

<b>FTIP ID#</b> <i>(required)</i> RIV180104
<b>TCWG Consideration Date</b> August 27, 2024
<b>Project Description</b> <i>(clearly describe project)</i> <p>Highland Springs Avenue is a north-south arterial that straddles the Cities of Beaumont, to the west, and Banning, to the east. Highland Springs Avenue crosses under I-10 with five lanes of traffic with two through lanes in each direction and a center left-turn lane. Additionally, there are 5-ft sidewalks both northbound and southbound. In the study area, I-10 crosses over Highland Springs Avenue on the Highland Springs Avenue Undercrossing (Br. No. 56-0432) with four lanes in each direction, a 14-foot (ft) center median, and 10-ft shoulders. The bridge over Highland Springs Avenue is a single-span structure with vertical abutment walls.</p> <p>This project intends to modify the local arterials by eliminating the left-turn conflicts from Highland Springs Avenue onto the I-10 on-ramps by introducing hook ramps. All alternatives provide auxiliary lanes for the I-10 WB on-ramp and EB off-ramp, in addition to an extended deceleration lane for the WB off-ramp.</p> <p><b>Alternatives 2A &amp; 2B – Hook Ramps</b> Alternatives 2A and 2B propose to eliminate left-turn movements, which are the principal cause of congestion and queuing, by introducing hook ramps. There are two layout alternatives for the hook ramp configuration on the north side of I-10 identified as Alternative 2A and 2B. Both hook ramp alternatives share the same configuration on the south side of I-10, which is discussed below. The hook ramp alternatives also have the benefit of displacing some traffic from the Highland Springs corridor (which is congested with closely spaced intersections/driveways) which improves ramp terminal intersections while at the same time reduces travel distance as it configures the ramps closer to key destinations.</p> <p><b>Common Features to Alternatives 2A &amp; 2B</b> <u>Highland Springs Avenue &amp; I-10 Ramp Improvements:</u> Both Alternatives 2A and 2B address the Highland Springs Avenue southbound to I-10 eastbound traffic flow by relocating the I-10 eastbound off-ramp approximately 1/3-mile to the west. A new intersection is introduced approximately 1/4-mile west of Highland Springs Avenue and a hook on-ramp to I-10 eastbound merges into the existing I-10 lane configuration before the Highland Springs Avenue undercrossing.</p> <p>The eastbound off-ramp will start with an auxiliary lane, which connects to the Pennsylvania Avenue eastbound on-ramp and is less than one-mile in length. At the exit it will remain a single lane from the exit point to the hook ramp intersection. Once past the hook ramp intersection, the eastbound egressing traffic will split into two lanes. The left lane will establish a left-turn/through lane to turn onto northbound Highland Springs and/or a straight movement to access the eastbound directional ramp. The right lane will be a dedicated right turn onto southbound Highland Springs Avenue.</p> <p>The area from the eastbound hook on-ramp to the relocated off-ramp is flat with limited grading required. The eastbound hook on-ramp will require placement of fill material to accommodate the extra width of the ramp. From the eastbound hook on-ramp to Highland Springs Avenue, retaining walls will be utilized to avoid slope grading impacts to the Union Pacific Railroad (UPRR) right of way.</p>

Southbound traffic on Highland Springs Avenue accessing eastbound I-10 will cross under I-10 and turn right, travelling in a dedicated westbound lane towards the eastbound hook on-ramp. Northbound traffic on Highland Springs Avenue will turn right at the existing directional on-ramp.

By shifting the Highland Springs Avenue eastbound off-ramp westerly, the weaving distance with the Pennsylvania Avenue on-ramp is further reduced when compared to the existing condition. To optimize the weaving operations between the two ramps, an auxiliary lane will be provided to connect the Pennsylvania Avenue eastbound on-ramp with the Highland Springs Avenue eastbound off-ramp which will assist with weaving operations. Also, to optimize weaving operations in the westbound direction, an auxiliary lane of less than one mile will be provided that connects the Highland Springs Avenue westbound on-ramp with the Pennsylvania Avenue westbound off-ramp.

Also common to Alternatives 2A and 2B is the relocation of the westbound I-10 off-ramp approximately 1/2-mile to the east. The existing off-ramp is abandoned under these alternatives, and the new off-ramp terminates at the intersection of Apex Avenue and Joshua Palmer Way. The off-ramp will intersect at an angle to conveniently convey traffic onto westbound Joshua Palmer Way. An extended deceleration lane from the mainline will be provided for westbound traffic as vehicles approach the off-ramp.

There are no changes to either eastbound or westbound directional on-ramps.

Joshua Palmer Way Improvements: Joshua Palmer Way intersection with Highland Springs Avenue will remain in the existing location continuing to accommodate Highland Springs southbound left turns onto eastbound Joshua Palmer. The cross section of Joshua Palmer Way from south to north includes 2-ft curb and gutter, 12-ft eastbound lane, 12-ft painted median, 12-ft westbound lane, 10 ft shoulder/parkway, 2-ft curb and gutter, and 5-ft curb adjacent sidewalk, for a total cross section of 55-feet. Dedicated turn lanes for the hook ramps increase the cross-sectional width by 12' to the south. Joshua Palmer Way will be reconstructed to a full depth structural section and the sidewalk will extend the full length of the street on the north side only. This sidewalk configuration serves the developed side of the street to establish ADA compliant pedestrian access. A sidewalk will not be provided on the south side of Joshua Palmer Way which can be established as development along the south side of the frontage road occurs.

Between Joshua Palmer Way and westbound I-10 there is a parallel existing open channel drainage system that drains to the west. The drainage channel passes under Highland Springs Avenue through a concrete box culvert structure. The existing concrete box culvert will be extended easterly to accommodate the realignment of Joshua Palmer Way over this feature. To the east, the hook ramps will cross over the open channel with a new culvert system. Water quality features will be considered for implementation within the remaining open area, as appropriate.

Apex Avenue Improvements: Apex Avenue will be reconstructed as a two-lane local collector consistent with the City General Plan between West Ramsey Street to Joshua Palmer Way with appropriate intersection control devices. The cross section from east to west includes 2-ft curb and gutter, 12-ft northbound lane, 12-ft painted median, 12-ft southbound lane, 2-ft curb and gutter, and 5-ft curb adjacent sidewalk on both sides of the local street, for a total cross section of 50-feet.

Pedestrian/Bicycle Improvements: At the I-10 undercrossing the center left-turn lane will be removed, and dedicated Class II bicycle lanes will be added for both northbound and southbound directions of travel. This creates more separation for vehicles to the curb adjacent sidewalk for pedestrians, improves the experience of walking under the I-10 structure, and provides the opportunity to improve pedestrian-level lighting within the undercrossing. A sidewalk will be added on the north side of Joshua Palmer Way for the full length and on both sides of Apex Avenue. This will create a continuous pedestrian sidewalk network that does not currently exist.

**Right of Way Considerations:** The proposed alternatives to the eastbound off-ramp and the proposed new eastbound hook on-ramp are within the existing State right of way (ROW), so no purchases or easements are required for the eastbound ramps. However; the proposed relocation of the westbound off-ramp and realignment of Joshua Palmer Way and Apex Avenue will require a combination of full and partial right of way acquisitions in addition to temporary construction easements and the relocation of three highway billboards.

