

RTIP ID# *(required)* RIV060109

TCWG Consideration Date August 25, 2020

Project Description *(clearly describe project)*

The City of Lake Elsinore (City), in cooperation with the California Department of Transportation (Caltrans), is proposing to improve the Interstate 15 (I-15)/State Route 74 (SR-74) interchange located in the City of Lake Elsinore, California, to reduce traffic congestion, improve operations, and comply with current Caltrans and local agency design standards. The I-15/SR-74 Interchange Improvement Project (Project) is subject to state and federal environmental review requirements because the use of federal funds from the Federal Highway Administration (FHWA) is anticipated for the Project. Project documentation is being prepared in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under both CEQA and NEPA.

Project Setting and Location

The Project is generally located approximately 1.6 mile south of the existing I-15/Nichols Road interchange and 1.3 mile north of the existing I-15/Main Street interchange (Figure 1). Improvements proposed along SR-74 (also known within the Project limits as Central Avenue) would extend to portions of Collier Avenue and Riverside Drive within the City. The Project is bounded by Riverside Drive to the north, Conard Avenue to the east, Wasson Canyon Wash to the south, and Collier Avenue to the west (Figure 2).

Alternative 1 – No Build

Under Alternative 1 (No-Build Alternative), the I-15/SR-74 interchange would remain in its current condition, and no improvements would be implemented. As local and regional development continues and the traffic demand increases, traffic operations at the I-15/SR-74 interchange would further deteriorate, resulting in increased congestion, vehicle delay, safety concerns, vehicle-operating costs, and vehicle emissions due to slower operating speeds on both I-15 and local roads. Alternative 1 (No-Build Alternative) would not address or alleviate the existing and forecasted operational and capacity issues of the I-15/SR-74 interchange and would not satisfy the Project purpose and need.

Alternative 2 – Northbound Hook Ramps

Alternative 2 would maintain the existing NB Off-Ramp at SR-74 (Central Avenue) and replace the existing NB On-Ramp with on- and off-NB hook ramps terminating at Dexter Avenue, north of SR-74 (Central Avenue). The Project features proposed under Alternative 2 are shown on Figure 3. The NB hook ramps would reduce traffic congestion at the I-15/SR-74 interchange by providing a separate off-ramp for I-15 NB traffic heading west on SR-74 (Central Avenue) (Exit B), while the existing NB Off-Ramp would prohibit left turns and only serve traffic heading east on SR-74 (Exit A). The proposed NB Hook Off-Ramp would provide one left-turn and two right-turn lanes at the intersection. This improvement would provide a more direct connection to residences and destinations located in the northeast quadrant of the I-15/SR-74 interchange, including the Costco/Lowe’s shopping center and Temescal Canyon High School. With implementation of Alternative 2 improvements, there would be a reduction in traffic turning left at Dexter Avenue from eastbound (EB) SR-74 (Central Avenue), which would allow for an increase in usable storage capacity between the intersections of Dexter Avenue and the southbound (SB) On-Ramp. Dexter Avenue would be widened between 11th Street and SR-74 (Central Avenue) to provide two lanes in each direction between the NB Hook Off-Ramp and WB SR-74 (Central Avenue).

