

Application of Criteria for a Project of Air Quality Concern

Project Title: SR 85 Express Lanes Project

Project Summary for Air Quality Conformity Task Force Meeting: October 27, 2011

Description

- Project will convert existing High-Occupancy Vehicle (HOV) lanes on State Route (SR) 85 to High-Occupancy Toll (HOT) lanes (hereafter known as express lanes)
- A second express lane would be included in both directions of SR 85 between SR 87 and I-280 to address existing and forecasted future HOV lane congestion
- The project would also install new signage, striping, vehicle detection sensor units, and dynamic message signs
- Trucks over 9,000 pounds are and would continue to be prohibited on SR 85 between US 101 (in southern San Jose) and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), except for maintenance and emergency vehicles, buses, and recreational vehicles

Background

- Technical studies are in preparation to support NEPA process for Initial Study/Environmental Assessment (IS/EA)
- Public review for scheduled for July to August 2012
- Seeking project-level air quality conformity determination on or before September 2012

Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- The project would not add capacity for diesel vehicles. Trucks over 9,000 pounds are prohibited on most of the SR 85 corridor, except for maintenance and emergency vehicles, buses, and recreational vehicles.
- Caltrans truck count data for 2009 indicate that truck percentages on SR 85 range from 0.25% to 3.05%, well below the significance threshold.
- Projected 2015 and 2035 annual average daily truck traffic data are below the United States Environmental Protection Agency significance threshold even for the highest-volume freeway segment.

(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles? —Not Applicable

(iii) New bus and rail terminals and transfer points?—Not Applicable

(iv) Expanded bus and rail terminals and transfer points?—Not Applicable

(v) Affects areas identified in PM₁₀ or PM_{2.5} implementation plan as site of violation?

- No state implementation plan for PM_{2.5} (due by December 2012)
- Therefore, not identified in plan as an area of potential violation

Project Assessment Form for PM_{2.5} Interagency Consultation

RTIP ID# <i>(required)</i> 230674				
TIP ID# <i>(required)</i> SCL090030				
Air Quality Conformity Task Force Consideration Date October 27, 2011				
Project Description <i>(clearly describe project)</i> The California Department of Transportation (Caltrans), in cooperation with the Santa Clara Valley Transportation Authority (VTA), proposes to convert the existing High-Occupancy Vehicle (HOV) lanes on State Route (SR) 85 to High-Occupancy Toll (HOT) lanes (hereafter known as express lanes). The express lanes would allow HOVs to continue to use the lanes without cost and eligible single-occupant vehicles (SOVs) to pay a toll. The express lanes would be implemented on northbound and southbound SR 85 from US 101 in southern San Jose to US 101 in Mountain View in Santa Clara County (Figures 1 and 2). The project would also include the continuation of the express lanes for 3.3 miles on US 101 in southern San Jose and 4.1 miles in Mountain View, for a total of 30.8 miles. Work on the US 101 segments will mainly consist of striping and signing and will not include widening or any changes in system or HOV lane access. The project does not require any right-of-way acquisition. SR 85 typically has three lanes in each direction: two mixed-flow lanes and one HOV lane. Trucks are prohibited on the majority of the SR 85 corridor (Post Miles [PM] 0.00 to 18.45; corridor ends at PM 24.1). The project proposes to convert the existing HOV lanes on northbound and southbound SR 85 into express lane facilities that would have one lane between US 101 in southern San Jose and SR 87, two lanes between SR 87 and I-280, and one lane between I-280 and US 101 in Mountain View. In the section between SR 87 and I-280, where the median width is approximately 46 feet, pavement widening would be conducted in the median to accommodate the second express lane. The project would also install new signage, striping, vehicle detection sensor units, and dynamic message signs.				
Type of Project: Change to existing State highway				
County Santa Clara	Narrative Location/Route & Postmiles On SR 85 from PM 0.0 to 24.1. The project limits also include PM 25.3 to 28.6 and PM 47.9 to 52.0 on US 101, adjacent to the northern and southern termini of SR 85, to allow for striping and signage modifications. Caltrans Projects – EA# 04-4A7900			
Lead Agency: Santa Clara Valley Transportation Authority (VTA)				
Contact Person Roy Molseed	Phone# 408 321-5784	Fax# 408 321-5787	Email Roy.molseed@vta.org	
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	EA or Draft EIS	<input checked="" type="checkbox"/> FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action: December 2012				
NEPA Delegation – Project Type <i>(check appropriate box)</i> Not applicable				
Exempt	Section 6004 – Categorical Exemption		Section 6005 – Non-Categorical Exemption	
Current Programming Dates <i>(as appropriate)</i>				
	PE/Environmental	ENG	ROW	CON
Start	October 2010	January 2013	January 2014	June 2014
End	December 2012	December 2013	March 2014	July 2015