**Features Specific to Alternative 2A**  
 Alternative 2A places the westbound hook on-ramp approximately 200' east of the Hampton Inn & Suites property on Joshua Palmer Way, mid-way between Highland Springs Avenue and Apex Avenue. The intent of this placement is to keep the hook ramp equidistant from Highland Springs Avenue for both eastbound and westbound travelers and to minimize the distance between Highland Springs Avenue and the I-10 westbound hook on-ramp. The on-ramp will merge onto the existing lanes of I-10 to the east of Highland Springs Avenue, so no mainline freeway bridge widening is required.

Alternative 2A proposes a signalized intersection at the hook on-ramp to facilitate left-turning traffic traveling westbound on Joshua Palmer Way. The westbound through traffic will not be controlled at this intersection and will be able to continue directly to Highland Springs Avenue. The westbound left-turn will be signal-controlled.

**Features Specific to Alternative 2B**  
 Alternative 2B places the westbound hook on-ramp at the intersection Joshua Palmer Way and Apex Avenue. Placing the westbound hook ramp at this location facilitates a smooth flow of traffic that is expected from developments north of the project that will travel down Apex Avenue and be able to directly access the westbound interstate. The intersection of Joshua Palmer Way and Apex Avenue will be signalized.

Refer to Attachment A for maps depicting the Regional Location, Project Location, Study Area, and project plans for Build Alternative 2A and Build Alternative 2B.

<b>Type of Project</b> <i>(use Table 1 on instruction sheet)</i> Reconfigure an existing interchange				
<b>County</b> Riverside		<b>Narrative Location/Route &amp; Postmiles:</b> Cities of Beaumont and Banning at the I-10 Ramps and Highland Springs Avenue interchange. RIV I-10 PM 8.2 – PM 11.3  <b>Caltrans Projects – EA#</b> 0L1600		
<b>Lead Agency:</b> Caltrans District 8				
<b>Contact Person</b> David Lewis		<b>Phone#</b> (951) 212-6936	<b>Fax#</b>	<b>Email</b> dlewis@rctc.org
<b>Hot Spot Pollutant of Concern</b> <i>(check one or both)</i> <b>PM2.5</b> X <b>PM10</b> X				
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>				
<b>Categorical Exclusion (NEPA)</b>	X	<b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>
<b>Scheduled Date of Federal Action:</b> Fall 2025				
<b>NEPA Assignment – Project Type</b> <i>(check appropriate box)</i>				
Exempt		<b>Section 326 –Categorical Exemption</b>		X <b>Section 327 – Non-Categorical Exemption</b>

<b>Current Programming Dates</b> <i>(as appropriate)</i>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	2023	--	2023	2026
<b>End</b>	2024	--	2024	2027

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

**Purpose**  
 The purpose of the proposed project is to:

- Improve access and circulation within the project limits, which serves key areas of employment and regional and inter-regional goods movement;
- Improve access efficiency to Interstate 10 (I-10);
- Improve community/employment travel and emergency response times;
- Improve multi-modal connectivity, compatibility, and equity within the project limits; and
- Improve interchange operations while enhancing interchange safety.

**Need**  
 Currently, the I-10/Highland Springs Avenue Interchange experiences high traffic demand and poor traffic operations, limiting accessibility from the Cities of Banning and Beaumont to the I-10 goods movement corridor. Traffic on Highland Springs Avenue experiences extensive queuing delays even during periods with relatively low volumes. In addition, there are closely spaced intersections at the point where Joshua Palmer Way connects to Highland Springs Avenue directly adjacent to the westbound on- and off-ramps, which limits efficiencies and complicates signal timing to maintain adequate traffic progression along the corridor. Existing operational performance is poor, which is anticipated to worsen as predicted local and regional growth continues.

Needs for the proposed project include:

- Current queue lengths exceed capacity at left-turns from Highland Springs Avenue to the eastbound (EB) and westbound (WB) on-ramps. This condition results in poor interchange operations with stopped traffic impeding flows of the through lanes for both northbound (NB) and southbound (SB) Highland Springs Avenue.
- Current queue lengths at the WB and EB off-ramps exceed capacity and contribute to poor ramp operations and collision rates that are higher than the statewide average.

- Continuous Class-2 bicycle facilities are not provided on Highland Springs Avenue within the project limits which impedes bicycle connectivity beneath I-10.
- ADA-compliant pedestrian facilities (sidewalks and curb ramps) are not provided on Joshua Palmer Way and Apex Avenue within the project limits which impedes pedestrian access to businesses on these streets.
- Poor interchange operations result in the following:
  - Transit schedule delays and increased emergency service response times;
  - Limits the ability of residents and workers to efficiently access business and employment areas and delays goods movement to and from commercial centers located within close proximity of the interchange; and
  - Affects adjacent local communities by restricting the ability of trucks and other vehicles to access the freeway, which results in spillover of traffic to parallel surface streets and reduces the efficiency of goods movement at both a regional and sub-regional level.

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

Surrounding land uses consist predominantly of a mix of residential, commercial, and light-industrial uses. Land uses are depicted in Figure 1 and Figure 2.

**Figure 1.**





**Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**  
Opening Year (2030) No-Build and Build average annual daily traffic (AADT), % truck, and speeds for affected roadway segments are presented below in Table 2. Under No-Build conditions, AADT would range from approximately 533 to 90,430 AADT with medium heavy-duty (MHD) truck percents ranging up to 3 percent and heavy heavy-duty (HHD) truck percents ranging up to 6 percent. Under Build conditions, AADT would range from approximately 733 to 90,430 AADT with MHD truck percents ranging up to 3 percent and HHD truck percents ranging up to 6 percent. Level of service (LOS) for Opening Year (2030) traffic conditions are discussed in the next section of this document.

**RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**  
Design Year (2050) No-Build and Build average annual daily traffic (AADT), % truck, and speeds for affected roadway segments are presented below in Table 3. Under No-Build conditions, AADT would range from approximately 800 to 101,940 AADT with MHD truck percents ranging up to 3 percent and HHD truck percents ranging up to 6 percent. Under Build conditions, AADT would range from approximately 1,067 to 101,940 AADT with MHD truck percents ranging up to 3 percent and HHD percents ranging up to 6 percent. LOS for Design Year (2050) traffic conditions are discussed in the next section of this document.

