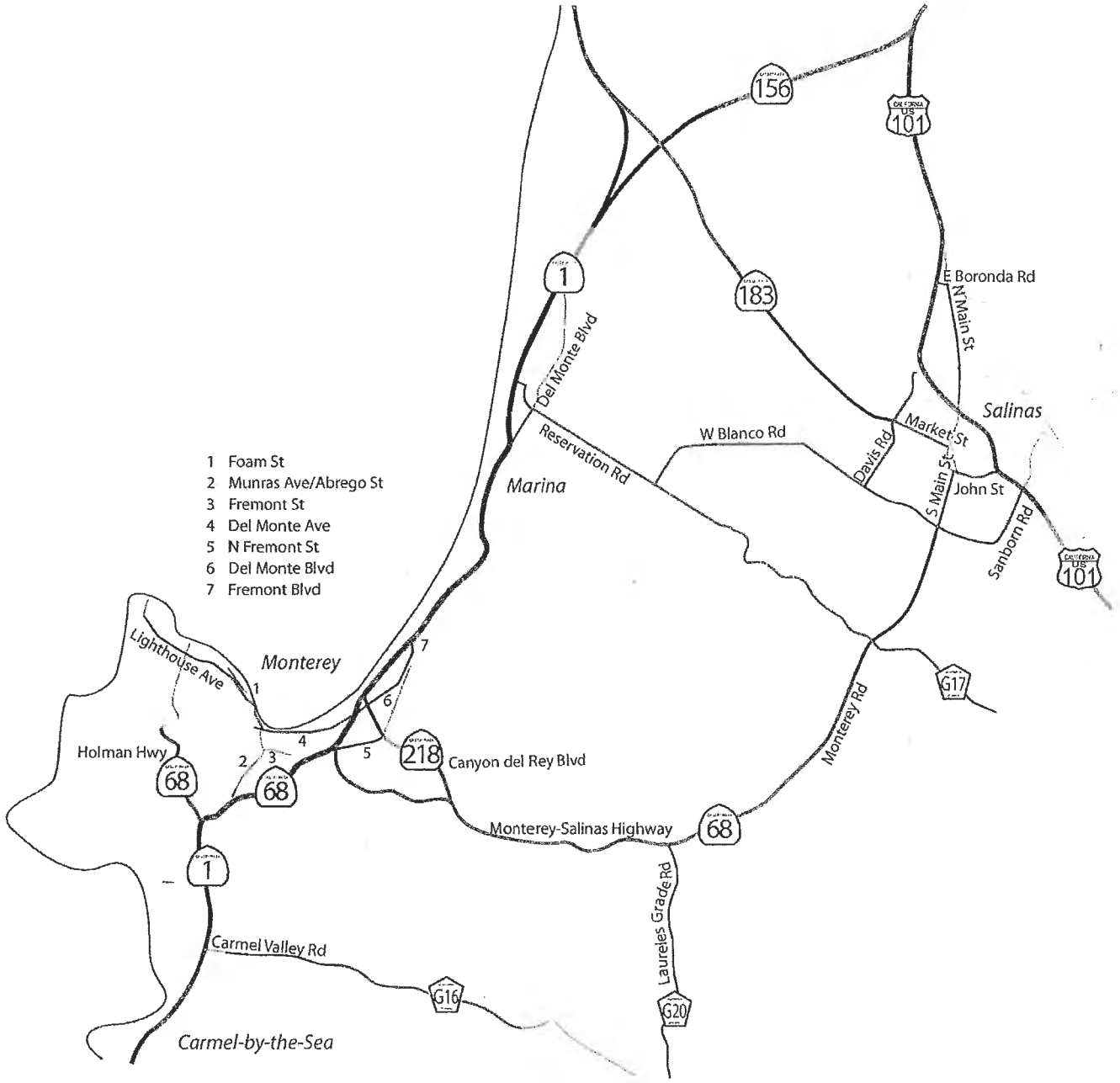
FIGURE 8

Monterey County Year 2030 AMBAG Model Level of Service

097966000/Figures/2030 LOS County.ai



Legend:

- Roadway segment operating at LOS D or better
- Roadway segment operating at LOS E
- Roadway segment operating at LOS F

NOT TO SCALE

Kimley-Horn and Associates, Inc.

FIGURE 9

North Monterey County Year 2030 AMBAG Model Level of Service

097968000/Figures/2030 LOS N County.ai

5. Fee Program Projects

Based on input from Transportation Agency staff and the Task Force, a list of seventeen fee program projects was developed. The list of projects is attached as **Table 3**. Many of these projects were previously included in the Regional Transportation Plan, local General Plans, or the Monterey County 14-Year Plan. The total cost of these projects is $1.15 billion. These projects include some new roadways, such as the Westside Bypass and Eastside Connector, widening of existing roadways, such as State Route 156, State Route 68, County Road G-12, and other capacity enhancing measures, such as the US Highway 101 - San Juan Road interchange. The locations and descriptions of each of the seventeen fee program projects are shown on **Figures 10** and **11**. Figure 10 depicts the county as a whole, while Figure 11 shows the Monterey-Salinas area projects only.

Table 4 lists each of the segments that were significantly affected by each of the fee program projects, comparing operations of each segment in the Year 2030 land use baseline model, and the Year 2030 land use model with the fee program projects included. In some cases a specific roadway project affected parallel or intersecting routes as well as the new or improved roadway, and where this occurred, those routes were included in the table. As can be seen by the table, many of the projects did not improve segment level of service on benefiting roadways to an acceptable level, but they did decrease the volume to capacity ratio, in some cases to a significant degree. One exception is the Del Monte-Lighthouse Corridor Improvements project, which actually increased the volume to capacity ratio on Foam Street and Lighthouse Avenue. This is due to the provision of a dedicated transit lane on each of these streets, reducing vehicular capacity on Lighthouse Avenue. Therefore, the projects' effects cannot be fully evaluated by looking at vehicular volume to capacity ratio alone. In some cases the widening of roadway links caused an increase in the volume to capacity ratio of adjacent un-widened links due to an increase in traffic resulting from the reduced travel time associated with the project. Since Projects 13 through 17 are geometric interchange improvements, no roadway level of service or volume to capacity ratio could be calculated, therefore, they are not included in the table.

The percentage of future traffic on each improved or impacted roadway was determined by placing Year 2000 land uses and Year 2030 land uses on the improved roadway network in the traffic forecasting model. The difference in the traffic volume on each roadway between the two model runs is solely attributed to the effects of future development. As discussed in the methodology section, by dividing the Year 2007 to Year 2030 traffic volume growth by the Year 2030 forecast Average Daily Traffic, the percentage of Year 2030 traffic from future growth for each roadway segment could be calculated. In order to determine the fee for each project that should be allocated to future development, the share of traffic from future growth for each segment improved or impacted by the project was averaged. This percentage is shown in bold on the same line as the name of the project in **Table 5**.

TABLE 3
REGIONAL DEVELOPMENT IMPACT FEE
PROJECT LIST

#	Projects	Cost	Location	Description
1	SR 1 - Sand City / Seaside Widening	$ 53,000,000	Highway 1 (Seaside – Sand City)	Widen Highway 1 to six lanes from Fremont Ave to at least Canyon Del Rey and make interchange and related local road improvements in the vicinity of Canyon Del Rey and Fremont Avenues.
2	SR 68 - CHOMP Widening	$ 25,000,000	Between Highway 1 and Community Hospital	Widen Holman Highway 68 from CHOMP to Hwy 1 to 4 lanes and make operational improvements at the Hwy 68 – Hwy 1 Interchange.
3	SR 156 Widening	$ 310,000,000	Castroville Blvd to the 156/101 Interchange	Widen existing highway to 4 lanes and upgrade highway to Freeway status with Interchanges. Interchange modification at US 156 and 101.
4	Marina - Salinas Corridor	$ 85,000,000	Between Marina and Salinas	Widen Davis Rd to 4 lanes from Blanco Rd to Reservation Rd, Widen Reservation Rd to 4 lanes from Davis Rd to existing 4 lane section adjacent to East Garrison, Widen Imjin Pkwy to 4 lanes from Reservation Rd to Imjin Rd, reconstruct 12th St interchange.
5	Del Monte - Lighthouse Corridor Improvements	$ 60,000,000	City of Monterey	Add eastbound lane from El Estero to Sloat Ave. Intersection upgrages to Sloat Ave and Aguajito Ave with addition of left turn lanes and signal operations improvements. Widen Lighthouse Ave to 3 lanes (2 lanes for traffic, 1 lane for transit) and convert to 1-way heading east. Widen Foam St to 3 lanes from the Lighthouse split to Drake Ave. Widen Hoffman to 2 lanes from Foam to Lighthouse and make 1-way from Foam towards Lighthouse. At David Ave/Lighthouse interchange, add double left-turn onto Lighthouse. Add return lane on west-side of Lighthouse/Foam split onto Foam.
6	US 101 - San Juan Road Interchange	$ 74,000,000	Counties of Monterey and San Benito	Remove 3 at-grade intersections (Dunbarton Road, San Juan Road and Cole Road) and construct one interchange near the Red Barn.
7	US 101 - South County	$ 126,000,000	US 101 north of Soledad	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. Const
8	Westside Bypass	$ 99,000,000	City of Salinas	Construct 4-lane westside bypass around Salinas from Boranda to Davis Rd, including 4-lane Rossi St connector. Includes widening of Davis to 4 lanes from bypass connection to W Blanco Rd.
9	SR 68 Commuter Improvements	$ 24,000,000	Rte 68 between Monterey and Salinas	Widen SR 68 from existing 4 lane section adjacent to Toro park west to Corral De Tierra.
10	Harris Road / Eastside Connector	$ 114,000,000	City of Salinas	Construct 4-lane arterial from US 101 to Williams Road and an interchange at Harris Rd / US 101.
11	G-12 South	$ 8,000,000	Unincorporated Monterey County	Widen San Miguel Cyn Rd to four lanes from just south of Moro Rd through Castroville Blvd. Add climbing lane on southbound San Miguel Cyn Rd just north of Strawberry Rd. Add two-way left-turn lane on San Miguel Cyn Rd between Castroville Blvd and Echo Valley Rd. Add a traffic signal at Echo Valley Rd.
12	G-12 North	$ 40,000,000	Unincorporated Monterey County	Add a two-way left-turn lane on Hall Rd between San Miguel Cyn Rd and Elkhorn Rd. Widen Elkhorn Rd to four lanes from Hall Rd to Werner Rd.
13	Gloria Rd / US 101 Interchange	$ 37,101,000	Gonzales	Re-align and reconstruct the Gloria Road / US 101 interchange. A Project Study Report is currently underway.
14A	US-101 / South Soledad Interchange	$ 18,810,413	South Soledad	Modify South Soledad Interchange and construct related ramp improvements to accommodate future widening of US-101 to six lanes as well as the planned SR-146 Bypass from Front Street to Metz Road.
14B	US-101 / North Soledad Interchange	$ 17,490,970	North Soledad	Modify North Soledad Interchange and construct related ramp improvements to accommodate future widening of US-101.
15	Walnut Ave / US 101 Interchange	$ 45,460,000	Greenfield	Relocate and replace the existing Walnut Avenue / US 101 interchange. Cost estimate assumes selection of Alternative 3 from the Project Study Report currently being prepared.
16	First Street / US 101 Interchange	$ 40,000,000	King City	Extension and grade separation over railroad tracks of San Antonio Drive from Lonoak Road to interchange of First Street and US 101.

