I-15 Express Lanes Project

Presented by Commissioner Joe Lyou January 25, 2024

Documents Reviewed

I reviewed a lot of documents related to this project. I list them here because they should be part of the record and they have helped inform my decision.

Documents Reviewed

Caltrans, 2016, PM Conformity Hot Spot Analysis — Project Summary for Interagency Consultation, RTIP ID# 20159901.

Dennis Saylor, June 28, 2016, Memorandum: Response to EPA Questions Regarding the I-15 Express Lanes.

WSP | Parsons Brinkerhoff, 2017, Interstate 15 (I-15) Corridor Project, Project Approval and Environmental Document (PA&ED), Traffic Study Report.

Caltrans and SBCTA, 2018, Interstate 15 Corridor Project: Initial Study With Mitigated Negative Declaration/Environmental Assessment With Finding of No Significant Impact.

SBCTA and Caltrans, 2018, I-15 Corridor Project PA/ED.

Documents Reviewed (continued)

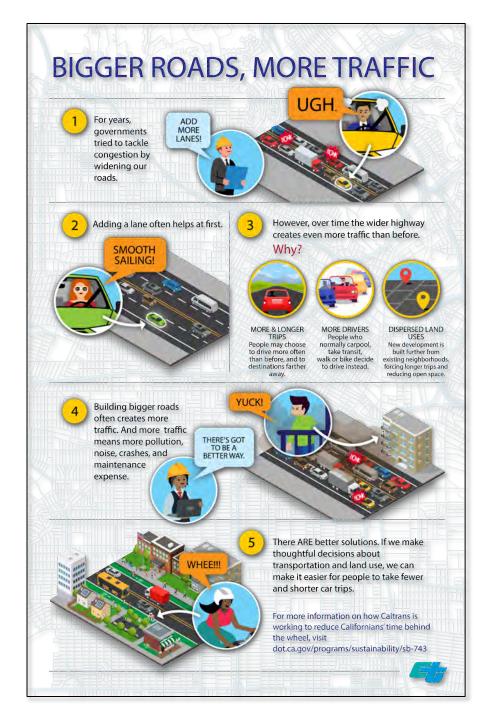
Caltrans, 2020, NEPA/CEQA Re-Validation Form, Interstate 15 Corridor Freight and Express Lanes Project.

SBCTA & Caltrans, 2020, Interstate 15 Corridor Freight Improvement Project Auxiliary and Express Lanes, Trade Corridor Enhancement Program application.

Caltrans, SBCTA, SCAG, and RCTC, 2022, Inland Empire Comprehensive Multimodal Corridor Plan (Updated).

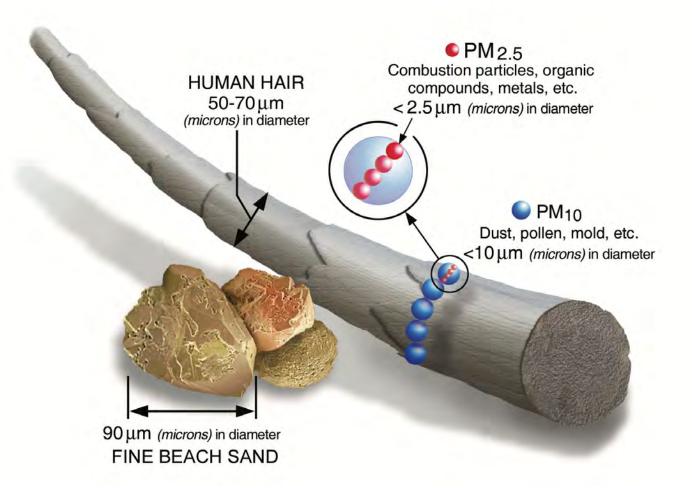
Fehr Peers, 2022, I-15 Corridor Freight and Express Lanes Project — Contract 1: Traffic Re-validation Report.