**Table 1. Opening Year (2030) Mainline, Ramps, and Local Roadway Operations**

Segment	Total Volume	Truck Volume	AADT				Speed (mph)
			MHD Truck 3-Axle	HHD Truck 4-Axle or more	MHD Truck % 3-Axle	HHD Truck % 4-Axle or more	
<b>No Build</b>							
<b>Mainline and Ramps</b>							
<b>Eastbound</b>							
EB I-10 from Beaumont Avenue EB On-Ramp to Pennsylvania Avenue On-Ramp	90,430	2,713	904	1,809	1%	2%	70
Pennsylvania Avenue EB On-Ramp	5,430	54	0	54	0%	1%	45
EB I-10 from Pennsylvania Avenue On-Ramp to Highland Springs Avenue Off-Ramp	80,800	2,424	808	1,616	1%	2%	70
Highland Springs EB Avenue Off-Ramp	15,620	469	156	312	1%	2%	45
EB I-10 from Highland Springs Avenue Off-Ramp to Highland Springs On-Ramp	65,180	1,955	652	1,304	1%	2%	70
Highland Springs EB On-Ramp	9,700	291	97	194	1%	2%	45
EB I-10 Highland Springs On-Ramp to Sunset Avenue Off-Ramp	74,880	2,246	749	1,498	1%	2%	70
Sunset Avenue EB Off-Ramp	6,740	337	202	135	3%	2%	45
EB I-10 from Sunset Avenue Off-Ramp to Sunsent Avenue	68,140	2,044	681	1,363	1%	2%	70
<b>Westbound</b>							
WB I-10 from Sunset Avenue to Sunset Avenue On-Ramp	68,810	2,064	688	1,376	1%	2%	70
Sunset Avenue WB On-Ramp	4,540	91	0	91	0%	2%	45
WB I-10 from Sunset Avenue On-Ramp to Highland Springs Avenue Off-Ramp	73,350	2,201	734	1,467	1%	2%	70
Highland Springs Avenue (via Joshua Palmer Way) WB Off-Ramp	7,230	362	145	217	2%	3%	45
WB I-10 from Highland Springs Avenue Off-Ramp to Highland Springs Avenue On-Ramp	66,120	1,984	661	1,322	1%	2%	70
Highland Springs Avenue WB On-Ramp	9,280	278	93	186	1%	2%	45
WB I-10 from Highland Springs Avenue On-Ramp to Pennsylvania Avenue Off-Ramp	75,400	2,262	754	1,508	1%	2%	70
Pennsylvania Avenue WB Off-Ramp	5,760	58	58	0	1%	0%	45
WB I-10 from Pennsylvania Avenue Off-Ramp to Beaumont Avenue Off-Ramp	69,640	2,089	696	1,393	1%	2%	70
<b>Local Roadways</b>							
<b>Eastbound</b>							
Ramsey Street (West of Highland Springs Avenue)	10,733	215	107	107	1%	1%	45
Ramsey Street (between Highland Springs Avenue and Apex Avenue)	8,600	172	86	86	1%	1%	45
Ramsey Street (East of Apex Avenue)	8,600	172	86	86	1%	1%	45
Joshua Palmer Way	867	69	17	52	2%	6%	25
<b>Westbound</b>							
Ramsey Street (East of Apex Avenue)	13,400	268	134	134	1%	1%	45
Ramsey Street (between Apex Avenue and Highland Springs Avenue)	14,000	280	140	140	1%	1%	45
Ramsey Street (West of Highland Springs Avenue)	13,400	268	134	134	1%	1%	45
Joshua Palmer Way	1,267	101	25	76	2%	6%	25
<b>Southbound</b>							
Apex Street (South of Ramsey Street)	733	59	15	44	2%	6%	25
Highland Springs Avenue (between Ramsey Street and Joshua Palmer Way)	12,733	255	127	127	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and WB I-10 Highland Springs Avenue Ramps)	16,533	331	165	165	1%	1%	30
Highland Springs Avenue (between WB I-10 Highland Springs Avenue Ramps and EB I-10 Highland Springs Avenue Ramps)	17,533	351	175	175	1%	1%	30
Highland Springs Avenue (between I-10 EB Highland Springs Avenue Ramps and East 2nd Street/Sunlakes Village Drive)	14,867	297	149	149	1%	1%	30
<b>Northbound</b>							
Apex Street (South of Ramsey Street)	533	43	11	32	2%	6%	25
Highland Springs Avenue (between East 2nd Street/Sun Lakes Village Drive and EB I-10 Highland Springs Avenue Ramps)	18,333	367	183	183	1%	1%	30
Highland Springs Avenue (between EB I-10 Highland Springs Avenue Ramps and WB I-10 Highland Springs Avenue Ramps)	17,733	355	177	177	1%	1%	30
Highland Springs Avenue (between WB I-10 Highland Springs Avenue Ramps and Joshua Palmer Way)	15,933	319	159	159	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and Ramsey Street)	14,533	291	145	145	1%	1%	30
<b>Build</b>							
<b>Mainline and Ramps</b>							
<i>Mainline and ramp volumes are identical across the build and no build scenarios</i>							
<b>Local Roadways</b>							
<b>Eastbound</b>							
Ramsey Street (West of Highland Springs Avenue)	11,400	228	114	114	1%	1%	45
Ramsey Street (between Highland Springs Avenue and Apex Avenue)	8,600	172	86	86	1%	1%	45
Ramsey Street (East of Apex Avenue)	8,600	172	86	86	1%	1%	45
Joshua Palmer Way	2,867	229	57	172	2%	6%	25
<b>Westbound</b>							
Ramsey Street (East of Apex Avenue)	14,133	283	141	141	1%	1%	45
Ramsey Street (between Apex Avenue and Highland Springs Avenue)	14,000	280	140	140	1%	1%	45
Ramsey Street (West of Highland Springs Avenue)	10,733	215	107	107	1%	1%	45
Joshua Palmer Way	6,067	485	121	364	2%	6%	25
<b>Southbound</b>							
Apex Street (South of Ramsey Street)	733	59	15	44	2%	6%	25
Highland Springs Avenue (between Ramsey Street and Joshua Palmer Way)	12,733	255	127	127	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and Westside WB I-10 Highland Springs Avenue On-Ramp)	12,733	255	127	127	1%	1%	30
Highland Springs Avenue (between Westside WB I-10 Highland Springs Avenue On-Ramp and EB Highland Springs Avenue Off-Ramp/Westside EB Highland Springs On-Ramp)	16,733	335	167	167	1%	1%	30
Highland Springs Avenue (between I-10 EB Highland Springs Avenue Off-Ramp/Westside EB Highland Springs Avenue On-Ramp and East 2nd Street/Sunlakes Village Drive)	14,867	297	149	149	1%	1%	30
<b>Northbound</b>							
Apex Street (South of Ramsey Street)	3,133	251	63	188	2%	6%	25
Highland Springs Avenue (between East 2nd Street/Sun Lakes Village Drive and Eastside EB I-10 Highland Springs Avenue On-Ramp)	18,333	367	183	183	1%	1%	30
Highland Springs Avenue (between Eastside EB I-10 Highland Springs Avenue On-Ramp and Joshua Palmer Way)	17,733	355	177	177	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and Ramsey Street)	11,933	239	119	119	1%	1%	30

MHD = medium heavy-duty, HHD = heavy heavy-duty, mph = miles per hour

**Fehr & Peers Notes**

Local roadway volumes for no build are for the no build and all 3/4 scenarios, build volumes are for all 2A and 2B scenarios  
Speeds are posted speed limit



