

Project Report

For Project Approval

On Route Interstate 10 (I-10)

Between 1.5 miles east of Jefferson Street

And 0.2 miles west of Jackson Street

I have reviewed the right-of-way information contained in this report and the right-of-way data sheet attached hereto, and find the data to be complete, current and accurate:



REBECCA GUIRADO,
Deputy District Director, Right of Way and Land Surveys

APPROVAL
RECOMMENDED:

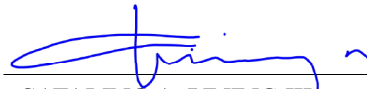


MARTHA SANTANA,
Project Manager

CONCURRED:



DAVID BRICKER,
Deputy District Director, Environmental Planning



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Deputy District Director, Traffic Operations



MA JAMAL M. ELSALEH,
Deputy District Director, Design

PROJECT
APPROVED:

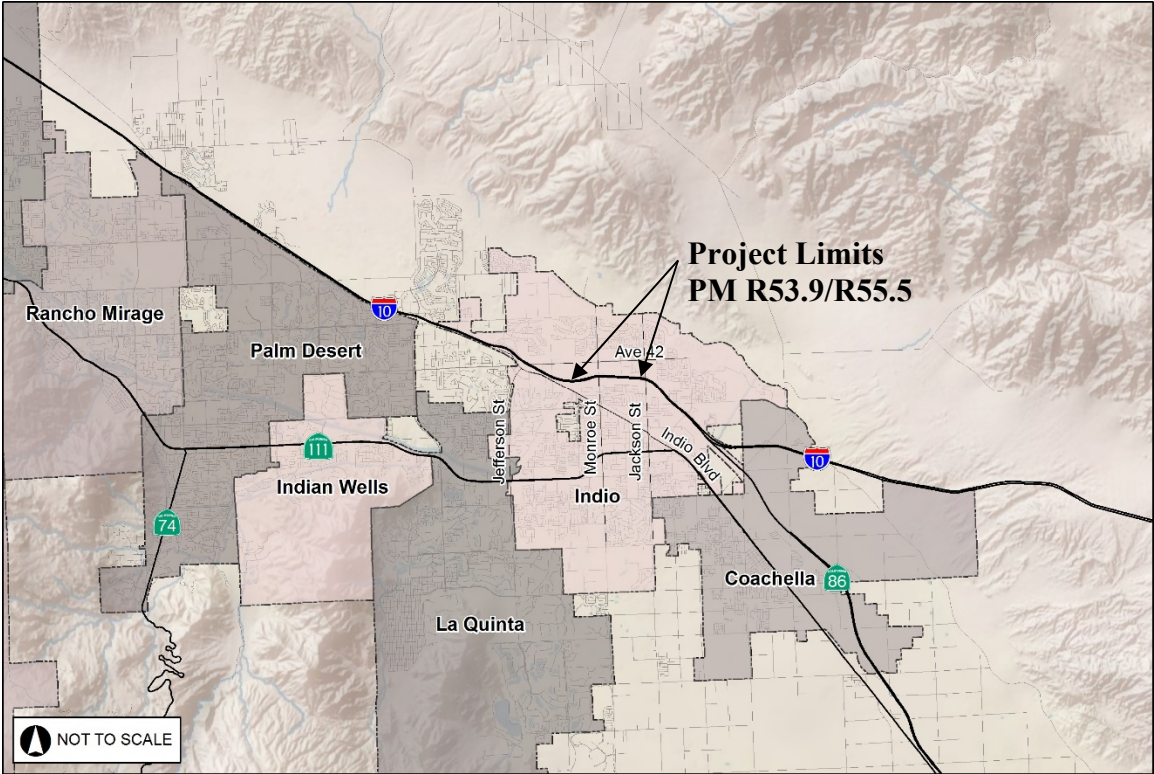


MICHAEL D. BEAUCHAMP,
District Director

12/18/2020

Date

Vicinity Map



IN RIVERSIDE COUNTY
AT MONROE STREET AND WHITEWATER RIVER OVERCROSSINGS
FROM 1.5 MILE EAST OF JEFFERSON STREET OVERCROSSING
TO 0.2 MILE WEST OF JACKSON STREET OVERCROSSING

