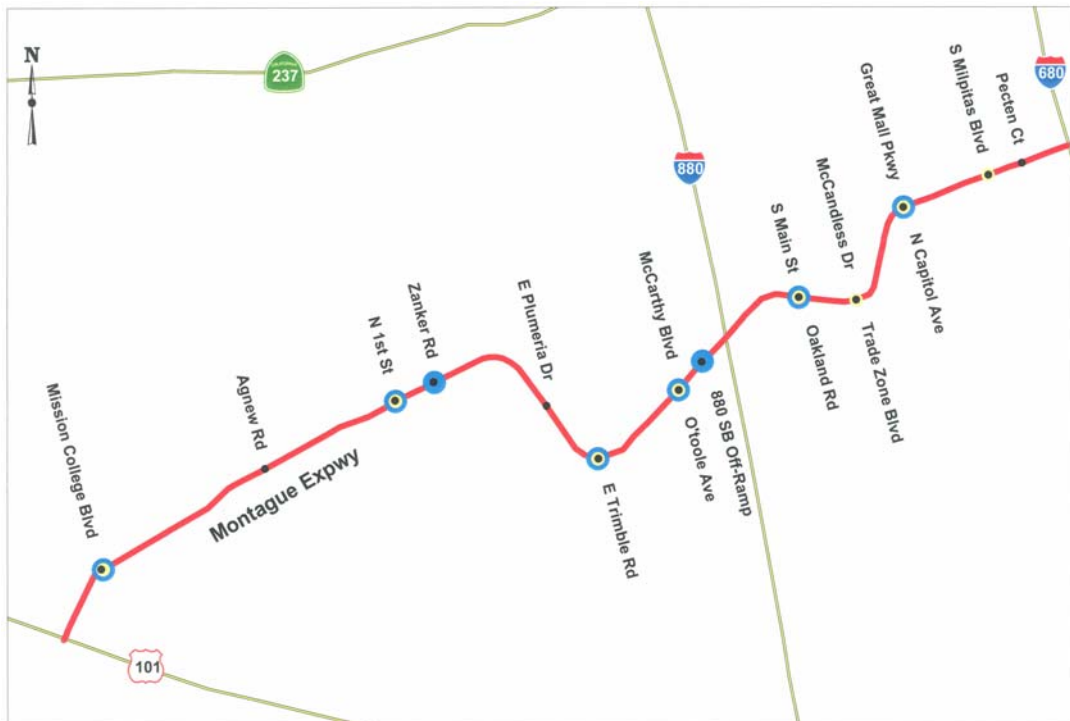


Comprehensive County Expressway Planning Study

Implementation Plan

Montague Expressway



Roads and Airports Department

August 19, 2003

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Implementation Plan

Montague Expressway

County of Santa Clara

Roads and Airports Department

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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 Montague 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 Montague 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

Multimodal, pedestrian friendly arterial roadway in Milpitas east of I-880; west of I-880, high-end express arterial with freeway-like segments.

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

- 6 miles long
- 6-8 lanes wide, including HOV lanes
- 13 signalized intersections
- 3 freeway connections (US 101, I-880, I-680)
- 3 cities served (Santa Clara, San Jose, Milpitas)
- 290,000 vehicles use Montague daily
- 8 LOS F intersections in 2001/2002

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.