The Problem

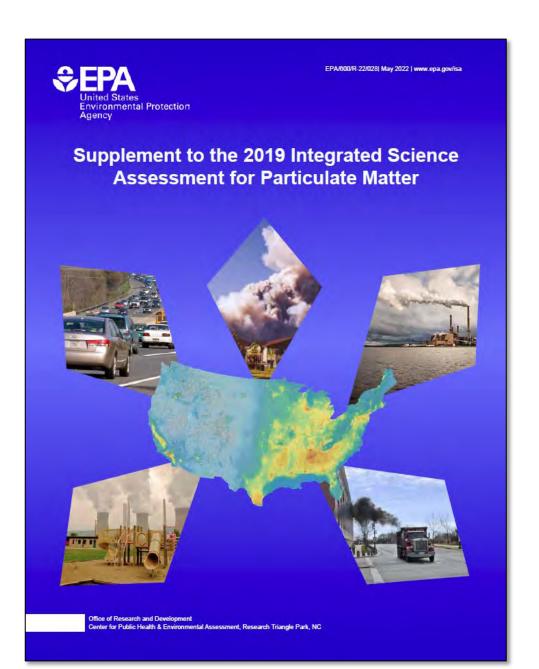


"For many years, California tried to solve the problem of congestion by building bigger roads. Unfortunately, that approach didn't work for many communities. In fact, widening highways often had the opposite effect."

Caltrans



The U.S. Environmental Protection Agency (EPA) regulates PM 2.5 by setting limits on the allowable level of background (aka, "ambient") concentrations.



Health researchers have found PM 2.5 exposure to be associated with a long list of adverse health effects, including emergency room visits, hospital admissions, heart disease, heart failure, coronary heart disease, stroke, cancer, and premature death.

In 2016, the State of California reported that PM 2.5 emissions associated with freight activities result in ~2,200 premature deaths per year and the annual cost of health impacts from exposure to freightrelated emissions to be \$20 billion.







Governor Edmund G. Brown Jr. July 2016

TABLE G-2: Statewide Health Effects and Valuation (2013 \$) Associated with Freight Emissions Contributing to PM2.5—Midpoint Projections

PM2.5 and NOx	2012	2030	2050
Mortality	2,200	980	1,100
Hospitalizations*	330	150	160
ER Visits [†]	950	420	450
Valuation (billions)	\$20	\$9	\$10

^{*} Includes respiratory and cardiovascular hospitalizations.

TABLE G-3: Statewide Health Effects and Valuation (2013 \$) Associated with Freight Emissions Contributing to PM2.5—Uncertainty Ranges**

PM2.5 and NOx	2012	2030	2050
Mortality	1,700-2,700	770-1,200	830-1,300
Hospitalizations*	43-770	19-340	20-370
ER Visits [†]	600-1,300	260-570	280-620
Valuation (billions)	\$16-\$24	\$7-\$11	\$7-\$12

^{*} Includes respiratory and cardiovascular hospitalizations.

[†] Includes asthma and cardiovascular emergency room visits.

^{**}Uncertainty ranges only reflect uncertainty in the concentration-response function, and do not reflect uncertainty in emission projections, spatial interpolation, and aggregation. † Includes asthma and cardiovascular emergency room visits.

The I-15 express lanes project is located just upwind of the South Coast Air Quality Management District's Mira Loma air quality monitoring station.



The Mira Loma monitoring station has the highest PM 2.5 levels in the South Coast Air Basin.

TABLE 2-10
2018-2020 PM2.5 ANNUAL DESIGN VALUES BY BASIN AND COUNTY

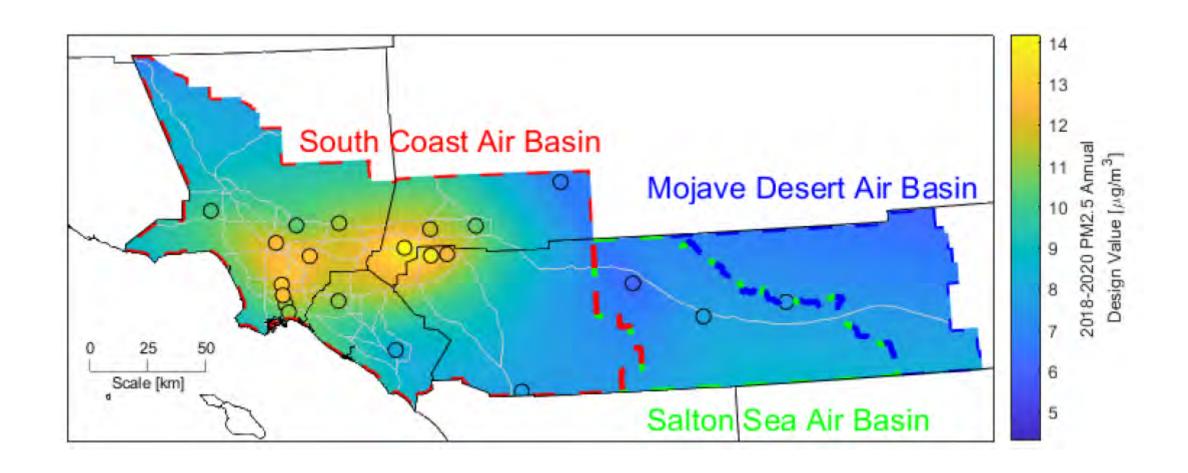
Basin/ County	2018- 2020 PM2.5 Annual Design Value (µg/m³)°*	Percent of Current (2012) PM2.5 Annual NAAQS (12.0 µg/m³)	Percent of Former (1997) Annual NAAQS (15.0 µg/m³)	Area of Design Value Max	2018-2020 3-Year High State Annual Average PM2.5 Designation Value (μg/m³)**	Percent of State PM2.5 Annual Standard (12 µg/m³)	
South Coast	Air Basin						
Los Angeles	13.0	108	87	South Central Los Angeles County		135	
Orange	11.0	92	73	Central Orange County	12.3	103	
Riverside	13.8	115	Metropolitan 92 Riverside County (Mira Loma)		16.4	137	
San Bernardino	14.2	118	95	CA-60 Near Road	15.4	128	
Salton Sea A	ir Basin						
Riverside	8.0	67	53	Coachella Valley (Indio)	8.4	70	

