

RTIP ID# <i>(required)</i> 20110110
TCWG Consideration Date: September 24, 2013
<p>Project Description <i>(clearly describe project)</i></p> <p>The San Bernardino Associated Governments (SANBAG), in coordination with the California Department of Transportation (Caltrans) and the City of Rialto, is proposing to construct a new interchange along State Route (SR-) 210 at Pepper Avenue. Figure 1 shows the project location, and Figure 2 shows the existing lane configurations.</p> <p>This proposed project is included in the Southern California Association of Governments (SCAG) 2013 Federal Transportation Improvement Program (FTIP) under project ID 20110110. It is also included in the SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy under project ID 4M1007.</p> <p>Build Alternative</p> <p>The proposed Build Alternative would construct a new tight diamond interchange along SR-210 at Pepper Avenue (refer to Figure 2-3). The project would provide freeway access ramps at each of the four quadrants of the diamond configuration interchange. The eastbound and westbound off-ramps would widen from one lane where the ramps diverge from SR-210 to two lanes at the intersection with Pepper Avenue where a dedicated left turn lane and a dedicated right turn lane would be provided. The eastbound and westbound on-ramps would each include two lanes at the intersection with Pepper Avenue and would taper to one lane prior to merging onto SR-210. At the ramp intersections with Pepper Avenue traffic signals would be installed. A traffic signal would also be installed at the Pepper Avenue/Highland Avenue intersection.</p> <p>Pepper Avenue would be widened from two (constructed as the City’s gap closure project) to four through lanes from Highland Avenue to south of the intersection of Pepper Avenue and the eastbound ramps; a distance of approximately 1,300 feet. This portion of Pepper Avenue would ultimately consist of two 12-foot through lanes in each direction with an 8-foot shoulder, curb and gutter, a 6.5-foot parkway, and a 5-foot sidewalk on both sides of the roadway (i.e., next to the 6.5-foot parkway northbound and southbound from the freeway), except within the undercrossing where the sidewalk would be 6.5 feet wide. A dedicated 12-foot left turn lane from northbound Pepper Avenue to the westbound on-ramp and from southbound Pepper Avenue to the eastbound on-ramp would also be constructed. The south end of the interchange project would match the four-lane Pepper Avenue Extension project that is currently under construction by the City of Rialto.</p> <p>Two retaining walls would be constructed along Pepper Avenue beneath the undercrossing structures at the abutment slopes of the structure. They are anticipated to each be approximately 400 feet long with a 10-foot design height. Utilities would be adjusted or relocated, as needed, to accommodate the new interchange. Best Management Practice (BMP) features, including modifications to the existing, or the installation of new, water quality control features, would also be part of the project. This is anticipated to include two additional water quality basins, which would be adjacent to the southeast corner of the proposed eastbound on-ramp and the northeast corner of the proposed westbound off-ramp along the Pepper Avenue extension. The water quality basins would be designed and planted so that they would blend into the existing sage scrub landscape. Limited additional landscaping appropriate to the setting, and any necessary irrigation, will be installed to preserve and enhance existing landscape character. Also, to the fullest extent practicable, BMPs would be designed to convey both stormwater quantity flows and peak flows.</p> <p>Some permanent right of way acquisition is anticipated for the proposed Build Alternative.</p>