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

Purpose

The purpose of the project is to:

- Utilize excess capacity in the SR 85 HOV lanes,
- Manage traffic congestion in the most congested HOV segments of the freeway between SR 87 and I-280, and
- Maintain consistency with provisions defined in Assembly Bill 2032 (2004) and Assembly Bill 574 (2007) to implement express lanes in the SR 85 corridor.

Need

The proposed project is needed for the following reasons:

- During the peak hours (7 a.m. to 8 a.m. in the northbound direction and 5 p.m. to 6 p.m. in the southbound direction), SR 85 cannot accommodate all of the traffic demand in the corridor. Bottlenecks result in long backups in the mixed-flow lanes. Throughout the SR 85 corridor, the northbound mixed-flow lanes operate below the posted speed limit during the a.m. peak period, and the southbound mixed-flow lanes function below the posted speed limit during the p.m. peak period.
- In segments where the existing single HOV lane segments north of I-280 and south of SR 87 have additional capacity, the project would maximize the efficiency of the system by allowing SOVs into the HOV/express lane, therefore alleviating some of the congestion in the mixed-flow lanes in those segments.
- Between SR 87 and I-280, however, drivers in the HOV lane experience significant delays due to lack of HOV capacity. The existing wide median provides the opportunity to construct a second HOV/express lane and provide some congestion relief for both the HOV and mixed-flow lanes by allowing the SOVs in the mixed-flow lanes to pay a toll for use of the express lanes facility.
- Traffic conditions are expected to worsen in the future with continued development in the region and along the SR 85 corridor. Over the next 25 years, Santa Clara County is predicted to grow by over 500,000 residents and 400,000 jobs, increases of 27.5 and 45.6 percent, respectively. Over the same period, the County expects to increase the capacity of the roadway system by 5 to 6 percent. Traffic on SR 85 is also projected to increase in the form of both regional trips using SR 85 to bypass US 101 and local trips to and from locations on the SR 85 corridor.

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

SR 85 passes through Cupertino, Saratoga, Campbell, Los Gatos, San Jose's Cambrian Park, and the neighborhoods of Almaden Valley, Blossom Valley, and Santa Teresa (Figure 2). Development adjacent to the freeway includes commercial, industrial, research and development, institutional, residential, and open spaces. VTA's Light Rail runs within the SR 85 median south of SR 87.

The project would not change land uses in any way that would result in additional diesel truck traffic to or from the study area. Trucks over 9,000 pounds are prohibited on SR 85 between US 101 in southern San Jose and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), except for maintenance and emergency vehicles, buses, and recreational vehicles. Therefore, truck volumes on SR 85 as a whole are low (3.05% or less of total traffic), and would remain so with or without the project.

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Brief summary of assumptions and methodology used for conducting analysis *(please keep this concise – specifics may include date of when traffic counts were conducted, studies where truck percentages were derived)*

Traffic volumes for the peak period were developed based on Caltrans 24-hour traffic volumes for the freeway mainline and at the on/off-ramps for Year 2007. URS conducted additional traffic counts in May 2010 to determine the throughput of existing bottlenecks during the peak hours. Annual average daily traffic (AADT) presented below represent both directions of SR 85.

As trucks over 9,000 pounds are prohibited on SR 85 between US 101 in southern San Jose and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), truck percentages on SR 85 range from 0.25% to 3.05%, depending on location (<http://traffic-counts.dot.ca.gov/2009all/docs/2009truckpublication.pdf>). To be conservative, this analysis assumes a truck percentage of 3.50% for the SR 85 corridor.

The SR 85 corridor can be broken into four major segments between successive system interchanges as follows: 1) between US 101 at the southern project limit and SR 87, 2) between SR 87 and I-880/SR-17, 3) between I-880/SR-17 and I-280, and 4) between I-280 and US 101 at the northern project limit. Because truck traffic percentage is not expected to change significantly within each of these four major segments, the four sub-segments of SR 85 evaluated below were chosen to represent each of the major segments listed above.