Source: Transportation Agency for Monterey County

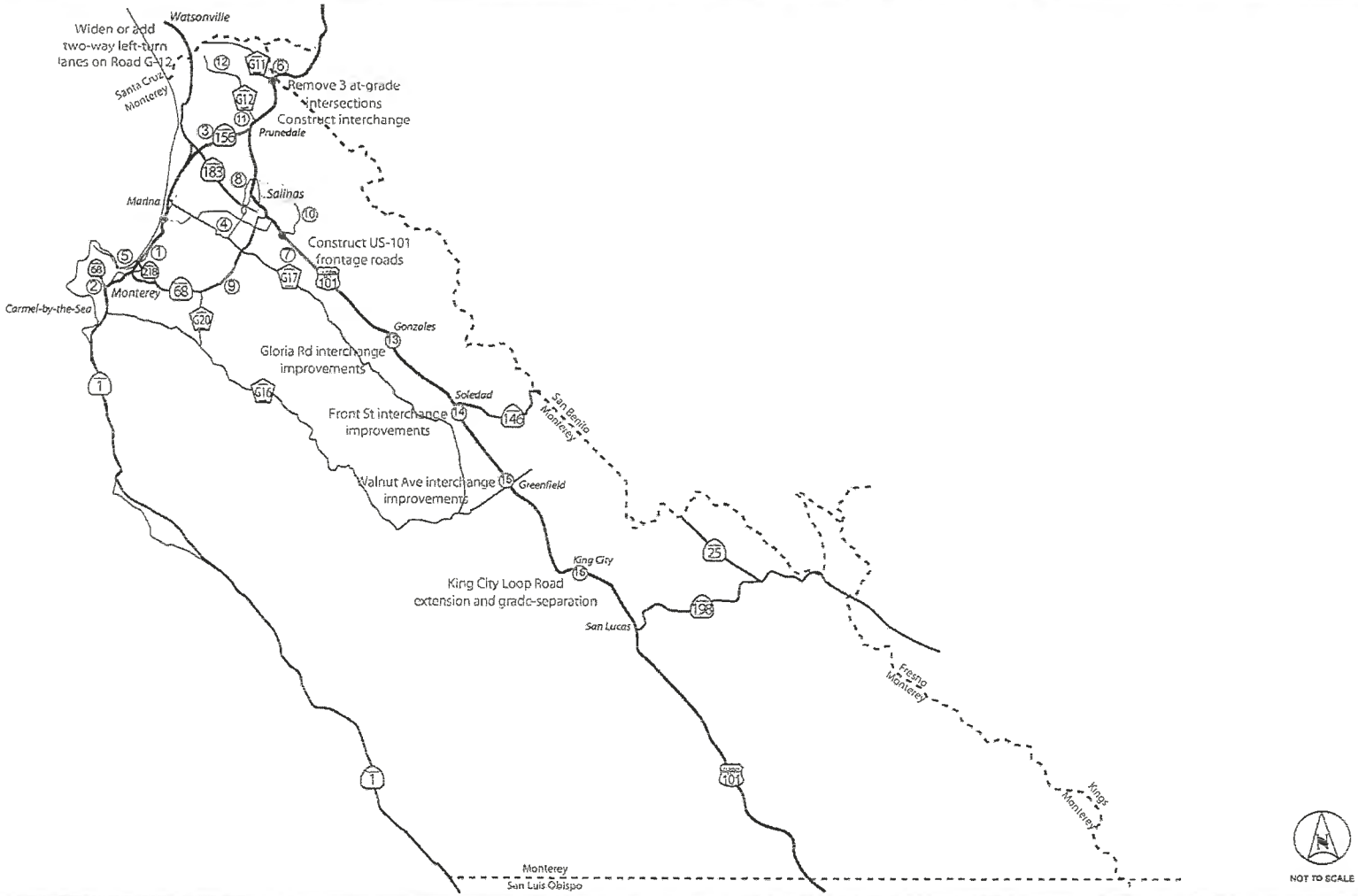


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FIGURE 10

Development Impact Fee Update Project Locations

097968000/Figures/projects all county

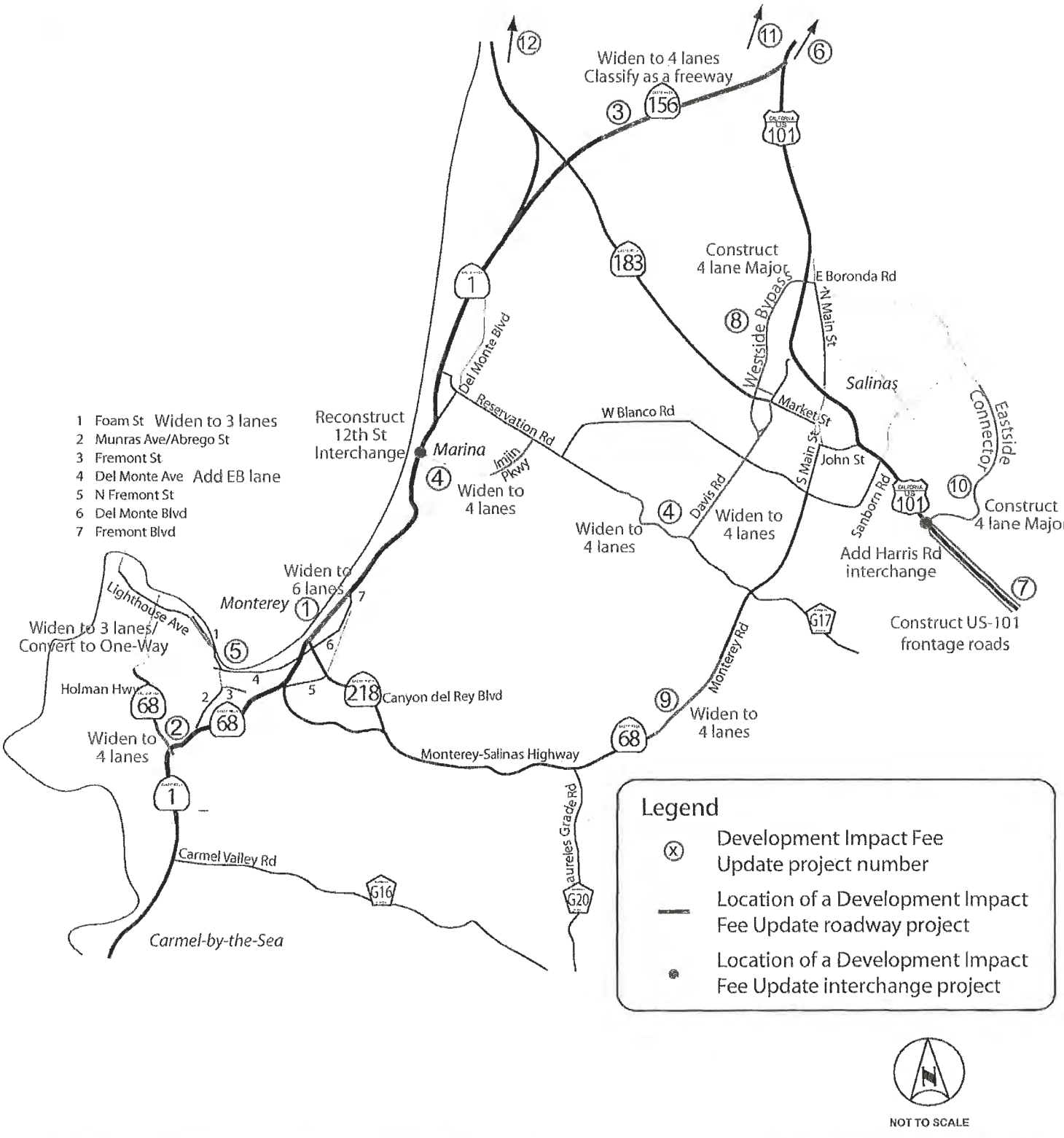

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FIGURE 11

Monterey-Salinas Area Development Impact Fee Update Project Locations

097968000/Figures/projects.ai

TABLE 4
ROADWAY SEGMENT LOS WITH PROJECTS

#	ROADWAY SEGMENT		BASELINE 2030 MODEL					2030 MODEL WITH PROJECTS					Δ V/C
			ROADWAY CLASSIFICATION	CAPACITY	ADT	V/C*	LOS	ROADWAY CLASSIFICATION	ADT	V/C*	LOS		
1	**SR-1 Widening**												
	SR-1	Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	123,172	1.15	F	6-Lane Freeway	123,086	1.15	F		0.00
	SR-1	Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	69,100	97,913	1.42	F	6-Lane Freeway	106,067	0.99	E		-0.42
	SR-1	Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	88,841	1.29	F	4-Lane Freeway	90,641	1.31	F		0.03
2	**SR-68 (Holman Hwy) Widening**												
	SR-68	CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	16,300	28,907	1.77	F	4-Lane Class I Two-Way State Arterial	28,712	0.84	C		-0.93
3	**SR-156 Widening**												
	SR-156	SR-1 to SR-183	4-Lane Freeway	69,100	47,950	0.69	C	4-Lane Freeway	46,468	0.67	C		-0.02
	SR-156	SR-183 to Castroville Blvd	4-Lane Uninterruped Flow Highway	64,200	44,546	0.69	D	4-Lane Freeway	47,552	0.69	C		-0.01
	SR-156	Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	16,300	34,412	2.11	F	4-Lane Freeway	41,280	0.60	C		-1.51
	US-101	Crazy Horse Cyn Rd to San Miguel Cyn Rd	4-Lane Uninterruped Flow Highway	64,200	58,672	0.91	E	4-Lane Uninterruped Flow Highway	61,697	0.96	E		0.05
	US-101	San Miguel Cyn Rd to SR-156	4-Lane Uninterruped Flow Highway	64,200	75,258	1.17	F	4-Lane Uninterruped Flow Highway	82,002	1.28	F		0.11
	US-101	SR-156 to Pesante Rd	4-Lane Uninterruped Flow Highway	64,200	67,533	1.05	F	4-Lane Uninterruped Flow Highway	77,172	1.20	F		0.15
	Blackie Rd	Moro Terrace to Commercial Pkwy	2-Lane Other Roadway	12,000	4,626	0.39	D	2-Lane Other Roadway	4,124	0.34	C		-0.04
4	**Monterey-Salinas Corridor**												
	Davis Rd	W Blanco Rd to Reservation Rd	2-Lane Major Roadway	14,600	14,360	0.98	E	4-Lane Major Roadway	22,420	0.73	D		-0.26
	Reservation Rd	Imjin Pkwy to W Blanco Rd	4-Lane Major Roadway	30,900	57,900	1.87	F	4-Lane Major Roadway	64,592	2.09	F		0.22
	Reservation Rd	W Blanco Rd to S Davis Rd	2-Lane Major Roadway	14,600	21,322	1.46	F	4-Lane Major Roadway	31,507	1.02	F		-0.44
	Blanco St	Reservation Rd to Cooper Rd	2-Lane Major Roadway	14,600	38,002	2.60	F	2-Lane Major Roadway	34,451	2.36	F		-0.24
	Blanco St	Cooper Rd to S Davis Rd	2-Lane Major Roadway	14,600	35,184	2.41	F	2-Lane Major Roadway	28,965	1.98	F		-0.43
5	**Del Monte - Lighthouse Corridor Improvements**												
	Del Monte Ave	Washington St to Camino Aguajito	4-Lane Major Roadway	30,900	47,263	1.53	F	5-Lane Major Roadway	49,615	1.28	F		-0.25
	Del Monte Ave	Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	30,900	36,106	1.17	F	5-Lane Major Roadway	39,513	1.02	F		-0.15
	Lighthouse Ave	David Ave to Prescott Ave	4-Lane Major Roadway	30,900	28,758	0.93	D	2-Lane One-Way Major Roadway	16,568	1.07	F		0.14
	Lighthouse Ave	Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	30,900	40,259	1.30	F	2-Lane One-Way Major Roadway	25,582	1.66	F		0.35
	Foam St	David Ave to Prescott Ave	2-Lane Other Roadway	12,000	3,147	0.26	C	2-Lane One-Way Major Roadway	14,927	0.97	E		0.70
	Foam St	Prescott Ave to Drake Ave	2-Lane Other Roadway	12,000	8,268	0.69	D	2-Lane One-Way Major Roadway	23,991	1.55	F		0.86
	Foam St	Drake Ave to Lighthouse Ave	2-Lane Other Roadway	12,000	9,917	0.83	E	2-Lane One-Way Major Roadway	24,842	1.61	F		0.78
6	**US-101 - San Juan Road Interchange**												
	San Juan Rd	Carpenteria Rd to US-101	2-Lane Major Roadway	14,600	17,132	1.17	F	2-Lane Major Roadway	21,193	1.45	F		0.28
7	**US-101 - South County**												
	W Frontage Rd	Harris Rd to Spence Rd	-	-	-	-	-	2-Lane Other Roadway	22,986	1.92	F		-
	W Frontage Rd	Spence Rd to Chualar	-	-	-	-	-	2-Lane Other Roadway	22,083	1.84	F		-
	E Frontage Rd	Harris Rd to Spence Rd	-	-	-	-	-	2-Lane Other Roadway	21,286	1.77	F		-
	E Frontage Rd	Spence Rd to Chualar	-	-	-	-	-	2-Lane Other Roadway	20,100	1.68	F		-
	US-101	Airport Blvd to Abbott St	4-Lane Freeway	69,100	64,262	0.93	E	4-Lane Freeway	63,753	0.92	E		-0.01
	US-101	Abbott St to Spence Rd	4-Lane Uninterruped Flow Highway	64,200	89,284	1.39	F	4-Lane Freeway	59,403	0.86	D		-0.53
	US-101	Spence Rd to Chualar Rd	4-Lane Uninterruped Flow Highway	64,200	88,205	1.37	F	4-Lane Freeway	59,403	0.86	D		-0.51

TABLE 4
ROADWAY SEGMENT LOS WITH PROJECTS

#	ROADWAY SEGMENT		BASELINE 2030 MODEL					2030 MODEL WITH PROJECTS				Δ V/C
			ROADWAY CLASSIFICATION	CAPACITY	ADT	V/C[a]	LOS	ROADWAY CLASSIFICATION	ADT	V/C[a]	LOS	
	Westside Bypass											
	Westside Bypass	Boronda Rd to SR-183	-	-	-	-	-	4-Lane Major Roadway	32,887	1.06	F	-
	Westside Bypass	SR-183 to Davis Rd	-	-	-	-	-	4-Lane Major Roadway	18,626	0.60	D	-
	Davis Rd	W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	36,009	1.17	F	4-Lane Major Roadway	29,953	0.97	E	-0.20
	Davis Rd	SR-183 to W Blanco Rd	2-Lane Major Roadway	14,600	19,589	1.34	F	4-Lane Major Roadway	26,242	0.85	D	-0.49
8	US-101	E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	74,999	1.09	F	4-Lane Freeway	64,298	0.93	E	-0.15
8	US-101	W Laurel Dr to N Main St	4-Lane Freeway	69,100	74,106	1.07	F	4-Lane Freeway	81,189	1.17	F	0.10
8	US-101	N Main St to E Market St	4-Lane Freeway	69,100	85,228	1.23	F	4-Lane Freeway	92,755	1.34	F	0.11
8	S Main St	John St to Romie Ln	4-Lane Other Roadway	24,000	28,990	1.21	F	4-Lane Other Roadway	24,754	1.03	F	-0.18
8	S Main St	Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	24,591	1.02	F	4-Lane Other Roadway	21,755	0.91	E	-0.12
8	John St	S Main St to Abbott St	4-Lane Major Roadway	30,900	52,471	1.70	F	4-Lane Major Roadway	37,843	1.22	F	-0.47
8	John St	Abbott St to US-101	4-Lane Major Roadway	30,900	65,697	2.13	F	4-Lane Major Roadway	49,276	1.59	F	-0.53
8	Market St	Davis Rd to N Main St	4-Lane Other Roadway	24,000	29,470	1.23	F	4-Lane Other Roadway	14,394	0.60	D	-0.62
	SR-68 Commuter Improvements											
9	SR-68	Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	36,123	2.22	F	2-Lane Class I Two-Way State Arterial	35,544	2.18	F	-0.04
9	SR-68	Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	16,300	37,516	2.30	F	4-Lane Class I Two-Way State Arterial	37,126	1.09	F	-1.22
	Eastside Connector											
10	Eastside Connector	Williams Rd to Alisal Rd	-	-	-	-	-	4-Lane Major Roadway	14,809	0.48	C	-
10	Eastside Connector	Alisal Rd to US-1010	-	-	-	-	-	4-Lane Major Roadway	15,696	0.51	C	-
	G-12 South											
11	San Miguel Cyn Rd	Echo Valley Rd to Castroville Blvd	2-Lane Major Roadway	14,600	26,127	1.79	F	2-Lane Major Roadway	29,299	2.01	F	0.22
11	San Miguel Cyn Rd	Castroville Blvd to Moro Rd	2-Lane Major Roadway	14,600	29,359	2.01	F	4-Lane Major Roadway	35,415	1.15	F	-0.86
	G-12 North											
12	Elkhorn Rd	Hall Rd to Werner Rd	2-Lane Major Roadway	14,600	39,851	2.73	F	4-Lane Major Roadway	41,376	1.34	F	-1.39
12	Hall Rd	San Miguel Cyn Rd to Elkhorn Rd	2-Lane Major Roadway	14,600	30,389	2.08	F	2-Lane Major Roadway	31,698	2.17	F	0.09

Notes:
(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

TABLE 5
FUTURE DEVELOPMENT'S SHARE OF TRAFFIC ON PROJECT ROADS

#	ROADWAY SEGMENT		YEAR 2000 CALTRANS COUNT	2000 MODEL[a] ADT	2030 MODEL[a] ADT	ESTIMATED 2007 ADT	2007 to 2030 GROWTH	% of 2030 ADT FROM FUTURE GROWTH[b]
1	SR-1 Widening							8.9%
	SR-1	Fremont Ave to Canyon del Rey Blvd	76,000	93,713	106,067	96,596	9,471	8.9%
2	SR-68 (Holman Hwy) Widening							5.9%
	SR-68	CHOMP to SR-1	27,500	26,502	28,712	27,018	1,694	5.9%
3	SR-156 Widening							16.3%
	SR-156	SR-183 to Castroville Blvd	29,500	35,000	47,553	37,929	9,624	20.2%
	SR-156	Castroville Blvd to US-101	28,000	35,000	41,280	36,465	4,815	11.7%
4	Monterey-Salinas Corridor							60.3%
	Davis Rd	W Blanco Rd to Reservation Rd		5,826	22,420	9,698	12,722	56.7%
	Reservation Rd	E Garrison to Davis		5,715	31,507	11,733	19,774	62.8%
5	Del Monte - Lighthouse Corridor Improvements							5.6%
	Del Monte Blvd	Washington St to Camino Aguajito		46,856	49,615	47,500	2,115	4.3%
	Del Monte Blvd	Camino Aguajito to Casa Verde Wy		34,593	39,513	35,741	3,772	9.5%
	Lighthouse Ave	David Ave to Prescott Ave		15,570	16,568	15,803	765	4.6%
	Lighthouse Ave	Prescott Ave to Foam St		24,234	25,562	24,544	1,018	4.0%
	Foam St	Drake Ave to Lighthouse Ave		23,383	24,842	23,723	1,119	4.5%
6	US-101 - San Juan Road Interchange							31.7%
	San Juan Rd	Carpenteria Rd to US-101		12,427	21,193	14,472	6,721	31.7%
7	US-101 - South County							44.7%
	W Frontage Rd	Harris Rd to Spence Rd		6,229	22,986	10,139	12,847	55.9%
	W Frontage Rd	Spence Rd to Chualar		4,430	22,083	8,549	13,534	61.3%
	E Frontage Rd	Harris Rd to Spence Rd		4,195	21,286	8,183	13,103	61.6%
	E Frontage Rd	Spence Rd to Chualar		3,807	20,100	7,609	12,491	62.1%
	US-101	Harris Rd to Spence Rd	35,500	33,404	59,403	39,470	19,933	33.6%
	US-101	Spence Rd to Chualar	40,500	33,404	59,403	39,470	19,933	33.6%
8	Westside Bypass							22.6%
	Westside Bypass	Boronda Rd to SR-183		21,680	32,887	24,295	8,592	26.1%
	Westside Bypass	SR-183 to Davis Rd		13,044	18,626	14,346	4,280	23.0%
	Davis Rd	W Laurel Dr to SR-183		20,263	29,953	22,524	7,429	24.8%
	Davis Rd	SR-183 to W Blanco Rd		20,905	26,242	22,150	4,092	15.6%
9	SR-68 Commuter Improvements							25.1%
	SR-68	Corral de Tierra to Portola Dr	26,500	24,992	37,126	27,823	9,303	25.1%
10	Eastside Connector							53.2%
	Eastside Connector	Williams Rd to Alisal Rd		3,851	14,809	6,408	8,401	56.7%
	Eastside Connector	Alisal Rd to US-1010		5,479	15,696	7,863	7,833	49.9%
11	G-12 South							37.9%
	San Miguel Rd	Moro Rd to Castroville Blvd		17,887	35,415	21,977	13,438	37.9%
12	G-12 North							28.2%
	Elkhorn Rd	Hall Rd to Werner Rd		26,133	41,376	29,690	11,686	28.2%
13	Gloria Rd (Gonzales) Interchange							48.9%
	On- and Off-Ramps			1,375	3,796	1,940	1,856	48.9%
14	South Soledad Interchange							47.2%
	On- and Off-Ramps			6,574	17,082	9,026	8,056	47.2%
15	Walnut Ave (Greenfield) Interchange							45.0%
	On- and Off-Ramps			7,441	18,039	9,914	8,125	45.0%
16	King City Loop Road Extension							46.3%
	On- and Off-Ramps			3,393	8,570	4,601	3,969	46.3%

Notes:

(a) The "2000 network with projects/2000 land uses" and "2000 network with projects/2030 land uses" model runs were used to obtain the volumes in this table

(b) The future development's share of traffic for each project was determined by taking the volume weighted average for each segment shown under each project in this table.