<p>Alternative 3 – Northbound Hook Ramps with Northbound Loop Off Ramp to Westbound SR-74 The same improvements under Alternative 2 would occur under Alternative 3. The primary difference between the Alternatives 2 and 3 is that Alternative 3 would provide three consecutive NB off-ramps. The existing NB Off-Ramp (Exit A) would remain, followed by a loop off-ramp (Exit B) diverging from I-15, just past the existing I-15/SR-74 interchange bridge OC, as well as a hook off-ramp (Exit C). The Project features proposed under Alternative 3 are shown on Figure 4.</p> <p>The NB Loop Off-Ramp (Exit B) would be constructed in the area where the existing NB On-Ramp exists and on adjacent properties within City ROW. This improvement would provide a direct connection between NB I-15 and WB SR-74 (Central Avenue) without routing directional traffic along Dexter Avenue.</p>					
<p>Type of Project (use Table 1 on instruction sheet) Interchange Reconfiguration</p>					
<p>County Riverside</p>		<p>Narrative Location/Route & Postmiles: I-15 PM 21.6/23.5 Caltrans Projects – EA# 08-0F310</p>			
<p>Lead Agency: Caltrans/City of Lake Elsinore</p>					
<p>Contact Person Remon Habib</p>		<p>Phone# 951-674-3124 ext. 213</p>	<p>Fax#</p>	<p>Email rhabib@lake-elsinore.org</p>	
<p>Hot Spot Pollutant of Concern (check one or both) PM2.5 x PM10 x</p>					
<p>Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)</p>					
<p>Categorical Exclusion (NEPA)</p>	<p>X EA or Draft EIS</p>	<p>FONSI or Final EIS</p>	<p>PS&E or Construction</p>	<p>Other</p>	
<p>Scheduled Date of Federal Action: 5/2022</p>					
<p>NEPA Assignment – Project Type (check appropriate box)</p>					