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

Year 2015

Segment		No Build AADT		Build AADT	
From	To	Total	Trucks	Total	Trucks
Blossom Hill	SR 87	148,900	5,212	153,400	5,369
Union	Bascom	139,100	4,869	149,300	5,226
Saratoga	Sunnyvale/DeAnza	113,400	3,969	122,200	4,277
Fremont	El Camino	125,100	4,379	125,800	4,403

Source: Total AADT from Wilbur Smith Associates 2011.
Note: Truck percentage assumed at 3.50%.

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

Year 2035

Segment		No Build AADT		Build AADT	
From	To	Total	Trucks	Total	Trucks
Blossom Hill	SR 87	184,900	6,472	187,300	6,556
Union	Bascom	164,700	5,765	175,800	6,153
Saratoga	Sunnyvale/DeAnza	138,900	4,862	150,800	5,278
Fremont	El Camino	146,200	5,117	143,600	5,026

Source: Total AADT from Wilbur Smith Associates 2011.
Note: Truck percentage assumed at 3.50%.

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Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
Not applicable

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
Not applicable

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

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

The project would not have adverse traffic redistribution effects. As a result of the existing truck restrictions that would continue to apply with the project, no significant changes in truck traffic would occur at local interchanges. Furthermore, the data for the study segments indicates that no significant changes in truck traffic would occur from the major system interchanges along the corridor (between US 101 at the southern project limit and SR 87, between SR 87 and I-880/SR-17, between I-880/SR-17 and I-280, and between I-280 and US 101 at the northern project limit). Even in the SR 85 segment where no truck restrictions are in place, truck AADTs and percentages would remain well below the 10,000 AADT/8% threshold established by the United States Environmental Protection Agency for projects of air quality concern.¹

Buses and transit providers will be able to use the express lanes for free. The project will not affect VTA's Light Rail that currently runs within the SR 85 median south of SR 87.

¹ Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, Appendix A, United States Environmental Protection Agency and Federal Highway Administration, EPA420-B-06-902, March 2006.

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

The project does not qualify as a POAQC for the following reasons:

1. It is not a new or expanded highway project that would have a significant number of or increase in the number of diesel vehicles (40 CFR Section 93.123(b)(1)(i)).
 - The project would not add capacity for diesel vehicles. Trucks over 9,000 pounds are prohibited on most of the SR 85 corridor, except for maintenance and emergency vehicles, buses, and recreational vehicles.
 - Caltrans truck count data for 2009 indicate that truck percentages on SR 85 range from 0.25% to 3.05%, well below the significance threshold.
 - Projected 2015 and 2035 annual average daily truck traffic data are below the United States Environmental Protection Agency significance threshold even for the highest-volume freeway segment.
2. The project does not affect any intersections (40 CFR Section 93.123(b)(1)(ii)).
3. It is not a new bus or rail terminal or transfer point (40 CFR Section 93.123(b)(1)(iii)).
4. It is not an expansion of an existing bus or rail terminal or transfer point (40 CFR Section 93.123(b)(1)(iv)).
5. There is no state implementation plan for PM_{2.5}, and the project area is therefore not identified in an implementation plan as an area of potential violation (40 CFR Section 93.123(b)(1)(v)).

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

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Figure 1. SR 85 Express Lanes Project Vicinity

