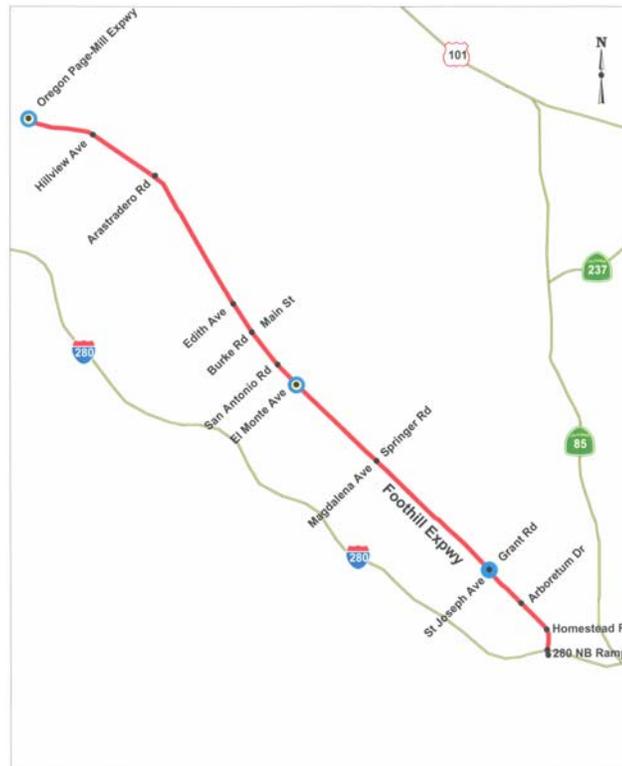


# Comprehensive County Expressway Planning Study

## *Implementation Plan*

### Foothill Expressway



**Roads and Airports Department**

**August 19, 2003**

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## *Implementation Plan*

# Foothill Expressway

### **County of Santa Clara**

Roads and Airports Department

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[www.expressways.info](http://www.expressways.info)

**August 19, 2003**

**Introduction** On August 19, 2003, the County of Santa Clara Board of Supervisors adopted a long-range plan for the improvement and maintenance of the expressway system. This plan is called the Comprehensive County Expressway Planning Study Implementation Plan. The Plan was developed using a collaborative process involving the local cities and key transportation agencies as well as input from the community. The foundation for the collaborative process was a solid technical analysis process.

The county expressway system is designed to relieve local streets and supplement the freeway system. There are eight expressways in the system, including Foothill Expressway. The *Implementation Plan* identifies a total capital program approaching \$2 billion as well as needs of \$18 million annually for maintenance and operations for the entire expressway system.

Implementation of the plan's recommendations is dependent on obtaining the necessary capital and maintenance/operations funding. The expressways' needs will compete with all other transportation improvement needs for Santa Clara County. Countywide transportation priority and funding decisions will be made by the Santa Clara Valley Transportation Authority (VTA) in the Valley Transportation Plan (VTP) 2030 scheduled to be completed in mid-2004.

The County will update the Expressway Study's *Implementation Plan* every three years in conjunction with the triennial updates of VTA's VTP to reflect changing traffic and financial conditions.

This document provides a summary of the capital improvement recommendations for Foothill Expressway. The capital improvement elements include roadway capacity and operational, bicycle, pedestrian, sound wall, and landscaping.

The *Implementation Plan* also includes recommendations for systemwide expressway improvements in maintenance and operations (such as signal operations, sweeping, pavement maintenance, graffiti removal, replacing aging sidewalks and sound walls). These recommendations apply to all expressways and are not documented here. Please see the full *Implementation Plan* or the Summary Brochure for more information about the systemwide maintenance and operations recommendations.

## Vision

Attractive express arterial, not freeway-like, that also plays an important role as a regional bicycle facility.

### Why a Vision

Each expressway has its own unique character, function, and community relationship. The vision, developed through a collaborative process, shaped the expressway's improvement strategies.

### Expressway Characteristics

- 7.3 miles long
- 4 lanes wide
- 11 signalized intersections
- 1 freeway connection (I-280)
- 4 cities served (Cupertino, Los Altos, Los Altos Hills, Palo Alto)
- 110,000 vehicles use Foothill daily
- 1 LOS F intersections in 2001/2002
- 2 LOS F intersections projected in 2025

### What is LOS?

Level of service (LOS) is a measure of traffic flow and congestion levels. LOS A is the best condition representing freely flowing traffic. LOS F is the worst condition representing excessive delays and jammed conditions.