This Project Report (PR) has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



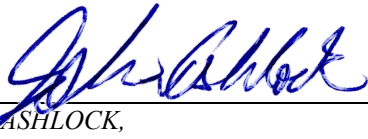
12/11/2020

JERUSALEM VERANO, Registered Civil Engineer

DATE



Submitted by:

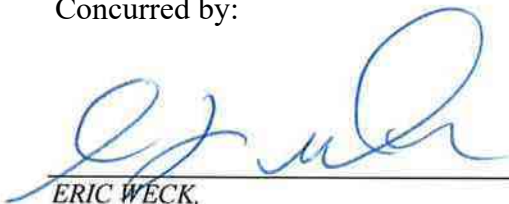


12/11/20

JOHN ASHLOCK,
Project Manager
Riverside County Transportation Department

DATE

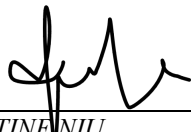
Concurred by:



12/11/2020

ERIC WECK,
Principal Civil Engineer
City of Indio

DATE



12/11/2020

JUSTINE NI,
Office Chief
Caltrans District 8 Design J (Oversight)

DATE

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1. INTRODUCTION

Project Description

The *City of Indio (City)*, in cooperation with the *California Department of Transportation (Caltrans)* District 8 and the *County of Riverside (County)*, proposes to reconstruct and widen Monroe Street at *Interstate 10 (I-10)* to improve the operational performance of the Monroe Street interchange. The Monroe Street interchange is located on I-10 at *Post Mile (PM) R54.7*, between PM R53.9 and PM R55.5, in the City of Indio, within Riverside County (See Attachment A – Location Map). The current I-10/Monroe Street interchange configuration is a diamond-type interchange, with signal control at the on- and off-ramp termini. The project proposes to reconstruct and widen the I-10/Monroe Street interchange from two (2) to four (4) through lanes on Monroe Street between the Coachella Valley Stormwater Channel (CVSC) and Avenue 42, reconstruct and widen the on- and off-ramps to two (2) or three (3) lanes at the intersection with Monroe Street, construct an eastbound auxiliary lane between Monroe Street and Jackson Street on I-10, and extend the on- and off-ramps with acceleration and deceleration lanes. The project is in the *Project Approval and Environmental Document (PA/ED)* phase and is locally funded through PA/ED.

According to the *Caltrans Project Development Procedures Manual (PDPM)*, Chapter 8, Section 5, Project Development Categories, the project is classified as *Category 4A* because the project:

- Would increase traffic capacity by widening Monroe Street
- Is an interchange reconstruction project not requiring a revised *Freeway Agreement (FA)* or Route Adoption
- Requires right-of-way

Caltrans approved the project as a 4A category project on February 24, 2016 and a copy of the signed Category Determination Request Memorandum is included as *Attachment O*.

Three viable alternatives were evaluated for the proposed project:

- **Alternative 1 – No Build**
No reconstruction or improvements would be made to the existing I-10/Monroe Street interchange other than routine maintenance.
- **Alternative 2 – Tight Diamond Interchange (Preferred Alternative)**
A Tight Diamond Interchange (TDI) would retain the existing interchange layout and improve traffic flow by constructing additional traffic lanes, improving existing geometry, and adding new mobility elements.
- **Alternative 4 – Diverging Diamond Interchange**
A Diverging Diamond Interchange (DDI) would reduce conflict points and improve traffic flow by eliminating left- and right-turn movements at the intersections, constructing additional traffic lanes, improving existing geometry, and adding new mobility elements.