Bold text denotes the peak value.

Based on FRM filter data and NAAQS-comparable FEM continuous data; the federal design value is based on the average of the 3 annual averages in the period.

Value includes all exceptional events, however, removal of suspected exceptional events result in a lower design value.

Based on combined FRM filter and continuous FEM data (federal FEM waiver is not applied to State designation value); data includes exceptional events; the State annual designation value is the highest year in the 3-year period.



Transportation Conformity

The Clean Air Act requires a PM 2.5 hot-spot analysis for "projects of air quality concern."

The SCAG Transportation Conformity Working Group considers Clean Air Act requirements and EPA regulations when determining if projects represent projects of air quality concern.

The Transportation Conformity Working Group includes EPA, FHWA, FTA, ARB, Caltrans, local air districts, SCAG, county transportation commissions, and other stakeholders.

The Clean Air Act requires that federallysupported transportation projects cannot "... increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard . . ."



Title 40

Protection of Environment

Parts 85 to 96

Revised as of July 1, 2023

Containing a codification of documents of general applicability and future effect

As of July 1, 2023

Published by the Office of the Federal Register National Archives and Records Administration as a Special Edition of the Federal Register EPA regulations say that highway expansion projects that have a significant number of, or a significant increase in, diesel vehicles are projects of air quality concern, which require hot-spot analyses.

40 CFR 93.123(b)(1)

The Transportation Conformity Working Group receives a "PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation" (aka, an "air quality report") when meeting to determine whether a transportation project is a project of air quality concern.

The air quality report for the I-15 express lanes project stated, "... no change in medium- or heavy-truck volumes are foreseen to occur under the Build Alternative when compared to the No Build Alternative at Project Opening Year 2024 or Project Design Year 2045."

The air quality report included a table showing the average annual daily traffic (AADT) for trucks being the same for the No Build and Build alternatives.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Interstate 15 Segment Volumes - Project Design Year 2045

7 m. 27 40 07 - 1	No Build Alternative			Build Alternative				
Mainline Segment NB + SB	AADT	Truck AADT	Truck Percent AADT	LOS NB: AM/PM SB: AM/PM	AADT	Truck AADT	Truck Percent AADT	LOS* NB: AM/PM SB: AM/PM
Beech Ave to Duncan Canyon Rd	206,666	34,439	18.7%	NB: C/D SB: E/C	231,288	34,439	14.9%	NB: B/C SB: C/B
SR-210 to Beech Ave	216,974	34,097	15.7%	NB: C/F SB: F/C	243,258	34,097	14.0%	NB: B/F SB: F/B
Baseline Rd to SR-210	236,956	27,020	11.4%	NB: C/F SB: F/C	282,056	27,020	9.8%	NB: C/F SB: E/C
Foothill Blvd to Baseline Rd	238,280	26,658	11.2%	NB: C/E SB: F/D	295,705	26,658	9.0%	NB: C/D SB: F/C
Arrow St to Foothill Blvd	253,836	26,525	10.4%	NB: D/E SB: F/D	321,896	26,525	8.2%	NB: C/E SB: F/D
4th St to Arrow St	262,970	26,994	10.3%	NB: D/E SB: F/E	337,132	26,994	8.0%	NB: D/E SB: F/D
I-10 to 4th St	272,264	28,012	10.3%	NB: D/D SB: E/F	344,959	28,012	8.1%	NB: D/D SB: E/F
Jurupa St to I-10	296,327	27,615	9.3%	NB: F/F SB: F/F	363,228	27,815	7.6%	NB: F/F SB: F/F
SR-60 to Jurupa St	288,381	27,033	9.4%	NB: E/E SB: F/F	356,792	27,033	7.6%	NB: E/E SB: F/F

Source: WSP | Parsons Brinckerhoff, April 2016.