6. Benefit Zones

6.1. Benefit Zone Structure

The *Fee Update* will evaluate four benefit zone structures, one being a single, countywide zone, like the *2004 Nexus Study*, and three including multiple zones. To be consistent with the Monterey County General Plan, it is assumed that definition of the multiple zones option will begin by considering the seven Planning Areas and the five Coastal Plan Areas defined therein, which are illustrated in the exhibit on the following page and listed below for reference.

Planning Areas

- North County
- Greater Monterey Peninsula
- Greater Salinas
- Toro
- Cachagua
- Central Salinas Valley
- South County

Coastal Plans

- Carmel Local Coastal Plan
- North County Local Coastal Plan
- Big Sur Local Coastal Plan and Land Use Plan
- Del Monte Forest Local Coastal Plan
- Moss Landing Community Plan

Based on the location and activities/character of the areas, the following combinations of areas were incorporated into the benefit zones analyzed in this report.

COMBINATIONS OF AREAS AS ZONES

Zone Number	Name	Planning Areas	Coastal Plan Areas
1	North County	- North County	- Moss Landing Community Plan - North County Local Coastal Plan
2	Greater Salinas	- Greater Salinas - Toro	
3	Peninsula	- Greater Monterey Peninsula	- Del Monte Forest Local Coastal Plan - Carmel Local Coastal Plan
4	South Coast	- Cachagua	- Big Sur Local Coastal Plan and Land Use Plan
5	South County	- South County - Central Salinas Valley	

6.2. Benefit Zone Analysis

Four scenarios of benefit zones were analyzed. The first scenario assumes one countywide zone in which all development throughout the county pays the same impact fee. The second scenario assumes five Monterey County zones: North County, Greater Salinas, Peninsula, South Coast, and South County, with boundaries as described above. The third scenario assumes four Monterey County zones: North County, Greater Salinas, Peninsula-South Coast, and South County. Finally, the fourth scenario assumes aggregation of the above-mentioned five zones into three zones: North County-Greater Salinas, Peninsula-South Coast, and South County. For all scenarios, trips associated with vehicles traveling to or from outside of the county on project roads were removed from the calculations. That project cost share will be not be covered by the fee program.

A select link analysis was run for each of the fee program projects to determine the degree to which zones were responsible for the increase in traffic on each of the project roadways. Since Scenario 2 has the greatest number of zones, the select link analysis was prepared with this detail, and the data was aggregated to arrive at the other two scenarios. The select link analysis indicates what portion of the traffic on each roadway comes from what zone with both the Year 2000 and Year 2030 land uses, with the improved roadway network. In order to determine each zone's share of the fee, the net change in trips from each zone for each roadway was calculated. Each zone's share of the net increase in trips on the roadway was calculated as a percentage. For each project, all roadways that would experience a significant benefit were included in the select link analysis. For example, the US-101 South County select link analysis included both the proposed frontage roads and the US-101 mainline, which would experience significantly improved levels of service with the proposed roads.

The resulting zonal distribution for each of the fee program projects is included in **Table 6**. This table also lists the cost of each project, the share of the project cost to be provided by the fee program, and the resulting share of each project cost to be borne by each of the benefit zones. Where a 0% share is shown in the table, that zone is not forecast to cause an increase in traffic on that particular roadway or set of roadways, although it may currently generate a significant number of trips on the roadway or set of roadways. Shown in the subtotal row of the table are the total amounts to be provided by each benefit zone. The inter-county zone, which represents trips originating or ending outside of Monterey County, is shown in this table, but no funding mechanism to collect this portion of the fee is included in this program.

TABLE 6

ZONAL DISTRIBUTION FOR FEE PROGRAM PROJECTS

#	ROADWAY SEGMENT	PROJECT COST	% NEW DEV	NEW DEV SHARE	NORTH COUNTY		GREATER SALINAS		PENINSULA		SOUTH COAST		SOUTH COUNTY		FORA		INTER-COUNTY	
					%	$	%	$	%	$	%	$	%	$	%	$	%	$
1	SR-1 Widening	$ 53,000,000	8.9%	$ 4,732,709	0.0%	$ -	30.1%	$ 1,425,239	33.4%	$ 1,580,213	0.0%	$ -	20.4%	$ 965,284	16.1%	$ 761,972	0.0%	$ -
2	SR-68 (Holman Hwy) Widening	$ 25,000,000	5.9%	$ 1,475,283	0.0%	$ -	15.5%	$ 228,271	56.5%	$ 833,150	8.4%	$ 123,996	10.0%	$ 147,973	9.6%	$ 141,894	0.0%	$ -
3	SR-156 Widening	$ 310,000,000	16.3%	$ 50,386,414	35.3%	$ 17,798,745	44.2%	$ 22,274,266	7.5%	$ 3,776,247	0.0%	$ -	0.9%	$ 467,594	12.0%	$ 6,069,562	0.0%	$ -
4	Marina-Salinas Corridor	$ 85,000,000	60.3%	$ 51,220,248	0.0%	$ -	39.1%	$ 20,006,078	22.6%	$ 11,554,351	0.0%	$ 9,363	16.9%	$ 8,668,502	21.4%	$ 10,981,955	0.0%	$ -
5	Del Monte - Lighthouse Corridor Improvements	$ 60,000,000	5.6%	$ 3,378,245	0.0%	$ -	21.9%	$ 738,461	49.9%	$ 1,684,161	3.9%	$ 130,493	14.4%	$ 486,106	10.0%	$ 339,023	0.0%	$ -
6	US-101 - San Juan Road Interchange	$ 74,000,000	31.7%	$ 23,466,446	5.6%	$ 1,316,808	15.6%	$ 3,668,417	0.0%	$ -	0.0%	$ -	3.1%	$ 723,744	0.6%	$ 151,943	75.0%	$ 17,605,534
7	US-101 - South County Frontage Roads	$ 126,000,000	44.7%	$ 56,376,551	1.7%	$ 958,296	16.2%	$ 9,140,516	9.7%	$ 5,472,850	1.0%	$ 587,606	44.8%	$ 25,272,940	4.4%	$ 2,467,469	22.1%	$ 12,476,873
8	Westside Bypass	$ 99,000,000	22.6%	$ 22,420,195	0.0%	$ -	56.9%	$ 12,757,022	5.6%	$ 1,263,585	0.0%	$ -	12.9%	$ 2,894,408	12.5%	$ 2,796,214	12.1%	$ 2,708,967
9	SR-68 Commuter Improvements	$ 24,000,000	25.1%	$ 6,013,726	0.7%	$ 44,136	34.4%	$ 2,067,015	9.7%	$ 580,329	19.1%	$ 1,150,226	15.3%	$ 917,370	19.5%	$ 1,170,071	1.4%	$ 84,580
10	US-101 - Harris Road / Eastside Connector	$ 114,000,000	53.2%	$ 60,668,579	0.5%	$ 326,913	69.4%	$ 42,086,131	1.9%	$ 1,122,416	1.6%	$ 983,818	11.1%	$ 6,750,095	2.0%	$ 1,203,955	13.5%	$ 8,195,251
11	G-12 - Southern Improvements	$ 8,000,000	37.9%	$ 3,035,580	20.7%	$ 629,778	21.3%	$ 647,773	0.0%	$ -	0.0%	$ -	13.6%	$ 411,685	0.5%	$ 13,850	43.9%	$ 1,332,494
12	G-12 - Northern Improvements	$ 40,000,000	28.2%	$ 11,297,660	17.6%	$ 1,993,614	22.8%	$ 2,578,300	0.0%	$ -	0.0%	$ -	16.5%	$ 1,866,871	0.4%	$ 40,556	42.6%	$ 4,818,320
13	US-101 / Gloria Road Interchange	$ 37,101,000	48.9%	$ 18,140,982	0.0%	$ 7,876	0.3%	$ 46,764	0.0%	$ -	0.0%	$ -	97.3%	$ 17,653,921	0.1%	$ 13,384	2.3%	$ 419,037
14A	US-101 / South Soledad Interchange	$ 18,810,413	47.2%	$ 8,871,279	0.9%	$ 81,552	8.9%	$ 790,692	5.5%	$ 484,875	1.0%	$ 89,732	73.8%	$ 6,550,033	2.0%	$ 174,758	7.9%	$ 699,638
14B	US-101 / North Soledad Interchange	$ 17,490,970	50.7%	$ 8,871,279	1.4%	$ 127,757	12.7%	$ 1,122,771	8.5%	$ 752,992	1.3%	$ 118,246	63.5%	$ 5,636,393	3.5%	$ 311,375	9.0%	$ 801,747
15	US-101 / Walnut Avenue Interchange	$ 45,460,000	45.0%	$ 20,476,111	1.1%	$ 215,965	7.6%	$ 1,549,927	5.6%	$ 1,156,410	0.5%	$ 106,553	74.0%	$ 15,154,310	2.6%	$ 530,368	8.6%	$ 1,762,578
16	US-101 / First Street Interchange	$ 40,000,000	46.3%	$ 18,525,243	0.4%	$ 75,546	3.8%	$ 711,177	3.0%	$ 558,706	1.2%	$ 214,758	75.2%	$ 13,932,645	0.9%	$ 163,636	15.5%	$ 2,868,775
	Subtotal	$ 1,176,862,383		$ 369,356,532		$ 23,576,985		$ 121,838,820		$ 30,820,285		$ 3,514,791		$ 108,499,873		$ 27,331,984		$ 53,773,795

Notes:

% Indicates the percentage of total new trips that benefit from the project that are created by the zone

$ Indicates the total fee that needs to be collected from development in that zone for each respective project

7. Proposed Fees

The total cost assigned to each of the zones in each of the four zonal scenarios is shown in **Table 7**. Included in the table are the transit and administrative portions of the fee for each zone. The portion of the transit fee allocated to each zone is based on mode split, as discussed in the Methodology section. The administrative portion is a straight percentage of the roadway improvement and transit portions.

The total fee is distributed over all new development in each zone. As shown in Table 7, the program is designed to collect approximately $328 million (in 2007 dollars) county-wide. In order to arrive at a fee per trip for each zonal scenario, the total number of trips forecast to be generated by each zone needed to be determined. **Table 8** shows the traffic growth in each zone as projected by the model. Generally, the zones with a greater fee apportioned are forecast to have greater future development. **Figure 12** shows the forecast new development trips for each zone, based on the 2000 and 2030 model land uses, and Institute of Transportation Engineers trip generation rates, as described in the Methodology section of this report. The trips for each zone are broken out by land use type.

7.1. Fee by Land Use

The fee by land use for each zone in each zonal scenario is shown in **Table 9**. The rates for residential, retail, office/government, and other land uses are shown in the table. The rates are based on the forecast amount of each type of development and the total fee to be collected from each zone. The fee for other land uses besides residential, retail, office, or government, such as industrial or recreational, could be determined based on either the fee per thousand square feet for other uses or the fee per trip, both shown in the table. If the fee per trip rate is used, Institute of Transportation Engineers trip generation rates should be used to determine the total trips generated by the project. The countywide zone has a fee per trip of $459. The range of fees in the five zone scenario is from $184/trip to $644/trip. The range of fees in the four zone scenario is from $375/trip to $644/trip. The range of fees in the three zone scenario is from $375/trip to $543/trip. These fees should be applied to all new development projects that cause an increase in trips compared to existing uses or are built on vacant parcels.

The countywide zone yields a fee of $3,977 per residential unit. The five zone scenario yields a wide range of fees per zone, varying from $1,563 to $5,464 per residential unit. The four zone scenario yields a range of $3,154 to $5,464 per residential unit. The three zone scenario yields a narrower range of $3,154 to $4,608 per residential unit. The fee per residential unit data for each benefit zone scenario is summarized and depicted in **Figures 13** through **15**. The fee per residential unit shown in the table represents the fee per average residential dwelling. The fee per single family housing unit is slightly higher, while the fee per apartment or condo/townhouse is slightly less, relative to the Institute of Transportation Engineers trip generation rates for each of these housing types. **Table 10** shows the fee by scenario for each type of residential unit.

In order to minimize the complexity of the program, Transportation Agency staff and the Task Force have recommended implementation of the four-zone scenario. The four-zone structure is preferred because it accounts for the variable characteristics of the key regions of the county covering the major population centers while still providing a mechanism for fees paid in a region to fund projects in that region

TABLE 7
FEE BY BENEFIT ZONE SCENARIO

#	ZONE	ZONE CONTRIBUTION			
		ROADWAY IMPROVEMENT COST[a]	TRANSIT COMPONENT[b]	ADMINISTRATIVE COSTS[c]	TOTAL FEE
Scenario 1: County-wide Zone					
1	County of Monterey	$ 315,582,737	$ 10,000,000	$ 3,255,827	**$ 328,838,565**
Scenario 2: 5 Monterey County Zones					
1	North County	$ 23,576,985	$ 264,042	$ 238,410	$ 24,079,437
2	Greater Salinas	$ 121,838,820	$ 4,801,544	$ 1,266,404	$ 127,906,767
3	Peninsula	$ 58,152,269	$ 4,706,203	$ 628,585	$ 63,487,056
4	South Coast	$ 3,514,791	$ 125,514	$ 36,403	$ 3,676,708
5	South County	$ 108,499,873	$ 102,697	$ 1,086,026	$ 109,688,596
	Scenario 2 Total	$ 315,582,737	$ 10,000,000	$ 3,255,827	**$ 328,838,565**
Scenario 3: 4 Monterey County Zones					
1	North County	$ 23,576,985	$ 264,042	$ 238,410	$ 24,079,437
2	Greater Salinas	$ 121,838,820	$ 4,801,544	$ 1,266,404	$ 127,906,767
3	Peninsula-South Coast	$ 61,667,060	$ 4,831,717	$ 664,988	$ 67,163,764
4	South County	$ 108,499,873	$ 102,697	$ 1,086,026	$ 109,688,596
	Scenario 3 Total	$ 315,582,737	$ 10,000,000	$ 3,255,827	**$ 328,838,565**
Scenario 4: 3 Monterey County Zones					
1	North County-Greater Salinas	$ 145,415,805	$ 5,065,586	$ 1,504,814	$ 151,986,205
2	Peninsula-South Coast	$ 61,667,060	$ 4,831,717	$ 664,988	$ 67,163,764
3	South County	$ 108,499,873	$ 102,697	$ 1,086,026	$ 109,688,596
	Scenario 4 Total	$ 315,582,737	$ 10,000,000	$ 3,255,827	**$ 328,838,565**

Notes:
a) From the Zonal Distribution for Fee Program Projects table
b) Based on the mode split shown in the Transit Mode Share table
c) Equals 1% of the sum of the roadway improvement and transit components.