Type of Project: New Interchange									
County: San Bernardino			Narrative Location/Route & Postmiles: State Route 210; PM 19.3/20.1 Caltrans Projects – EA# 44394						
Lead Agency: San Bernardino Associated Governments (SANBAG)									
Contact Person Keith Cooper			Phone# (213) 312-1752		Fax# (213) 312-1799		Email Keith.Cooper@icfi.com		
Hot Spot Pollutant of Concern (<i>check one or both</i>) PM2.5 ✓ PM10 ✓									
Federal Action for which Project-Level PM Conformity is Needed (<i>check appropriate box</i>)									
<input type="checkbox"/>	Categorical Exclusion (NEPA)	<input checked="" 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: 2013									
NEPA Delegation – Project Type (<i>check appropriate box</i>)									
<input type="checkbox"/>	Exempt	<input type="checkbox"/>	Section 326 – Categorical Exemption	<input checked="" type="checkbox"/>	Section 327 – Non-Categorical Exemption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current Programming Dates (<i>as appropriate</i>)									
	PE/Environmental		ENG		ROW		CON		
Start	2011		2011		2013		2014		
End	2013		2013		2014		2016		
Project Purpose and Need (Summary): (<i>attach additional sheets as necessary</i>)									
<p>The purpose of the proposed SR-210/Pepper Avenue New Interchange project is to:</p> <ul style="list-style-type: none"> • provide improved regional connectivity to the local transportation network; • provide improved connectivity between SR-210 and Interstate 10 (I-10); and • provide interchange improvements that are consistent with existing local planning documents. <p>Pepper Avenue was planned as an interchange when the SR-210 freeway was originally built, and right-of-way was reserved for the interchange at that time. The Pepper Avenue Interchange is shown as a future interchange in the City’s General Plan and Pepper Avenue is also shown in the General Plan as an important north/south truck route.</p> <p>Access between SR-210 and I-10 is restricted at the east end of the City due to the orientation of Lytle Creek. The river runs diagonally across the east end of the City, which results in a limited number of north/south roadways to the east of Acacia Avenue and to the north of Baseline Road. This limits access for both local traffic attempting to access the regional transportation network, and in particular in trying to access SR-210; and for regional connectivity to the local transportation network particularly in the eastern portion of the City. In addition, truck routes have been designated in the City to accommodate the large volumes of truck traffic associated with goods movement. Caltrans has designated two trucks route classes based on California legislation: National Network (NN) and Terminal Access (TA) routes. The truck routes in Rialto are defined as TA routes. These routes are portions of State routes or local roads that can accommodate Surface Transportation Assistance Act (STAA) standard trucks. TA routes allow STAA trucks to: 1) travel between NN routes; 2) reach a truck’s operating facility, or 3) reach a facility where freight originates, terminates, or is handled in the transportation process. Within the City, Pepper Avenue is designated as a truck route. This route currently does not provide connectivity to SR-210, which hinders the ability of the route to accommodate the truck traffic and to meet the defined requirements of TA routes. Within the City the next closest north/south designated truck route is Cedar Avenue/Ayala Drive, which is located approximately 2.5 miles to the west. This results in a less direct access route between SR-210 and I-10 for travelers in the City as trucks and other traffic have to follow a more circuitous route to travel between these facilities; increasing the miles travelled particularly for traffic heading east on SR-210.</p>									

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

Land uses surrounding the project area consist of the following:

- Southwest quadrant - an un-named tributary and its floodplain to the immediate west followed by a park (Frisbie Park) and existing residential development farther to the west and south of the park;
- Southeast quadrant – open space containing one abandoned/uninhabitable residence; and
- Northern area - sand and gravel quarry on the north side of East Highland Avenue.

Click [here](#) for Google Map image of project site and surrounding vicinity.

The sand and gravel quarry represents the only heavy-truck trip generator within the project vicinity. Trucks currently access this facility via Highland Avenue, with access to SR-210 via State Street to the east or Riverside Drive to the west. The proposed project would allow for direct site access from SR-210, avoiding residential areas located near State Street and Riverside Drive.

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

SR-210 Mainline Year 2016	No Build Alternative	Build Alternative
AADT	123,200	123,700
Truck AADT	8,501	8,535
Truck Percent	6.9%	6.9%

Source: IBI Group, August 2013. *State Route 210/Pepper Avenue Interchange Supplemental Traffic Impact Analysis*. Prepared for SANBAG; Caltrans, 2011. *Annual Average Daily Truck Traffic on the California State Highway System*.

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

SR-210 Mainline Year 2036	No Build Alternative	Build Alternative
AADT	174,000	176,500
Truck AADT	12,006	12,179
Truck Percent	6.9%	6.9%

Source: IBI Group, August 2013. *State Route 210/Pepper Avenue Interchange Supplemental Traffic Impact Analysis*. Prepared for SANBAG; Caltrans, 2011. *Annual Average Daily Truck Traffic on the California State Highway System*.