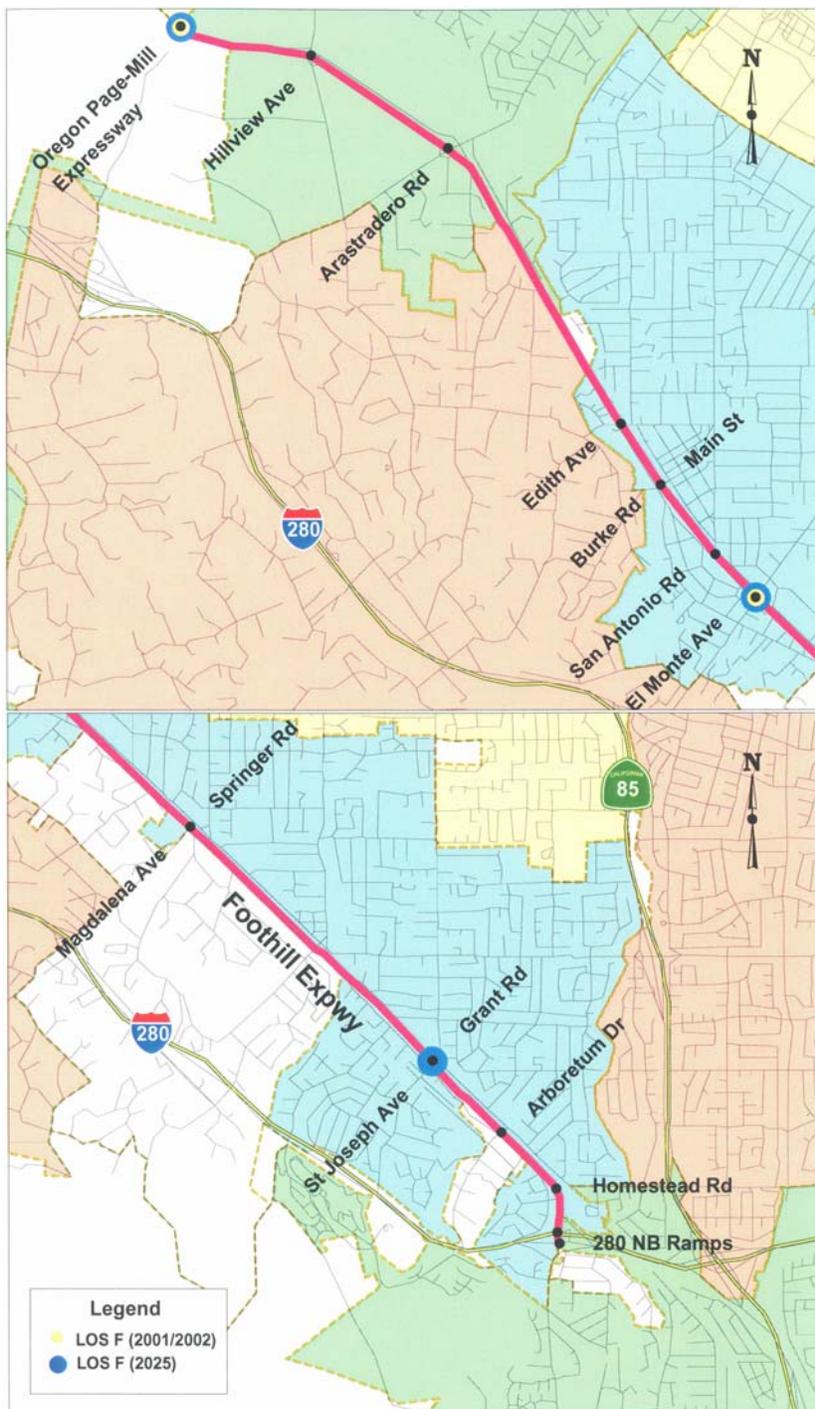


Exhibit A Intersection Level of Service

**Roadway Capacity and Operational Improvements**

The roadway improvement projects recommended for Foothill Expressway are listed below:

**Roadway Project Tiers**

*Tier 1A* –Improves LOS F intersections or other operational improvements

*Tier 1B* –Constructs interchange at LOS F intersection

*Tier 1C* –Improves 2025 projected LOS F intersections

*Tier 2* – Other capacity improvements

*Tier 3* – Major facility reconstruction/new facilities

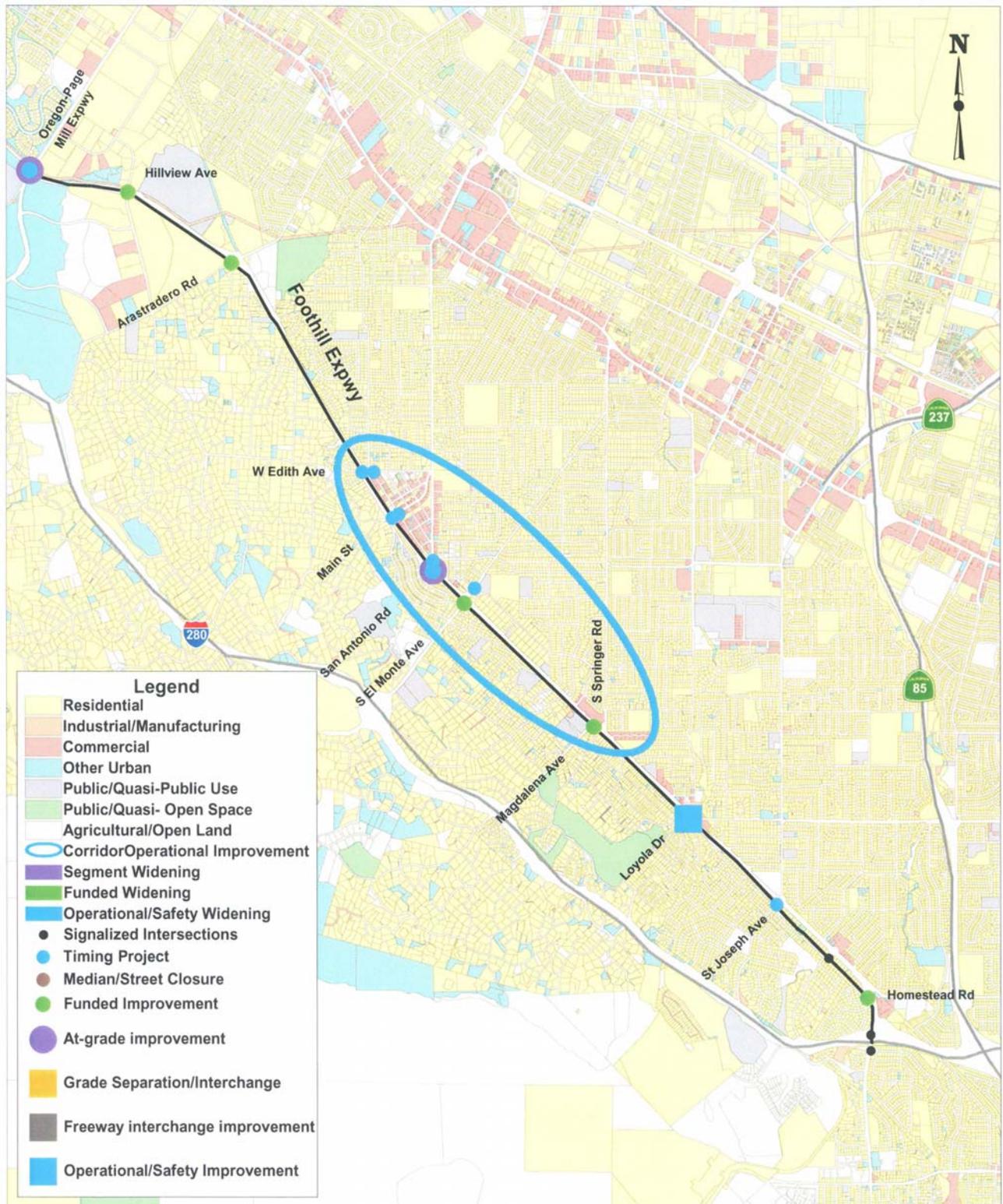
Tier Priority	Project Description <sup>(1)</sup> <sup>(2)</sup>	Cost (millions)
Expressway Study	Updated signal timing plan from Magdalena to Edith	N.A.
1A	Signal operational improvements between Edith and El Monte including adjacent side street intersections at Grant/St. Joseph	\$1.5
1A	Extend existing WB deceleration lane at San Antonio by 250 feet	\$0.5
1A	Replace Loyola Bridge (This improvement project should also provide necessary bicycle and pedestrian facilities, and channelization and operational improvements at adjacent intersections.)	\$10
Total Tier 1A		\$12
<b>Total</b>		<b>\$12</b>

(1) When funding is obtained, each project will undergo design, environmental review, and community outreach as appropriate. Project descriptions will be changed as needed based on the results of these activities.