**Table 2. Design Year (2050) Mainline, Ramps, and Local Roadway Operations**

Segment	Total Volume	Truck Volume	AADT				Speed (mph)
			MHD Truck 3-Axle	HHD Truck 4-Axle or more	MHD Truck % 3-Axle	HHD Truck % 4-Axle or more	
<b>No Build</b>							
<b>Mainline and Ramps</b>							
<b>Eastbound</b>							
EB I-10 from Bearmont Avenue EB On-Ramp to Pennsylvania Avenue On-Ramp	90,430	2,713	904	1,809	1%	2%	70
Pennsylvania Avenue EB On-Ramp	11,510	115	0	115	0%	1%	45
EB I-10 from Pennsylvania Avenue On-Ramp to Highland Springs Avenue Off-Ramp	101,940	3,058	1,019	2,039	1%	2%	70
Highland Springs EB Avenue Off-Ramp	19,410	582	194	388	1%	2%	45
EB I-10 from Highland Springs Avenue Off-Ramp to Highland Springs On-Ramp	82,530	2,476	825	1,651	1%	2%	70
Highland Springs EB On-Ramp	12,990	390	130	260	1%	2%	45
EB I-10 Highland Springs On-Ramp to Sunset Avenue Off-Ramp	95,520	2,866	955	1,910	1%	2%	70
Sunset Avenue EB Off-Ramp	9,870	494	296	197	3%	2%	45
EB I-10 from Sunset Avenue Off-Ramp to Sunsent Avenue	85,650	2,570	857	1,713	1%	2%	70
<b>Westbound</b>							
WB I-10 from Sunset Avenue to Sunset Avenue On-Ramp	85,090	2,553	851	1,702	1%	2%	70
Sunset Avenue WB On-Ramp	8,830	177	0	177	0%	2%	45
WB I-10 from Sunset Avenue On-Ramp to Highland Springs Avenue Off-Ramp	93,920	2,818	939	1,878	1%	2%	70
Highland Springs Avenue (via Joshua Palmer Way) WB Off-Ramp	10,670	534	213	320	2%	3%	45
WB I-10 from Highland Springs Avenue Off-Ramp to Highland Springs Avenue On-Ramp	83,250	2,498	833	1,665	1%	2%	70
Highland Springs Avenue WB On-Ramp	12,750	383	128	255	1%	2%	45
WB I-10 from Highland Springs Avenue On-Ramp to Pennsylvania Avenue Off-Ramp	96,000	2,880	960	1,920	1%	2%	70
Pennsylvania Avenue WB Off-Ramp	11,400	114	114	0	1%	0%	45
WB I-10 from Pennsylvania Avenue Off-Ramp to Beaumont Avenue Off-Ramp	84,600	2,538	846	1,692	1%	2%	70
<b>Local Roadways</b>							
<b>Eastbound</b>							
Ramsey Street (West of Highland Springs Avenue)	15,333	307	153	153	1%	1%	45
Ramsey Street (between Highland Springs Avenue and Apex Avenue)	14,400	288	144	144	1%	1%	45
Ramsey Street (East of Apex Avenue)	14,400	288	144	144	1%	1%	45
Joshua Palmer Way	1,133	91	23	68	2%	6%	25
<b>Westbound</b>							
Ramsey Street (East of Apex Avenue)	20,600	412	206	206	1%	1%	45
Ramsey Street (between Apex Avenue and Highland Springs Avenue)	21,133	423	211	211	1%	1%	45
Ramsey Street (West of Highland Springs Avenue)	17,867	357	179	179	1%	1%	45
Joshua Palmer Way	1,400	112	28	84	2%	6%	25
<b>Southbound</b>							
Apex Street (South of Ramsey Street)	1,467	117	29	88	2%	6%	25
Highland Springs Avenue (between Ramsey Street and Joshua Palmer Way)	18,400	368	184	184	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and WB I-10 Highland Springs Avenue Ramps)	20,733	415	207	207	1%	1%	30
Highland Springs Avenue (between WB I-10 Highland Springs Avenue Ramps and EB I-10 Highland Springs Avenue Ramps)	21,667	433	217	217	1%	1%	30
Highland Springs Avenue (between I-10 EB Highland Springs Avenue Ramps and East 2nd Street/Suniakes Village Drive)	19,333	387	193	193	1%	1%	30
<b>Northbound</b>							
Apex Street (South of Ramsey Street)	800	64	16	48	2%	6%	25
Highland Springs Avenue (between East 2nd Street/Sun Lakes Village Drive and EB I-10 Highland Springs Avenue Ramps)	24,333	487	243	243	1%	1%	30
Highland Springs Avenue (between EB I-10 Highland Springs Avenue Ramps and WB I-10 Highland Springs Avenue Ramps)	23,333	467	233	233	1%	1%	30
Highland Springs Avenue (between WB I-10 Highland Springs Avenue Ramps and Joshua Palmer Way)	22,000	440	220	220	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and Ramsey Street)	20,333	407	203	203	1%	1%	30
<b>Build</b>							
<b>Mainline and Ramps</b>							
<i>Mainline and ramp volumes are identical across the build and no build scenarios</i>							
<b>Local Roadways</b>							
<b>Eastbound</b>							
Ramsey Street (West of Highland Springs Avenue)	15,333	307	153	153	1%	1%	45
Ramsey Street (between Highland Springs Avenue and Apex Avenue)	13,733	275	137	137	1%	1%	45
Ramsey Street (East of Apex Avenue)	13,733	275	137	137	1%	1%	45
Joshua Palmer Way	1,067	85	21	64	2%	6%	25
<b>Westbound</b>							
Ramsey Street (East of Apex Avenue)	21,333	427	213	213	1%	1%	45
Ramsey Street (between Apex Avenue and Highland Springs Avenue)	21,133	423	211	211	1%	1%	45
Ramsey Street (West of Highland Springs Avenue)	18,933	379	189	189	1%	1%	45
Joshua Palmer Way	9,267	741	185	556	2%	6%	25
<b>Southbound</b>							
Apex Street (South of Ramsey Street)	1,467	117	29	88	2%	6%	25
Highland Springs Avenue (between Ramsey Street and Joshua Palmer Way)	18,400	368	184	184	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and Westside WB I-10 Highland Springs Avenue On-Ramp)	18,400	368	184	184	1%	1%	30
Highland Springs Avenue (between Westside WB I-10 Highland Springs Avenue On-Ramp and EB Highland Springs Avenue Off-Ramp/Westside EB Highland Springs On-Ramp)	20,933	419	209	209	1%	1%	30
Highland Springs Avenue (between I-10 EB Highland Springs Avenue Off-Ramp/Westside EB Highland Springs Avenue On-Ramp and East 2nd Street/Suniakes Village Drive)	19,333	387	193	193	1%	1%	30
<b>Northbound</b>							
Apex Street (South of Ramsey Street)	4,933	395	99	296	2%	6%	25
Highland Springs Avenue (between East 2nd Street/Sun Lakes Village Drive and Eastside EB I-10 Highland Springs Avenue On-Ramp)	24,333	487	243	243	1%	1%	30
Highland Springs Avenue (between Eastside EB I-10 Highland Springs Avenue On-Ramp and Joshua Palmer Way)	23,333	467	233	233	1%	1%	30
Highland Springs Avenue (between Joshua Palmer Way and Ramsey Street)	16,133	323	161	161	1%	1%	30

MHD = medium heavy-duty, HHD = heavy heavy-duty, mph = miles per hour

**Fehr & Peers Notes**  
 Local roadway volumes for no build are for the no build and alt 3/4 scenarios, build volumes are for alt 2A and 2B scenarios  
 Speeds are posted speed limit