Table 1. Project Description Summary Table

PROJECT DESCRIPTION SUMMARY		
Project Limits	District 08 - Riverside County - Route 10 Begin Post Mile: R53.9 End Post Mile: R55.5	
Number of Alternatives	Three (3) Alternatives with One (1) No-Build and Two (2) Build Alternatives	
	<i>Current Cost Estimate:</i>	<i>Escalated Cost Estimate:</i>
Capital Outlay Support	\$12,502,000	\$13,822,289
Capital Outlay Construction	Alternative 2: \$62,981,071	Alternative 2: \$75,948,197
Capital Outlay Right-of-Way	Alternative 2: \$5,529,520	Alternative 2: \$6,686,000
Funding Source	Local Funding	
Construction Year Funding	2021/2022	
Type of Facility	Freeway Interchange on I-10 (Six (6) Lane Freeway)	
Number of Structures	Two (2) - Monroe Street Overcrossing BN: 56-0611 Whitewater River Overcrossing BN: 56C-0083	
Environmental Determination or Document	Initial Study (IS) for California Environmental Quality Act (CEQA) / Environmental Assessment (EA) for National Environmental Policy Act (NEPA)	
Legal Description	In Riverside County at Monroe Street and Whitewater River overcrossing from 1.5 mile east of Jefferson Street overcrossing to 0.2 mile west of Jackson Street overcrossing	
Development Category	4A	

2. RECOMMENDATION

It is recommended that approval be provided for the project using the Preferred Alternative (Alternative 2) and that the project proceed to the final design phase (Plans, Specifications and Estimates [PS&E]).

Affected local agencies have been consulted with respect to the recommended plan. Their views have been considered, and the local agencies are in general accord with the proposed plan as presented.

3. BACKGROUND

Project History

The City has identified Monroe Street as a major north to south arterial that provides access to the interstate system and connects the northern and southern halves of the City across I-10 and CVSC. To address anticipated growth and development in and around the interchange, the City initiated a *Project Study Report (PSR)* in 2008 to request capital programming for right-of-way and construction costs. The City placed the PSR on hold in 2009, in part, due to the economic

downturn and Caltrans's introduction of the *Project Initiation Document (PID)* process. In May 2015, the City reinstituted project development and a *Project Study Report – Project Development Study (PSR-PDS)* was concurred by Caltrans on December 30, 2016. The City, with support from the *Coachella Valley Association of Governments (CVAG)* and the *Riverside County Transportation Department (RCTD)*, recognizes the need to improve the I-10/Monroe Street interchange and proposes to reconstruct and widen the interchange to improve traffic flow, multimodal connectivity, and operational performance of the interchange.

The approved PSR-PDS recommended two alternatives for study in PA/ED, *Alternative 2 (Preferred Alternative) – Tight Diamond (TDI)* and *Alternative 3 – Single Point Interchange (SPI)*. At the PA/ED phase onset, *Alternative 4 – Diverging Diamond Interchange (DDI)* was introduced as a new alternative to be studied in PA/ED. Through an early alternative screening process, which included preliminary traffic analysis, the *Project Development Team (PDT)* on June 28, 2018 elected to remove Alternative 3 and introduce Alternative 4 as the second viable alternative to be studied in PA/ED. This PR differs from the approved PSR-PDS in that the SPI is no longer considered a viable alternative and the DDI, introduced in PA/ED, was included for study. See *Section 5B. Rejected Alternatives* for more information on rejected alternatives.

The Draft Project Report (DPR) was concurred by Caltrans on April 28, 2020 and the Draft Environmental Document (DED) was concurred by Caltrans on April 21, 2020.

Community Interaction

Caltrans partnered with the City and RCTD to engage the public, stakeholders, the media and others on project updates throughout PA/ED. This includes holding and attending public meetings, meeting with partner agencies, sending out virtual notifications via social media and email, and more.

A comprehensive outreach plan was developed in preparation for circulation of the DED to ensure that the public and partners are aware of the project and its impacts. As stated, this included multiple facets including social media, public meetings, focused meetings with partners, and more. These efforts ensure an equitable deliverable process by incorporating input from business and property owners near the project limits, the public, agencies and stakeholders. During future phases of work, project information will be posted on RCTD's project website to continue to engage the community.

To accommodate equal access to the disadvantaged communities and promote continuity, equity, and a healthy lifestyle, the project will improve pedestrian, bicycle and *Low Speed Electric Vehicles (LSEV)* facilities by upgrading ramps to comply with ADA, constructing sidewalk on both sides of Monroe Street, and constructing a shared bicycle and LSEV path on both sides of Monroe Street. These upgrades will improve movements over the interstate and will connect the residential community on the south side to the commercial development on the north side. Please refer to the *Complete Streets* section for more information on the aforementioned project improvements.