(2) The Foothill/Page Mill intersection (an existing and 2025 LOS F intersection) is listed as part of Oregon-Page Mill Expressway.

**Effectiveness of Roadway Improvements**

Foothill Expressway would continue to operate at LOS D and all existing and project LOS F intersections would be improved to LOS E or better.



**Exhibit B Capacity and Operational Improvements**

**Bicycle Improvements**

Bicycles are accommodated on all expressways. Bicycle improvement recommendations were identified based on bringing all expressways into full compliance with the Bicycle Accommodation Guidelines (BAG). The BAG includes guidelines on bicycle travel area widths, striping, signage, trail connections, maintenance, and several other design treatments. Specific capital projects identified include striping improvements and shoulder widening.

- ◆ All necessary re-striping to bring Foothill Expressway into compliance with the Bicycle Accommodation Guidelines (BAG) will be completed as part of a systemwide re-striping project.
- ◆ Shoulder widening is needed at the following locations:

Bicycle Improvement Location	Project Description	Cost (millions)
San Antonio	Widen WB approach for approximately 300 feet to provide a bicycle slot	\$0.20
Magdalena	Widen EB approach for approximately 600 feet to provide a bicycle slot	\$0.30
Loyola	Provide more shoulder width in both directions under the Loyola Bridge	N.A. <sup>(1)</sup>
<b>Total</b>		<b>\$0.50</b>

(1) Must be completed as part of overall bridge reconstruction project (Tier 1A in Capacity/Operational Improvement Element)