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street Delay and LOS

Table 3. Opening Year (2030) Intersection Operations

Intersection	Control	No-Build		Alternative 2A		Alternative 2B	
		AM	PM	AM	PM	AM	PM
1. Highland Springs Avenue and 8 <sup>th</sup> Street/Wilson Street	Signal	34.0/C	24.5/C	33.2/C	23.1/C	32.8/C	21.7/C
2. Highland Springs Avenue and 6 <sup>th</sup> Street/Ramsey Street	Signal	39.2/D	<b>87.8/F</b>	38.6/D	<b>94.6/F</b>	37.6/D	<b>92.6/F</b>
3. Highland Springs Avenue and Joshua Palmer Way <sup>1</sup>	Signal	23.6/C	<b>60.7/E</b>	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
4. Highland Springs Avenue and I-10 Westbound Ramps <sup>1</sup>	Signal	17.5/B	<b>60.4/E</b>	7.9/A	10.1/B	8.1/A	10.4/B
5. Highland Springs Avenue and I-10 Eastbound Ramps	Signal	21.1/C	<b>111.0/F</b>	11.6/B	17.8/B	11.8/B	16.6/B
6. Highland Springs Avenue and 2 <sup>nd</sup> Street/Sun Lakes Village Drive	Signal	26.4/C	<b>89.7/F</b>	28.2/C	48.2/D	25.9/C	48.2/D
7. Highland Springs Avenue and East 1 <sup>st</sup> Street/Sun Lakes Boulevard	Signal	12.5/B	14.1/B	12.4/B	14.8/B	12.6/B	14.5/B
8. Apex Avenue and Wilson Street	SSSC <sup>2</sup>	25/C	26.4/D	29/D	29.2/D	25.8/D	27.3/D
9. Apex Avenue and Ramsey Street	SSSC <sup>2</sup>	<b>40.1/E</b>	<b>99.5/F</b>	13.6/B	18.5/B	13.0/B	16.9/B
10. Pennsylvania Avenue and I-10 Westbound Ramps	SSSC <sup>2</sup>	15.3/B	22.2/C	15.3/B	22.2/C	15.3/B	22.2/C
11. Pennsylvania Avenue and I-10 Eastbound Ramps	SSSC <sup>2</sup>	17.3/B	18.2/B	17.3/B	18.2/B	17.3/B	18.2/B
12. Sunset Avenue and I-10 Westbound Ramps	Signal	10.0/B	9.2/A	10.0/B	9.2/A	10.0/B	9.2/A
13. Sunset Avenue and I-10 Eastbound Ramps	Signal	20.1/C	16.4/B	20.1/C	16.4/B	20.1/C	16.4/B
14. I-10 Westbound Hook On-Ramp and Joshua Palmer Way <sup>3</sup>	Signal	NA <sup>3</sup>	NA <sup>3</sup>	3.8/A	4.0/A	NA <sup>3</sup>	NA <sup>3</sup>
15. I-10 Westbound Off-Ramp and Joshua Palmer Way/Apex Avenue <sup>3</sup>	AWSC/ Signal <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>	6.9/A	11.0/B	5.2/A	6.1A

Notes: **Bold text** indicates unacceptable operations (i.e., LOS E or F)

1. Highland Springs Avenue and Joshua Palmer Way is replaced under Alternative 2A and 2B by the reconfigured I-10 westbound ramps. Joshua Palmer Way is realigned to connect with I-10 westbound direct on-ramp. The LOS of Highland Springs Avenue and I-10 westbound direct on-ramp is presented under intersection 4.
2. Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At Side Street Stop-Controlled (SSSC) intersection, delay refers to the worst movement.
3. Intersection 14 and 15 were analyzed under Alternative 2A. Under Alternative 2B, I-10 westbound off-ramp and hook on-ramp will be both connected to Joshua Palmer Way and Apex Avenue. Therefore, Intersection 15 represents I-10 westbound off-ramp/hook on ramp and Joshua Palmer Way/Apex Avenue under Alternative 2B and was analyzed as signal controlled.

Source: Fehr & Peers, 2023

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street Delay and LOS

**Table 4. Design Year (2050) Intersection Operations**

Intersection	Control	No-Build		Alternative 2A		Alternative 2B	
		AM	PM	AM	PM	AM	PM
1. Highland Springs Avenue and 8 <sup>th</sup> Street/Wilson Street	Signal	67.8/E	48.8/D	<b>67.2/E</b>	34.3/C	<b>63.9/E</b>	32.2/C
2. Highland Springs Avenue and 6 <sup>th</sup> Street/Ramsey Street	Signal	>120/F	>120/F	>120/F	>120/F	>120/F	>120/F
3. Highland Springs Avenue and Joshua Palmer Way <sup>1</sup>	Signal	29.8/C	46.5/D	NA	NA	NA	NA
4. Highland Springs Avenue and I-10 Westbound Ramps <sup>1</sup>	Signal	47.2/D	<b>66.7/E</b>	11.0/B	22.4/C	11.4/B	30.2/C
5. Highland Springs Avenue and I-10 Eastbound Ramps	Signal	<b>84.5/F</b>	<b>94.8/F</b>	18.5/B	41.8/D	18.7/B	40.8/D
6. Highland Springs Avenue and 2 <sup>nd</sup> Street/Sun Lakes Village Drive	Signal	<b>85.5/F</b>	<b>125.5/F</b>	33.9/C	<b>76.9/E</b>	32.9/C	<b>81.8/F</b>
7. Highland Springs Avenue and East 1 <sup>st</sup> Street/Sun Lakes Boulevard	Signal	<b>114.2/F</b>	<b>55.5/E</b>	18.5/B	27/C	17.5/B	37.1/D
8. Apex Avenue and Wilson Street	SSSC <sup>2</sup>	>120/F	>120/F	<b>78.7/F</b>	>120/F	<b>66.2/F</b>	>120/F
9. Apex Avenue and Ramsey Street	SSSC <sup>2</sup>	>120/F	>120/F	43.9/D	>120/F	26.1/C	>120/F
10. Pennsylvania Avenue and I-10 Westbound Ramps	SSSC <sup>2</sup>	<b>79.5/E</b>	<b>85.4/F</b>	<b>79.5/E</b>	<b>85.4/F</b>	<b>79.5/E</b>	<b>85.4/F</b>
11. Pennsylvania Avenue and I-10 Eastbound Ramps	SSSC <sup>2</sup>	<b>93.4/F</b>	<b>91.0/F</b>	<b>93.4/F</b>	<b>91.0/F</b>	<b>93.4/F</b>	<b>91/F</b>
12. Sunset Avenue and I-10 Westbound Ramps	Signal	<b>67.8/E</b>	49.6/D	<b>67.8/E</b>	49.6/D	<b>67.8/E</b>	49.6/D
13. Sunset Avenue and I-10 Eastbound Ramps	Signal	44.1/D	39.6/D	44.1/D	39.6/D	44.1/D	39.6/D
14. I-10 Westbound Hook On-Ramp and Joshua Palmer Way <sup>3</sup>	Signal	NA	NA	3.9/A	8.8/A	NA	NA
15. I-10 Westbound Off-Ramp and Joshua Palmer Way/Apex Avenue <sup>3</sup>	AWSC/ Signal <sup>3</sup>	NA	NA	8.7/A	12.9/B	6.4/A	7/A

Notes: **Bold text** indicates unacceptable operations (i.e., LOS E or F)

1. Highland Springs Avenue and Joshua Palmer Way is replaced under Alternative 2A and 2B by the reconfigured I-10 westbound ramps. Joshua Palmer Way is realigned to connect with I-10 westbound direct on-ramp. The LOS of Highland Springs Avenue and I-10 westbound direct on-ramp is presented under intersection 4.
2. Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At Side Street Stop-Controlled (SSSC) intersection, delay refers to the worst movement.
3. Intersection 14 and 15 were analyzed under Alternative 2A. Under Alternative 2B, I-10 westbound off-ramp and hook on-ramp will be both connected to Joshua Palmer Way and Apex Avenue. Therefore, Intersection 15 represents I-10 westbound off-ramp/hook on ramp and Joshua Palmer Way/Apex Avenue under Alternative 2B and was analyzed as signal controlled.

