

Project Information

Project Name: **SR 237/I-880 Express Connectors**
Sponsor: **Santa Clara Valley Transportation Authority (VTA)** TIP ID: **SCL090029** RTP ID: **230257**
Agency: **Santa Clara Valley Transportation Authority (VTA)** Mode: **STATE HIGHWAY** Sub Mode:
Project Type: **FREEWAY I/C** Trans. System: **STATE HWY** Purpose: **ENHANCEMENT** County: **Santa Clara**
Proj. Desc.: **In Milpitas: implement roadway pricing on the carpool lane-to-carpool lane direct connectors between SR 237 and I-880.**
RTP Tittle: **Convert HOV direct connectors between I-880 and Route 237 to express lane direct connectors**

Step 1: Project Identification

- 1: Does this project have any federal funding? **Yes**
- 2: Does this project (or any phases of the project) require any federal action (such as federal authorization or approval for funding or environmental review) after December 14, 2010? **Yes**
- 3: Is the project exempt from both regional and project-level air quality conformity under 40 CFR 93.126?
Project Type Selected: **None Applies** **No**
- 4: Is the project exempt from regional air quality conformity under 40 CFR 93.127?
Project Type Selected: **Interchange reconfiguration projects.** **Yes**
- 5: Is the project exempt from regional air quality conformity under 40 CFR 93.128?
Project Type Selected: **None Applies** **No**
- 6: Does this project meet the definition of a "project of air quality concern" under 40 CFR 93.123(b)(1)?
Project Type Selected: **None Applies** **No**

Dates for Interagency Consultation

Requested Date of Interagency Consultation: **JAN- 2011**
Meeting Date of PM2.5 consultation via Air Quality Conformity Task Force to determine POAQC:
Action Date of PM2.5 consultation via Air Quality Conformity Task Force to determine POAQC:

Dates for PM2.5 Hot-Spot Analysis

Meeting Date of PM2.5 consultation via Air Quality Conformity Task Force to determine review hot-spot analysis:
Action Date of PM2.5 consultation via Air Quality Conformity Task Force to determine review hot-spot analysis:

PM_{2.5} Project Assessment Form for Interagency Consultation

| | | | | | |
|--|--|--|---|---|--|
| RTIP ID# <i>(required)</i> 230257 | | | | | |
| TIP ID# <i>(required)</i> SCL090029 | | | | | |
| Air Quality Conformity Task Force Consideration Date February 2011 | | | | | |
| Project Description <i>(clearly describe project)</i> See attached Exhibit C, Project Vicinity Map. The State Route 237/Interstate 880 (SR 237/I-880) Express Connectors Project on SR 237 and I-880 in Milpitas, San Jose, and Sunnyvale, Santa Clara County, is proposed to relieve congestion and maximize the efficiency of connecting ramps at the SR 237/I-880 interchange by the conversion of the existing high occupancy vehicle (HOV) connectors to HOV/single occupancy toll or express lanes. The project will: convert the existing HOV connector ramps and portions of the HOV lanes on SR 237 to single occupancy (SOV) toll or express lanes, and will install new signage, striping, vehicle detection sensor units, and dynamic message signs (DMS). Approximately 24 barrier mounted signs will be placed within the project corridor. Five new overhead sign structures and one new overhead tolling and enforcement gantry will be placed in the highway median. Twenty-two small signs and three large overhead signs will be replaced. New median concrete barriers will be constructed on portions of the project corridor along with installation of new pavement striping. A barrier separated observation area will be provided for California Highway Patrol enforcement. The project limits extend for less than two miles on I-880 from the Dixon Landing Road interchange in the north to the SR 237 interchange in the south and for less than five miles on SR 237 from I-880 to the Lawrence Expressway interchange to the west. | | | | | |
| Type of Project: Change to existing State highway / Reconfigure existing interchange | | | | | |
| County Santa Clara | Narrative Location/Route & Postmiles: The project area extends along I-880 from the Dixon Landing Road interchange to SR 237 and along SR 237 from the center of the SR 237/I-880 interchange to the Lawrence Expressway interchange in the cities of Milpitas, San Jose, and Sunnyvale, in Santa Clara County, California. SR 237 (PM 4.6 – 9.33); I-880 (PM 8.57 – 10.42) Caltrans Projects – EA# 04-0G4600 | | | | |
| Lead Agency: Santa Clara Valley Transportation Authority | | | | | |
| Contact Person Lauren Bobadilla | Phone# 408-321-5776 | Fax# 408-408-5787 | Email lauren.bobadilla@vta.org | | |
| Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i> | | | | | |
| <input checked="" type="checkbox"/> | Categorical Exclusion (NEPA) | <input type="checkbox"/> EA or Draft EIS | <input type="checkbox"/> FONSI or Final EIS | <input type="checkbox"/> PS&E or Construction | <input type="checkbox"/> Other |
| Scheduled Date of Federal Action: March 2011 | | | | | |
| NEPA Delegation – Project Type <i>(check appropriate box)</i> | | | | | |
| <input type="checkbox"/> Exempt | <input checked="" type="checkbox"/> Section 6004 – Categorical Exemption | | <input type="checkbox"/> Section 6005 – Non-Categorical Exemption | | |
| Current Programming Dates <i>(as appropriate)</i> | | | | | |
| | PE/Environmental | ENG | ROW | CON | |
| Start | September 2009 | March 2011 | N/A | March 2011 | |
| End | March 2011 | March 2011 | N/A | November 2011 | |