<p>Exempt</p>		<p>Section 326 –Categorical Exemption</p>	<p>X Section 327 – Non-Categorical Exemption</p>		
<p>Current Programming Dates (as appropriate)</p>					
	<p>PE/Environmental</p>	<p>ENG</p>	<p>ROW</p>	<p>CON</p>	
<p>Start</p>	<p>2019</p>	<p>2019</p>	<p>2022</p>	<p>2024</p>	
<p>End</p>	<p>2022</p>	<p>2023</p>	<p>2023</p>	<p>2025</p>	

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

Purpose

The Project purpose is to improve traffic operations and reduce congestion at the I-15/SR-74 interchange and local intersections within the Project limits. Specifically, the Project proposes to accommodate current and future year (2045) traffic volumes on the I-15 and SR-74 corridors resulting from projected growth in the area. The Project objectives are to:

- Support anticipated regional growth and local development projects.
- Relieve congestion by providing additional ramp storage capacity and directional connectivity between I-15 and SR-74.
- Improve operational efficiency of signalized intersections, turning movements, and throughput volumes.
- Improve mobility and access for all users, residents, and businesses within the Project limits.

Need

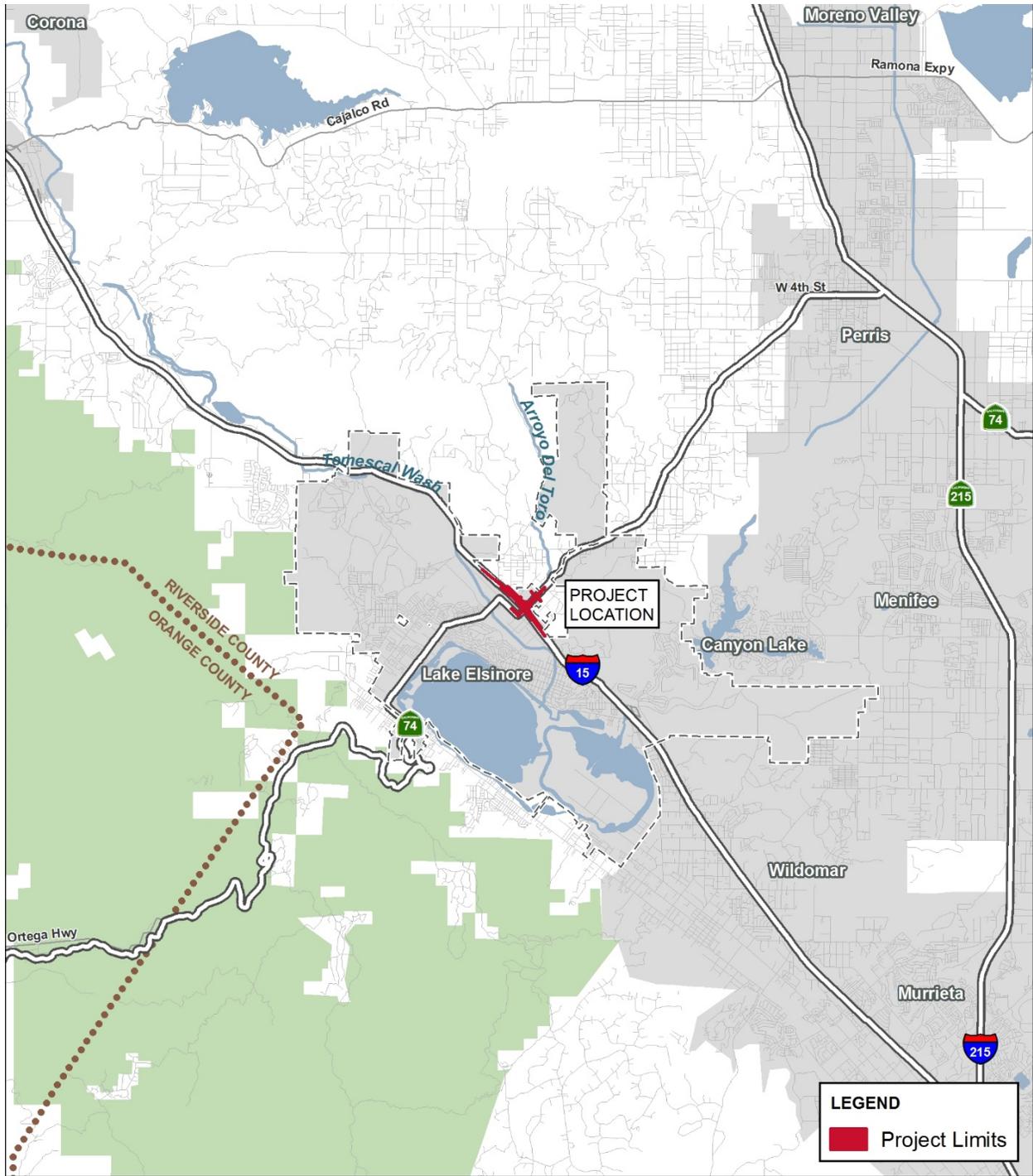
The City of Lake Elsinore is one of the fastest growing cities in California, with the I-15/SR-74 interchange ranked as the second most congested freeway interchange in the City. Sustained local growth and regional development have increased commuter traffic at the I-15/SR-74 interchange, resulting in severe peak hour traffic congestion and operational deficiencies. To accommodate existing and future growth in the area, the I-15/SR-74 interchange requires improvements that would enhance its operational efficiency.