^{*} These Build Alternative LOS statistics represent general purpose lanes only. The Express Lanes will include dynamic pricing such that the fee adjusts to manage traffic demand and maintain an acceptable LOS for Express Lanes travel.

The Transportation Conformity Working Group considered the I-15 express lanes project at a meeting on May 24, 2016.

After the meeting, EPA sent the group a list of questions about the project.

Among other things, EPA asked, "How can the project support the goal of reducing performance problems due to truck volumes while having no impact on truck trips?"

EPA also asked, "Why doesn't additional capacity associated with the movement of light and medium duty traffic to the express lanes open up additional capacity for truck traffic and support continuing growth in development of warehouses and associated truck traffic in the area?"

In response, a project consultant told EPA, ". . . heavy truck volume for the corridor will be the same whether the Express Lanes are constructed or not."

The Transportation Conformity Working Group then determined that the I-15 express lanes project was not a project of air quality concern and, therefore, would not require a project-level hot spot analysis under the transportation conformity provisions of the Clean Air Act.

I-15 CORRIDOR PROJECT PA/ED



EA 08-0R8000 | Project Number 0812000184

08-Riv-015-PM 49.8 / 52.3 and 08-SBd-015 PM 0.0 / 12.2

PROJECT REPORT

VOLUME I



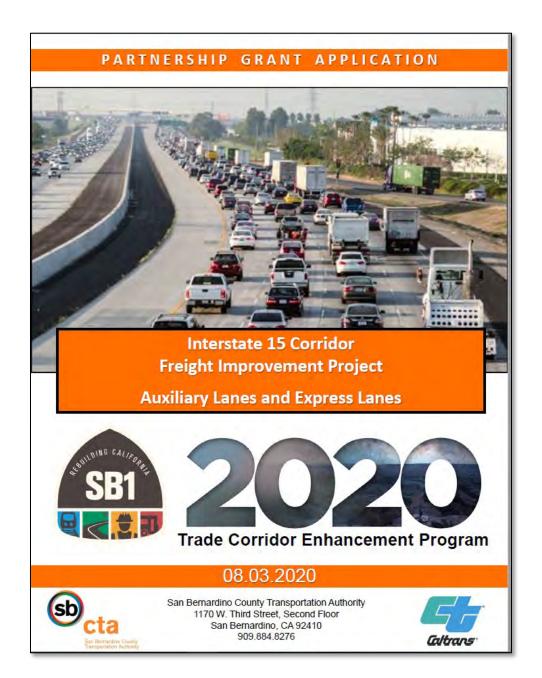


An *Air Quality Report* was prepared for the project. The project was presented to SCAG's Transportation Conformity Working Group during their scheduled May 24, 2016 meeting. TCWG determined that the I-15 Corridor project was Not a Project of Air Quality Concern (Not a POAQC), and that hot spot analysis was not required. US EPA, Caltrans, and FHWA concurrence was received via email after TCWG's July 26, 2016 meeting.

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The Funding Request

Caltrans and the San Bernardino County Transportation Authority (SBCTA) then sought to fund, in part, the I-15 express lanes project by applying to the California Transportation Commission for SB 1 Trade Corridor Enhancement Program (TCEP) funding.



In their TCEP funding application, Caltrans and SBCTA repeatedly referred to the project opening room to increase freight throughput on I-15.

<u>Fact Sheet:</u> Interstate 15 Corridor Freight Improvement Project: Auxiliary Lanes and Express Lanes
Application for SCCP 2020: San Bernardino County Transportation Authority
Contact: Paula Beauchamp, SBCTA Director of Project Delivery, (909)884-8276, pbeauchamp@gosbcta.com

Why Is the I-15 Auxiliary Lane and Express Lane Project an Important Multimodal Investment?