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

Pepper Avenue at State Route 210 On/Off Ramps (Tight Diamond Interchange) Year 2016 Traffic Volumes								
	Eastbound		Westbound		Northbound		Southbound	
	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
Eastbound Ramps								
AADT	-	1,231	-	-	350	1,413	400	1,300
Truck Percentage	-	8%	-	-	8%	8%	8%	8%
Truck AADT	-	99	-	-	28	113	32	104
Westbound Ramps								
AADT	-	-	-	1,825	350	1,350	400	856
Truck Percentage	-	-	-	8%	8%	8%	8%	8%
Truck AADT	-	-	-	146	28	108	32	69
Adapted from: IBI Group, August 2013. <i>State Route 210/Pepper Avenue Interchange Supplemental Traffic Impact Analysis</i> . Prepared for SANBAG. AADT volumes estimated based on assumption that peak-hour volumes presented in Traffic Impact Analysis represent 16% AADT.								

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

Pepper Avenue at State Route 210 On/Off Ramps (Tight Diamond Interchange) Year 2036 Traffic Volumes								
	Eastbound		Westbound		Northbound		Southbound	
	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
Eastbound Ramps								
AADT	-	6,156	-	-	1,488	7,194	1,713	5,319
Truck Percentage	-	8%	-	-	8%	8%	8%	8%
Truck AADT	-	493	-	-	119	576	137	426
Westbound Ramps								
AADT	-	-	-	8,094	1,488	6,963	1,713	3,969
Truck Percentage	-	-	-	8%	8%	8%	8%	8%
Truck AADT	-	-	-	648	119	557	137	318
Adapted from: IBI Group, August 2013. <i>State Route 210/Pepper Avenue Interchange Supplemental Traffic Impact Analysis</i> . Prepared for SANBAG. AADT volumes estimated based on assumption that peak-hour volumes presented in Traffic Impact Analysis represent 16% AADT.								

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

As detailed above under *Purpose and Need*, Within the City of Rialto, Pepper Avenue is designated as a truck route. This route currently does not provide connectivity to SR-210, which hinders the ability of the route to accommodate the truck traffic and to meet the defined requirements of TA routes. Within the City the next closest north/south designated truck route is Cedar Avenue/Ayala Drive, which is located approximately 2.5 miles to the west. This results in a less direct access route between SR-210 and I-10 for travelers in the City as trucks and other traffic have to follow a more circuitous route to travel between these facilities; increasing the miles travelled particularly for traffic heading east on SR-210.

Comments/Explanation/Details *(attach additional sheets as necessary)*

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 hotspot 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:

- The proposed project is not a new or expanded highway project. As previously noted, Pepper Avenue was planned as an interchange when the SR-210 freeway was originally built, and right-of-way was reserved for the interchange at that time. The Pepper Avenue Interchange is shown as a future interchange in the City of Rialto's General Plan.
- The LOS conditions in the project vicinity with and without the proposed project are shown in Tables 3-12 through 3-15 (see attached). As shown therein, the proposed project would result in overall improvements in LOS. At horizon year 2036, all project vicinity intersections are predicted to operate at LOS C or better.
- The proposed project does not include the construction of a new bus or rail terminal.
- The proposed project does not expand an existing bus or rail terminal.
- The proposed project is not in or affecting locations, areas, or categories of sites that are identified in the PM_{2.5} and PM₁₀ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Therefore, the proposed project meets the CAA 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.