The I-15/SR-74 interchange serves as the primary access for residents, visitors, businesses, and industry in the area. The increase in traffic volumes has resulted in inadequate queuing capacity at the interchange and local intersections. The amount of traffic utilizing the I-15/SR-74 interchange is expected to greatly increase by opening year (2025) and efficiency of the interchange to degrade without implementation of improvements.

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

The land uses within the Project limits primarily consist of commercial and industrial land uses, interspersed with low density residential and public institutional uses.

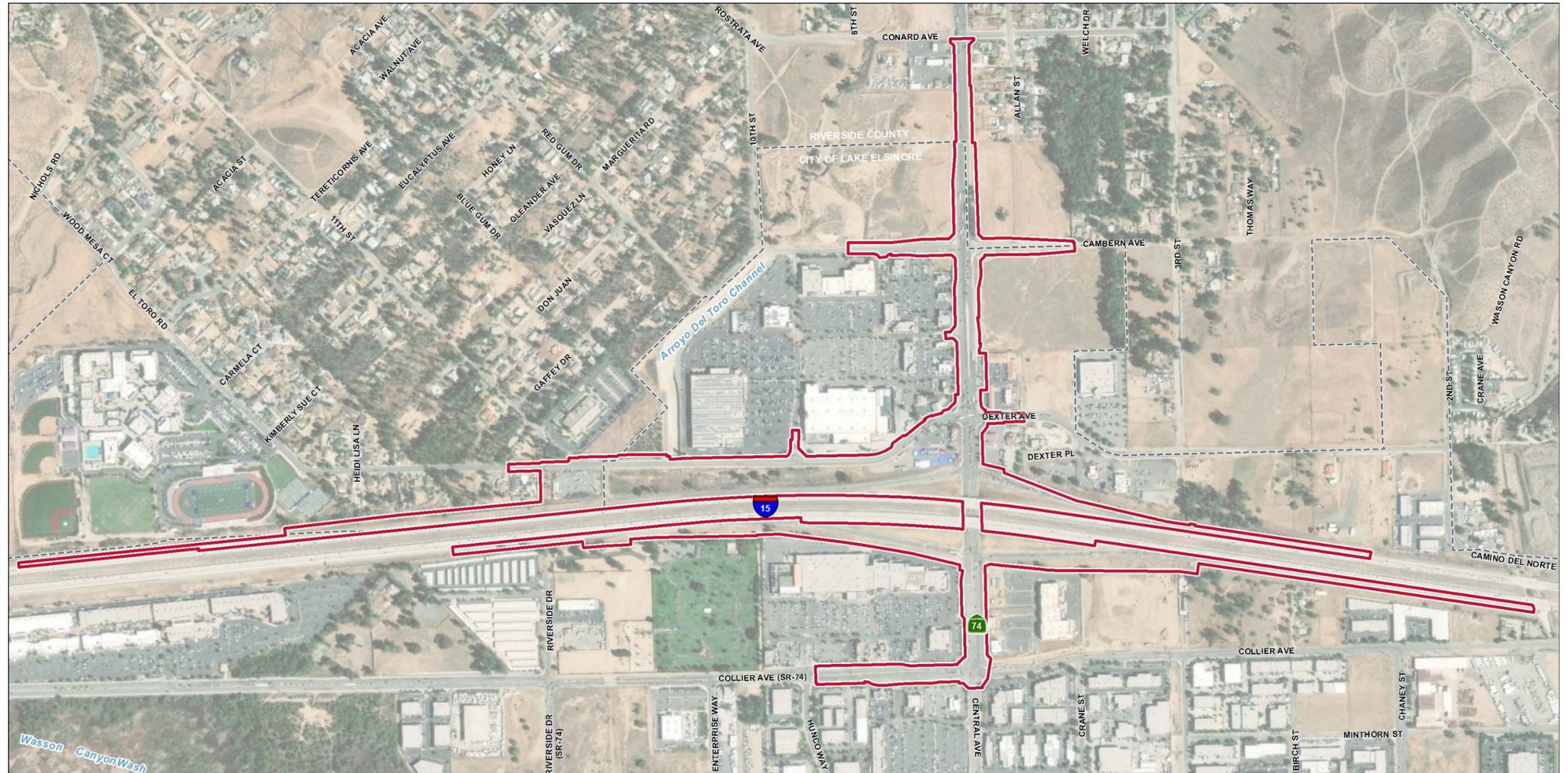
<p>Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility <u>I-15</u></p> <p>2025 No Build: ADT=142,500, Truck ADT=14,963 (10.5%), LOS F 2025 Alt 2: ADT=142,500, Truck ADT=14,963 (10.5%), LOS D 2025 Alt 3: ADT=142,500, Truck ADT=14,963 (10.5%), LOS D</p>
<p>RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility <u>I-15</u></p> <p>2045 No Build: ADT=191,400, Truck ADT=20,097 (10.5%), LOS F 2045 Alt 2: ADT=191,400, Truck ADT=20,097 (10.5%), LOS F 2045 Alt 3: ADT=191,400, Truck ADT=20,097 (10.5%), LOS F</p>
<p>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT <u>SR-74</u></p> <p>2025 No Build: ADT=44,100, Truck ADT=3,963 (9.0%), LOS D 2025 Alt 2: ADT=45,200, Truck ADT=4,068 (9.0%), LOS D 2025 Alt 3: ADT=40,200, Truck ADT=3,618 (9.0%), LOS D</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 <u>SR-74</u></p> <p>2045 No Build: ADT=62,800, Truck ADT=5,652 (9.0%), LOS F 2045 Alt 2: ADT=64,100, Truck ADT=5,769 (9.0%), LOS D 2025 Alt 3: ADT=58,300, Truck ADT=5,247 (9.0%), LOS D</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>