- It is important to freight because of where the project is located: It is located in the heart of one of the largest logistics centers in the U.S., with almost 200 million square feet of distribution facilities within five miles of the project. The I-15/I-10 interchange was ranked the 12th most critical truck bottleneck in the U.S. by the American Transportation Research Institute. This interchange lies at the very center of the I-15 segment.
- 4. Because it directly addresses freight bottlenecks: There are three auxiliary lane improvements proposed, each of which involves major truck movements, and all of which will improve conditions at the major I-15 interchanges. The auxiliary lanes directly improve freight flows, while the express lanes open up room for more freight by better managing through and local traffic and improving operations.







C. GENERAL INFORMATION	
C.1. Project Title	I-15 Corridor Freight Improvement Project: Auxiliary Lanes and Express Lanes This collaborative project between the San Bernardino County Transportation Authority (SBCTA), the Riverside County Transportation Commission (RCTC) and the California Department of Transportation (Caltrans) will improve freight efficiency, traffic operations and safety between Cantu-Galleano Ranch Road in Riverside County and Foothill Boulevard in San Bernardino County. This goods movement corridor serves a high proportion of freight as it traverses through one of the largest centers of logistics in the U.S. Three sets of auxiliary lanes will be added to improve traffic operations and safety in the vicinity of the I-15/SR-60 and I-15/I-10 interchanges. In addition, express lanes will be constructed in the median of I-15 joining the express lanes currently unde construction in Riverside County. Total project cost is \$307,167,000 and \$87,000,000 in TCEP funds are requested. The overall freight strategy can be expressed as Auxiliary lanes will improve operations at critical I-15 freight bottlenecks; the addition of express lanes will open up room for more freight. At the same time, express tol lanes improve the ability to optimize overall person-movement and improve reliability for people and commerce. A major goal of this project is to begin the transition of I-15 into a truly managed corridor for both freight and people. Technology will be a big par of that transition, as indicated by the proposed dynamic pricing and HOV incentive strategy, together with truck bottleneck relief and efficiency upgrades. Backup documentation for this application is available at ftp://gis.sanbag.ca.gov/Expires210101 I15TCEP ALEL/

substantial congestion and delays. The need for the I-15 Corridor Freight Improvement Project stems from a number of considerations, among which include:

✓ It is an important safety and operational improvement. From a freight perspective, incorporation of auxiliary lanes will address key freight bottlenecks on I-15 in this segment; the express lanes will then provide additional room for freight throughput, while also enabling better overall management of traffic flows for people and goods, and improving trip

C.3. Project	a. Project Description and Scope:					
Description,	This collaborative project between SBCTA, the Riverside County Transportation					
Scope, and	Commission (RCTC) and Caltrans will improve freight efficiency, traffic operations and					
Benefits	safety between Cantu-Galleano Ranch Road in Riverside County and Foothill Boulevard					
	in San Bernardino County. The overall freight strategy can be expressed as: Auxiliary lanes will improve operations at critical I-15 freight bottlenecks; the					
	addition of express lanes will open up room for more freight.					
	This congested corridor serves a high proportion of freight as trucks average between 8 percent to 11 percent throughout the corridor as it traverses one of the largest					

The goals articulated in the 2020 RTP/SCS (*Connect SoCal*) include the following (with assessment of how the I-15 Corridor Freight Improvement Project relates to those goals):

 Encourage regional economic prosperity and global competitiveness (Assessment: the improvement addresses multiple truck weaving/merging bottlenecks in this segment through the addition of auxiliary lanes, and opening up additional room for freight with the express lanes). The overall strategy for increasing freight throughput could be characterized as: Auxiliary lanes will improve operations at I-15 freight bottlenecks; the addition of express lanes will open up room for more freight, while improving overall management of flows for people and goods and improving reliability. Interstate 15 is one of the most nationally significant freight corridors in the U.S. It connects

on weekdays as well as weekends and other with infrastructure options are lacking. Due to the unique geographic characteristics of the area, the I-15 corridor remains the sole mainline route connecting the Inland Empire and Southern California metropolitan regions with the High Desert, Las Vegas, and beyond. There are no parallel highways that provide comparable direct road travel capability. The theme of this application summarizes the bottleneck relief strategy: Auxiliary lanes will improve operations at I-15 freight bottlenecks; the addition of express lanes will open up room for more freight while improving overall management of flows for people and goods and improving reliability.

2. Because it directly addresses freight bottlenecks: There are three specific auxiliary lane improvements proposed, each of which involves major truck movements, and all of which will improve conditions at the I-15/I-10 interchange. The aux lanes directly improve freight flows, while the express lanes make room for more freight by better managing through and local traffic and improving operations. It also addresses a key pinch point on I-15 southbound at the county line, where the width of the bridge over Mission Boulevard constrains further improvement of this key segment.

