

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTIP ID# <i>(required)</i> 1830					
Project Description <i>(clearly describe project)</i> I-10 at Cedar Avenue between Slover Avenue and Valley Boulevard - reconstruct interchange, widen from 4 to 6 lanes with right and left turn lanes. Add aux lane on eastbound on and off ramps.					
Type of Project <i>(use Table 1 on instruction sheet)</i> Reconfigure existing interchange					
County San Bernardino	Narrative Location/Route & Postmiles 08-SBD-10 PM17.8/19.3				
	Caltrans Projects – EA# IA8300				
Lead Agency: County of San Bernardino					
Contact Person Chris Saed	Phone# (909)387-7877	Fax# (909)387-8130	Email cased@dpw.sbcounty.gov		
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 x PM10 x					
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>					
Categorical Exclusion (NEPA)	x	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action:					
Current Programming Dates <i>as appropriate</i>					
	PE/Environmental	ENG	ROW	CON	
Start	04-30-2002	07/20/2007	07/01/2007	02/10/2009	
End	06/01/2007	09/01/2008	09/10/2008	02/20/2011	

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

When the Cedar Avenue/I-10 interchange was built, the surrounding land uses were predominately agricultural. As development has occurred throughout San Bernardino County, including the area around the I-10/Cedar Avenue interchange, traffic volumes on local streets such as Cedar Avenue and on I-10 have increased substantially.

I-10 is the principal east/west circulation route for automobiles and trucks into and out of the Los Angeles Basin. I-10 currently handles 200,000 vehicles per day (vpd), with a projected traffic count of 251,582 vpd by 2030. Interchanges along I-10 throughout the Inland Empire were typically built at every 1.6 kilometers (km) (1 mile [mi]), with overcrossings or undercrossings approximately every 0.8 km (0.5 mi).

The purpose of the proposed I-10/Cedar Avenue interchange project is to alleviate substantial traffic congestion and delays during the morning and afternoon peak periods and to accommodate projected future traffic volumes at the I-10/Cedar Avenue interchange. Cedar Avenue between Slover Avenue and Valley Boulevard currently experiences substantial traffic congestion and delays during the morning and afternoon peak periods. Traffic forecasts indicate that congestion will worsen over time unless operational and capacity improvements to this interchange are made. The existing levels of service (LOS) on Cedar Avenue and the I-10 westbound ramps are LOS F in the a.m. peak hour and LOS C in the p.m. peak hour. The existing LOS on Cedar Avenue and the I-10 eastbound ramps are LOS D for the a.m. peak hour and LOS F in the p.m. peak hour. If no improvements are made to the existing I-10/Cedar Avenue interchange, the 2009 LOS for Cedar Avenue and the I-10 westbound and eastbound ramps will be LOS F for the a.m. and p.m. peak hours.

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

The land uses within the vicinity of the I-10/Cedar Avenue interchange include residential, commercial, and light industrial developments.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

LOS F/E, Total AADT = 209,900*, Truck AADT = 20,990* (10%), Year 2009, Along I-10

* These traffic volumes apply to both the No Build and Build Alternatives.

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

LOS F/F, Total AADT = 251,582*, Truck AADT = 25,158* (10%), Year 2030, Along I-10

* These traffic volumes apply to both the No Build and Build Alternatives.

<p>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT LOS D/D, Total AADT = 43,600*, Truck AADT = 2,530* (5.8%), Year 2009, Along Cedar Avenue</p> <p>* These traffic volumes apply to both the No Build and Build Alternatives.</p> <p>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 LOS F/D, Total AADT = 52,000*, Truck AADT = 3,000* (5.8%), Year 2030, Along Cedar Avenue</p> <p>* These traffic volumes apply to both the No Build and Build Alternatives.</p>
<p>Describe potential traffic redistribution effects of congestion relief <i>(impact on other facilities)</i> See attached analysis</p>
<p>Comments/Explanation/Details <i>(attach additional sheets as necessary)</i> See attached analysis</p>

Particulate Matter (PM₁₀ and PM_{2.5}) Analysis

The proposed project is within a nonattainment area for federal PM_{2.5} and PM₁₀ standards. Therefore, per 40 CFR Part 93 analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) because of the following reasons:

- i. The proposed project is not a new or expanded highway project. The proposed project is an interchange reconstruction project that does not increase the capacity of I-10. This type of project improves freeway interchange operations by reducing traffic congestion and improving merge operations. Based on the *Traffic Analysis* (LSA Associates, Inc., October 2003), the proposed project would increase the capacity of Cedar Avenue. However, the traffic volumes along Cedar Avenue would not exceed the 125,000 average daily trips threshold for a POAQC. In addition, as the project interchange serves a primarily residential area, the truck traffic percentage would not exceed the eight percent threshold for POAQC. The future traffic volumes along Cedar Avenue are shown in Table G.
- ii. The proposed project does not affect intersections that are at level of service (LOS) D, E, or F with a significant number of diesel vehicles. Based on the *Traffic Analysis*, the proposed project would reduce the delay and improve the LOS at intersections within the project vicinity. The LOS conditions in the project vicinity with and without the proposed project are shown in Tables H, I, and J.
- iii. The proposed project does not include the construction of a new bus or rail terminal.
- iv. The proposed project does not expand an existing bus or rail terminal.

Table G: 2030 Average Daily Traffic Volumes

Roadway Link	Without Project Traffic Volumes	Alternative 2A Traffic Volumes	Alternative 2E Traffic Volumes
Cedar Avenue north of Bloomington Avenue	30,000	30,000	30,000
Cedar Avenue between Bloomington Avenue and Valley Boulevard	36,500	36,500	36,500
Cedar Avenue between Valley Avenue and Westbound I-10 Ramps	52,000	52,000	48,200
Cedar Avenue between Westbound I-10 Ramps and Eastbound I-10 Ramps	43,600	43,600	43,600
Cedar Avenue between Eastbound I-10 Ramps and Orange Street	38,700	38,700	38,700
Cedar Avenue between Orange Street and Slover Avenue	35,300	35,300	35,300
Cedar Avenue South of Slover Avenue	28,400	28,400	28,400
Valley Boulevard East of Cedar Avenue	20,800	20,800	35,900

Source: LSA Associates, Inc., October 2003.

Table H: 2030 without Project Intersection Levels of Service

Intersection		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1.	Cedar Avenue/Bloomington Avenue	0.60	11.0	B	0.63	8.8	A
2.	Cedar Avenue/Valley Boulevard	0.72	22.2	C	1.01	48.3	F
3.	Cedar Avenue/I-10 Westbound Ramps	0.91	25.3	C	1.01	44.2	F
4.	Cedar Avenue/I-10 Eastbound Ramps	1.21	77.7	F	1.13	61.5	F
5.	Cedar Avenue/Orange Street	0.66	6.5	A	0.76	8.2	A
6.	Cedar Avenue/Slover Avenue	0.92	34.4	C	1.06	69.2	F

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

Table I: 2030 with Proposed Project (Alternative 2A) Intersection Levels of Service

Intersection		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1.	Cedar Avenue/Bloomington Avenue	0.63	14.9	B	0.62	10.5	B
2.	Cedar Avenue/Valley Boulevard	0.74	25.9	C	0.74	28.4	C
3.	Cedar Avenue/I-10 Westbound Ramps	0.49	14.9	B	0.67	18.1	B
4.	Cedar Avenue/I-10 Eastbound Ramps	0.66	27.3	C	0.63	21.3	C
5.	Cedar Avenue/Orange Street	0.47	7.2	A	0.53	5.5	A
6.	Cedar Avenue/Slover Avenue	0.61	23.7	C	0.72	27.3	C

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

Table J: 2030 with Proposed Project (Alternative 2E) Intersection Levels of Service

Intersection		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1.	Cedar Avenue/Bloomington Avenue	0.60	12.5	B	0.62	11.1	B
2.	Cedar Avenue/Valley Boulevard	0.81	39.0	D	0.74	33.3	C
3.	Cedar Avenue/I-10 Westbound Ramps	No conflicting movements					
4.	Cedar Avenue/I-10 Eastbound Ramps	0.75	29.2	C	0.79	25.8	C
5.	Cedar Avenue/Orange Street	0.46	6.4	A	0.53	8.4	A
6.	Cedar Avenue/Slover Avenue	0.60	27.0	C	0.71	32.8	C
7.	Westbound Hook Ramps/Valley Boulevard	0.63	21.4	C	0.81	27.0	C

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM₁₀ or PM_{2.5} violation.