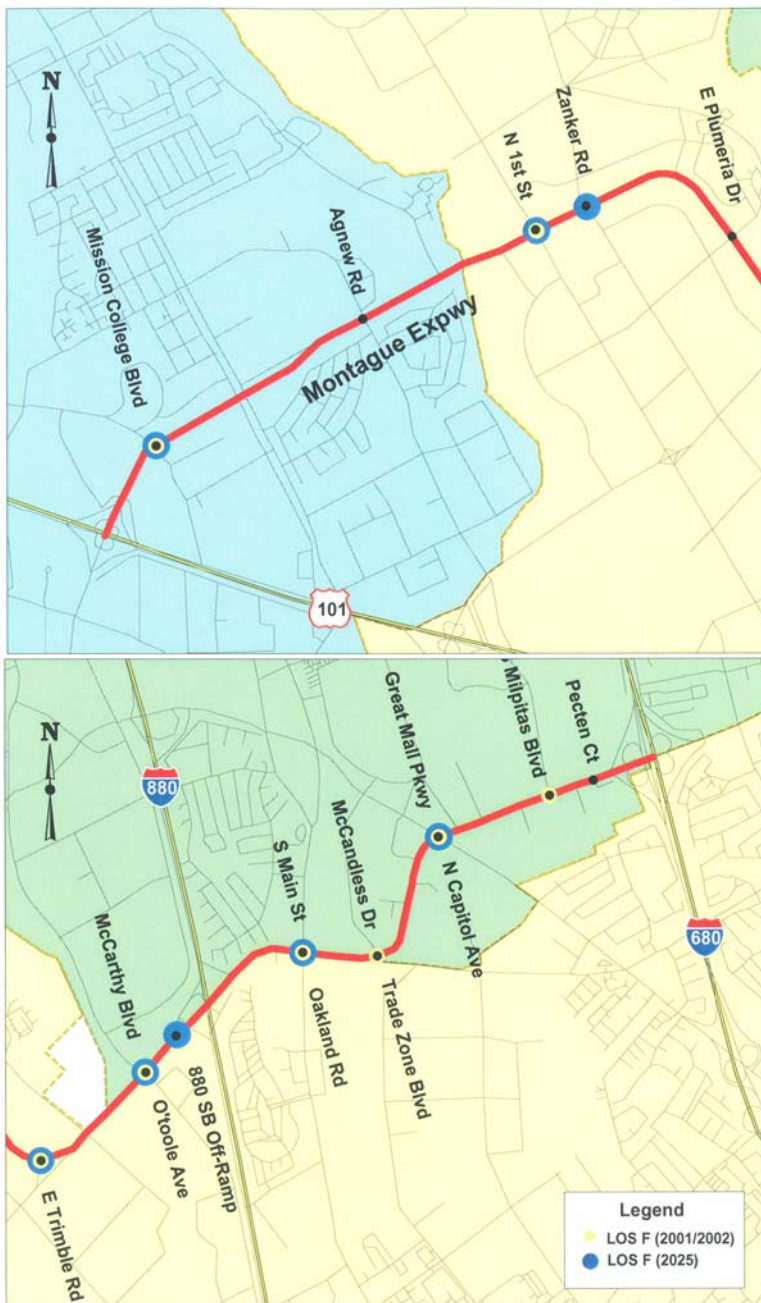


Exhibit A Intersection Level of Service

Roadway Capacity and Operational Improvements

The roadway improvement projects recommended for Montague 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 ⁽¹⁾	Cost (millions)	
1A	Convert HOV lanes on 6-lane facility to mixed-flow use between I-880 and I-680 due to operational and safety problems	\$0.1	
1A	Baseline project consisting of 8-lane widening and I-880 par-clo interchange with at-grade improvements at Lick Mill, Plumeria/River Oaks, Main/Old Oakland, and McCandless/Trade Zone; designate new lanes between I-880 and I-680 as HOV for a 3 to 5 year trial period	\$38.5	
1B	At-grade improvements at Mission College and par-clo interchange at US 101	\$11	
1B	Trimble Flyover	\$15	
1B	McCarthy-O'Toole square loop interchange	\$60	
2	Interchange at Mission College	\$55	
2	Interchange at Great Mall/Capitol ⁽²⁾	\$42	
3	Freeway/expressway direct connector HOV ramps at US 101	\$30-45	
3	I-680 interchange modification	\$20	
(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) If the new HOV lanes between I-880 and I-680 remain designated as HOV after the trial period, the Great Mall/Capitol interchange may need to be moved into Tier 1B.		Total Tier 1A	\$38.6
		Total Tier 1B	\$86
		Total Tier 2	\$97
		Total Tier 3	\$50-65
		Total	\$271.6-286.6

Effectiveness of Roadway Improvements

- ◆ Corridor east of I-880 would improve from LOS F to LOS E.
- ◆ Corridor west of I-880 would remain LOS F; however, there would be a 25% reduction in delay and 13-minute reduction in travel time.
- ◆ 7 of the existing LOS F intersections and 6 of the projected LOS F intersections would be improved to LOS E or better.