The Locally Preferred Alternative (LPA) was identified by the City at the July 17, 2019 City Council meeting. The meeting was held in open session and attended by the public and there was

no opposition raised to identifying Alternative 2 – Tight Diamond Interchange as the LPA. A public hearing, in virtual format, was held on June 9, 2020 after the DPR and DED were approved for circulation. City and County representatives have attended regular PDT and focus meetings and are fully engaged in the development of the project. Commitments or issues have not developed as a result of the community interaction related to the proposed project. The project has received generally positive feedback.

Refer to *Section 7. Other Considerations as Appropriate* for more information on the public hearing process.

Existing Facility

Interstate 10

I-10 is a major east-west transportation route that connects the City of Indio to Los Angeles, and San Bernardino counties to the west, and the California/Arizona border to the east. The I-10 segment within the project study area is six-lanes wide with three 12-foot wide mixed flow lanes in each direction, a 10-foot wide outside and a 5-foot wide inside shoulder with no managed lanes. The westbound and eastbound directions are divided by an unpaved median centered on a Double Thrie Beam barrier. The I-10/Monroe Street interchange is configured as a diamond interchange, with signal control at the westbound and eastbound ramp termini.

Monroe Street

Monroe Street is a north-south, two-lane divided Arterial in the City of Indio. The City's Draft General Plan Update classifies Monroe Street as a four (4) to six (6) lane Arterial with a posted 40-mph speed limit through the project limits. Within the project limits, Monroe Street includes curb and gutter, a striped and curbed median, sidewalk in the southbound direction only, and the I-10 overcrossing, and CVSC bridge (*Channel Bridge*) structures. The I-10 overcrossing (Bridge Number 56-0611) structure is a two span pre-stressed concrete box girder bridge, constructed in 1972. The bridge is approximately 249-feet long, 47-feet wide, and spans six lanes of traffic over I-10. The Channel Bridge (Bridge Number 56C-0083) structure is a five-span reinforced concrete box girder bridge, also constructed in 1972. The bridge is approximately 490-feet long, and 47-feet wide spanning the full length of the CVSC.

Coachella Valley Stormwater Channel (Whitewater River)

The CVSC, also known as Whitewater River, is a 50-mile storm channel that runs from the Whitewater area north of Palm Springs to the Salton Sea channeling waters from surrounding mountain areas. The trapezoidal, earth channel is under the *Coachella Valley Water District (CVWD)* jurisdiction. Along the southern bank, which is within the limits of the project, CVAG is in the final design phase of a planned 50-mile long multi-use trail, known as CV Link. CV Link will connect cities within the Coachella Valley for the use of LSEV, bicycles, and pedestrian users. CV Link will allow for egress and ingress to Monroe Street.

Existing Site Conditions

The project is located within the Middle Whitewater River watershed. Surrounding properties consist of undeveloped, commercial, limited industrial, and residential development. The general drainage pattern within the project vicinity is from north to south and drains towards the

Whitewater River, located south of the I-10/Monroe Street interchange, which flows from west to east where it ultimately outlets to the Salton Sea. Existing drainage systems, including lined and unlined ditches, down drains, drainage inlets and storm drain pipes along Monroe Street and the I-10 on-ramps and off-ramps convey onsite and offsite runoff towards existing culverts within the project limits that eventually outlet to the Whitewater River. The I-10/Monroe Street interchange is not located in a designated *Federal Emergency Management Agency (FEMA)* flood zone.

4. PURPOSE AND NEED

4A. PROBLEM, DEFICIENCIES, JUSTIFICATION

Purpose

The purpose of this project is to:

- Increase capacity at the I-10/Monroe Street interchange to accommodate the forecast travel demand for the 2045 design year within the City of Indio;
- Accommodate multimodal travel consistent with the City of Indio’s Draft General Plan Update and regional plans; and
- Improve operations by addressing existing non-standard shoulders on the ramps and Monroe Street, pedestrian, and bike facilities; non-standard compound curves, cross-falls, and profile grades; and address seismic and scour susceptible bridges over I-10 and Whitewater River.