TABLE 8
FORECAST TRAFFIC GROWTH BY ZONE

	Countywide	North County	Greater Salinas	Peninsula	South Coast	South County
Residential Trip Ends	429,413	23,216	185,467	67,437	9,583	143,710
Retail Trip Ends	42,497	1,509	18,988	12,040	577	9,383
Service Trip Ends	120,725	6,137	48,763	44,772	8,349	12,704
Government Trip Ends	80,763	3,169	29,394	28,554	1,087	18,561
Other Trip Ends	42,688	3,338	15,011	6,494	348	17,498

Figure 12
New Development Trip Ends by Land Use and Zone

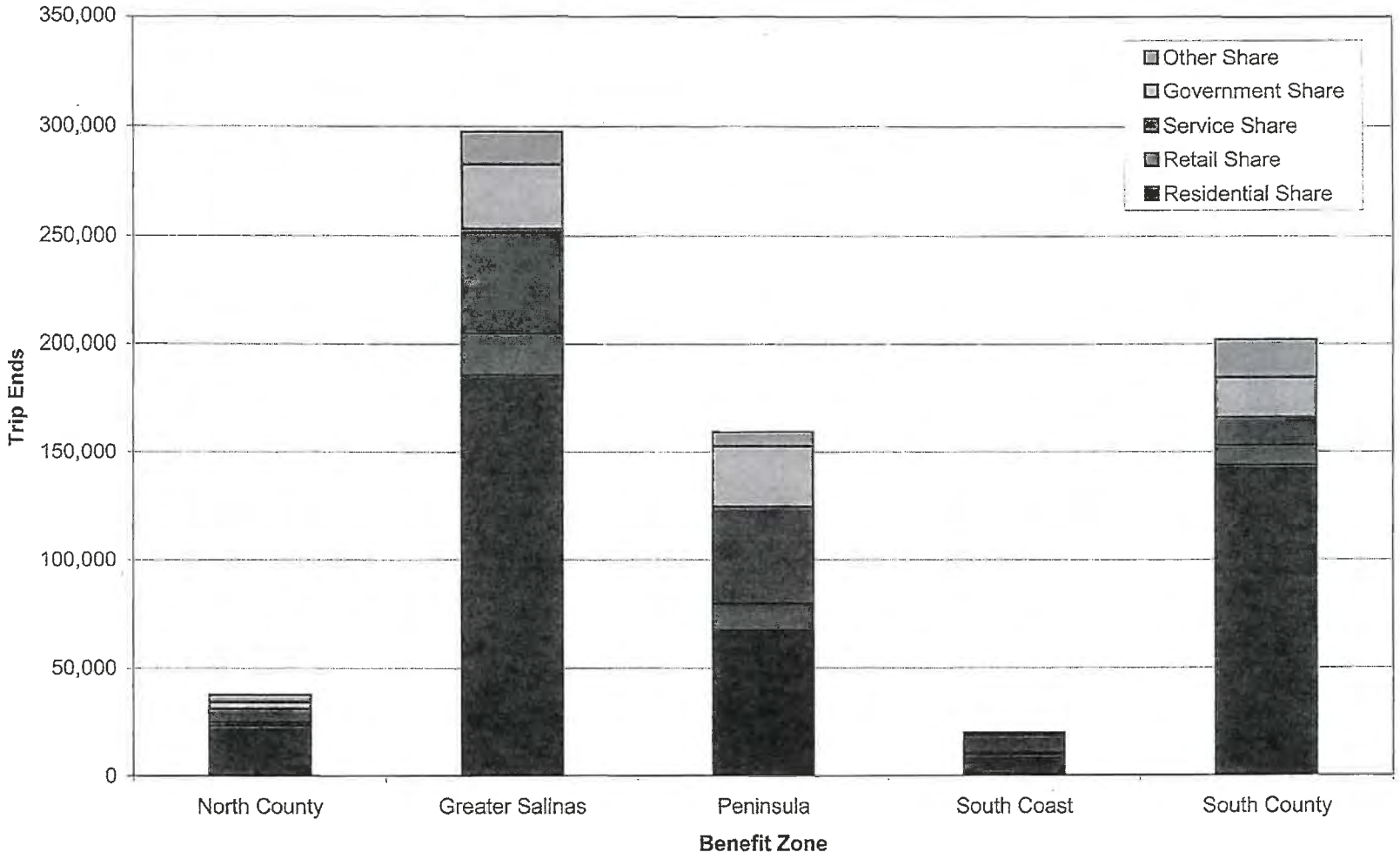

TABLE 9
FEE BY LAND USE

#	ZONE	FEE/TRIP	FEE/DU	FEE/KSF RETAIL	FEE/KSF OFFICE/ GOV'T	FEE/KSF OTHER
Scenario 1: County-wide Zone						
1	County of Monterey	$ 459	$ 3,977	$ 6,102	$ 4,979	$ 1,036
Scenario 2: 5 Monterey County Zones						
1	North County	$ 644	$ 5,464	$ 8,732	$ 7,131	$ 1,373
2	Greater Salinas	$ 430	$ 3,644	$ 5,824	$ 4,756	$ 915
3	Peninsula	$ 399	$ 3,380	$ 5,400	$ 4,410	$ 849
4	South Coast	$ 184	$ 1,563	$ 2,498	$ 2,040	$ 393
5	South County	$ 543	$ 4,608	$ 7,364	$ 6,014	$ 1,157
Scenario 3: 4 Monterey County Zones						
1	North County	$ 644	$ 5,464	$ 8,732	$ 7,131	$ 1,373
2	Greater Salinas	$ 430	$ 3,644	$ 5,824	$ 4,756	$ 915
3	Peninsula-South Coast	$ 375	$ 3,154	$ 5,267	$ 4,324	$ 826
4	South County	$ 543	$ 4,608	$ 7,364	$ 6,014	$ 1,157
Scenario 4: 3 Monterey County Zones						
1	North County-Greater Salinas	$ 454	$ 3,847	$ 6,038	$ 4,987	$ 999
2	Peninsula-South Coast	$ 375	$ 3,154	$ 5,267	$ 4,324	$ 826
3	South County	$ 543	$ 4,608	$ 7,364	$ 6,014	$ 1,157

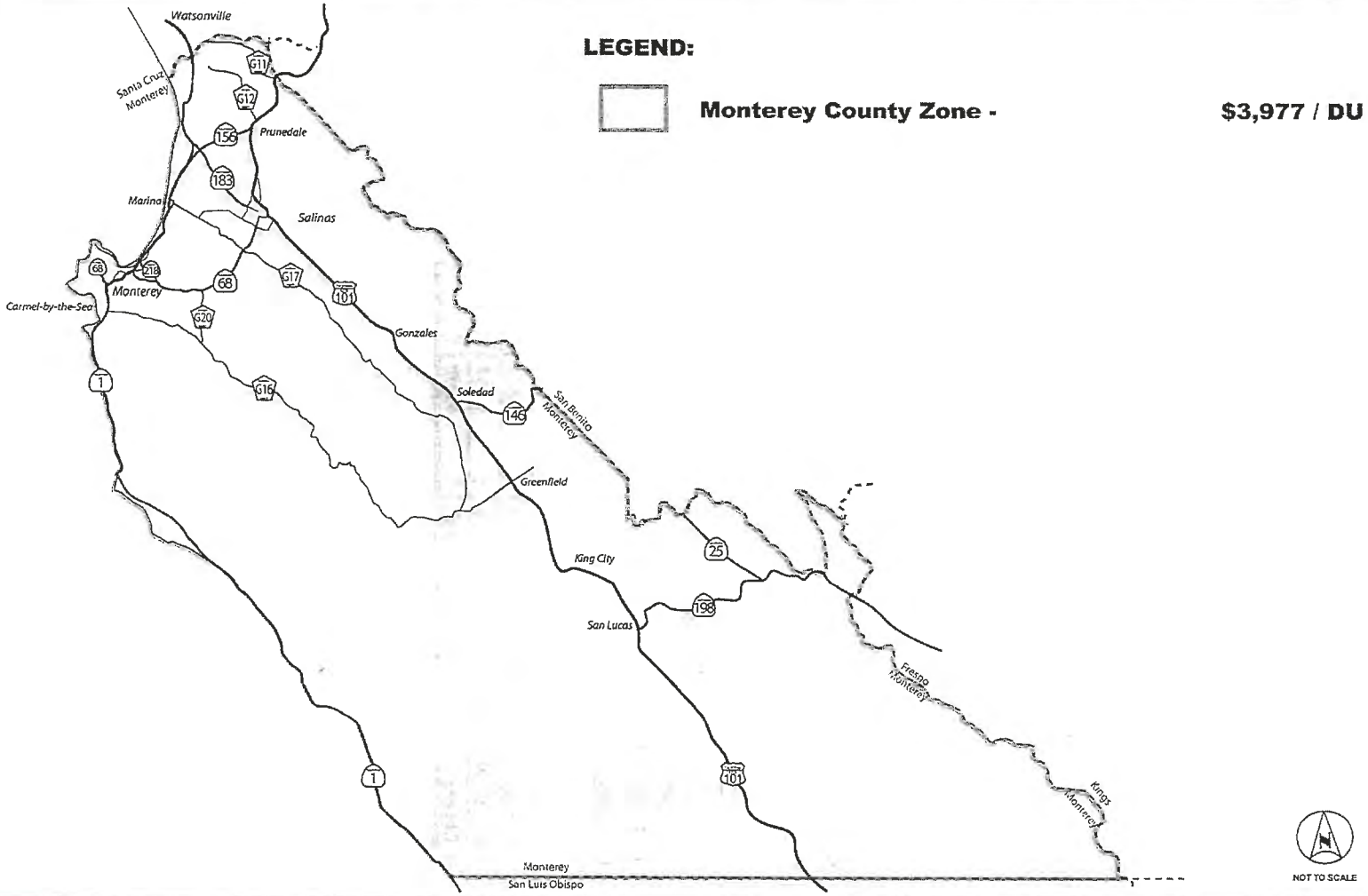

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FIGURE 13

Fee per Residential Unit (Countywide Zone)

05706800/Figures/1 zone.tr

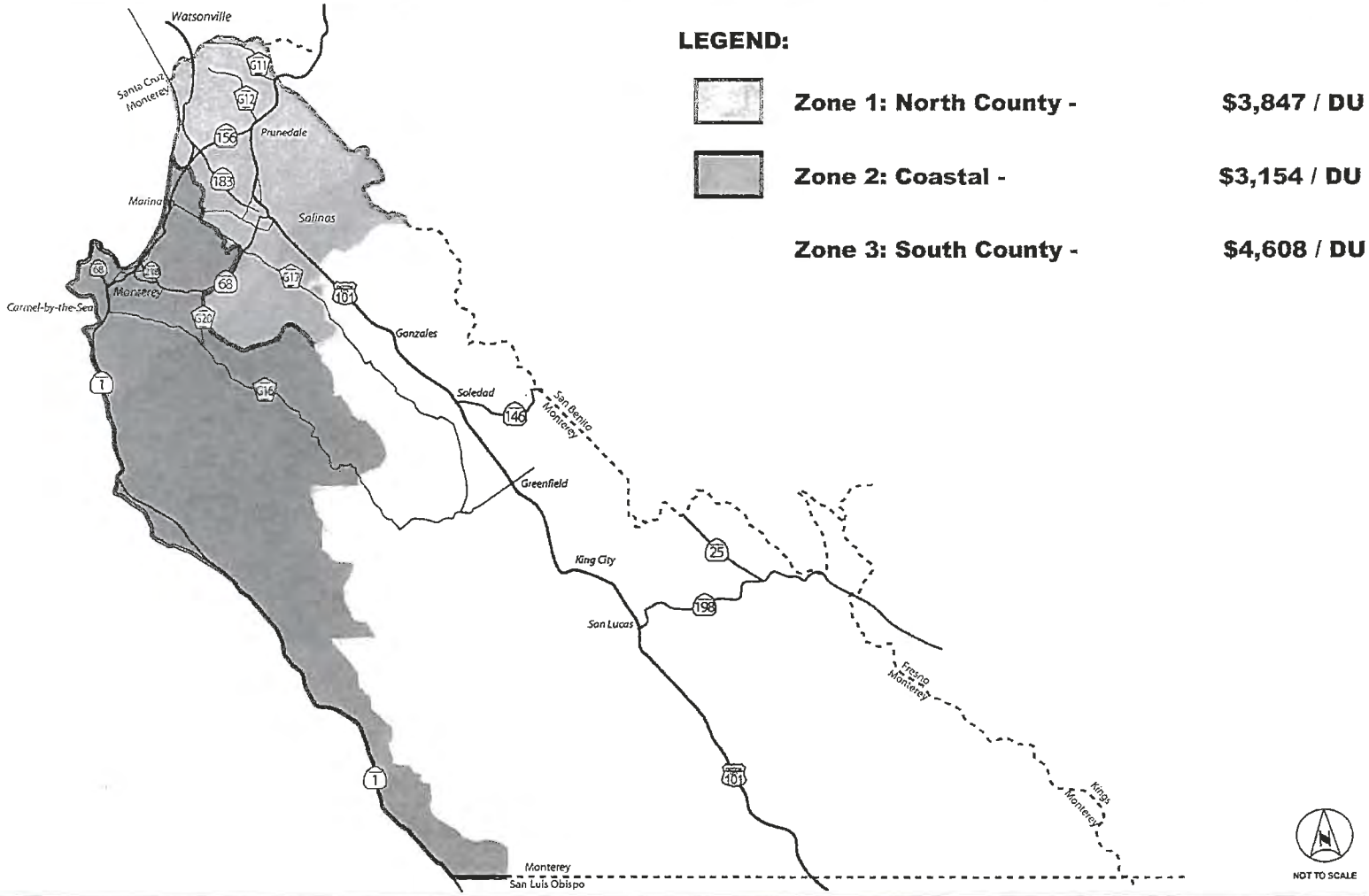

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FIGURE 14

Fee per Residential Unit (3-Zone Scenario)