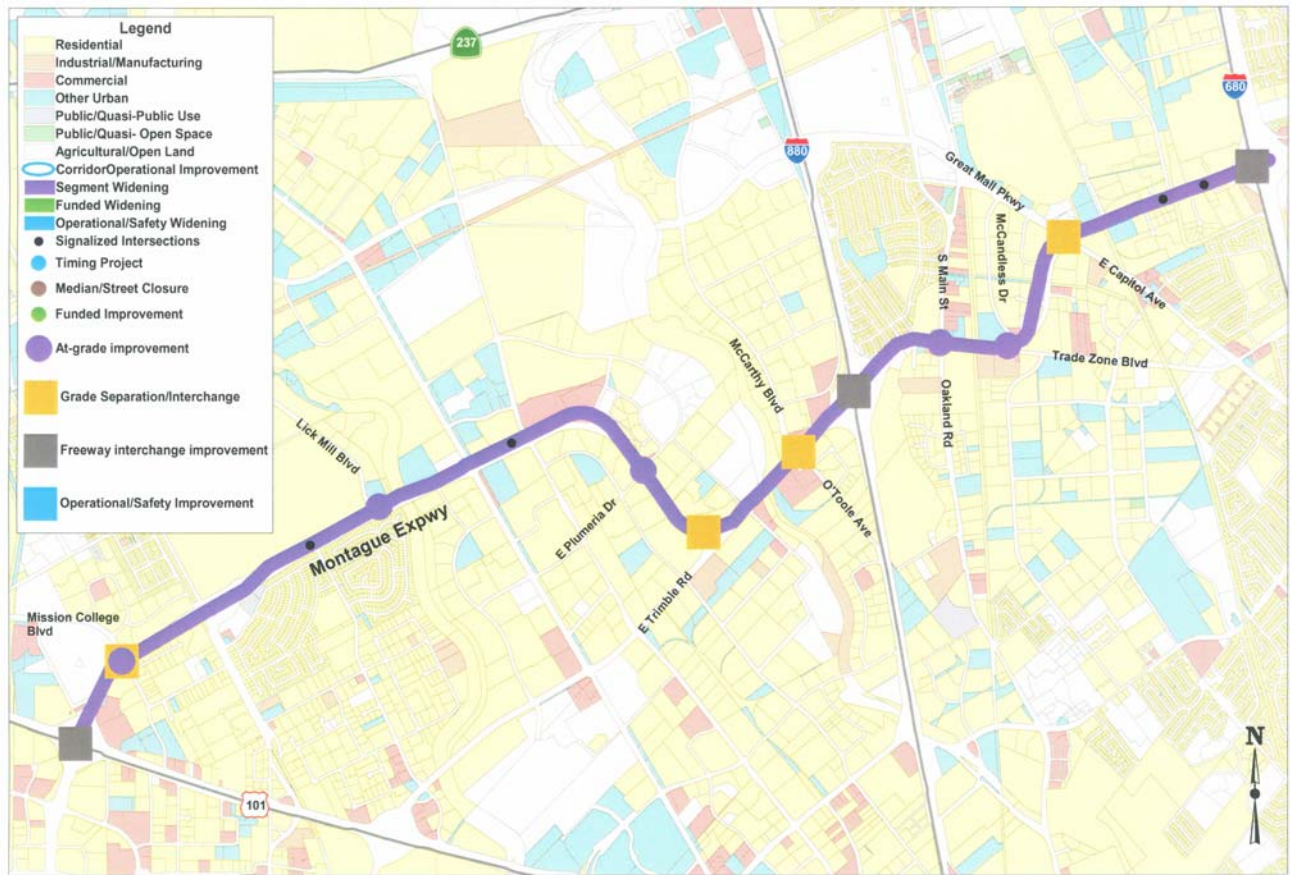


Exhibit B Capacity and Operational Improvements

***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 and shoulder widening improvements needed to bring Montague Expressway into compliance with the Bicycle Accommodation Guidelines (BAG) are included as part of the Tier 1A 8-lane roadway widening project.