Need

The project addresses the following needs, transportation deficiencies and problems:

- The existing interchange and associated intersections are expected to operate at unacceptable level of service by year 2045 due to forecasted growth in traffic volumes in conjunction with the current capacity of the interchange.
- Existing gaps in pedestrian and bicycle infrastructure across the interchange break the multi-modal connection between communities and businesses on either side of I-10; and
- Without the proposed improvements, and with anticipated daily traffic growth – the existing Monroe Street and corresponding I-10 ramps will experience increased delays and diminished operations within the interchange.

4B. REGIONAL AND SYSTEM PLANNING

Identify Systems

The project is located on I-10 which is a major, east-west transportation system that is functionally classified as an “*Interstate*” and is a part of the “*Freeway and Expressway System*” (*F&E*) *System*. The segment of I-10 from State Route 60 (SR-60) to the California/Arizona State Line is included in the *State Interregional Road System (IRRS)* which further classifies the route as a “High Emphasis” and “Gateway” route. In addition, the length of I-10 within the County of Riverside (District 8) is included in the *National Highway System (NHS)*, and the *Strategic Highway Corridor Network (STRAHNET)*; and is included in the National Network for Federal Transportation *Surface Transportation Assistance Act (STAA)* for conventional combinations.

State Planning

I-10 System Planning strategies are outlined in the 2017 *District System Management Plan (DSMP)* and the 2017 *Transportation Concept Report (TCR)*.

District System Management Plan

The 2017 DSMP lists the project as a Tier 1 programmed, or partially programmed project which is based on the 2017 *Federal Transportation Improvement Program (FTIP)*. According to the 2017 DSMP no *High Occupancy Vehicle (HOV)/High Occupancy Toll (HOT)* lanes, Park and Ride, and transit or rest area facilities are planned along I-10 within the project limits through the project design year 2045. Neither are any I-10 capacity enhancing projects listed in the 2017 DSMP within the project limits.

Transportation Concept Report

The 2017 TCR is a planning document that identifies the existing and future route conditions as well as future route needs on the State Highway System. The 2017 TCR describes the existing and future (2040) I-10 System Characteristics through the project limits, which are summarized in the table below:

Table 2. I-10 System Characteristics (2017 TCR)

I-10 SYSTEM CHARACTERISTICS – SEGMENTS 11 AND 12 (MONROE STREET)		
Description	Existing Facility	Concept Facility 2040 (No-Build & 2020 SCAG RTP)
Facility Type	Freeway	Freeway
General Purpose Lanes	6	6
HOV Lanes	0	0
HOT / Express Lanes	0	0
Truck Climbing Lanes	0	0
Bicycle Access Prohibited	Yes	Yes
Pedestrian Access Prohibited	Yes	Yes
LOS	n/a	F

According to the 2017 TCR, traffic is forecasted to increase on I-10 by 2040 and will operate at *Level of Service (LOS)* F without additional mainline lanes. No I-10 capacity enhancing projects are listed within the 2017 TCR to address future freeway operational issues through the project segment and year 2040.

Regional Planning

The *Regional Transportation Plan (RTP)* is a long-range transportation plan that is developed and updated by the region's Metropolitan Planning Organization, *Southern California Association of Governments (SCAG)*, every four years to provide a vision for transportation investments. The project proposal is consistent and compatible with the current RTP cycle 2020 (3A07022) titled "Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS])". The 2020 RTP (RIV 071254) description reads as:

2020 RTP Project Description:

ON I-10 IN INDIO AT MONROE ST IC: RECONSTRUCT/WIDEN IC FROM 2 TO 4 THROUGH LANES INCLUDING BRIDGE OVER WHITEWATER RIVER CHANNEL FROM AVENUE 42 TO S/O WHITEWATER RIVER CHANNEL, RECONSTRUCT/WIDEN ON-RAMP TERMINI 1 TO 2 LANES AND OFF-RAMP TERMINI 1 TO 3 LANES. CONSTRUCT EB AUX LANE B/T MONROE AND JACKSON STREET AND EXTEND RAMPS WITH ACCELERATION/DECELERATION LANES (EA: 0K730K).

According to the 2020 RTP, no HOV, Park and Ride, and transit facilities are planned along I-10 within the project limits through the project design year 2045.

The FTIP is a federally mandated four-year program of all surface transportation projects that will receive federal funding or are subject to a federally required action. The project proposal is consistent with the 2019 FTIP (FTIP ID RIV071254), which has the same description as the RTP for this project.