FIGURE 1 PROJECT LOCATION



FIGURE 2 EXISTING GEOMETRY

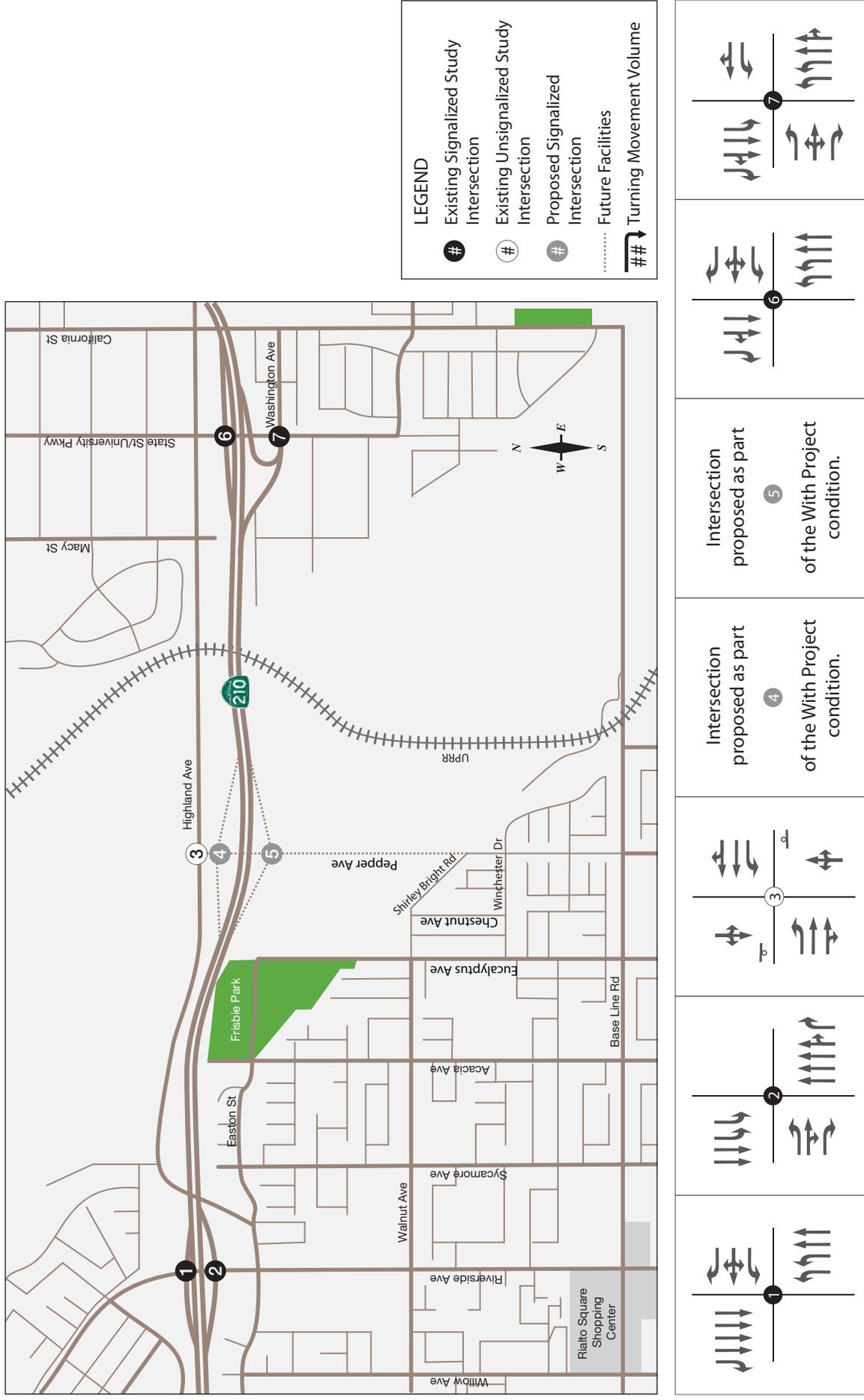




Figure 2-3 - Sheet 1
Build Alternative
State Route 210/Pepper Avenue New Interchange Project