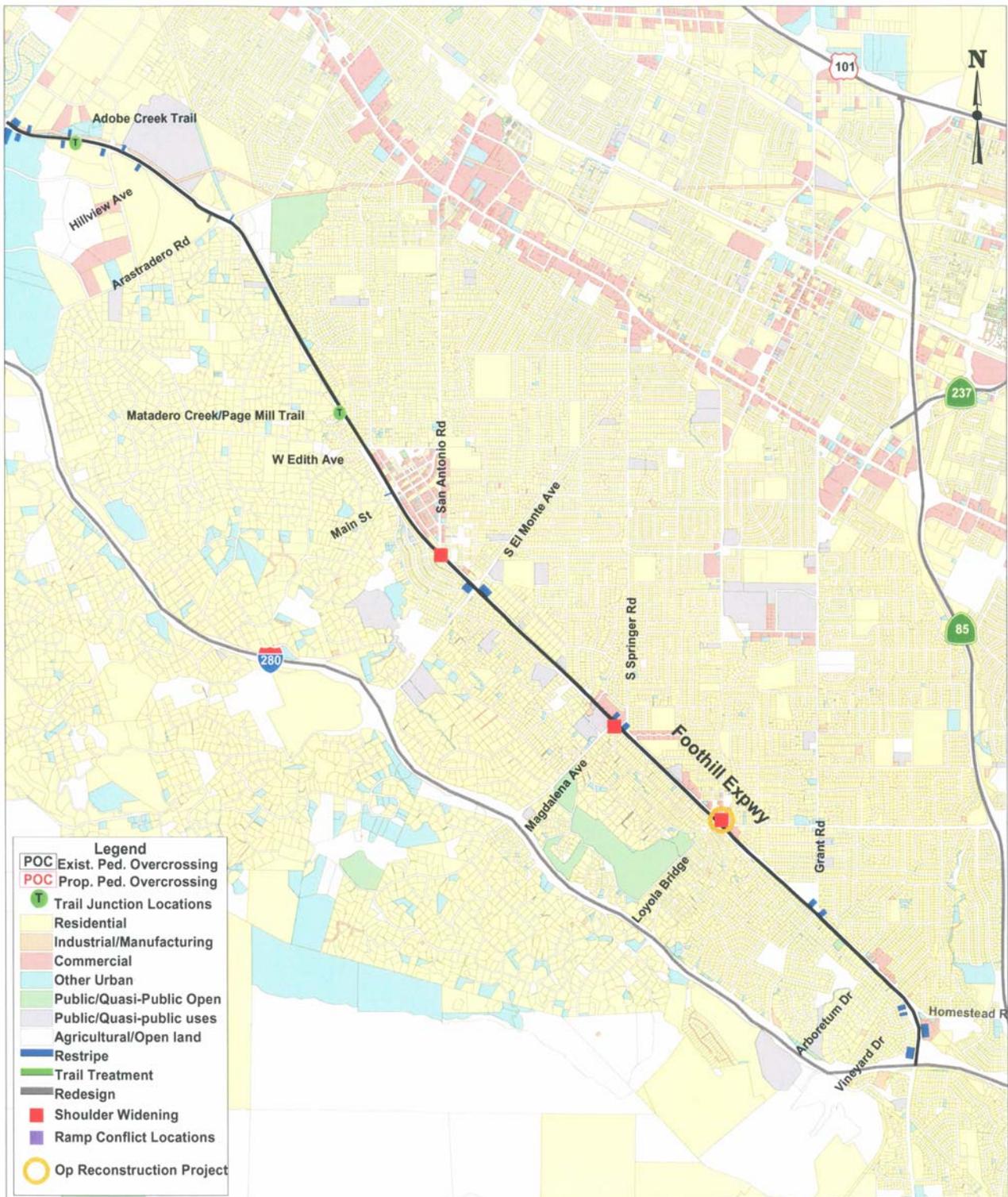


Exhibit C Bicycle Improvements

## ***Pedestrian Improvements***

A pedestrian facilities plan was developed covering the entire length of each expressway. Recommended pedestrian improvements for traveling along the expressways vary along sections of the expressways based on physical conditions, pedestrian needs, fronting land use, and community development plans. New sidewalks are recommended to close gaps in otherwise continuous sidewalks, to access transit stops, and to provide access to land uses fronting on the expressways. Recommendations also include improved connections and directional signage to parallel pedestrian facilities, such as trails and frontage roads.

For expressway crossing needs, high-demand crossing locations were identified for potential crossing enhancements ranging from reconfiguring intersections to make them more pedestrian-friendly to installing pedestrian countdown timers and pedestrian ramps.

Foothill has wide shoulders for emergency and occasional pedestrian use. It also has long stretches of frontage roads for pedestrian travel. Improvement recommendations include:

- ◆ Two pedestrian crossing enhancement locations were identified for school, park, and commercial access: St. Joseph/Grant and Main/Burke. Total potential cost is \$0.4 million. Crossing improvements for the El Monte, Magdalena, and Homestead intersections are already being made as part of the Safe Routes to Schools Program or Measure B Sales Tax Program.
- ◆ A new sidewalk southwest of Magdalena with connection to Boulder frontage road for a cost of \$0.05 million.



**Exhibit D Pedestrian Improvements**

**Sound Wall Improvements**

An assessment of sound wall needs was conducted according to the guidelines of Caltrans and the Federal Highway Administration (FHWA). The plan includes recommendations for both new sound walls where none now exists and replacing existing walls with higher walls if needed to meet noise standards. The noise standard used was a maximum of 65.5 decibels. Sound wall heights would range from 10 feet minimum to 16 feet maximum.

The plan also acknowledges that sound walls are not always the preferred method of noise abatement for the local community and recommends that the preferred level and type of noise abatement (including sound wall height) be based on noise analysis, community outreach, and city coordination when funding is available.

The table below lists the sound wall recommendations for Foothill Expressway.

Sound Wall Project Description	Cost (millions)	
	New Wall	Higher Replacement Wall
Spot improvements along the expressway <ul style="list-style-type: none"> <li>• New walls on north side near Arroyo and adjacent to residences along Blue Oak, NW of El Monte, north side between El Monte and Springer, south side west of Springer and between Springer and east of Loyola, north side west and east of Grant, and south side between St. Joseph and Vineyard</li> <li>• Higher replacement wall NE of Loyola/Fremont</li> </ul>	\$8.39	\$0.45
<b>Totals</b>	<b>\$8.39</b>	<b>\$0.45</b>