Project Assessment Form for PM_{2.5} Interagency Consultation

Project Purpose and Need (Summary): *(please be brief)*

The area bounded by three main freeways in Santa Clara County, namely I-880, SR 237 and U.S. Highway 101 (US 101), is popularly referred to as the Golden Triangle and is the heart of the Silicon Valley. Recent improvements have been made along I-880 including the completion of a continuous carpool lane from south of Auto Mall Parkway to SR 237, carpool to carpool direct connectors between I-880 and SR 237, and the reconfiguration of the Mission Boulevard interchange. However, traffic operations at the SR 237/I-880 connectors continue to exhibit bottlenecks, delays, and queuing in both the westbound morning (AM) peak and the eastbound afternoon (PM) peak directions.

To manage this condition, the project would convert existing carpool to carpool direct connector ramps at the SR 237/I-880 interchange to Express Connectors. Motorcycles, buses, vanpools, carpools and eligible hybrids will continue to use the Express Connectors free of charge. Solo drivers will be given the option of paying a toll to use the Express Connectors during commute hours. As part of the Bay Area Express Lanes Network, the project is included in the *Transportation 2035 Plan* which was adopted by MTC in April 2009.

Need

Existing traffic data shows that SR 237 experiences saturated operating conditions during peak commute hours. This results in traffic back-ups in the morning on the approach from southbound I-880 and from local street approaches from Calaveras Boulevard and McCarthy Boulevard to westbound SR 237. This also results in traffic back-ups in the evening along eastbound SR 237 itself, due in part to ramp metering for the general purpose ramp for the eastbound SR 237 to northbound I-880 movement.

Purpose

The purposes of the project are to:

- Provide congestion relief through more effective use of existing roadways and otherwise unused available capacity in the HOV lanes;
- Provide commuters with a new mobility option; and
- Provide a new funding source for transportation improvements including public transit.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

The project is located in the northerly part of Santa Clara County, in the cities of Milpitas, San Jose, and Sunnyvale.

Land uses along the I-880 corridor in the study area include research and development, retail, agriculture, residential, industrial, and commercial. Along the SR 237 corridor in the study area from Milpitas to Sunnyvale, the land uses include research and development, industrial, agriculture, residential, commercial, and open space. See attached Exhibits A, Land Use Map, and B, Land Use Aerials.

PM_{2.5} Project Assessment Form for Interagency Consultation

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Opening Year: 2011

SR 237 Peak Direction: No Build LOS = C for general purpose lanes; A for HOV lane
Build LOS = C for general purpose lanes; B for Express lane.