Source: *Fehr & Peers, 2023*

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

The project intends to modify the local arterials by eliminating the left-turn conflicts from Highland Springs Avenue onto the I-10 on-ramps. This will be done by introducing hook ramps or by reconfiguring the existing interchange configuration. All alternatives provide auxiliary lanes for the I-10 WB on-ramp and EB off-ramp, in addition to an extended deceleration lane for the WB off-ramp.

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

**The proposed project is not a Project of Air Quality Concern (POAQC) because the project does not meet the following criteria:**

- 1. New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles.**
  - The project is not a new highway nor would the project result in a significant increase in the number of diesel vehicles.
  
- 2. Projects affecting intersections that are at level –of –service (LOS) D, E, or F with a significant number of diesel vehicles or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.**
  - The project would not deteriorate LOS at LOS D, E, or F intersections nor would there be a significant increase in the number of diesel vehicles.
  
- 3. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.**
  - The project is *not* a new bus or rail terminal project.
  
- 4. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location.**
  - The project is *not* an expansion to an existing bus or rail terminal project.
  
- 5. Projects in or affecting locations, areas, or categories of sites that are identified in the PM2.5- or PM10-applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.**
  - The project is *not* located in an area identified in applicable PM attainment plans.

The proposed project would not affect a major highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 AADT of which 8 percent or more is HHD traffic (i.e., 10,000 AADT HHD). As noted in Table 3, HHD traffic on the area roadways would not exceed 10,000 AADT. For this reason and the reasons noted above, the project would not be considered a POAQC.

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

**2023 FTIP Project Listing**

2023 Federal Transportation Improvement Program  
 Riverside County  
 State Highway - Project Listing  
 Including Amendments 1 - 21  
 (In \$000's)

DESCRIPTION

IN WESTERN RIVERSIDE COUNTY - ON I-15, ADD 2 EXPRESS LANES IN EACH DIRECTION, GENERALLY IN THE MEDIAN, FROM SR-74 (CENTRAL AVENUE) IN THE CITY OF LAKE ELSINORE TO EL CERRITO ROAD IN THE CITY OF CORONA. CONSTRUCT SOUTHBOUND AUXILIARY LANE FROM MAIN STREET TO SR-74 (CENTRAL AVENUE) AND FROM SR-74 (CENTRAL AVENUE) TO NICHOLS ROAD. SIGNAGE AND TRANSITION STRIPING EXTENDS TO PM 20.3 TO THE SOUTH AND PM 40.1 TO THE NORTH. TC UTILIZATION FOR CMAQ, STBG, CRP, AND HIP(CPFCD)EARMARK IN FY22/23.

PHASE	FUND SOURCE	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PE	CMAQ	\$56,586	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$56,586
PE	Carbon Reduction Program (CRP)	\$3,966	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,966
PE	Coronavirus Response-Relief Supp	\$6,314	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,314
PE	HIGHWAY INFRASTRUCTURE	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000
PE	STP LOCAL	\$29,962	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29,962
CON	AGENCY	\$0	\$0	\$0	\$0	\$479,925	\$0	\$0	\$0	\$479,925
CON	CMAQ	\$0	\$3,180	\$4,136	\$35,637	\$33,422	\$0	\$0	\$0	\$76,375
CON	STP LOCAL	\$0	\$0	\$0	\$0	\$12,000	\$0	\$0	\$0	\$12,000
<b>TOTAL</b>	<b>TOTAL</b>	<b>\$99,828</b>	<b>\$3,180</b>	<b>\$4,136</b>	<b>\$35,637</b>	<b>\$525,347</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$668,128</b>

FTIP ID	LEAD AGENCY	COUNTY	CONFORM CATEGORY	AIR BASIN	PROJECT COST	RTP ID	SYSTEM
RIV180104	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	Riverside	NON-EXEMPT	SCAB	\$37,000	RIV180104	State
PRIMARY PROGRAM CODE	PROJECT LIMITS			MODELING	FTIP AMENDMENT		
NCR88 - RAMPS-MODIFY	From W/B off/on ramps to E/B off/on ramps Post Miles: Begin 8.20 End 11.30			YES	23-04		