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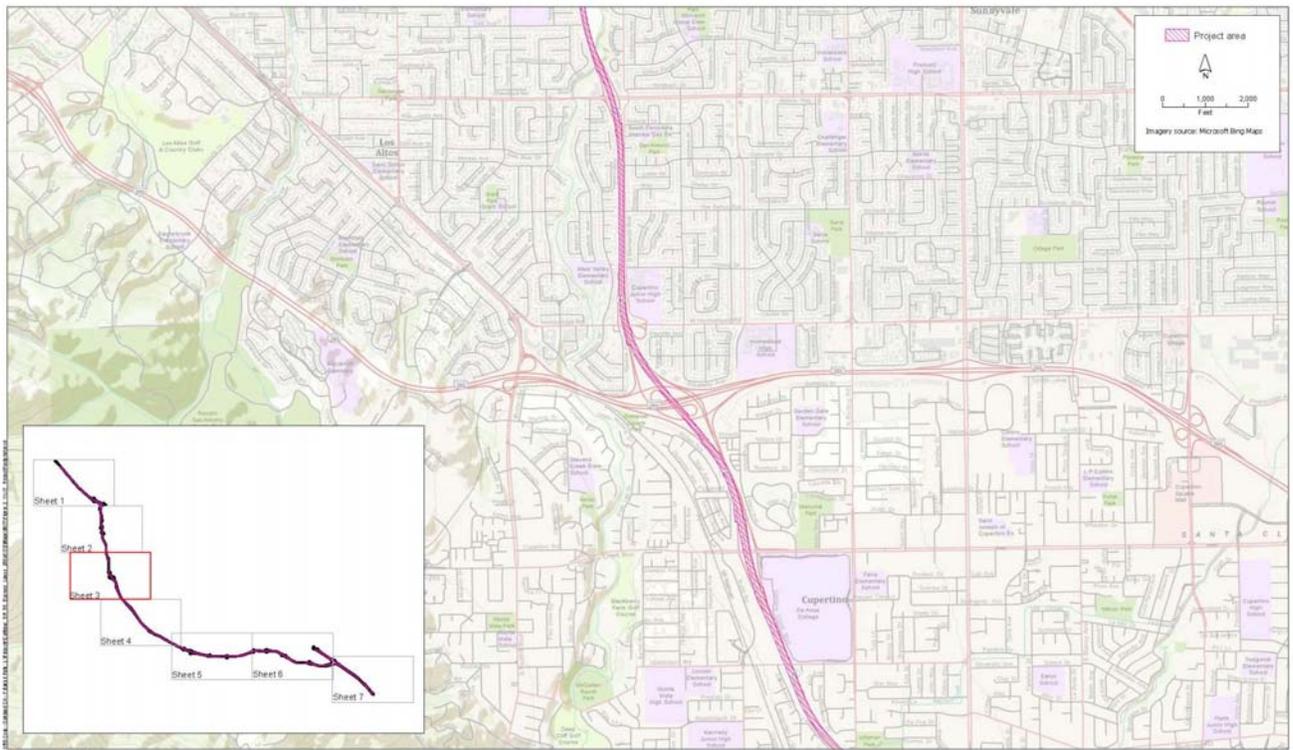