I-880 Peak Direction: No Build LOS = C (There are no HOV lanes on I-880, south of SR 237.)
Build LOS = C

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Horizon Year: 2031

SR 237 Peak Direction: No Build LOS = C for general purpose lanes; A for HOV lane
Build LOS = B for general purpose lanes; A for Express lane

I-880 Peak Direction: No Build LOS = C (There are no HOV lanes on I-880, south of SR 237.)
Build LOS = A

Notes:

The LOS are based on data from the *SR 237/I-880 Express Connectors Project Traffic Operations Analysis Report, January 31, 2011*, by Wilbur Smith Associates and the Transportation Research Board *Highway Capacity Manual 2000*.

In the Build scenarios, there will be "dynamic pricing" where tolls for solo drivers will vary based on the level of congestion. Tolls will be dynamically adjusted to maintain a free-flowing ride on the Express lanes.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Opening Year: 2011

SR 237: No Build AADT = 149,000, Truck AADT = 9140 (6.26%)
Build AADT = 149,000, Truck AADT = 9140 (6.26%)

I-880: No Build AADT = 190,000, Truck AADT = 10,887 (5.7%)
Build AADT = 190,000, Truck AADT = 10,887 (5.7%)

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

RTP Horizon Year: 2031

SR 237: No Build AADT = 160,812, Truck AADT = 10,067 (6.26%)
Build AADT = 160,812, Truck AADT = 10,067 (6.26%)

I-880: No Build AADT = 243,392, Truck AADT = 13,870 (5.7%)
Build AADT = 243,392, Truck AADT = 13,870 (5.7%)

Note: Truck percentages are from Caltrans' *2009 Annual Average Daily Truck Traffic on the California State Highway System*.

Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses

Not Applicable

RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses

Not Applicable

Project Assessment Form for PM_{2.5} Interagency Consultation

Describe

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

The project would allow vehicles currently restricted to general purpose lanes to use the existing HOV-only direct connectors. Based on the Traffic Operations Analysis Report (January 2011), this change in lane use would result in the following:

During the 2011 AM Peak period:

- The total travel time in the general purpose lanes from Dixon Landing Road to Great America Parkway is forecasted to improve by 5.8 minutes over No Build conditions in the peak hour (7 to 8AM) and by about 15 minutes from 8:00 AM to 9:00 AM.
- The total travel time for all persons (general purpose lanes plus Express Lanes) travelling from Dixon Landing Road to Great America Parkway is anticipated to improve by over 28% in the peak hour (7 to 8AM) and 53% during the hours from 8 to 10 AM.

During the 2011 PM Peak period:

- The queues observed at the SR 237 eastbound to I-880 northbound connector ramp meter are significantly lower and dissipate faster than the queues observed under the No Build Conditions.
- Travel time reductions of up to 4 minutes can be achieved on the general purpose connectors.
- Total person time averaged for travelers from Great America Parkway to Dixon Landing Road is estimated to be reduced by 10 to 23%, depending on the hour.