I-15 RIV PM 21.6/23.5
EA 08-0F310

I-15/SR-74 Interchange Improvement Project

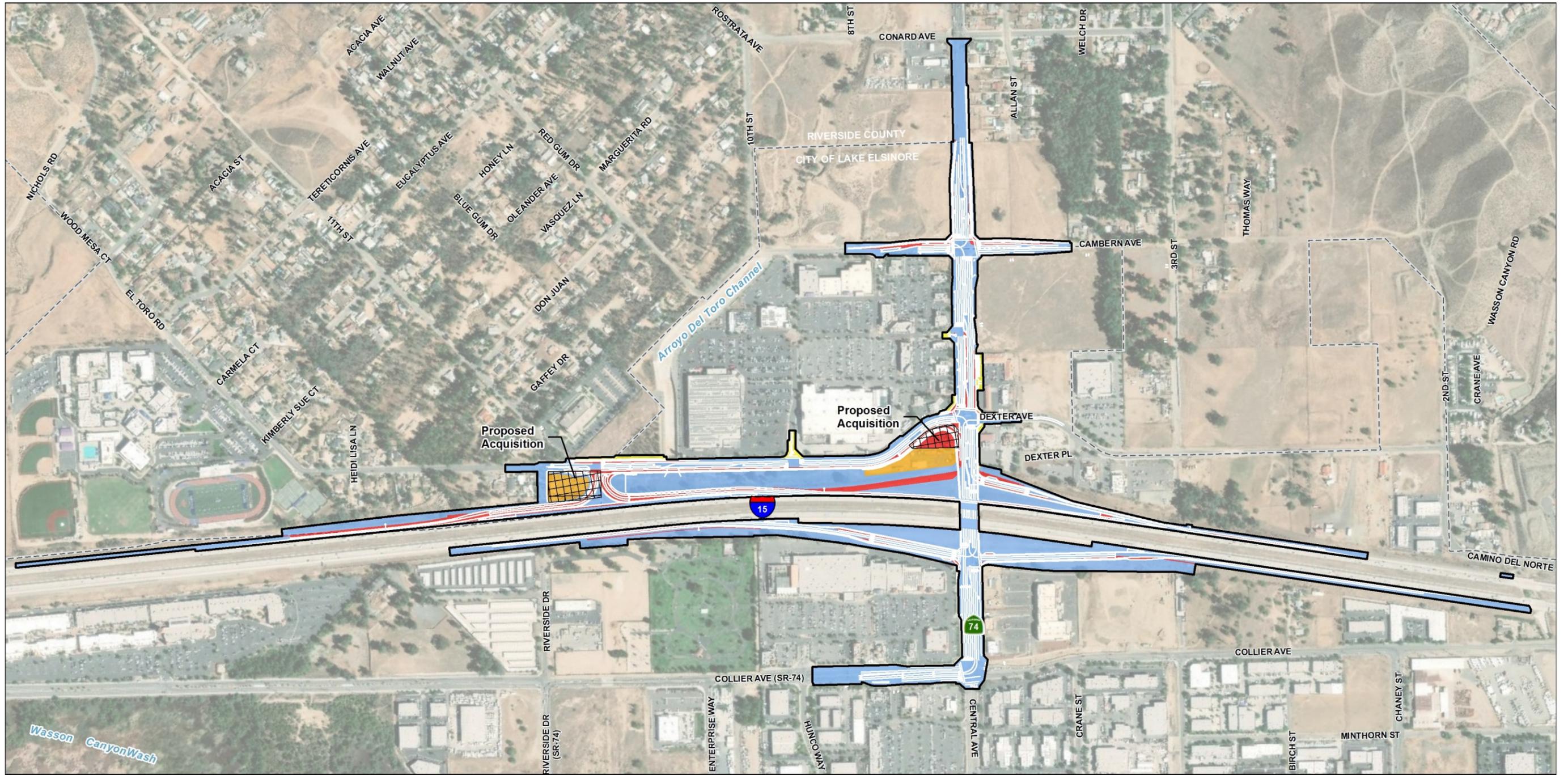
Figure 1. Regional Location and Project Vicinity



I-15 RIV PM 21.6/23.5
EA 08-0F310

I-15/SR-74 Interchange Improvement Project

Figure 2. Project Limits



I-15 RIV PM 21.6/23.5
EA 08-0F310

I-15/SR-74 Interchange Improvement Project

Figure 3. Alternative 2 (Northbound Hook Ramps) Project Features



I-15 RIV PM 21.6/23.5
EA 08-0F310

I-15/SR-74 Interchange Improvement Project

Figure 4. Alternative 3 (Northbound Hook Ramps with Northbound Loop Off-Ramp to Westbound State Route 74) Project Features

PM_{2.5}/PM₁₀ Hot-Spot Analysis

The Proposed project is located within a nonattainment area for federal PM_{2.5} standards and within an attainment/maintenance area for the federal PM₁₀ standards. Therefore, per 40 CFR Part 93 hot-spot 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.

According to 40 CFR Part 93.123(b)(1), the following are Projects of Air Quality Concern (POAQC) :

- i. New highway projects have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- ii. Projects affecting intersections that are at a Level of Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level of Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- iii. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- iv. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- v. Projects in or affecting locations, areas or categories of sites which 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.