097968000/Figures/3 zones.ai

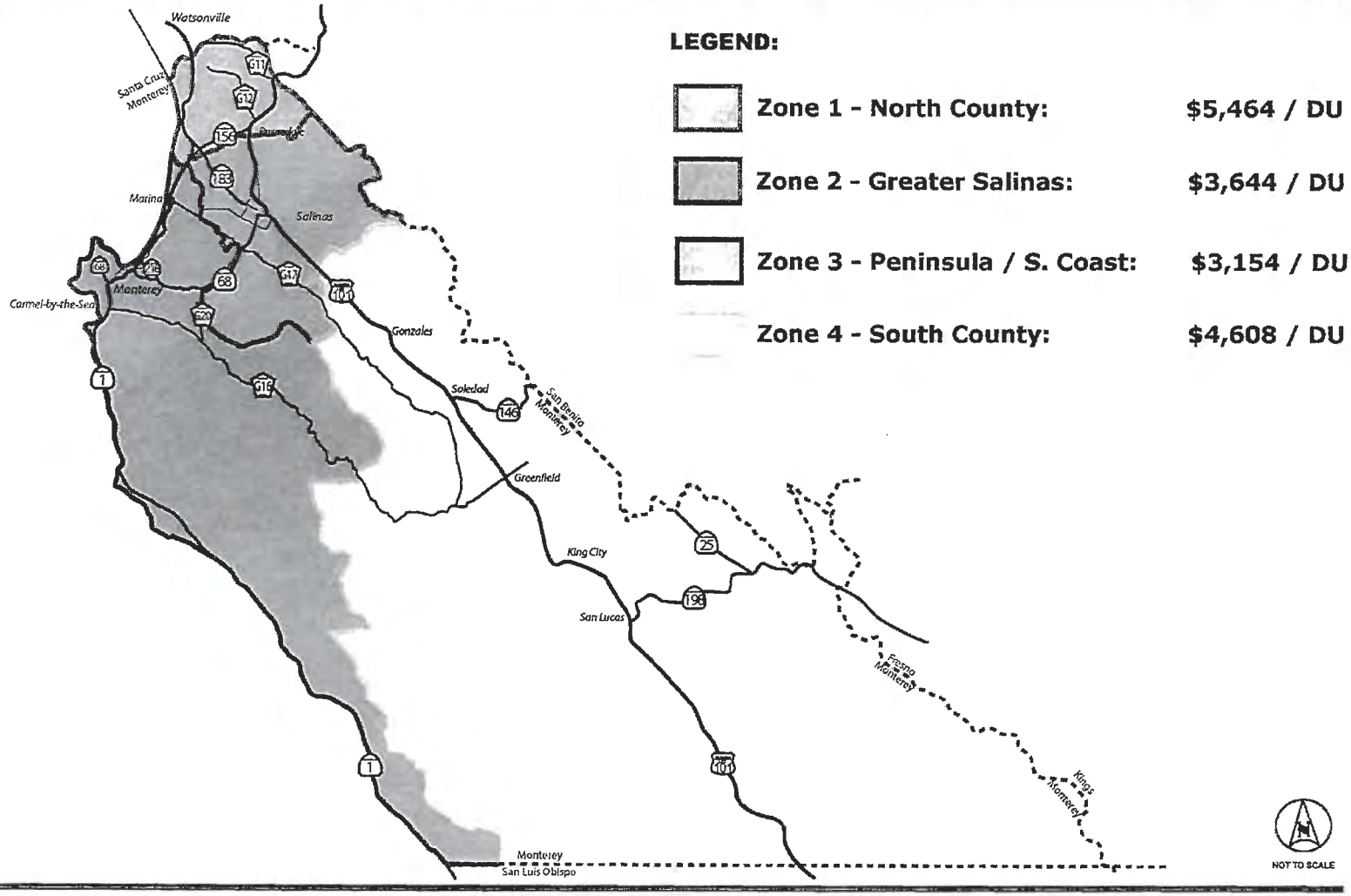

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FIGURE 14

Fee per Residential Unit (4-Zone Scenario)

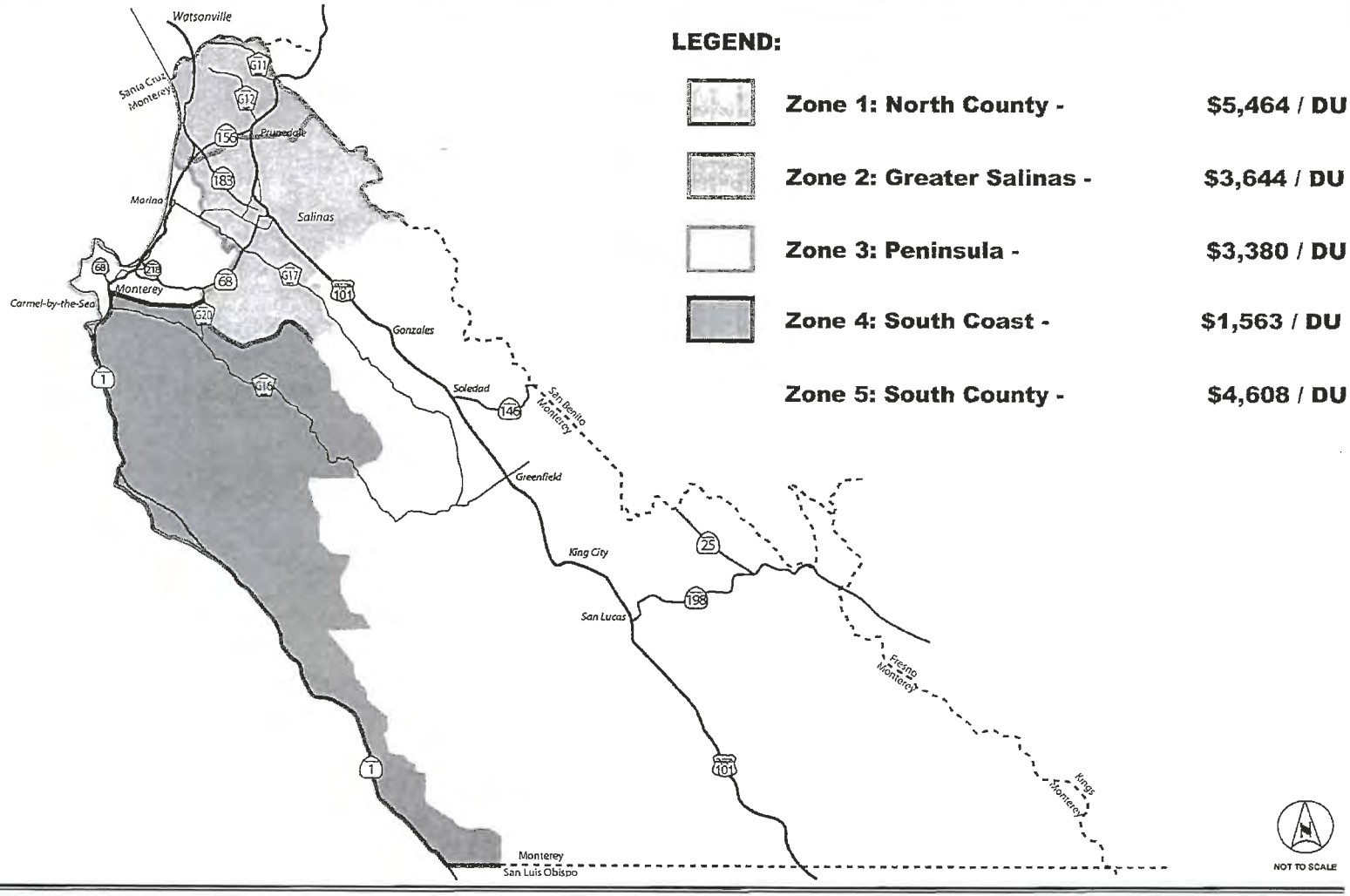

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FIGURE 15

Fee per Residential Unit (5-Zone Scenario)

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TABLE 10
FEE BY RESIDENTIAL UNIT TYPE

#	ZONE	FEE/DU	FEE/SFDU[1]	FEE/ APARTMENT	FEE/CONDO-TOWNHOUSE
Scenario 1: County-wide Zone					
1	County of Monterey	$ 3,977	$ 4,395	$ 3,086	$ 2,691
Scenario 2: 5 Monterey County Zones					
1	North County	$ 5,464	$ 6,167	$ 4,330	$ 3,776
2	Greater Salinas	$ 3,644	$ 4,113	$ 2,888	$ 2,518
3	Peninsula	$ 3,380	$ 3,814	$ 2,678	$ 2,335
4	South Coast	$ 1,563	$ 1,764	$ 1,239	$ 1,080
5	South County	$ 4,608	$ 5,200	$ 3,652	$ 3,184
Scenario 3: 4 Monterey County Zones					
1	North County	$ 5,464	$ 6,167	$ 4,330	$ 3,776
2	Greater Salinas	$ 3,644	$ 4,113	$ 2,888	$ 2,518
3	Peninsula-South Coast	$ 3,154	$ 3,586	$ 2,518	$ 2,196
4	South County	$ 4,608	$ 5,200	$ 3,652	$ 3,184
Scenario 4: 3 Monterey County Zones					
1	North County-Greater Salinas	$ 3,847	$ 4,342	$ 3,049	$ 2,659
2	Peninsula-South Coast	$ 3,154	$ 3,586	$ 2,518	$ 2,196
3	South County	$ 4,608	$ 5,200	$ 3,652	$ 3,184

Notes:
1) SFDU = Single Family Dwelling Unit

Table 11 shows the revenue sources and program expenditures, based on the fees developed above. The revenue and expenditures shown are for the four-zone scenario.

TABLE 11
REVENUE AND EXPENDITURE PLAN

ZONE	UNITS[a]	FEE/UNIT	REVENUE	EXPENDITURES
Revenue				
North County				
Residential	2,738	$5,464	$ 14,960,003	
Retail	293	$3,321	$ 972,090	
Office/Government	3,991	$1,503	$ 5,996,481	
Other	2,154	$999	$ 2,150,863	
		North County Revenue	$ 24,079,437	
Greater Salinas				
Residential	21,871	$3,644	$ 79,706,576	
Retail	2,457	$3,321	$ 8,160,450	
Office/Government	22,354	$1,503	$ 33,588,804	
Other	6,460	$999	$ 6,450,937	
		Greater Salinas Revenue	$ 127,906,767	
Peninsula - South Coast				
Residential	9,083	$3,154	$ 28,643,399	
Retail	1,693	$2,897	$ 4,904,811	
Office/Government	24,928	$1,242	$ 30,963,111	
Other	3,212	$826	$ 2,652,443	
		Peninsula - South Coast Revenue	$ 67,163,764	
South County				
Residential	16,947	$4,608	$ 78,092,544	
Retail	1,259	$4,050	$ 5,098,626	
Office/Government	9,417	$1,804	$ 16,989,162	
Other	8,215	$1,157	$ 9,508,264	
		South County Revenue	$ 109,688,596	
Total Revenue			**$ 328,838,565**	
Expenditures				
Improvement Projects				$ 315,582,737
Transit Projects				$ 10,000,000
Administrative Costs				$ 3,255,827
Total Expenditures				**$ 328,838,565**

Notes:
a) Units are in dwelling units for residential and employees for all other uses

8. Implementation

8.1. Fee Adoption

The Regional Development Impact Fee is proposed for adoption by all of the land use jurisdictions and the Transportation Agency for Monterey County through a Joint Powers Agreement. The program specifies that two-thirds of the Transportation Agency member agencies must adopt the fee program in order for it to take effect. This two-thirds requirement assures that the overwhelming majority of the local jurisdictions have the fee program but that the program can still be enacted if a few jurisdictions opt out. Each adopting agency must adopt a resolution adopting the fee program and agreeing to participate in the Joint Powers Agreement, which authorizes the Transportation Agency to administer the regional fee program. The Transportation Agency and all the parties to the Joint Powers Agreement must adopt subsequent updates to the fee schedule. Through the Joint Powers Agreement, each jurisdiction will agree to collect the fees and transmit the revenue to the Transportation Agency.

8.2. Strategic Expenditure Plan

As part of the requirements under the Joint Powers Agreement, the Transportation Agency will be required to prepare and forward to each Party of the Joint Powers Agreement a Strategic Expenditure Plan within six months of the effective date of the fee. The Plan will provide an overview of the project cost estimates, expected revenues from the fee program, other sources of funding for each project, and a draft timeline for project delivery. When establishing the project delivery timeline, the Transportation Agency will consider a project's readiness, sources of funding, level of need, cost effectiveness, and geographic distribution related to other projects.

8.3. Fee Collection

The regional development impact fees will be coordinated with local transportation impact fees to avoid double-charging development for the same road or transit improvement projects. The fees will be collected from developers at the time all other fees are collected for the development. The Transportation Agency encourages collection of fees at the time that a building permit is issued for the new developments. Regional fees will be coordinated with any local road fees via a credit to the local fees to remove charges for any projects included in the Transportation Agency's Regional Development Impact Fee program.

The Transportation Agency will need to set up a special account for the fee revenues. Under the provisions of AB 1600, the collected revenues must be programmed for specific projects within five years of their receipt, or they must be refunded to the payer. Programming the funds is not equivalent to spending the money; however, longer periods may be required to accumulate sufficient revenue to actually construct certain transportation improvement projects.

8.3.1. Exemptions

The following developments are exempted from payment of the fee:

A. The reconstruction of any building so long as the reconstructed building both continues a use of the same category as the prior use and generates the same or fewer trips as the original building and reconstruction commences and so long as the permit for reconstruction is issued within one (1) year from destruction of the building.

B. Development within the Fort Ord Reuse Agency ("FORA") area that is subject to transportation improvement fees for transportation projects within the FORA plan area, provided that the FORA fee is in effect.

C. Development pursuant to a development agreement that was entered prior to the Effective Date of the Joint Powers Agreement in accordance with the terms of the development agreement in effect prior to the Effective Date of the Joint Powers Agreement.

8.3.2. Credits

Credit or Reimbursement for Project Funded in the Strategic Expenditure Plan.
A developer may be eligible for a credit to be applied against payment of the Regional Development Impact Fee if the developer constructs all or a part of one of the Transportation Improvement Projects that is, at the time the developer enters into an agreement for construction of such project, included in the approved Strategic Expenditure Plan for the fee program as a project to be funded.

A developer may be eligible for a reimbursement if the cost of constructing such a Transportation Improvement Project, or a part of such project, exceeds the amount of the Regional Development Impact Fee to be paid by the developer. The amount of reimbursement shall equal the difference between the cost of constructing all or a part of the Transportation Improvement Project and the Regional Development Impact Fee for the development project.

Reimbursement shall be from Regional Development Impact Fee revenues only, and the right to reimbursement shall be terminated ten years from the date the developer entered into the agreement for construction of the project.

The amount of credit, or the credit and reimbursement together, shall be in a amount equal to the cost of the Transportation Improvement Project or portion thereof, as set forth in the Strategic Expenditure Plan, and shall be calculated by the Public Works Director or City Engineer of the Party granting the credit (and approved by the Transportation Agency Board of Directors). The credit, or the credit and reimbursement together, shall be calculated at the time the developer enters into an agreement for construction of the Transportation Improvement Project and posts bonds. The credit shall be granted at the same time. Once calculated, the amount of reimbursement shall not increase for inflation nor shall it accrue interest.

Reimbursement for Projects Not Funded in the Strategic Expenditure Plan.
If a developer constructs all or a part of a Transportation Improvement Project that is not, at time the developer enters into an agreement for construction of such project, included in the prioritization plan of the Strategic Expenditure Plan as a project to be funded, the developer may be eligible for reimbursement from the Treasurer, provided that the Strategic Expenditure Plan is subsequently revised to include the improvement in the prioritization plan as a project to be funded. In such event, the amount of reimbursement shall be calculated by the Public Works Director or City Engineer of the Party in which the development is located (and approved by the Transportation Agency Technical Advisory Committee) and shall be equal to the cost of the project or portion thereof, as set forth in the Strategic Expenditure Plan. The amount of the reimbursement shall be calculated when the developer enters into an agreement for construction of the Transportation improvement Project and posts bonds. Once calculated, the amount of reimbursement shall not increase for inflation nor shall it accrue interest. Reimbursement shall be from Regional Development Impact Fee revenues only, and the right to reimbursement shall be terminated ten years from the date the developer entered into the agreement for construction of the project.