Local Planning

The project is consistent and compatible with the Interim 2040 City General Plan. The City adopted the Interim 2040 City General Plan on September 18, 2019, which includes updated mobility, circulation goals and maps. The interim general plan and maps are currently being finalized by the City.

As mentioned, CVAG is in the final design phase of CV Link. The I-10 / Monroe Street Interchange Project proposes to re-align CV Link to accommodate the Monroe Street proposed widening and bridge structure depth. CVAG is aware of the interchange project and is proceeding independent of improvements proposed with this project. The current Monroe Street CV Link modification plan is conceptual but based on the 100% CV Link Design Plans and guided by the CV Link Conceptual Master Plan (January 2016). Several coordination meetings were held with CVAG in PA/ED and are summarized under *Section 11.External Agency Coordination*.

The *I-10 Corridor Master Plan-Riverside County (CMP-RC)* provides aesthetic guidelines for the I-10 through the project study area to provide a seamless and uniform driving experience. At the onset of PS&E, local agencies and stakeholders will coordinate workshops to develop aesthetic options based on the CMP-RC. An update to the Freeway Maintenance Agreement will be completed in PS&E. It may include updated responsibilities for landscape and aesthetic maintenance, depending on the approved aesthetics determined in PS&E.

Transit Operator Planning

The City operates various bus routes through SunLine Transit, with Route 80 operating through the Monroe Street interchange. Route 80 has two stops near the project, Stop 19 – on Monroe Street at Oleander and Stop 20 – on Showcase Parkway at Monroe Street. During construction, bus service may be temporarily detoured. These impacts will be further considered in the final design phase when Construction Staging and Traffic Handling Plans are prepared. Future City rail plans are not within the project limits.

4C. TRAFFIC

A *Traffic Operations Analysis Report (TOAR)* was prepared for the existing (2018), opening year (2025), and forecasted future (2045) traffic volume and demand. The TOAR was concurred by Caltrans on September 24, 2019. Detailed data analysis and methodologies used can be referenced in the TOAR. Results of the TOAR support the need for project improvements.

Current and Forecasted Traffic

Existing Data Collection

Existing traffic volumes were collected in 2018 from various sources, Caltrans' *PeMS (Freeway Performance Measurement System)*, and field data. The intersection turning movement counts were collected from the field in February 2018 to account for increased travel in the Coachella Valley during the winter months. Data collection was completed when no festivals were occurring.

Forecasting and Travel Demand Model

The Coachella Valley Travel Demand Model was selected for developing project traffic forecasts. The model includes the City's general plan updates and is based on the Riverside County Traffic Analysis Model; and is consistent with the SCAG 2020 RTP road network assumptions, Socio-Economic Data, and growth expectations within the City and the Coachella Valley. Model land use assumptions were compared against approved or pending development projects within the City and County. Traffic forecasts for study locations were developed using the difference methodology. Detailed traffic forecasting methodology is contained in the I-10/Monroe Traffic Volume Report concurred by Caltrans in June 2018. All analysis is based on a four through lane arterial typical section for both build alternatives. All components of freeway operations were analyzed using the VISSIM 10 traffic flow simulation software consistent with the methodologies of the *Highway Capacity Manual, 6th Edition (HCM)*. Heavy vehicle percentages are based on existing data collected.

Forecast ADT Volumes

The existing, opening, and future design year forecast *Average Daily Traffic (ADT)* are summarized in the following table.