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 reconstructs the existing I-15/SR-74 interchange without increasing capacity. Tables A through E summarize the traffic volumes along I-15 and SR-74 in the project area. As shown, the traffic volumes along I-15 would not change with either build alternative. In addition, Alternative 2 would redistribute traffic along SR-74 without increasing the total traffic volumes. Therefore, the project alternatives would not result in a significant increase in the number of diesel vehicles.
- ii) The LOS conditions in the project vicinity with and without the proposed Project are shown in Table F. The proposed Project Build Alternatives would maintain or improve the peak hour LOS at the local intersections, as compared to the No-Build Alternative.
- iii) The proposed build alternatives do not include the construction of a new bus or rail terminal.
- iv) The proposed build alternatives do not expand an existing bus or rail terminal.
- v) The proposed build alternatives are 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.

Table A. Opening Year (2025) and Horizon Year (2045) No-Build Highway Section Daily Volumes

Freeway/ Roadway	Section		Opening Year (2025) Volumes			Horizon Year (2045) Volumes		
	Start	End	Total ADT	Truck ADT	Truck (%)	Total ADT	Truck ADT	Truck (%)
I-15	Railroad Canyon Road	Main Street	146,600	13,487	9.2	187,600	17,259	9.2
I-15	Main Street	SR-74/Central Avenue	142,500	14,963	10.5	191,400	20,097	10.5
I-15	SR-74/Central Avenue	Nichols Road	128,900	9,668	7.5	177,900	13,343	7.5
I-15	Nichols Road	Lake Street	124,500	9,338	7.5	182,500	13,688	7.5
SR-74	Pasadena Street	Collier Avenue	8,300	747	9.0	14,600	1,314	9.0
SR-74	Collier Avenue	SB I-15 Ramps	34,700	3,123	9.0	45,400	4,086	9.0
SR-74	SB I-15 Ramps	NB I-15 Ramps	40,200	3,618	9.0	58,300	5,247	9.0
SR-74	NB I-15 Ramps	Dexter Avenue	44,100	3,969	9.0	62,800	5,652	9.0
SR-74	Dexter Avenue	Cambern Avenue	39,700	3,573	9.0	54,500	4,905	9.0

Source: Fehr & Peers, 2020

Notes:

ADT=average daily traffic; I-15=Interstate 15; NB=northbound; SB=southbound; SR-74=State Route 74

Table B. Opening Year (2025) Alternative 2 Highway Section Daily Volumes

Freeway/ Roadway	Section		Opening Year (2025) Volumes			Increase from No-Build		
	Start	End	Total ADT	Truck ADT	Truck (%)	Total ADT	Truck ADT	Truck (%)
I-15	Railroad Canyon Road	Main Street	146,600	13,487	9.2	0	0	0
I-15	Main Street	SR-74/Central Avenue	142,500	14,963	10.5	0	0	0
I-15	SR-74/Central Avenue	Nichols Road	128,900	9,668	7.5	0	0	0
I-15	Nichols Road	Lake Street	124,500	9,338	7.5	0	0	0
SR-74	Pasadena Street	Collier Avenue	8,300	747	9.0	0	0	0
SR-74	Collier Avenue	SB I-15 Ramps	34,700	3,123	9.0	0	0	0
SR-74	SB I-15 Ramps	NB I-15 Ramps	40,200	3,618	9.0	0	0	0
SR-74	NB I-15 Ramps	Dexter Avenue	45,200	4,068	9.0	1,100	99	2.5
SR-74	Dexter Avenue	Cambern Avenue	38,100	3,429	9.0	-1,600	-144	-4.0

Source: Fehr & Peers, 2020

Notes:

ADT=average daily traffic; I-15=Interstate 15; NB=northbound; SB=southbound; SR-74=State Route 74