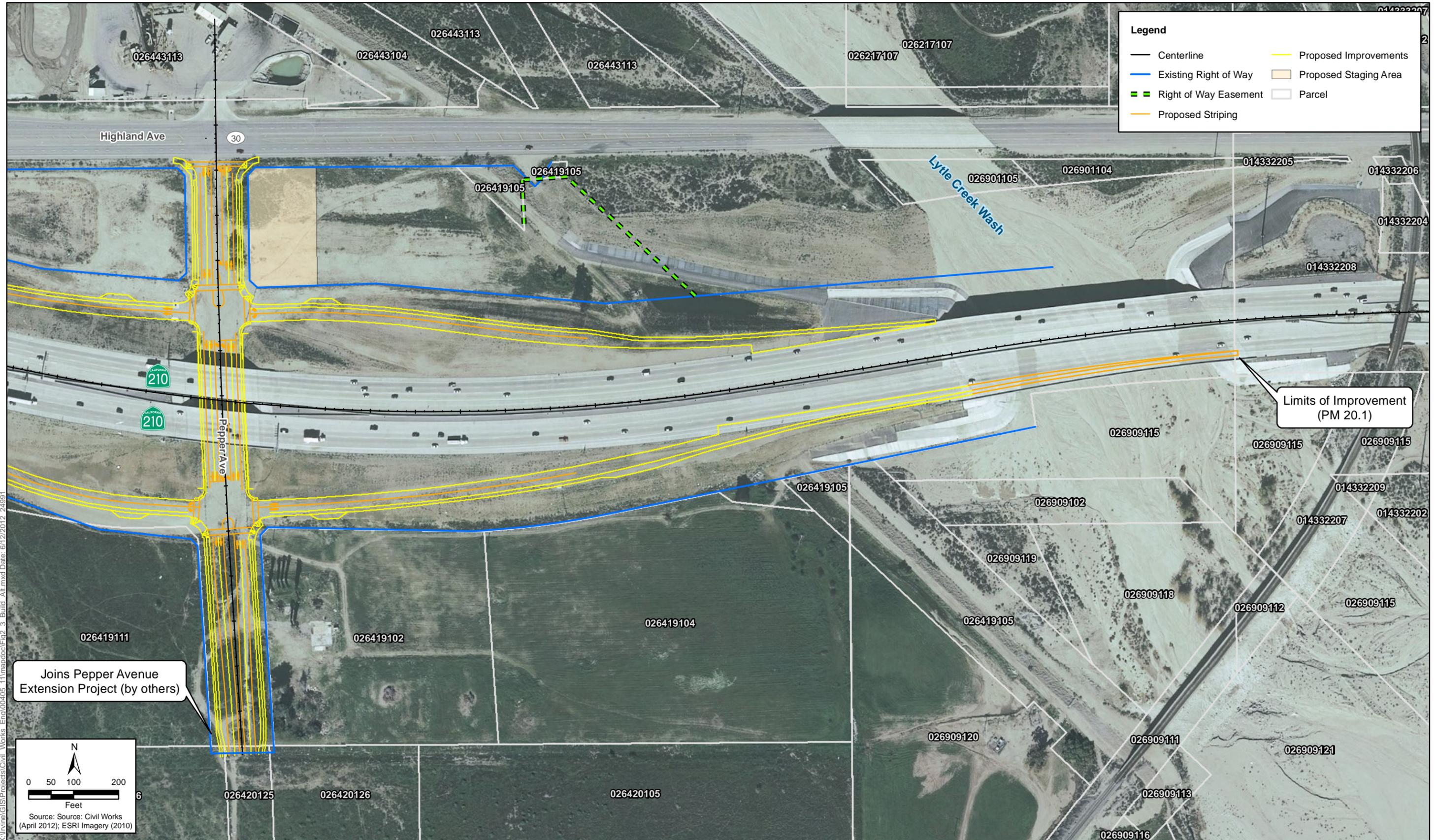


Figure 2-3 - Sheet 2
Build Alternative
State Route 210/Pepper Avenue New Interchange Project

STATE ROUTE 210/PEPPER AVENUE INTERCHANGE – SUPPLEMENTAL TRAFFIC IMPACT ANALYSIS

E. Level of Service (LOS) and Warrant Analyses

This section includes the results of the updated intersection level of service, queuing, ramp level of service, freeway mainline and HOV lane level of service, weaving and signal warrant analyses for existing, future without project and future with project conditions.

INTERSECTION LEVEL OF SERVICE ANALYSIS

A summary of the AM and PM peak hour level of service (LOS) analysis results for the Existing Year (2011) conditions are included in Table 3-11. All existing study intersections currently operate at LOS B or above during both peak hour time periods.

Table 3-11: Existing Year (2011) Level of Service Results

#	Intersection	Signal	AM Peak Hour		PM Peak Hour	
			Delay (sec)	LOS	Delay (sec)	LOS
1	Riverside Avenue and SR-210 WB Ramps	Signalized	18.4	B	13.9	B
2	Riverside Avenue and SR-210 EB Ramps	Signalized	15.9	B	13.0	B
3	Pepper Avenue and Highland Avenue	Unsignalized	0.3	A	0.2	A
4	Pepper Avenue and SR-210 WB Ramps	Signalized	n/a		n/a	
5	Pepper Avenue and SR-210 EB Ramps	Signalized	n/a		n/a	
6	State Street and SR-210 WB Ramps	Signalized	11.3	B	11.3	B
7	State Street and SR-210 EB Ramps	Signalized	18.5	B	20.6	C

The Opening Year (2016) AM peak hour level of service analysis results for the No Project and With Project scenarios are summarized in Table 3-12. The PM peak hour results are presented in Table 3-13. In the With Project condition, some traffic is diverted off of the Riverside Avenue and State Street ramps and onto the Pepper Avenue interchange, which results in improved operations on the existing facilities. All study intersections are forecast to operate at LOS C or better during all analysis scenarios. There are no significant impacts associated with the proposed project in the Opening Year.