8.3.3. Calculation of Fees for More Specific Land Uses

If a proposed development project does not fit within the land use categories listed in Tables 9 or 10, a more specific fee amount may be calculated based on the estimated trips generated by the proposed development project. The fee per trip for the 4-zone scenario is $644 for the North County zone, $430 for the Greater Salinas zone, $375 for the Peninsula – South Coast zone, and $543 for the South County. Trip rates may be calculated by comparing the trip generation rate for the specific land use published in *The Institute of Transportation Engineers Traffic Generation Manual.*

8.4. Update Procedures

The Transportation Agency anticipates programming the fee revenue as part of its periodic Regional Transportation Plan update process. Given that the Regional Transportation Plan is updated every three to five years, the fee program itself will be updated at the same time to reflect changes in land use plans that affect projected traffic impacts or shifts in transportation planning priorities that require inclusion of new projects to better mitigate the impacts of future growth. The following actions will take place as appropriate in each subsequent version of the regional fee program:

- Track status of projects under construction, including percent complete and fee expended;
- Update cost estimate of each project on the list annually according to the latest construction cost index;
- Add or delete projects as conditions warrant, based on adopted transportation plans;
- Use an adopted travel forecast model to conduct deficiency plan and select link analyses;
- Recalculate maximum fee by zones in response to updated cost estimates;

- Recalculate revenue from regional fee program; and
- Assess potential for adopting a revised fee structure in light of political feasibility and other funding sources.

Appendices

Appendix A

- Florida Department of Transportation Highway Capacity Thresholds

TABLE 4 - 1
GENERALIZED **ANNUAL AVERAGE DAILY** VOLUMES FOR FLORIDA'S **URBANIZED AREAS***

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	2,000	7,000	13,800	19,600	27,000
4	Divided	20,400	33,000	47,800	61,800	70,200
6	Divided	30,500	49,500	71,600	92,700	105,400

STATE TWO-WAY ARTERIALS

Class I (>0.00 to 1.99 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	4,200	13,800	16,400	16,900
4	Divided	4,800	29,300	34,700	35,700	***
6	Divided	7,300	44,700	52,100	53,500	***
8	Divided	9,400	58,000	66,100	67,800	***

Class II (2.00 to 4.50 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	1,900	11,200	15,400	16,300
4	Divided	**	4,100	26,000	32,700	34,500
6	Divided	**	6,500	40,300	49,200	51,800
8	Divided	**	8,500	53,300	63,800	67,000

Class III (more than 4.5 signalized intersections per mile and not within primary city central business district of an urbanized area over 750,000)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	5,300	12,600	15,500
4	Divided	**	**	12,400	28,900	32,800
6	Divided	**	**	19,500	44,700	49,300
8	Divided	**	**	25,800	58,700	63,800

Class IV (more than 4.5 signalized intersections per mile and within primary city central business district of an urbanized area over 750,000)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	5,200	13,700	15,000
4	Divided	**	**	12,300	30,300	31,700
6	Divided	**	**	19,100	45,800	47,600
8	Divided	**	**	25,900	59,900	62,200

NON-STATE ROADWAYS

Major City/County Roadways

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	9,100	14,600	15,600
4	Divided	**	**	21,400	31,100	32,900
6	Divided	**	**	33,400	46,800	49,300

Other Signalized Roadways
(signalized intersection analysis)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	4,800	10,000	12,600
4	Divided	**	**	11,100	21,700	25,200

Source: Florida Department of Transportation 02/22/02
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450
http://www11.myflorida.com/planning/systems/sm/los/default.htm

FREEWAYS

Interchange spacing ≥ 2 mi. apart

Lanes	Level of Service A	B	C	D	E
4	23,800	39,600	55,200	67,100	74,600
6	36,900	61,100	85,300	103,600	115,300
8	49,900	82,700	115,300	140,200	156,000
10	63,000	104,200	145,500	176,900	196,400
12	75,900	125,800	175,500	213,500	237,100

Interchange spacing < 2 mi. apart

Lanes	Level of Service A	B	C	D	E
4	22,000	36,000	52,000	67,200	76,500
6	34,800	56,500	81,700	105,800	120,200
8	47,500	77,000	111,400	144,300	163,900
10	60,200	97,500	141,200	182,600	207,600
12	72,900	118,100	170,900	221,100	251,200

BICYCLE MODE

(Note: Level of service for the bicycle mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of bicyclists using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/ Bicycle Lane Coverage	Level of Service A	B	C	D	E
0-49%	**	**	3,200	13,800	>13,800
50-84%	**	2,500	4,100	>4,100	***
85-100%	3,100	7,200	>7,200	***	***

PEDESTRIAN MODE

(Note: Level of service for the pedestrian mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of pedestrians using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	Level of Service A	B	C	D	E
0-49%	**	**	**	6,400	15,500
50-84%	**	**	**	9,900	19,000
85-100%	**	2,200	11,300	>11,300	***

BUS MODE (Scheduled Fixed Route)

(Buses per hour)

(Note: Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.)

Sidewalk Coverage	Level of Service A	B	C	D	E
0-84%	**	>5	≥4	≥3	≥2
85-100%	>6	>4	≥3	≥2	≥1

ARTERIAL/NON-STATE ROADWAY ADJUSTMENTS

DIVIDED/UNDIVIDED
(alter corresponding volume by the indicated percent)

Lanes	Median	Left Turns Lanes	Adjustment Factors
2	Divided	Yes	+5%
2	Undivided	No	-20%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

ONE-WAY FACILITIES

Decrease corresponding two-directional volumes in this table by 40% to obtain the equivalent one directional volume for one-way facilities.

*This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are two-way annual average daily volumes (based on K_{100} factors) for levels of service and are for the automobile/truck modes unless specifically stated. Level of service letter grade thresholds are probably not comparable across modes and, therefore, cross modal comparisons should be made with caution. Furthermore, combining levels of service of different modes into one overall roadway level of service is not recommended. The table's input value defaults and level of service criteria appear on the following page. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

**Cannot be achieved using table input value defaults.

***Not applicable for that level of service letter grade. For automobile/truck modes, volumes greater than level of service D become F because intersection capacities have been reached. For bicycle and pedestrian modes, the level of service letter grade (including F) is not achievable, because there is no maximum vehicle volume threshold using table input value defaults.

TABLE 4 – 2
GENERALIZED **ANNUAL AVERAGE DAILY** VOLUMES FOR FLORIDA'S **AREAS TRANSITIONING INTO URBANIZED AREAS** OR **AREAS OVER 5,000 NOT IN URBANIZED AREAS***

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	2,100	6,900	12,900	18,200	24,900
4	Divided	18,600	30,200	43,600	56,500	64,200
6	Divided	27,900	45,200	65,500	84,700	96,200

STATE TWO-WAY ARTERIALS

Class I (>0.00 to 1.99 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	4,000	13,100	15,500	16,300
4	Divided	4,600	27,900	32,800	34,200	***
6	Divided	6,900	42,800	49,300	51,400	***

Class II (2.00 to 4.50 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	10,500	14,500	15,300
4	Divided	**	3,700	24,400	30,600	32,200
6	Divided	**	6,000	38,000	46,100	48,400

Class III (more than 4.5 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	5,000	11,800	14,600
4	Divided	**	**	11,700	27,200	30,800
6	Divided	**	**	18,400	42,100	46,300

NON-STATE ROADWAYS

Major City/County Roadways

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	7,000	13,600	14,600
4	Divided	**	**	16,400	29,300	30,900
6	Divided	**	**	25,700	44,100	46,400

Other Signalized Roadways
(signalized intersection analysis)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	4,400	9,400	12,000
4	Divided	**	**	10,300	20,200	24,000

Source: Florida Department of Transportation 02/22/02
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450
http://www11.myflorida.com/planning/systems/sm/los/default.htm

FREEWAYS

Lanes	Level of Service A	B	C	D	E
4	23,500	38,700	52,500	62,200	69,100
6	36,400	59,800	81,100	96,000	106,700
8	49,100	80,900	109,600	129,800	144,400
10	61,800	101,800	138,400	163,800	182,000

BICYCLE MODE

(Note: Level of service for the bicycle mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of bicyclists using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/ Bicycle Lane Coverage	Level of Service A	B	C	D	E
0-49%	**	1,900	3,300	13,600	>13,600
50-84%	**	2,500	4,000	>4,000	***
85-100%	3,200	7,100	>7,100	***	***

PEDESTRIAN MODE

(Note: Level of service for the pedestrian mode in this table is based on roadway geometric at 40 mph posted speed and traffic conditions, not number of pedestrians using the facility.) (Multiply motorized vehicle volumes shown by number of directional roadway lanes to determine two-way maximum service volumes.)

% Sidewalk Coverage	Level of Service A	B	C	D	E
0-49%	**	**	**	6,300	15,400
50-84%	**	**	**	9,800	18,800
85-100%	**	2,200	11,200	>11,200	***

ARTERIAL/NON-STATE ROADWAY ADJUSTMENTS

DIVIDED/UNDIVIDED

Lanes	Median	Left Turn Lanes	Adjustment Factors
2	Divided	Yes	+5%
2	Undivided	No	-20%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

ONE-WAY FACILITIES

Decrease corresponding two-directional volumes in this table by 40% to obtain the equivalent one directional volume for one-way facilities.

*This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are two-way annual average daily volumes (based on K_{100} factors) for levels of service and are for the automobile/truck modes unless specifically stated. Level of service letter grade thresholds are probably not comparable across modes and, therefore, cross modal comparisons should be made with caution. Furthermore, combining levels of service of different modes into one overall roadway level of service is not recommended. The table's input value defaults and level of service criteria appear on the following page. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, and Pedestrian LOS Model, respectively for the automobile/truck, bicycle and pedestrian modes.

**Cannot be achieved using table input value defaults.

***Not applicable for the level of service letter grade. For automobile/truck modes, volumes greater than level of service D become F because intersection capacities have been reached. For bicycle and pedestrian modes, the level of service letter grade (including F) is not achievable, because there is no maximum vehicle volume threshold using table input value defaults.

TABLE 4 – 3

GENERALIZED **ANNUAL AVERAGE DAILY** VOLUMES FOR FLORIDA'S **RURAL UNDEVELOPED AREAS AND CITIES** OR **DEVELOPED AREAS LESS THAN 5,000 POPULATION***

RURAL UNDEVELOPED AREAS

FREEWAYS

Lanes	Level of Service A	B	C	D	E
4	21,300	35,300	47,900	56,600	63,000
6	33,100	54,300	73,900	87,400	97,200
8	44,700	73,600	100,000	118,400	131,400

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	2,600	5,300	8,600	13,800	22,300
4	Divided	17,500	28,600	40,800	52,400	58,300
6	Divided	26,200	42,800	61,200	78,600	87,400

PASSING LANE ADJUSTMENTS
(alter corresponding two-lane LOS A-D volumes indicated percent)

Passing Lane Spacing	Adjustment Factors
5 mi.	+25%
10 mi.	+10%

ISOLATED SIGNALIZED INTERSECTIONS

Lanes	Level of Service A	B	C	D	E
2	**	1,900	8,000	10,700	12,100
4	**	2,900	17,400	23,000	25,200
6	**	4,500	27,100	35,500	43,100

BICYCLE MODE

(Note: Level of service for the bicycle mode in this table is based on roadway geometrics at 55 mph posted speed and traffic conditions, not number of bicyclists using the facility.) (Multiply motorized vehicle volumes shown below by directional roadway lanes to determine maximum service volume.)

Paved Shoulder/ Bicycle Lane Coverage	A	B	C	D	E
0-49%	**	**	**	**	6,200
50-84%	**	**	**	**	17,600
85-100%	**	**	3,900	>3,900	***

02/22/02

Source: Florida Department of Transportation
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450

http://www11.myflorida.com/planning/systems/sm/los/default.htm

CITIES OR RURAL DEVELOPED AREAS LESS THAN 5000

FREEWAYS

Lanes	Level of Service A	B	C	D	E
4	21,300	35,300	47,900	56,600	63,000
6	33,100	54,300	73,900	87,400	97,200
8	44,700	73,600	100,000	118,400	131,400

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	2,500	7,200	12,700	17,300	23,500
4	Divided	17,800	28,900	41,800	54,100	61,500
6	Divided	26,800	43,300	62,700	81,200	92,200

INTERRUPTED FLOW ARTERIALS

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	2,200	11,000	13,900	14,900
4	Divided	**	5,300	25,500	29,400	31,200
6	Divided	**	8,400	39,400	44,200	46,800

NON-STATE SIGNALIZED ROADWAYS

(signalized intersection analysis)

Lanes	Level of Service A	B	C	D	E
2	**	**	1,900	7,600	10,100

BICYCLE MODE

(Note: Level of service for the bicycle mode in this table is based on roadway geometrics at 45 mph posted speed and traffic conditions, not number of bicyclists using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine maximum service volumes.)

Paved Shoulder/ Bicycle Lane Coverage	Level of Service A	B	C	D	E
0-49%	**	**	2,800	6,900	>6,900
50-84%	**	2,100	3,500	>3,500	***
85-100%	2,800	4,000	>4,000	***	***

PEDESTRIAN MODE

(Note: Level of service for the pedestrian mode in this table is based on roadway geometric at 45 mph posted speed and traffic conditions, not number of pedestrian using the facility.) (Multiply motorized vehicle volumes shown by number of directional roadway lanes to determine maximum service volumes.)

Sidewalk Coverage	Level of Service A	B	C	D	E
0-49%	**	**	**	4,400	14,200
50-84%	**	**	**	8,000	18,000
85-100%	**	**	9,400	>9,400	***

NON-FREEWAY AND SIGNALIZED INTERSECTION ANALYSES DIVIDED/UNDIVIDED ADJUSTMENTS

(alter corresponding volumes by the indicated percent)

Lanes	Median	Left Turn Lanes	Adjustment Factors
2	Divided	Yes	+5%
2	Undivided	No	-20%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

*This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are two-way annual average daily volumes (based on K_{100} factors) for levels of service and are for the automobile/truck modes unless specifically stated. Level of service letter grade thresholds are probably not comparable across modes and, therefore, cross modal comparisons should be made with caution. Furthermore, combining levels of service of different modes into one overall roadway level of service is not recommended. The table's input value defaults and level of service criteria appear on the following page. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, and Pedestrian LOS Model, respectively for the automobile/truck, bicycle and pedestrian modes.

**Cannot be achieved using table input value defaults.

***Not applicable for the level of service letter grade. For bicycle and pedestrian modes, the level of service letter grade (including F) is not achievable, because there is no maximum vehicle volume threshold using table input value defaults.