Table C. Horizon Year (2045) Alternative 2 Highway Section Daily Volumes

Freeway/ Roadway	Section		Horizon Year (2045) Volumes			Increase from No-Build		
	Start	End	Total ADT	Truck ADT	Truck (%)	Total ADT	Truck ADT	Truck (%)
I-15	Railroad Canyon Road	Main Street	187,600	17,259	9.2	0	0	0
I-15	Main Street	SR-74/Central Avenue	191,400	20,097	10.5	0	0	0
I-15	SR-74/Central Avenue	Nichols Road	177,900	13,343	7.5	0	0	0
I-15	Nichols Road	Lake Street	182,500	13,688	7.5	0	0	0
SR-74	Pasadena Street	Collier Avenue	14,600	1,314	9.0	0	0	0
SR-74	Collier Avenue	SB I-15 Ramps	45,400	4,086	9.0	0	0	0
SR-74	SB I-15 Ramps	NB I-15 Ramps	58,300	5,247	9.0	0	0	0
SR-74	NB I-15 Ramps	Dexter Avenue	64,100	5,769	9.0	1,300	117	2.1
SR-74	Dexter Avenue	Cambern Avenue	52,400	4,716	9.0	-2,100	-189	-3.9

Source: Fehr & Peers, 2020

Notes:

ADT=average daily traffic; I-15=Interstate 15; NB=northbound; SB=southbound; SR-74=State Route 74

Table D. Opening Year (2025) Alternative 3 Highway Section Daily Volumes

Freeway/ Roadway	Section		Opening Year (2025) Volumes			Increase from No-Build		
	Start	End	Total ADT	Truck ADT	Truck (%)	Total ADT	Truck ADT	Truck (%)
I-15	Railroad Canyon Road	Main Street	146,600	13,487	9.2	0	0	0
I-15	Main Street	SR-74/Central Avenue	142,500	14,963	10.5	0	0	0
I-15	SR-74/Central Avenue	Nichols Road	128,900	9,668	7.5	0	0	0
I-15	Nichols Road	Lake Street	124,500	9,338	7.5	0	0	0
SR-74	Pasadena Street	Collier Avenue	8,300	747	9.0	0	0	0
SR-74	Collier Avenue	SB I-15 Ramps	34,700	3,123	9.0	0	0	0
SR-74	SB I-15 Ramps	NB I-15 Ramps	40,200	3,618	9.0	0	0	0
SR-74	NB I-15 Ramps	Dexter Avenue	40,200	3,618	9.0	-3,900	-351	-8.8
SR-74	Dexter Avenue	Cambern Avenue	38,100	3,429	9.0	-1,600	-144	-4.0

Source: Fehr & Peers, 2020

Notes:

ADT=average daily traffic; I-15=Interstate 15; NB=northbound; SB=southbound; SR-74=State Route 74

Table E. Horizon Year (2045) Alternative 3 Highway Section Daily Volumes

Freeway/ Roadway	Section		Horizon Year (2045) Volumes			Increase from No-Build		
	Start	End	Total ADT	Truck ADT	Truck (%)	Total ADT	Truck ADT	Truck (%)
I-15	Railroad Canyon Road	Main Street	187,600	17,259	9.2	0	0	0
I-15	Main Street	SR-74/Central Avenue	191,400	20,097	10.5	0	0	0
I-15	SR-74/Central Avenue	Nichols Road	177,900	13,343	7.5	0	0	0
I-15	Nichols Road	Lake Street	182,500	13,688	7.5	0	0	0
SR-74	Pasadena Street	Collier Avenue	14,600	1,314	9.0	0	0	0
SR-74	Collier Avenue	SB I-15 Ramps	45,400	4,086	9.0	0	0	0
SR-74	SB I-15 Ramps	NB I-15 Ramps	58,300	5,247	9.0	0	0	0
SR-74	NB I-15 Ramps	Dexter Avenue	57,700	5,193	9.0	-5,100	-459	-8.1
SR-74	Dexter Avenue	Cambern Avenue	52,400	4,716	9.0	-2,100	-189	-3.9

Source: Fehr & Peers, 2020

Notes:

ADT=average daily traffic; I-15=Interstate 15; NB=northbound; SB=southbound; SR-74=State Route 74