The point of these volume numbers is that the addition of express lanes "opens up room for more freight," as identified in the I-15 grant application. In the AM peak hour above, the total Build volume increases to 10,683 from 9,977 in No-Build. Yet the GP lane volume drops by almost 2000 vehicles in the AM peak hour. The truck percentage in the GP lanes will be higher as a result, but will allow for freer truck movement. In the PM peak hour, the total Build volume increases to 8,513 from 7,731 in No-Build. Yet the GP lane volume drops by approximately 1200 vehicles in the PM peak hour.

* * *

The benefits of the auxiliary lanes and express lanes follow the same pattern as explained above for the I-10 WB to I-15 SB ramp, although the truck volumes are not quite as high in this direction. The auxiliary lanes will improve weaving maneuvers and operations. The express lanes will open up room for additional freight flows.

In their TCEP funding application, Caltrans and SBCTA included a table specifying project-related increases in truck trips and truck vehicle miles traveled (VMT).

This table directly contradicts the information provided to the Transportation Conformity Working Group.

Performance Indicators and Measures, I-15 Corridor Freight Improvement Project: Auxiliary Lanes and Express Lanes, TCEP

Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change	Notes
Congestion	LPPF, LPPC,	Project Area, Corridor, County, or Regionwide	Total Miles	86,232,322	85,898,007	334,315	For entire study area, Y20
Reduction	SCCP	Daily VMT per Capita and Total Daily VMT	VMT per Capita	29.37	29.26	0.11	For entire study area, Y20
	LPPF, LPPC,	Daily Person Hours of Travel Time Saved	Person Hours	38,008,781	38,979,420	-970,639	For entire study area, Y20
	SCCP		Hours per Capita	12.95	13.28	(0.33)	For entire study area, Y20
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	31,933,048	32,748,530	-815,482	For entire study area, Y20
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	31,933,048	32,748,530	-815,482	For entire study area, Y20
	TCEP	Daily Truck Trips	# of Trips	31,808	26,507	5,301	On I-15 segment only, Y20
	TCEP	Daily Truck Miles Traveled	Miles	222.659	185,550	37.109	On I-15 segment only, Y20
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated (Annual)	# of Trucks	6,292,675	5,243,896	1,048,779	On I-15 segment only, Y20
	TCEP	Change in Rail Volume That Can Be	# of Trailers	N/A	N/A	N/A	

The data in the TCEP application table show an increase of nearly 2 million additional annual truck trips and 13.5 million additional additional annual truck VMT.

5,301 daily trips x 365 days/year = 1.93 million annual trips

37,109 daily VMT x 365 days/year = 13.5 million annual VMT

Air Quality Report ≠ TCEP Application

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Interstate 15 Segment Volumes - Project Design Year 2045

T 40.00147.075	No Build Alternative				Build Alternative				
Mainline Segment NB + SB	AADT	Truck AADT	Truck Percent AADT	LOS NB: AM/PM SB: AM/PM	AADT	Truck AADT	Truck Percent AADT	LOS* NB: AM/PM SB: AM/PM	
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Source: WSP | Parsons Brinckerhoff, April 2016.

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	TCEP	Daily Truck Trips	# of Trips	31,808	26,507	5,301	On I-15 segment only, Y2
	TCEP	Daily Truck Miles Traveled	Miles	222.659	185,550	37.109	On I-15 segment only, Y2
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated (Amnual)	# of Trucks	6,292,675	5,243,896	1,048,779	On I-15 segment only, Y2
		Change in Rail Volume That Can Re	# of Trailers	N/A	N/A	N/A	

^{*} These Build Alternative LOS statistics represent general purpose lanes only. The Express Lanes will include dynamic pricing such that the fee adjusts to manage traffic demand and maintain an acceptable LOS for Express Lanes travel.

What Should We Believe?

If the air quality report is right, then the TCEP funding application was scored improperly on the "freight systems factors" criterion for "throughput," which awards higher project ratings for "increased volume of freight traffic."

If the TCEP application is right, then SBCTA and Caltrans misled the Transportation Conformity Working Group, which then decided to not require a PM 2.5 hot-spot analysis based on erroneous information.

Path Forward

Proposal

✓ Suspend consideration of project allocation

✓ Direct Caltrans and SBCTA to have the Transportation Conformity Working Group reconsider the project