Appendix B

- Volume Growth and Validation Calculations

TABLE B-1
COMPARISON OF YEAR 2000 CALTRANS
AND AMBAG MODEL VOLUMES

HIGHWAY ROUTE	2000 AMBAG MODEL (a)	2000 CALTRANS VOLUME (a)	MODEL VS CALTRANS
US Highway 101	32,199	35,233	-8.6%
SR-1	45,322	42,543	6.5%
SR-25	206	350	-41.1%
SR-68 (Holman Highway)	23,610	20,367	15.9%
SR-68 (Monterey Salinas Highway)	24,828	25,944	-4.3%
SR-146	3,888	4,458	-12.8%
SR-156	41,115	27,833	47.7%
SR-183	15,500	16,200	-4.3%
SR-198	1,505	1,075	40.0%
SR-218 (Canyon del Rey Blvd)	12,242	13,950	-12.2%
Segments Total	**3,122,809**	**2,980,780**	
Average (By Volume)			**4.8%**

Notes:
(a) Volumes shown represent an average of all of the segments in the study area for the given route

K:\TPTO\097968000\Excel\[Comparison data.xls]Model Validation

Appendix C

- Roadway Segment Level of Service

TABLE C-1
2000 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
US Highway 101					
County Border to Crazy Horse Canyon Rd	4-Lane Uninterruped Flow Highway	64,200	66,978	1.043	F
Crazy Horse Canyon Rd to San Miguel Canyon	4-Lane Uninterruped Flow Highway	64,200	64,546	1.005	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterruped Flow Highway	64,200	70,765	1.102	F
SR-156 to Pesante Rd	4-Lane Uninterruped Flow Highway	64,200	46,944	0.731	D
Pesante Rd to Espinosa Rd	4-Lane Uninterruped Flow Highway	64,200	47,824	0.745	D
Espinosa Rd to E Boronda Rd	4-Lane Uninterruped Flow Highway	64,200	52,258	0.814	D
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	50,930	0.737	C
W Laurel Dr to N Main St	4-Lane Freeway	69,100	49,238	0.713	C
N Main St to E Market St	4-Lane Freeway	69,100	59,130	0.856	D
E Market St to John St	4-Lane Freeway	69,100	56,739	0.821	D
John St to S Sanborn Rd	4-Lane Freeway	69,100	46,893	0.679	C
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	48,579	0.703	C
Airport Blvd to Abbott St	4-Lane Freeway	69,100	29,024	0.420	B
Abbott St to Spence Rd	4-Lane Uninterruped Flow Highway	64,200	41,961	0.654	C
Spence Rd to Chualar Rd	4-Lane Uninterruped Flow Highway	64,200	40,587	0.632	C
Chualar Rd to Old Stage Rd	4-Lane Uninterruped Flow Highway	64,200	34,705	0.541	C
Old Stage Rd to 5th St	4-Lane Uninterruped Flow Highway	64,200	33,501	0.522	C
5th St to S Alta St	4-Lane Uninterruped Flow Highway	64,200	28,364	0.442	B
S Alta St to Camphora Rd	4-Lane Uninterruped Flow Highway	64,200	29,260	0.456	B
Camphora Rd to Moranda Rd	4-Lane Uninterruped Flow Highway	64,200	30,189	0.470	B
Moranda Rd to Front St	4-Lane Uninterruped Flow Highway	64,200	21,952	0.342	B
Front St to Arroyo Seco Rd	4-Lane Uninterruped Flow Highway	64,200	23,744	0.370	B
Arroyo Seco Rd to El Camino Real	4-Lane Uninterruped Flow Highway	64,200	23,388	0.364	B
El Camino Real to Oak Ave	4-Lane Uninterruped Flow Highway	64,200	22,993	0.358	B
Oak Ave to Patricia Ln	4-Lane Uninterruped Flow Highway	64,200	16,354	0.255	A
Patricia Ln to Central Ave	4-Lane Uninterruped Flow Highway	64,200	15,885	0.247	A
Central Ave to Jolon Rd	4-Lane Uninterruped Flow Highway	64,200	17,392	0.271	A
Jolon Rd to Broadway St	4-Lane Freeway	69,100	18,426	0.267	A
Broadway St to S 1st St	4-Lane Freeway	69,100	14,413	0.209	A
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	13,499	0.195	A
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	13,554	0.196	A
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	12,878	0.186	A
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	14,140	0.205	A
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	14,978	0.217	A
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	14,978	0.217	A
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	14,984	0.217	A
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	17,367	0.251	A
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	17,473	0.253	A
Bradley Rd to County Border	4-Lane Freeway	69,100	18,938	0.274	A
SR-1					
County Border to Salinas Rd	3-Lane Uninterruped Flow Highway	44,550	34,713	0.779	D
Salinas Rd to Struve Rd	2-Lane Uninterruped Flow Highway	24,900	23,733	0.953	E
Struve Rd to Dolan Rd	2-Lane Uninterruped Flow Highway	24,900	23,073	0.927	E
Dolan Rd to Molera Rd	2-Lane Uninterruped Flow Highway	24,900	22,479	0.903	E
Molera Rd to SR-183	2-Lane Uninterruped Flow Highway	24,900	23,196	0.932	E
SR-183 to SR-156	4-Lane Freeway	69,100	13,756	0.199	A
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	59,191	0.857	D
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	52,662	0.762	D
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	54,365	0.787	D

TABLE C-1
2000 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	89,740	0.841	D
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	94,748	0.888	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	101,050	0.947	E
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	69,100	89,064	1.289	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	83,318	1.206	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	80,803	1.169	F
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	107,537	1.556	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	66,426	0.961	E
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	66,563	0.963	E
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	51,175	0.741	C
Carpenter St to Ocean Ave	4-Lane Class I Two-Way State Arterial	34,200	37,769	1.104	F
Ocean Ave to Carmel Valley Rd	3-Lane Class I Two-Way State Arterial	25,250	33,448	1.325	F
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I Two-Way State Arterial	16,300	14,838	0.910	D
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	12,268	0.753	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	9,130	0.560	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterruped Flow Highway	24,900	5,992	0.241	B
Mal Paso Rd to Aurora del Mar	2-Lane Uninterruped Flow Highway	24,900	5,992	0.241	B
Aurora del Mar to Garrapata Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	5,992	0.241	B
Garrapata Ridge Rd to Palo Colorado Canyon R	2-Lane Uninterruped Flow Highway	24,900	5,992	0.241	B
Palo Colorado Canyon Rd to Old Coast Rd	2-Lane Uninterruped Flow Highway	24,900	3,558	0.143	B
Old Coast Rd to Coast Rd	2-Lane Uninterruped Flow Highway	24,900	3,588	0.144	B
Coast Rd to Clear Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	3,588	0.144	B
Clear Ridge Rd to Sycamore Canyon Rd	2-Lane Uninterruped Flow Highway	24,900	2,580	0.104	B
Sycamore Canyon Rd to Mule Canyon	2-Lane Uninterruped Flow Highway	24,900	2,580	0.104	B
Mule Canyon to Partington Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	1,942	0.078	A
Partington Ridge Rd to Dolan Rd	2-Lane Uninterruped Flow Highway	24,900	1,942	0.078	A
Dolan Rd to Nacimiento-Fergusson Rd	2-Lane Uninterruped Flow Highway	24,900	1,890	0.076	A
Nacimiento-Fergusson Rd to Plasket Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	1,427	0.057	A
Plasket Ridge Rd to Willow Creek-los Burros R	2-Lane Uninterruped Flow Highway	24,900	1,427	0.057	A
Willow Creek-los Burros Rd to County Border	2-Lane Uninterruped Flow Highway	24,900	1,427	0.057	A
SR-25					
County Border to SR-198	2-Lane Class I Two-Way State Arterial	16,300	206	0.013	B
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	23,016	1.412	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	21,727	1.333	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	21,550	1.322	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	16,300	26,265	1.611	F
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	19,935	1.303	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	20,002	1.307	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	28,985	1.778	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	23,665	1.452	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	26,123	1.603	F
Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	16,300	25,470	1.563	F
Portola Dr to Reservation Rd	4-Lane Uninterruped Flow Highway	64,200	26,285	0.409	B
Reservation Rd to Spreckels Blvd	4-Lane Uninterruped Flow Highway	64,200	28,686	0.447	B
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	24,301	0.711	B

TABLE C-1
2000 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	6,942	0.475	D
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	3,412	0.234	C
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	4,771	0.327	C
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	14,600	425	0.029	C
Stonewall Canyon Rd to County Border	2-Lane Class III Two-Way State Arterial	14,600	0	0.000	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	45,424	0.657	C
SR-183 to Castroville Blvd	4-Lane Uninterruped Flow Highway	64,200	32,500	0.506	C
Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	16,300	30,000	1.840	F
SR-183					
SR-1 to SR-156	2-Lane Class II Two-Way State Arterial	15,300	14,105	0.922	D
SR-156 to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	18,722	1.149	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	14,060	0.863	D
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	15,112	0.442	B
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	1,708	0.117	C
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	1,729	0.118	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	1,741	0.119	C
SR-25 to County Border	2-Lane Class III Two-Way State Arterial	14,600	841	0.058	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	14,762	0.479	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	9,188	0.298	C
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	11,627	0.796	D
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	13,391	0.917	E
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway	14,600	9,285	0.636	D
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway	14,600	5,387	0.369	C
Aromas Rd to Tarpey Rd	2-Lane Major Roadway	14,600	2,658	0.182	C
Tarpey Rd to Carpenteria Rd	2-Lane Major Roadway	14,600	8,064	0.552	D
Carpenteria Rd to US-101	2-Lane Major Roadway	14,600	9,886	0.677	D
County Road G12 (Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)					
Hall Rd to Werner Rd	2-Lane Major Roadway	14,600	25,480	1.745	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway	14,600	18,707	1.281	F
Hall Rd to Strawberry Rd	2-Lane Major Roadway	14,600	11,161	0.764	D
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway	14,600	13,482	0.923	D
Castroville Blvd to US-101	2-Lane Major Roadway	14,600	17,103	1.171	F
County Road G16 (Carmel Valley Road)					
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	30,900	24,120	0.781	D
Carmel Rancho Blvd to Valley Greens Dr	4-Lane Major Roadway	30,900	19,173	0.620	D
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	14,600	8,970	0.614	D
Robinson Canyon Rd to Laureles Grade Rd	2-Lane Major Roadway	14,600	8,467	0.580	D
Laureles Grade Rd to Ford Rd	2-Lane Major Roadway	14,600	8,582	0.588	D
Ford Rd to Holman Rd	2-Lane Major Roadway	14,600	2,379	0.163	C
Holman Rd to Cachagua Rd	2-Lane Major Roadway	14,600	3,540	0.242	C
Cachagua Rd to Tassajara Rd	2-Lane Major Roadway	14,600	1,399	0.096	C
Tassajara Rd to Arroyo Seco Rd	2-Lane Major Roadway	14,600	980	0.067	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	14,600	1,052	0.072	C
Elm Ave to Central Ave	2-Lane Major Roadway	14,600	1,042	0.071	C
Central Ave to US-101	2-Lane Major Roadway	14,600	2,337	0.160	C

TABLE C-1
2000 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
US-101 to Metz Rd	2-Lane Major Roadway	14,600	1,663	0.114	C
County Road G17 (Reservation Rd/River Rd)					
SR-1 to Beach Rd	4-Lane Major Roadway	30,900	4,888	0.158	C
Beach Rd to Del Monte Blvd	4-Lane Major Roadway	30,900	7,071	0.229	C
Del Monte Blvd to Bayer St	4-Lane Major Roadway	30,900	25,746	0.833	D
Bayer St to Imjin Pkwy	4-Lane Major Roadway	30,900	22,635	0.733	D
Imjin Pkwy to W Blanco Rd	4-Lane Major Roadway	30,900	26,409	0.855	D
W Blanco Rd to S Davis Rd	2-Lane Major Roadway	14,600	4,352	0.298	C
S Davis Rd to SR-68	2-Lane Major Roadway	14,600	6,884	0.472	C
SR-68 to Las Palmas Pkwy	2-Lane Major Roadway	14,600	9,209	0.631	D
Las Palmas Pkwy to Laguna Rd	2-Lane Major Roadway	14,600	5,065	0.347	C
Laguna Rd to River Rd	2-Lane Major Roadway	14,600	1,547	0.106	C
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway	14,600	900	0.062	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway	14,600	1,008	0.069	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway	14,600	2,100	0.144	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	14,600	602	0.041	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Camino Escondido Rd	2-Lane Major Roadway	14,600	5,957	0.408	C
Camino Escondido Rd to W Carmel Valley Rd	2-Lane Major Roadway	14,600	5,575	0.382	C
Foam St					
David Ave to Prescott Ave	2-Lane Other Roadway	12,000	2,746	0.229	C
Prescott Ave to Drake Ave	2-Lane Other Roadway	12,000	7,522	0.627	D
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	12,000	9,519	0.793	E
Lighthouse Ave					
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	674	0.022	C
17 Mile Dr to Del Monte Blvd	4-Lane Major Roadway	30,900	2,445	0.079	C
Del Monte Blvd to Pacific Ave	4-Lane Major Roadway	30,900	5,403	0.175	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	2,773	0.090	C
Forest Ave to Monterey Ave	4-Lane Major Roadway	30,900	3,393	0.110	C
Monterey Ave to David Ave	4-Lane Major Roadway	30,900	5,012	0.162	C
David Ave to Prescott Ave	4-Lane Major Roadway	30,900	26,392	1.425	F
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	30,900	37,038	1.199	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	45,515	1.473	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	36,341	1.176	F
Del Monte Ave					
Washington St to Camino Aguajito	4-Lane Major Roadway	30,900	44,037	1.425	F
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	30,900	29,299	0.948	D
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	31,949	1.034	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	25,561	0.827	D
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	18,503	0.771	D
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	14,665	0.611	D
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	29,449	0.953	E
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	21,745	0.704	D
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	8,186	0.265	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	7,415	0.240	C
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	19,349	0.626	D

TABLE C-1
2000 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	35,374	1.145	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	31,885	1.032	F
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	22,487	0.728	D
Abbott St to Blanco Cir	4-Lane Major Roadway	30,900	10,182	0.330	C
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	17,004	0.366	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	23,782	0.615	D
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	20,012	0.648	D
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	22,760	0.491	C
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	26,380	1.099	F
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	21,580	0.899	E
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	36,345	1.176	F
Abbott St to US-101	4-Lane Major Roadway	30,900	45,973	1.488	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	18,554	0.773	D
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	13,736	0.445	C
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	16,954	0.549	D
Davis Rd					
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	23,935	0.775	D
SR-183 to W Blanco Rd	2-Lane Major Roadway	14,600	15,337	1.050	F
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Major Roadway	14,600	22,544	1.544	F
Cooper Rd to S Davis Rd	2-Lane Major Roadway	14,600	23,680	1.622	F
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	11,897	0.385	C
W Alisal St to SR-68	4-Lane Major Roadway	30,900	7,859	0.254	C
SR-68 to Blanco Cir	4-Lane Major Roadway	30,900	13,353	0.432	C