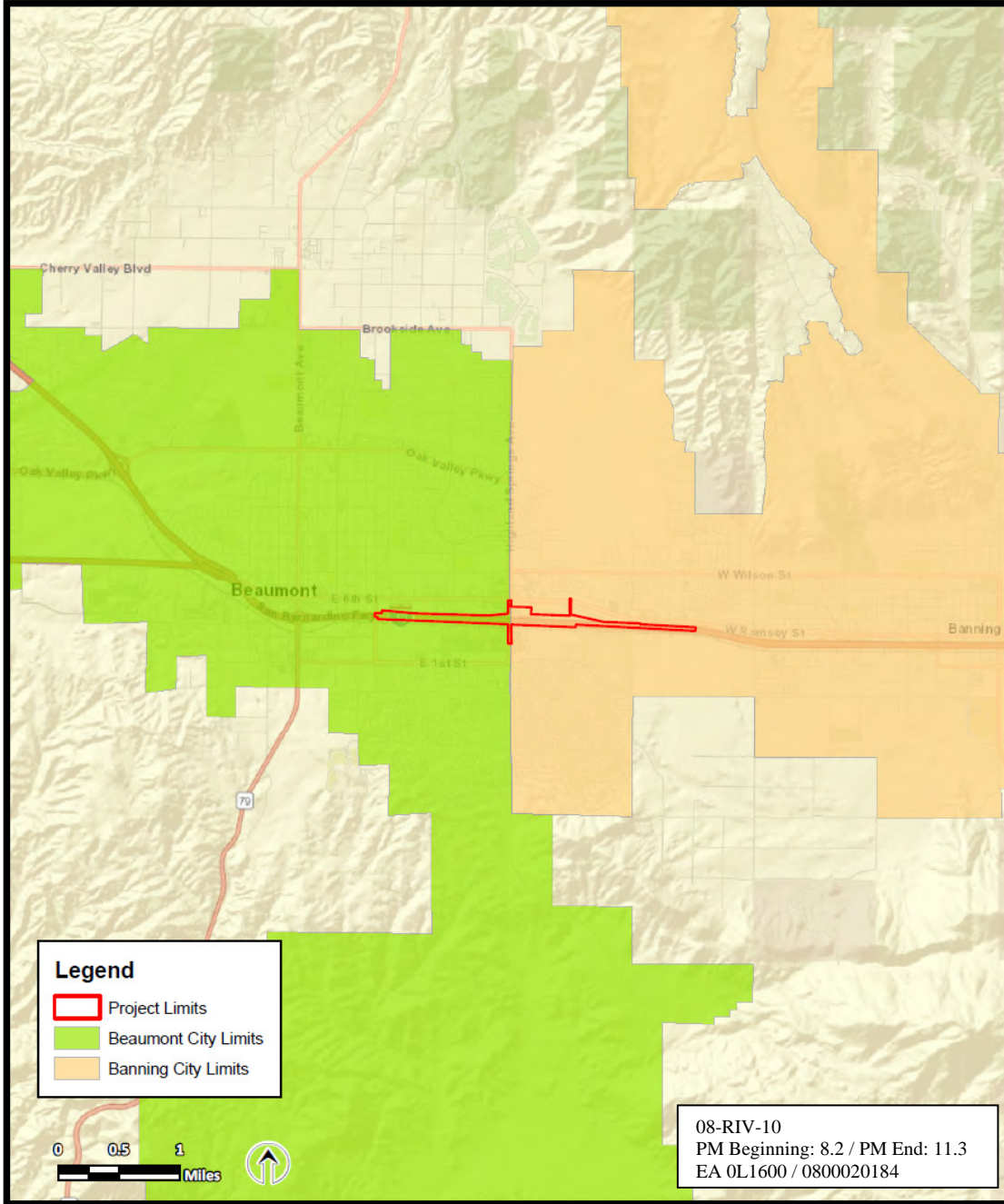
DESCRIPTION

IN WESTERN RIVERSIDE COUNTY IN THE CITIES OF BANNING AND BEAUMONT: I-10/HIGHLAND SPRINGS IC IMPROVEMENTS - IMPROVE EXISTING W/B OFF RAMP AND W/B ON RAMP

PHASE	FUND SOURCE	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PE	WESTERN RIV TUMF	\$2,000	\$1,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$5,000
ROW	WESTERN RIV TUMF	\$0	\$0	\$2,000	\$0	\$0	\$0	\$0	\$0	\$2,000
CON	DEVELOPER FEES	\$0	\$0	\$0	\$0	\$0	\$4,500	\$0	\$0	\$4,500
CON	STIP ADVANCE CON-RIP	\$0	\$0	\$0	\$0	\$0	\$14,698	\$0	\$0	\$14,698
CON	WESTERN RIV TUMF	\$0	\$0	\$0	\$0	\$0	\$10,802	\$0	\$0	\$10,802
<b>TOTAL</b>	<b>TOTAL</b>	<b>\$2,000</b>	<b>\$1,000</b>	<b>\$4,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$30,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$37,000</b>

**Attachment A. Project Maps**





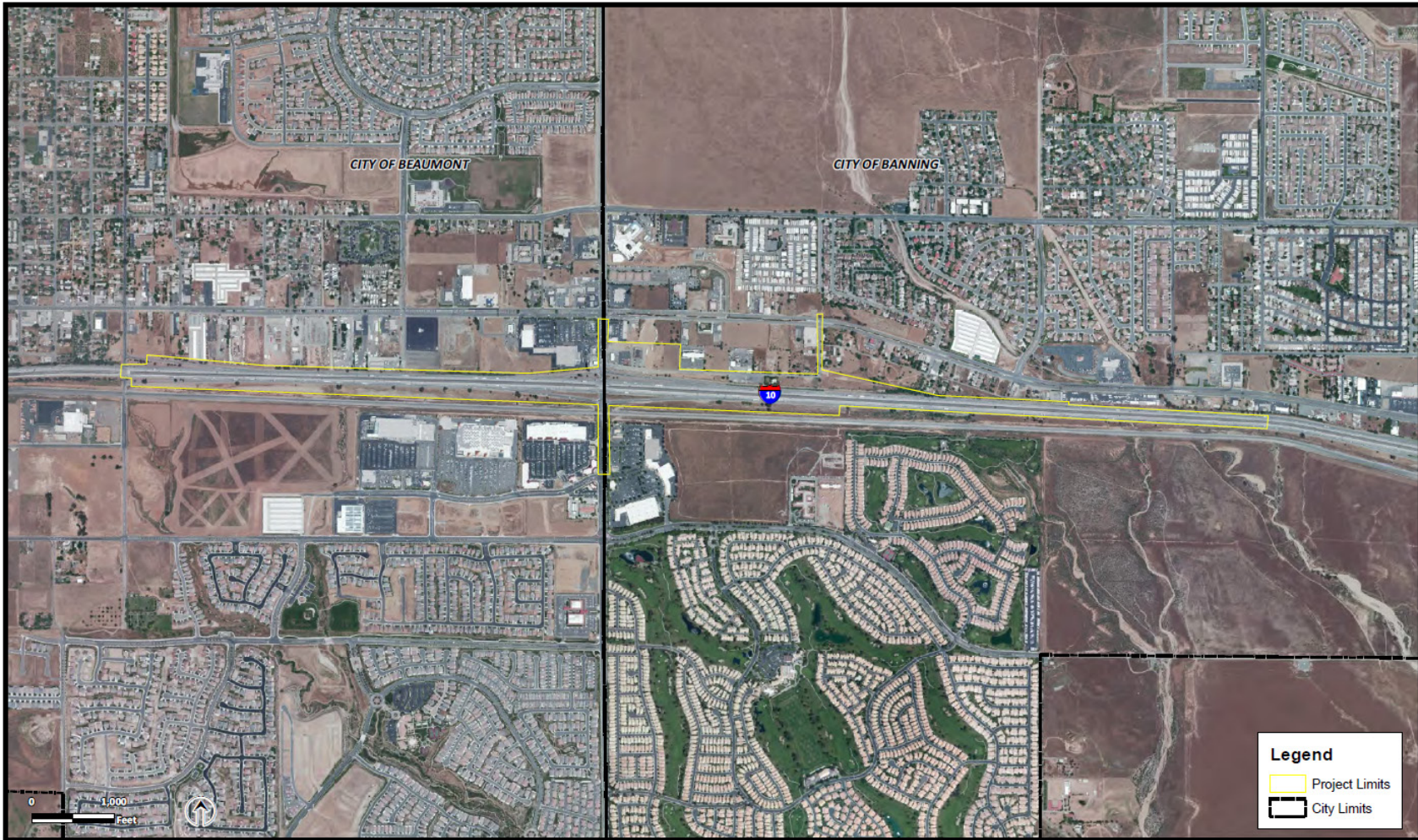
Source: City of Banning 2024; City of Beaumont 2024; ESRI 2024