Table F. Summary of Intersection Levels of Service

No.	Intersection		ALTERNATIVE 1 (No Build)				ALTERNATIVE 2				ALTERNATIVE 3			
			Opening Year		Horizon Year		Opening Year		Horizon Year		Opening Year		Horizon Year	
			2025		2045		2025		2045		2025		2045	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Nichols Road/ Collier Avenue	LOS	B	B	B	B	B	B	B	B	B	B	B	B
		Delay (seconds)	15	15	16	20	15	15	16	16	15	15	16	16
2	Nichols Road/ I-15 SB Ramps	LOS	B	A	B	B	B	A	B	B	B	A	B	B
		Delay (seconds)	11	9	14	13	11	9	14	14	11	9	14	14
3	Nichols Road/ I-15 NB Ramps	LOS	B	C	B	B	B	C	B	B	B	C	B	B
		Delay (seconds)	13	20	16	16	13	20	16	16	13	20	16	16
4	Riverside Drive/ Collier Ave (SR-74)	LOS	B	C	C	F	B	C	B	D	B	C	B	D
		Delay (seconds)	20	24	31	193	16	21	18	40	16	20	19	38
5		LOS	C	D	F	F	C	D	D	C	C	D	D	C

Table F. Summary of Intersection Levels of Service

No.	Intersection		ALTERNATIVE 1 (No Build)				ALTERNATIVE 2				ALTERNATIVE 3			
			Opening Year		Horizon Year		Opening Year		Horizon Year		Opening Year		Horizon Year	
			2025		2045		2025		2045		2025		2045	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	Central Avenue (SR-74)/ Collier Avenue (SR-74)	Delay (seconds)	22	37	81	201	25	51	40	34	27	53	42	28
6	Central Avenue (SR-74)/ I-15 SB Ramps	LOS	C	C	D	F	C	C	C	D	C	C	C	D
		Delay (seconds)	23	32	40	121	24	34	28	52	25	34	31	40
7	Central Avenue (SR-74)/ I-15 SB Ramps	LOS	C	D	D	E	A	B	A	C	B	B	B	C
		Delay (seconds)	32	49	54	75	9	11	10	24	15	16	19	22
8	Central Avenue (SR-74)/ Dexter Avenue	LOS	D	D	E	B	B	B	C	C	B	B	C	C
		Delay (seconds)	46	50	78	97	17	17	33	33	19	18	31	26
9		LOS	C	B	E	B	A	A	B	A	A	A	B	A

Table F. Summary of Intersection Levels of Service

No.	Intersection		ALTERNATIVE 1 (No Build)				ALTERNATIVE 2				ALTERNATIVE 3			
			Opening Year		Horizon Year		Opening Year		Horizon Year		Opening Year		Horizon Year	
			2025		2045		2025		2045		2025		2045	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	Central Avenue (SR-74)/ Shopping Center Driveway	Delay (seconds)	17	11	37	61	3	5	14	9	3	4	11	8
10	Central Avenue (SR-74)/ Lowe's Driveway	LOS	A	A	C	B	A	A	B	C	A	A	B	B
		Delay (seconds)	4	5	21	96	5	7	12	21	5	7	11	17
11	Central Avenue (SR-74)/ Cambern Avenue	LOS	B	C	F	B	B	C	C	D	B	C	C	D
		Delay (seconds)	18	26	88	114	18	21	31	41	18	21	31	38
12	Crane Street/ Dexter Avenue	LOS	F	F	F	B	B	C	C	E	B	C	D	D
		Delay (seconds)	50	87	>180	163	11	18	22	45	10	16	34	35
13	3rd Street/	LOS	A	F	F	B	A	A	C	C	A	A	C	C

Table F. Summary of Intersection Levels of Service

No.	Intersection		ALTERNATIVE 1 (No Build)				ALTERNATIVE 2				ALTERNATIVE 3			
			Opening Year		Horizon Year		Opening Year		Horizon Year		Opening Year		Horizon Year	
			2025		2045		2025		2045		2025		2045	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	Dexter Avenue	Delay (seconds)	9	53	>180	290	7	8	19	25	7	7	19	22
14	Main Street/ I-15 SB Ramps	LOS	A	B	B	B	A	B	B	B	A	B	B	B
		Delay (seconds)	9	11	11	15	9	11	11	15	9	11	11	15
15	Main Street/ I-15 NB Ramps	LOS	B	B	B	B	B	B	B	B	B	B	B	B
		Delay (seconds)	19	18	18	16	19	18	18	16	19	18	18	16
16	Dexter Avenue/ I-15 NB Ramps	LOS	-	-	-	-	B	A	B	B	B	B	C	B
		Delay (seconds)	-	-	-	-	15	9	16	11	14	11	22	11

Source: Fehr & Peers, 2020

Notes:

I-15=Interstate 15; LOS=level of service; NB=northbound; No.=Number; SB=southbound; SR-74=State Route 74