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing roads street classification is based on the AMBAG Regional Travel Demand Model and aerials of the study area.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were obtained from the AMBAG Regional Travel Demand Model
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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TABLE C-2
YEAR 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	2030 BASELINE		
			ADT	V/C RATIO (a)	LOS
US Highway 101					
County Border to Crazy Horse Canyon Rd	4-Lane Uninterruped Flow Highway	64,200	67,009	1.044	F
Crazy Horse Canyon Rd to San Miguel Canyon	4-Lane Uninterruped Flow Highway	64,200	58,672	0.914	E
San Miguel Canyon Rd to SR-156	4-Lane Uninterruped Flow Highway	64,200	75,258	1.172	F
SR-156 to Pesante Rd	4-Lane Uninterruped Flow Highway	64,200	67,533	1.052	F
Pesante Rd to Espinosa Rd	4-Lane Uninterruped Flow Highway	64,200	70,734	1.102	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterruped Flow Highway	64,200	74,981	1.168	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	74,999	1.085	F
W Laurel Dr to N Main St	4-Lane Freeway	69,100	74,106	1.072	F
N Main St to E Market St	4-Lane Freeway	69,100	85,228	1.233	F
E Market St to John St	4-Lane Freeway	69,100	81,038	1.173	F
John St to S Sanborn Rd	4-Lane Freeway	69,100	86,922	1.258	F
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	88,239	1.277	F
Airport Blvd to Abbott St	4-Lane Freeway	69,100	64,262	0.93	E
Abbott St to Spence Rd	4-Lane Uninterruped Flow Highway	64,200	89,284	1.391	F
Spence Rd to Chualar Rd	4-Lane Uninterruped Flow Highway	64,200	88,205	1.374	F
Chualar Rd to Old Stage Rd	4-Lane Uninterruped Flow Highway	64,200	85,944	1.339	F
Old Stage Rd to 5th St	4-Lane Uninterruped Flow Highway	64,200	82,264	1.281	F
5th St to S Alta St	4-Lane Uninterruped Flow Highway	64,200	66,441	1.035	F
S Alta St to Camphora Rd	4-Lane Uninterruped Flow Highway	64,200	72,596	1.131	F
Camphora Rd to Moranda Rd	4-Lane Uninterruped Flow Highway	64,200	72,495	1.129	F
Moranda Rd to Front St	4-Lane Uninterruped Flow Highway	64,200	72,495	1.129	F
Front St to Arroyo Seco Rd	4-Lane Uninterruped Flow Highway	64,200	49,849	0.776	D
Arroyo Seco Rd to El Camino Real	4-Lane Uninterruped Flow Highway	64,200	49,983	0.779	D
El Camino Real to Oak Ave	4-Lane Uninterruped Flow Highway	64,200	46,918	0.731	D
Oak Ave to Patricia Ln	4-Lane Uninterruped Flow Highway	64,200	32,572	0.507	C
Patricia Ln to Central Ave	4-Lane Uninterruped Flow Highway	64,200	31,294	0.487	C
Central Ave to Jolon Rd	4-Lane Uninterruped Flow Highway	64,200	35,118	0.547	C
Jolon Rd to Broadway St	4-Lane Freeway	69,100	36,826	0.533	B
Broadway St to S 1st St	4-Lane Freeway	69,100	30,404	0.44	B
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	27,675	0.401	B
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	27,635	0.4	B
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	25,226	0.365	B
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	25,934	0.375	B
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	27,031	0.391	B
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	27,031	0.391	B
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	27,031	0.391	B
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	36,518	0.528	B
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	38,175	0.552	B
Bradley Rd to County Border	4-Lane Freeway	69,100	40,606	0.588	C
SR-1					
County Border to Salinas Rd	3-Lane Uninterruped Flow Highway	44,550	51,046	1.146	F
Salinas Rd to Struve Rd	2-Lane Uninterruped Flow Highway	24,900	30,283	1.216	F
Struve Rd to Dolan Rd	2-Lane Uninterruped Flow Highway	24,900	29,333	1.178	F
Dolan Rd to Molera Rd	2-Lane Uninterruped Flow Highway	24,900	27,807	1.117	F
Molera Rd to SR-183	2-Lane Uninterruped Flow Highway	24,900	28,849	1.159	F
SR-183 to SR-156	4-Lane Freeway	69,100	16,678	0.241	A
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	64,629	0.935	E

TABLE C-2
YEAR 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	2030 BASELINE		
			ADT	V/C RATIO (a)	LOS
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	54,191	0.784	D
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	56,797	0.822	D
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	111,630	1.046	F
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	112,152	1.051	F
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	123,172	1.154	F
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	69,100	97,913	1.417	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	88,841	1.286	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	83,611	1.21	F
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	111,342	1.611	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	70,590	1.022	F
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	72,286	1.046	F
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	55,212	0.799	D
Carpenter St to Ocean Ave	4-Lane Class I Two-Way State Arterial	34,200	43,042	1.259	F
Ocean Ave to Carmel Valley Rd	3-Lane Class I Two-Way State Arterial	25,250	37,036	1.467	F
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I Two-Way State Arterial	16,300	16,584	1.017	F
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	12,276	0.753	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	9,056	0.556	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterruped Flow Highway	24,900	5,422	0.218	B
Mal Paso Rd to Aurora del Mar	2-Lane Uninterruped Flow Highway	24,900	5,422	0.218	B
Aurora del Mar to Garrapata Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	5,422	0.218	B
Garrapata Ridge Rd to Palo Colorado Canyon R	2-Lane Uninterruped Flow Highway	24,900	5,422	0.218	B
Palo Colorado Canyon Rd to Old Coast Rd	2-Lane Uninterruped Flow Highway	24,900	2,807	0.113	B
Old Coast Rd to Coast Rd	2-Lane Uninterruped Flow Highway	24,900	2,807	0.113	B
Coast Rd to Clear Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	2,807	0.113	B
Clear Ridge Rd to Sycamore Canyon Rd	2-Lane Uninterruped Flow Highway	24,900	4,336	0.174	B
Sycamore Canyon Rd to Mule Canyon	2-Lane Uninterruped Flow Highway	24,900	4,336	0.174	B
Mule Canyon to Partington Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	3,362	0.135	B
Partington Ridge Rd to Dolan Rd	2-Lane Uninterruped Flow Highway	24,900	3,362	0.135	B
Dolan Rd to Nacimiento-Fergusson Rd	2-Lane Uninterruped Flow Highway	24,900	3,272	0.131	B
Nacimiento-Fergusson Rd to Plasket Ridge Rd	2-Lane Uninterruped Flow Highway	24,900	2,901	0.117	B
Plasket Ridge Rd to Willow Creek-los Burros R	2-Lane Uninterruped Flow Highway	24,900	2,901	0.117	B
Willow Creek-los Burros Rd to County Border	2-Lane Uninterruped Flow Highway	24,900	2,901	0.117	B
SR-25					
County Border to SR-198	2-Lane Class I Two-Way State Arterial	16,300	389	0.024	B
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	25,172	1.544	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	23,788	1.459	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	23,537	1.444	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	16,300	28,907	1.773	F
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	24,361	1.592	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	25,687	1.679	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	37,756	2.316	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	32,189	1.975	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	36,123	2.216	F
Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	16,300	37,516	2.302	F
Portola Dr to Reservation Rd	4-Lane Uninterruped Flow Highway	64,200	39,170	0.61	C
Reservation Rd to Spreckels Blvd	4-Lane Uninterruped Flow Highway	64,200	43,321	0.675	C

TABLE C-2
YEAR 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	2030 BASELINE		
			ADT	V/C RATIO (a)	LOS
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	31,513	0.921	C
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	18,196	1.246	F
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	8,906	0.61	D
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	22,679	1.553	F
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	14,600	3,786	0.259	C
Stonewall Canyon Rd to County Border	2-Lane Class III Two-Way State Arterial	14,600	1,772	0.121	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	47,950	0.694	C
SR-183 to Castroville Blvd	4-Lane Uninterruped Flow Highway	64,200	44,546	0.694	D
Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	16,300	34,412	2.111	F
SR-183					
SR-1 to SR-156	2-Lane Class II Two-Way State Arterial	15,300	22,046	1.441	F
SR-156 to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	27,595	1.693	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	21,613	1.326	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	31,733	0.928	C
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	5,462	0.374	D
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	5,591	0.383	D
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	5,663	0.388	D
SR-25 to County Border	2-Lane Class III Two-Way State Arterial	14,600	915	0.063	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	19,421	0.631	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	10,067	0.327	C
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	13,922	0.954	E
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	16,967	1.162	F
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway	14,600	26,397	1.808	F
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway	14,600	17,016	1.165	F
Aromas Rd to Tarpey Rd	2-Lane Major Roadway	14,600	11,324	0.776	D
Tarpey Rd to Carpenteria Rd	2-Lane Major Roadway	14,600	16,339	1.119	F
Carpenteria Rd to US-101	2-Lane Major Roadway	14,600	17,132	1.173	F
County Road G12 (Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)					
Hall Rd to Werner Rd	2-Lane Major Roadway	14,600	39,851	2.73	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway	14,600	30,389	2.081	F
Hall Rd to Strawberry Rd	2-Lane Major Roadway	14,600	22,908	1.569	F
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway	14,600	26,127	1.79	F
Castroville Blvd to US-101	2-Lane Major Roadway	14,600	29,359	2.011	F
County Road G16 (Carmel Valley Road)					
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	30,900	29,729	0.962	E
Carmel Rancho Blvd to Valley Greens Dr	4-Lane Major Roadway	30,900	25,239	0.817	D
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	14,600	15,802	1.082	F
Robinson Canyon Rd to Laureles Grade Rd	2-Lane Major Roadway	14,600	14,286	0.978	E
Laureles Grade Rd to Ford Rd	2-Lane Major Roadway	14,600	13,986	0.958	E
Ford Rd to Holman Rd	2-Lane Major Roadway	14,600	2,960	0.203	C
Holman Rd to Cachagua Rd	2-Lane Major Roadway	14,600	8,231	0.564	D
Cachagua Rd to Tassajara Rd	2-Lane Major Roadway	14,600	5,683	0.389	C
Tassajara Rd to Arroyo Seco Rd	2-Lane Major Roadway	14,600	5,434	0.372	C

TABLE C-2
YEAR 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	2030 BASELINE		
			ADT	V/C RATIO (a)	LOS
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	14,600	5,259	0.36	C
Elm Ave to Central Ave	2-Lane Major Roadway	14,600	4,905	0.336	C
Central Ave to US-101	2-Lane Major Roadway	14,600	3,364	0.23	C
US-101 to Metz Rd	2-Lane Major Roadway	14,600	4,018	0.275	C
County Road G17 (Reservation Rd/River Rd)					
SR-1 to Beach Rd	4-Lane Major Roadway	30,900	5,830	0.189	C
Beach Rd to Del Monte Blvd	4-Lane Major Roadway	30,900	9,389	0.304	C
Del Monte Blvd to Bayer St	4-Lane Major Roadway	30,900	42,203	1.366	F
Bayer St to Imjin Pkwy	4-Lane Major Roadway	30,900	40,516	1.311	F
Imjin Pkwy to W Blanco Rd	4-Lane Major Roadway	30,900	57,900	1.874	F
W Blanco Rd to S Davis Rd	2-Lane Major Roadway	14,600	21,322	1.46	F
S Davis Rd to SR-68	2-Lane Major Roadway	14,600	17,798	1.219	F
SR-68 to Las Palmas Pkwy	2-Lane Major Roadway	14,600	15,536	1.064	F
Las Palmas Pkwy to Laguna Rd	2-Lane Major Roadway	14,600	9,997	0.685	D
Laguna Rd to River Rd	2-Lane Major Roadway	14,600	6,702	0.459	C
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway	14,600	4,830	0.331	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway	14,600	2,963	0.203	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway	14,600	5,529	0.379	C
Arroyo Seco Rd to Elm Ave	2-Lane Major Roadway	14,600	1,032	0.071	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Camino Escondido Rd	2-Lane Major Roadway	14,600	9,144	0.626	D
Camino Escondido Rd to W Carmel Valley Rd	2-Lane Major Roadway	14,600	8,450	0.579	D
Foam St					
David Ave to Prescott Ave	2-Lane Other Roadway	12,000	3,147	0.262	C
Prescott Ave to Drake Ave	2-Lane Other Roadway	12,000	8,268	0.689	D
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	12,000	9,917	0.826	E
Lighthouse Ave					
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	972	0.031	C
17 Mile Dr to Del Monte Blvd	4-Lane Major Roadway	30,900	2,807	0.091	C
Del Monte Blvd to Pacific Ave	4-Lane Major Roadway	30,900	6,998	0.226	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	2,769	0.09	C
Forest Ave to Monterey Ave	4-Lane Major Roadway	30,900	3,762	0.122	C
Monterey Ave to David Ave	4-Lane Major Roadway	30,900	5,824	0.188	C
David Ave to Prescott Ave	4-Lane Major Roadway	30,900	28,758	0.931	D
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	30,900	40,259	1.303	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	49,529	1.603	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	39,353	1.274	F
Del Monte Ave					
Washington St to Camino Aguajito	4-Lane Major Roadway	30,900	47,263	1.53	F
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	30,900	36,106	1.168	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	41,380	1.339	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	29,791	0.964	E
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	20,556	0.857	E
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	17,287	0.72	D
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	34,987	1.132	F

TABLE C-2
YEAR 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	2030 BASELINE		
			ADT	V/C RATIO (a)	LOS
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	24,646	0.798	D
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	13,244	0.429	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	11,983	0.388	C
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	28,184	0.912	D
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	54,833	1.775	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	50,893	1.647	F
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	34,032	1.101	F
Abbott St to Blanco Cir	4-Lane Major Roadway	30,900	15,838	0.513	C
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	20,599	0.444	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	27,299	0.706	D
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	22,754	0.736	D
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	41,007	0.884	D
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	28,990	1.208	F
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	24,591	1.025	F
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	52,471	1.698	F
Abbott St to US-101	4-Lane Major Roadway	30,900	65,697	2.126	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	29,470	1.228	F
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	13,102	0.424	C
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	21,464	0.695	D
Davis Rd					
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	36,009	1.165	F
SR-183 to W Blanco Rd	2-Lane Major Roadway	14,600	19,589	1.342	F
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Major Roadway	14,600	38,002	2.603	F
Cooper Rd to S Davis Rd	2-Lane Major Roadway	14,600	35,184	2.41	F
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	29,058	0.94	D
W Alisal St to SR-68	4-Lane Major Roadway	30,900	8,426	0.273	C
SR-68 to Blanco Cir	4-Lane Major Roadway	30,900	18,902	0.612	D

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Appendix D

- Monterey-Salinas Transit Unfunded 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	$ 75,984,306	$ 33,031,130	$ 43,367,176
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	$ 56,140,000		$ 56,140,000
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	$ 63,540,000		$ 63,540,000
Total shortage			$ 163,047,176

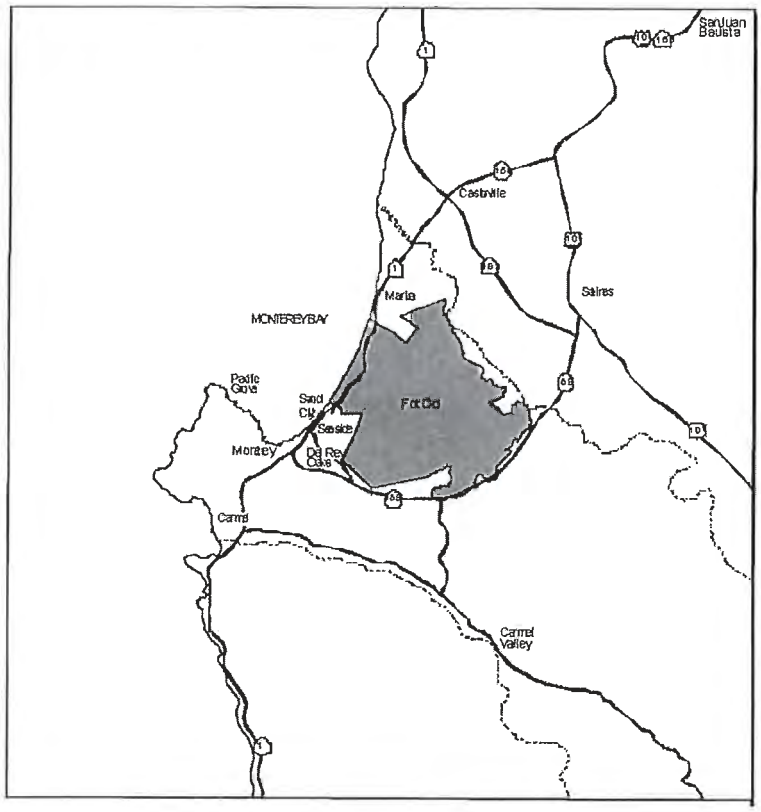
Source: Monterey-Salinas Transit

Appendix E

- Fort Ord Reuse Authority Location Figure

Figure E-1

Fort Ord Reuse Authority
Regional Location



Source: Ford Ord Reuse Plan Volume I: Context and Framework (EMC Planning Group Inc. and EDAW Inc., Adopted June 13, 1997).