**PROJECT LOCATION**  
**I-10/Highland Springs Avenue Interchange Improvements**



PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation



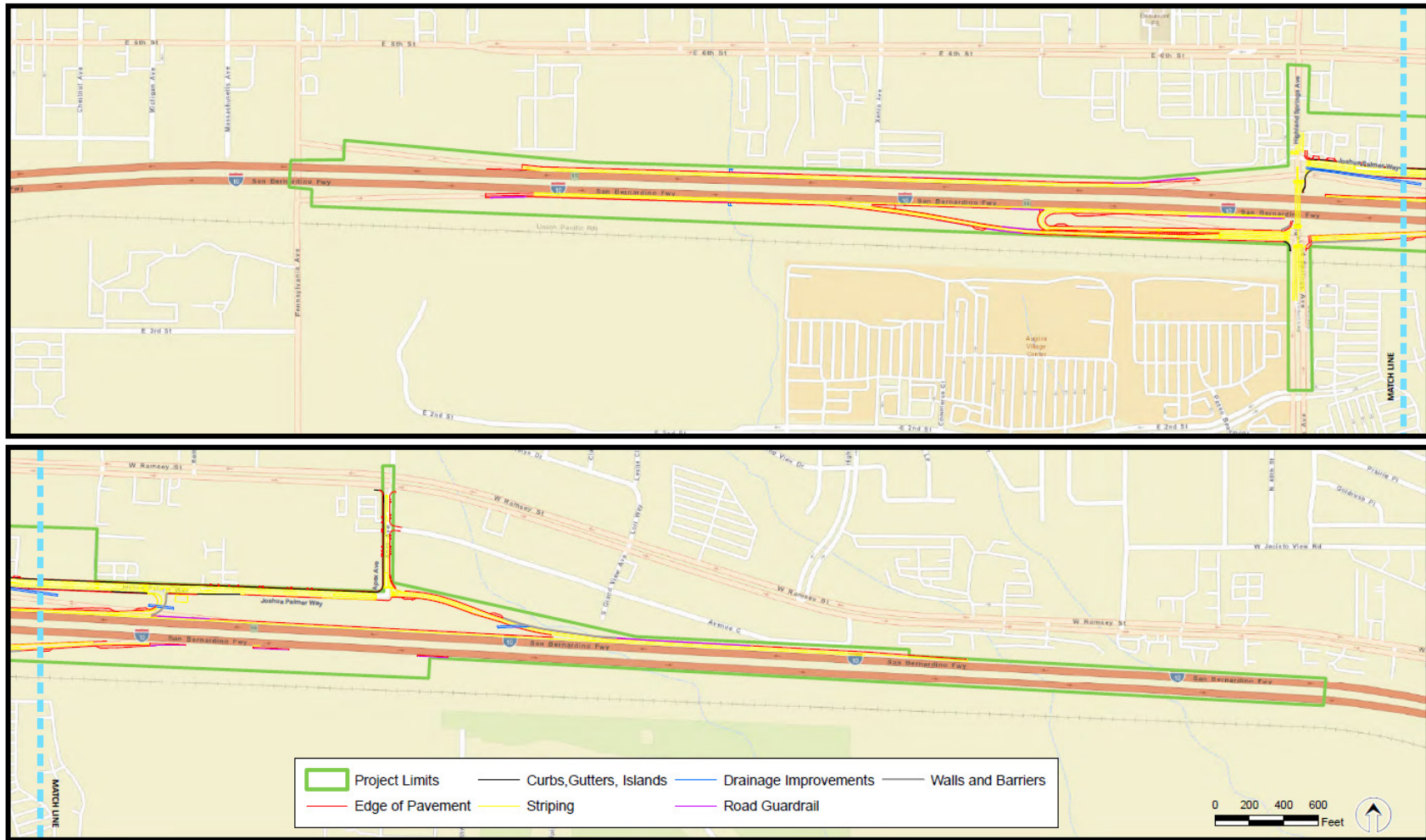
Source: ES&I 2024



08-RIV-10  
PM Beginning: 8.2 / PM End: 11.3  
EA 0L1600 / 0800020184

**PROJECT STUDY AREA**  
I-10/Highland Springs Avenue Interchange Improvements

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation



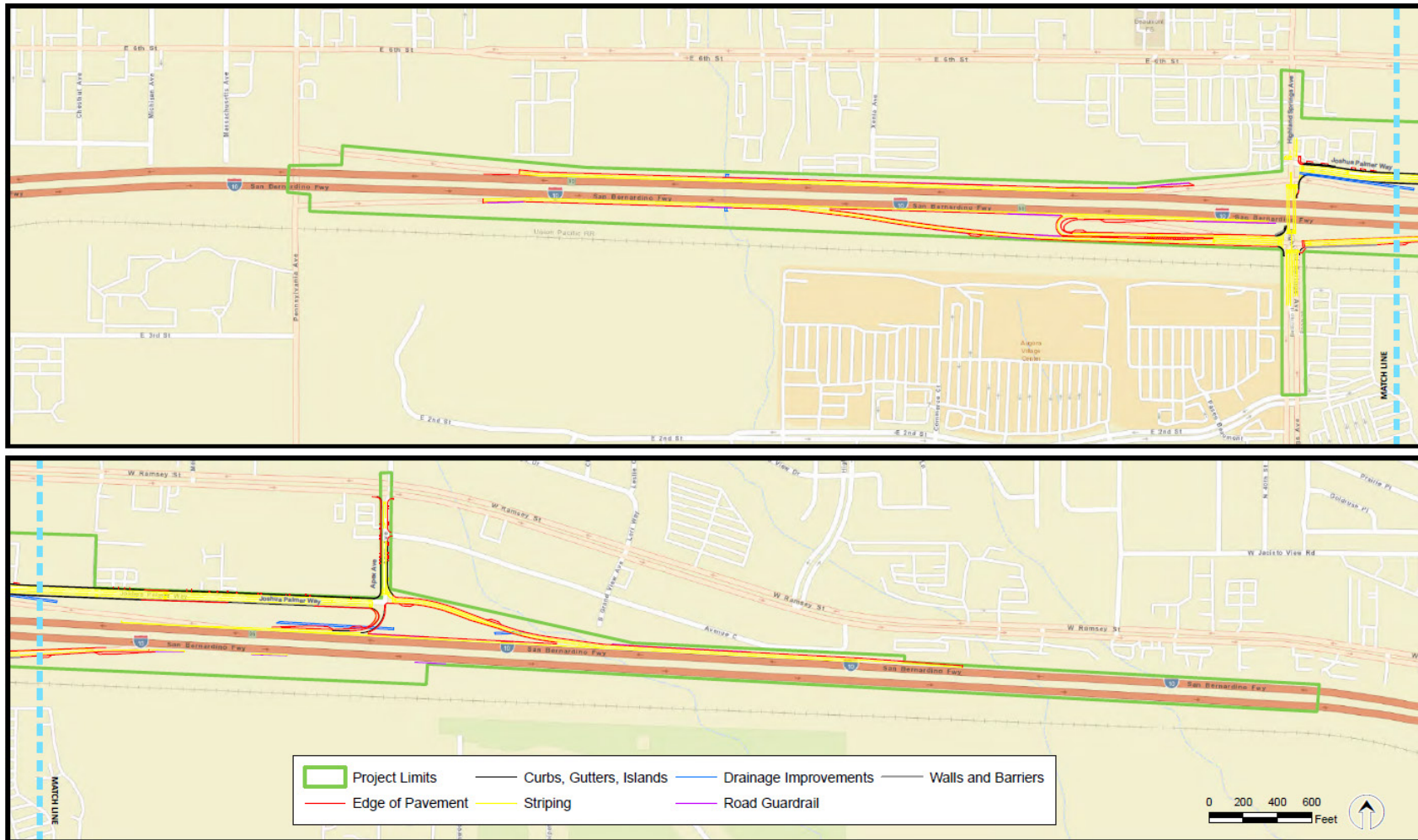
Source: ESRI 2024



08-RIV-10  
 PM Beginning: 8.2 / PM End: 11.3  
 EA 0L1600 / 0800020184

**BUILD ALTERNATIVE EXHIBIT - ALT 2A**  
**I-10/Highland Springs Avenue Interchange Improvements**

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation



Source: ESRI 2024



08-RIV-10, PM: 8.2 / PM: 11.3  
EA 0L1600 / 0800020184

**BUILD ALTERNATIVE EXHIBIT - ALT 2B**  
**I-10/Highland Springs Avenue Interchange Improvements**