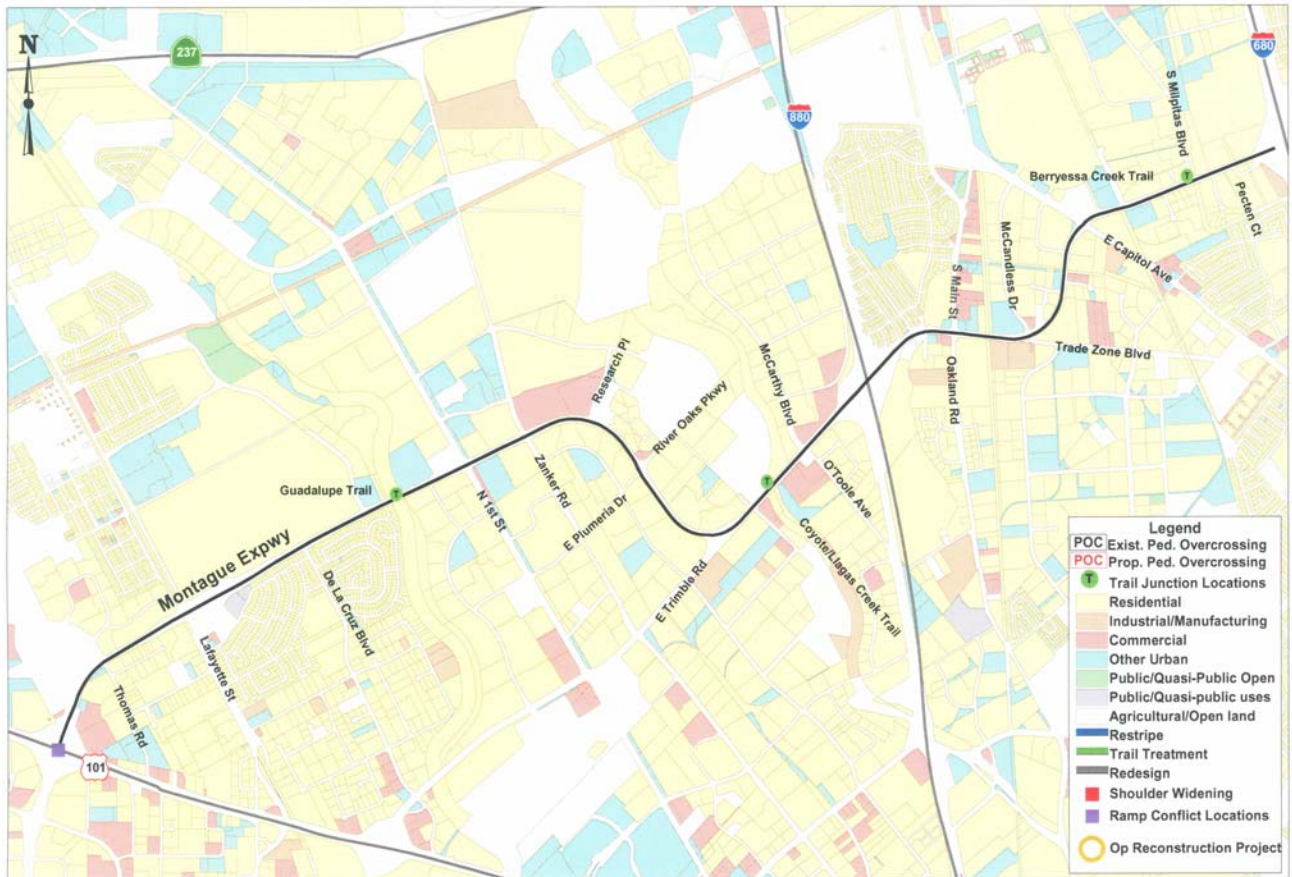


Exhibit C Bicycle Improvements

***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.

Sidewalks are planned for the entire length of Montague Expressway and will be added as part of the 8-lane roadway widening project. Two crossing enhancement locations were identified – at North First Street and at Great Mall Parkway/Capital Avenue for a total cost of \$0.4 million.