Table 3-12: Opening Year (2016) LOS Results – AM Peak Hour

#	Intersection	Signal	No Project		With Project		Change in Delay
			Delay (sec)	LOS	Delay (sec)	LOS	
1	Riverside Avenue and SR-210 WB Ramps	Signalized	19.5	B	17.8	B	-1.7
2	Riverside Avenue and SR-210 EB Ramps	Signalized	16.1	B	16.0	B	-0.1
3	Pepper Avenue and Highland	Signalized	9.7	A	15.3	B	5.6
4	Pepper Avenue and SR-210 WB Ramps	Signalized	n/a		12.4	B	n/a
5	Pepper Avenue and SR-210 EB Ramps	Signalized	n/a		9.3	A	n/a
6	State Street and SR-210 WB Ramps	Signalized	11.4	B	11.1	B	-0.3
7	State Street and SR-210 EB Ramps	Signalized	18.2	B	18.6	B	0.4

STATE ROUTE 210/PEPPER AVENUE INTERCHANGE – SUPPLEMENTAL TRAFFIC IMPACT ANALYSIS

Table 3-13: Opening Year (2016) LOS Results – PM Peak Hour

#	Intersection	Signal	No Project		With Project		Change in Delay
			Delay (sec)	LOS	Delay (sec)	LOS	
1	Riverside Avenue and SR-210 WB Ramps	Signalized	15.6	B	14.7	B	-0.9
2	Riverside Avenue and SR-210 EB Ramps	Signalized	14.1	B	13.9	B	-0.2
3	Pepper Avenue and Highland	Signalized	9.6	A	14.6	B	5.0
4	Pepper Avenue and SR-210 WB Ramps	Signalized	n/a		15.8	B	n/a
5	Pepper Avenue and SR-210 EB Ramps	Signalized	n/a		10.5	B	n/a
6	State Street and SR-210 WB Ramps	Signalized	11.6	B	11.2	B	-0.4
7	State Street and SR-210 EB Ramps	Signalized	17.4	B	18.5	B	1.1

The Horizon Year (2036) peak hour level of service analysis results for the No Project and With Project scenarios are summarized in Tables 3-14 and 3-15. All study intersections are forecast to operate at LOS C or better during all analysis scenarios. There are no significant impacts associated with the proposed project in the Horizon Year.

Table 3-14: Horizon Year (2036) LOS Results – AM Peak Hour

#	Intersection	Signal	No Project		With Project		Change in Delay
			Delay (sec)	LOS	Delay (sec)	LOS	
1	Riverside Avenue and SR-210 WB Ramps	Signalized	24.6	C	17.8	B	-6.8
2	Riverside Avenue and SR-210 EB Ramps	Signalized	19.2	B	16.3	B	-2.9
3	Pepper Avenue and Highland	Signalized	9.2	A	17.9	B	8.7
4	Pepper Avenue and SR-210 WB Ramps	Signalized	n/a		15.8	B	n/a
5	Pepper Avenue and SR-210 EB Ramps	Signalized	n/a		12.2	B	n/a
6	State Street and SR-210 WB Ramps	Signalized	13.1	B	11.6	B	-1.5
7	State Street and SR-210 EB Ramps	Signalized	15.7	B	16.2	B	0.5

Table 3-15: Horizon Year (2036) LOS Results – PM Peak Hour

#	Intersection	Signal	No Project		With Project		Change in Delay
			Delay (sec)	LOS	Delay (sec)	LOS	
1	Riverside Avenue and SR-210 WB Ramps	Signalized	26.5	C	14.8	B	-11.7
2	Riverside Avenue and SR-210 EB Ramps	Signalized	20.1	C	15.4	B	-4.7
3	Pepper Avenue and Highland	Signalized	9.1	A	19.4	B	10.3
4	Pepper Avenue and SR-210 WB Ramps	Signalized	n/a		19.29	B	n/a
5	Pepper Avenue and SR-210 EB Ramps	Signalized	n/a		16.6	B	n/a
6	State Street and SR-210 WB Ramps	Signalized	15.7	B	14.5	B	-1.2
7	State Street and SR-210 EB Ramps	Signalized	20.7	C	21.3	C	0.6