Figure 2 Sheet 1
Project area

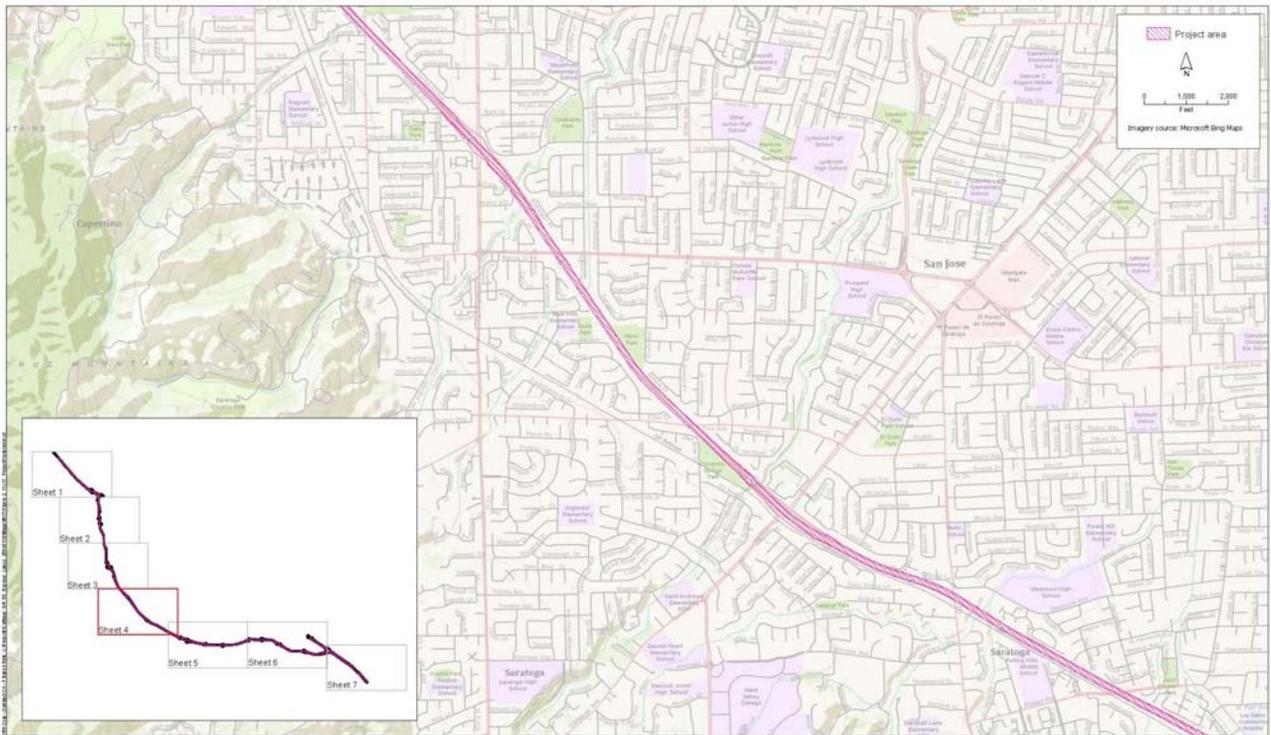
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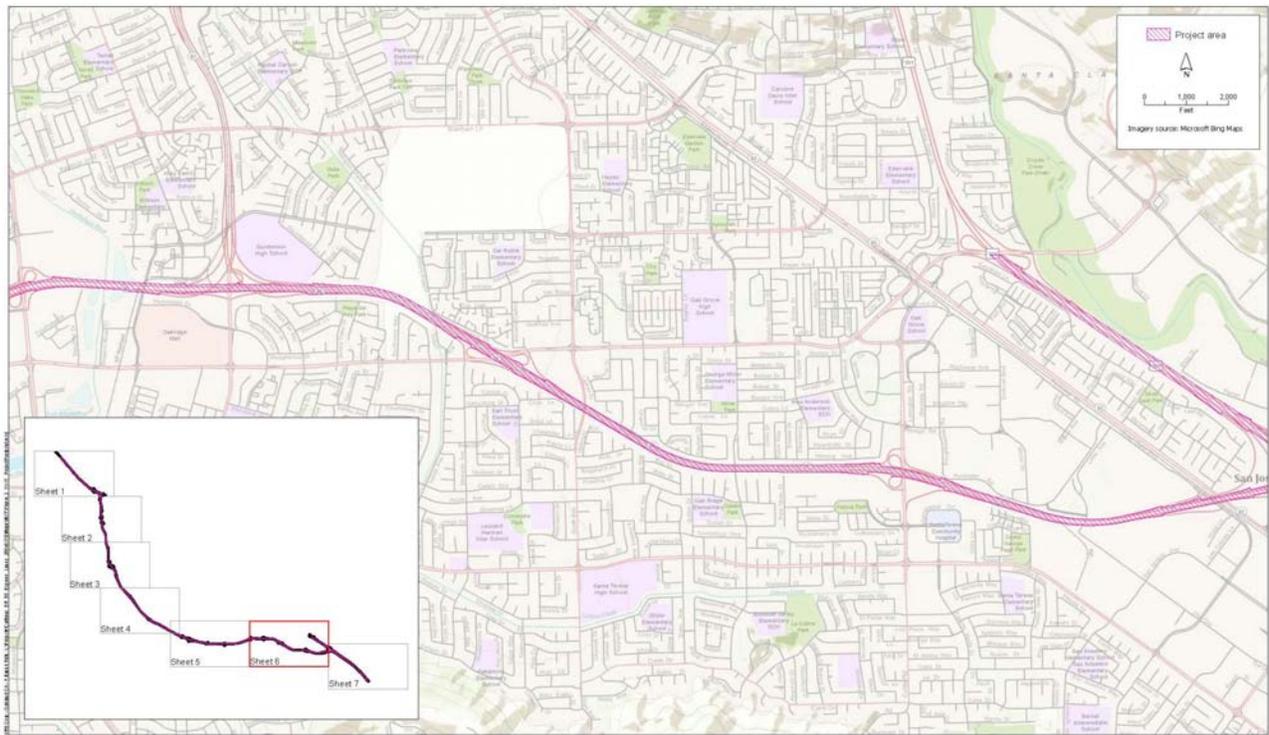
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