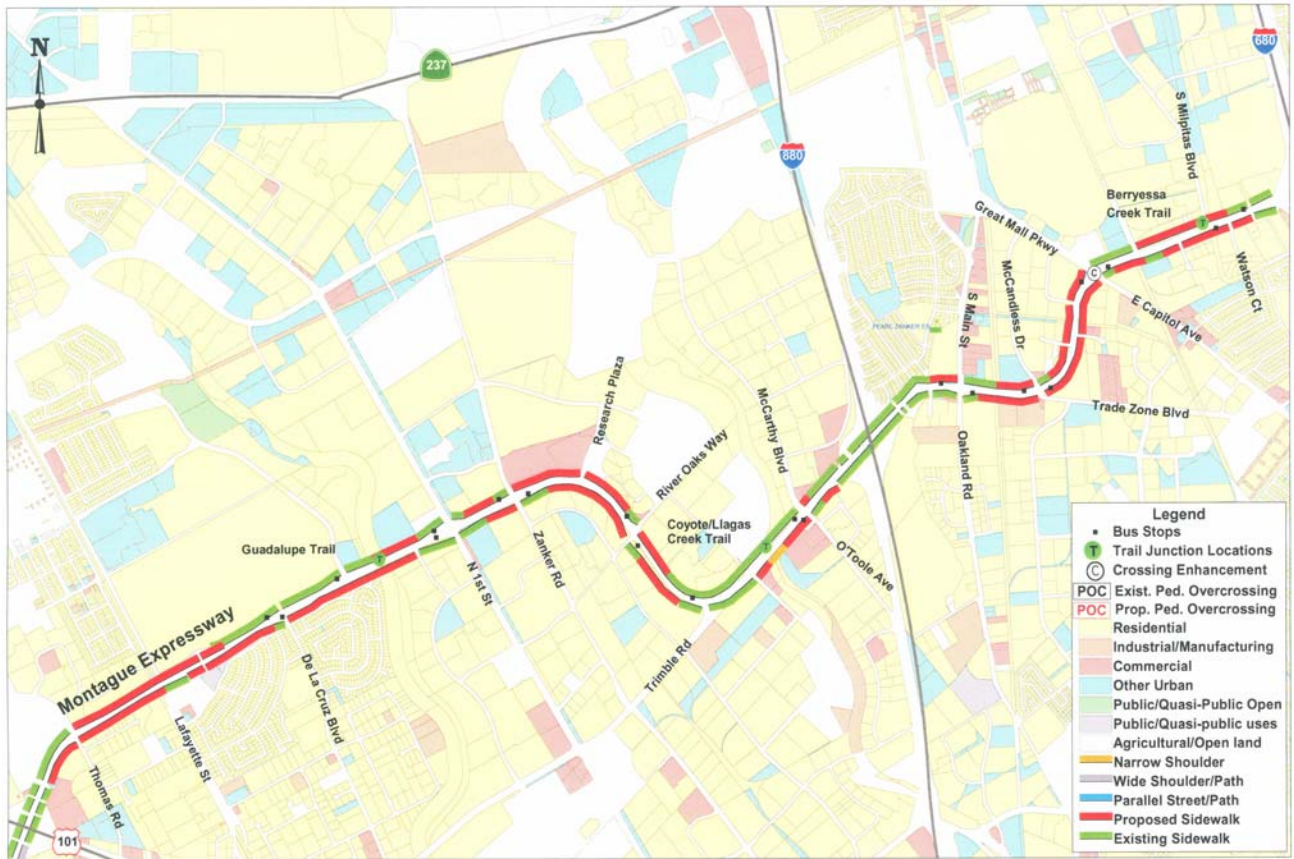


Exhibit D Pedestrian Improvements

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.

Higher sound walls are recommended on the south side of Montague Expressway between Lafayette Street and Guadalupe River. They will be constructed as part of the 8-lane roadway widening project.