PM_{2.5} Project Assessment Form for Interagency Consultation

Comments/Explanation/Details *(please be brief)*

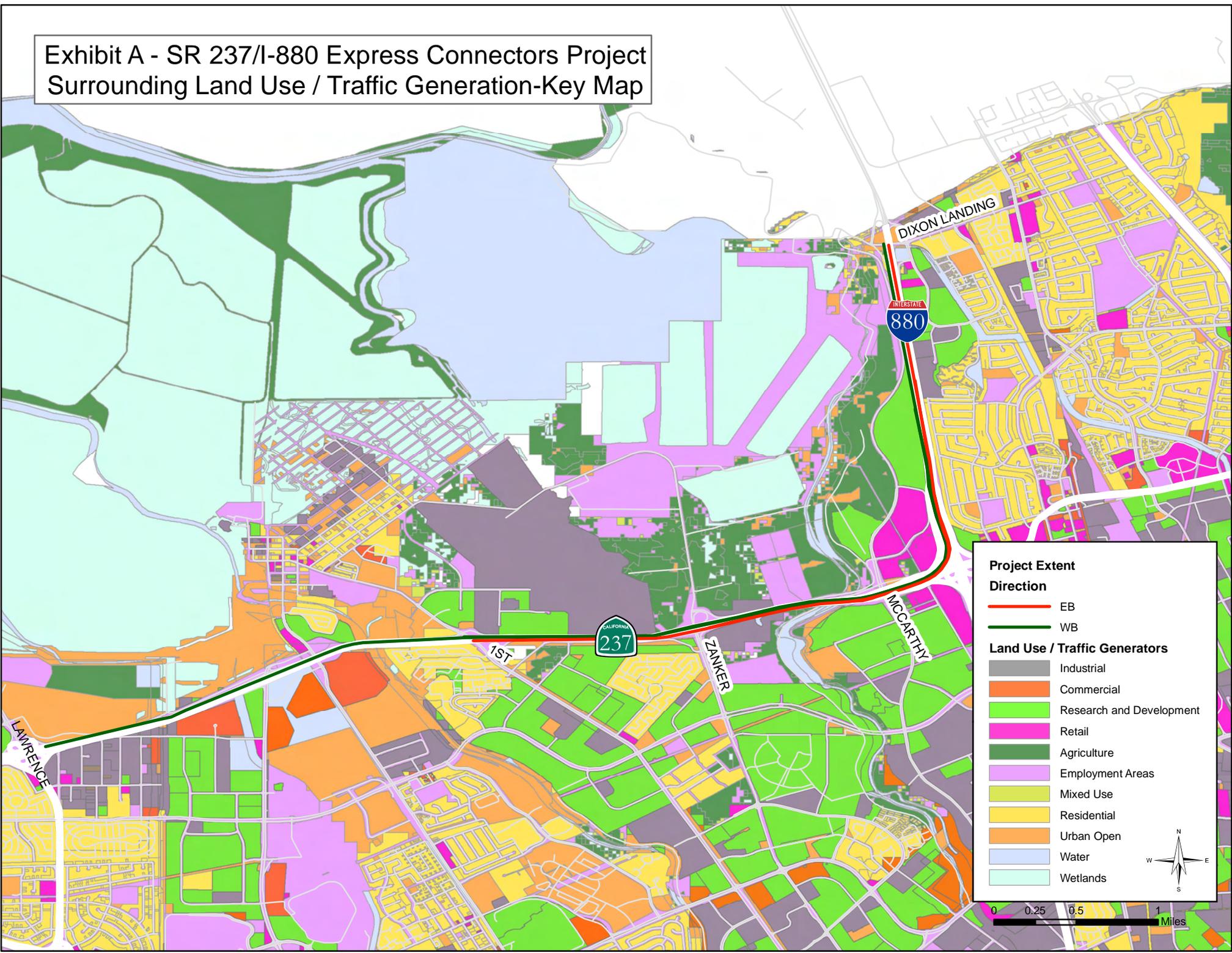
The project is not considered a POAQC, as defined in 40 CFR 93.123(b), for the following reasons:

- The project is not a new or expanded highway project with a significant number of or increase in diesel vehicles.
- The project does not include intersections that are or will be at LOS D, E, or F with a significant number of diesel vehicles.
- The project does not include the construction of a new bus or rail terminal with a significant number of diesel vehicles congregating at a single location.
- The project does not expand an existing bus or rail terminal with significant increases in the number of diesel vehicles congregating at a single location.
- The project is not in or affecting locations, areas, or categories of sites that are identified in the PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The project is introducing tolls to the existing freeway carpool to carpool direct connectors and does not generate more vehicle or truck traffic or increase the capacity of the freeways or highways (SR 237, I-880). This type of project improves freeway interchange operations by reducing traffic congestion.

Therefore, the project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The project will not create a new or worsen an existing PM_{2.5} violation.

Exhibit A - SR 237/I-880 Express Connectors Project Surrounding Land Use / Traffic Generation-Key Map



Project Extent

Direction

- EB
- WB

Land Use / Traffic Generators

- Industrial
- Commercial
- Research and Development
- Retail
- Agriculture
- Employment Areas
- Mixed Use
- Residential
- Urban Open
- Water
- Wetlands

0 0.25 0.5 1 Miles

N
W E
S

Map 1



Map 2



Map 3



Map 4



Map 5



Map 6



SR 237/I-880 Express Connectors Project Vicinity Map

Exhibit C