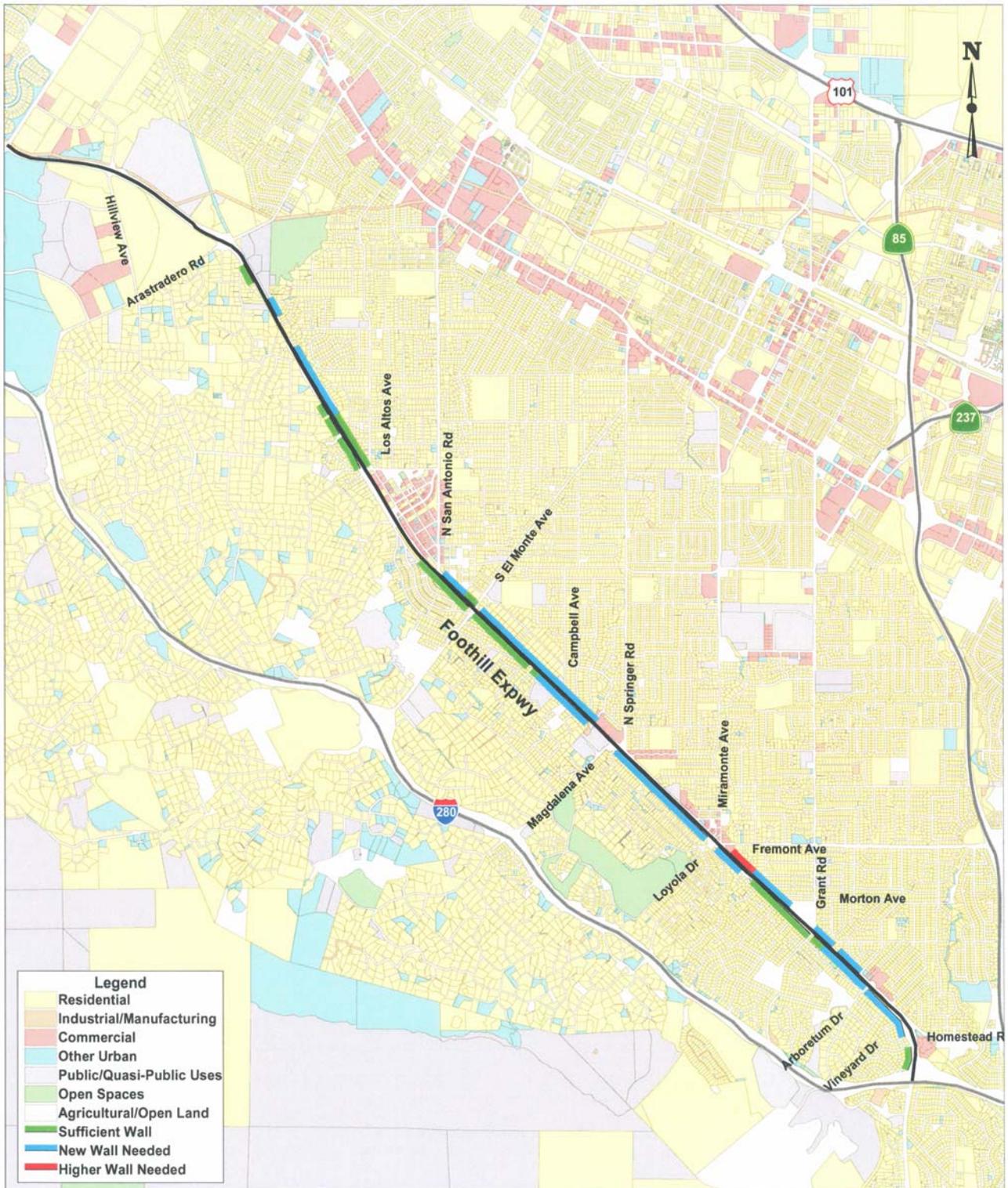


Exhibit E Sound Wall Improvements

## **Landscaping Improvements**

The *Implementation Plan* did not break down landscaping needs for each individual expressway. It did, however, recommend that the following level of landscaping be provided for the entire expressway system:

- ◆ Trees and limited shrubs
- ◆ Median finishes, such as decomposed granite
- ◆ Sound walls covered with vines
- ◆ Automated irrigation system.

The systemwide cost to install this landscaping is estimated to be \$19-23 million. The estimated cost to maintain this level of landscaping for the entire expressway system is \$4 million annually, which is beyond the operating revenue currently available to the County. Therefore, the plan recommends continuing with the County's current landscaping policy to not install new landscaping unless funds are available for maintaining it.

## **Total Capital Improvement Program**

The total costs of the recommendations for Foothill Expressway are as follows:

Description	Cost (millions)
Roadway Capacity and Operational Improvements	\$12
Bicycle Improvements	\$0.50
Pedestrian Improvements	\$0.45
Sound Wall Improvements	\$8.84
Part of Roadway Projects <sup>(1)</sup>	(\$0.2)
<b>TOTAL</b>	<b>\$21.59 <sup>(2)</sup></b>

(1) Roadway capacity/operational projects include bicycle, pedestrian, and sound wall improvements within project limits.

(2) Plus a portion of the systemwide landscaping and maintenance/operations improvements.