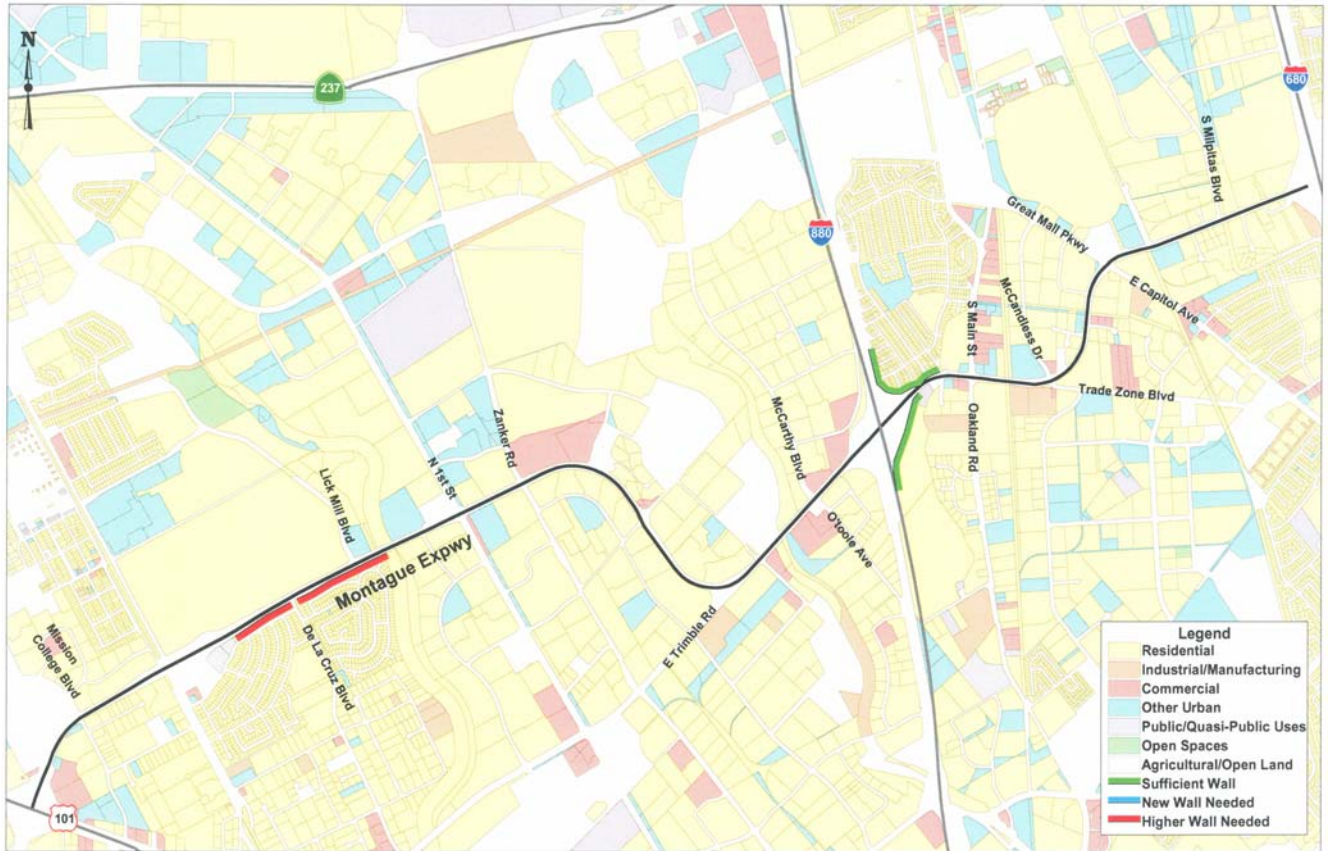


Exhibit E Sound Wall Improvements

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 Montague Expressway are as follows:

Description	Cost (millions)
Roadway Capacity and Operational Improvements	\$271.6-286.6
Bicycle Improvements	N.A.
Pedestrian Improvements	\$0.4
Sound Wall Improvements	N.A.
TOTAL	\$272-287 ⁽²⁾

(1) The 8-lane widening project includes bicycle, sidewalk, and sound wall improvements along the expressway.

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

N.A. = Not Applicable