Table 3. Existing and Forecasted I-10 ADT Summary

ADT FORECAST SUMMARY			
Location	Existing	Opening Year (2025)	Design Year (2045)
Eastbound I-10			
Mainline Between Jefferson Street Ramps	43,516	52,920	82,520
Jefferson Street On-Ramp	2,450	2,880	4,160
Jefferson Street On-Ramp to Monroe Street Off-Ramp	32,867	42,690	73,580
Eastbound I-10			
Monroe Street Off-Ramp	5,761	6,400	8,290
Monroe Street On-Ramp	2,461	3,710	7,440
Monroe Street On-Ramp to Jackson Street Off-Ramp	29,578	39,990	72,740
Jackson Street Off-Ramp	5,356	6,110	8,370
Jackson Street On-Ramp	2,467	2,710	3,420
Jackson Street On-Ramp to Golf Center Parkway Off-Ramp	26,689	36,600	67,790
Westbound I-10			
Jackson Street Off-Ramp	2,406	2,670	3,460
Jackson Street On-Ramp	6,056	6,410	7,400
Jackson Street On-Ramp to Monroe Street Off-Ramp	32,294	44,140	81,390
Monroe Street Off-Ramp	2,406	3,610	7,190
Monroe Street On-Ramp	6,056	6,280	6,950
Monroe Street On-Ramp to Jefferson Street Off-Ramp	36,467	47,370	81,670
Jefferson Street Off-Ramp	3,689	4,090	5,300
Mainline Between Jefferson Street Ramps	42,453	53,240	87,170
Local Arterial			
Monroe Street	26,493	29,520	38,600

Freeway Study Segments

Freeway Study Segments – Peak Hour Volumes

The AM/PM Peak Hour volumes for the I-10 freeway mainline and ramp study segments are summarized below. Peak hour volumes are from the I-10/Monroe Traffic Volume Report concurred by Caltrans in June 2018.

Table 4. AM/PM Peak Hour Freeway Volumes

PEAK HOUR FREEWAY VOLUMES							
Freeway Segment		Existing (2018)		Opening Year (2025)		Design Year (2045)	
		AM	PM	AM	PM	AM	PM
Eastbound I-10							
1	Merge from Jefferson Street (on-ramp)	191	220	220	270	300	410
2	Mainline between Jefferson Street and Monroe Street	2,657	3,259	3,360	4,040	5,350	6,260
3	Diverge to Monroe Street (off-ramp)	430	605	490	680	620	880
4	Merge from Monroe Street (on-ramp)	200	243	290	380	510	730
5	Mainline between Monroe Street and Jackson Street	2,427	2,897	3,160	3,740	5,240	6,110
6	Diverge to Jackson Street (off-ramp)	423	538	490	620	650	840
Westbound I-10							
7	Merge from Jackson Street (on-ramp)	668	424	750	590	1,000	1,040
8	Mainline between Jackson Street and Monroe Street	2,969	2,844	3,670	3,860	5,700	6,750
9	Diverge to Monroe Street (off-ramp)	250	297	330	440	580	850
10	Merge from Monroe Street (on-ramp)	780	518	820	540	900	590
11	Mainline between Monroe Street and Jefferson Street	3,499	3,065	4,160	3,960	6,020	6,490
12	Diverge to Jefferson Street (off-ramp)	427	237	450	250	500	270

Collision Analysis

Existing Collision Data

Collision data was reviewed for the I-10 mainline segments and ramps within the project limits. Caltrans Traffic Accident Surveillance & Analysis System (TASAS) Table B indicates the following summaries during the three-year period January 1, 2017 to December 31, 2019. The table below summarizes collision rates for the study segments (Actual Collision Rates) and the statewide average rates for similar facilities (Average Collision Rates). For freeway facilities the rates represent collisions per million vehicle miles on the mainline and collisions per million vehicles on the ramps.

Table 5. I-10 Mainline Collision Summary

I-10 MAINLINE AND RAMP COLLISION RATE SUMMARY							
Location	Post Mile	Actual Collision Rates ²			Average Collision Rates ² (Statewide)		
		Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
Westbound I-10							
Westbound I-10 Mainline from Jefferson Street to Jackson Street	R53.9 to R55.9	0.013	0.17	0.45	0.004	0.25	0.78
Jackson Street On-Ramp	R55.622	0.000	0.00	0.47	0.002	0.23	0.63
Monroe Street Off-Ramp	R54.933	0.000	0.67	0.94	0.008	0.39	1.03
Monroe Street On-Ramp	R54.600	0.000	1.36	1.77	0.002	0.23	0.63
Jefferson Street Off-Ramp*	R52.887	0.000	2.31	5.77	0.008	0.39	1.03
Eastbound I-10							
Eastbound I-10 Mainline from Jefferson Street to Jackson Street	R53.9 to R55.9	0.013	0.23	0.61	0.004	0.25	0.78
Jefferson Street On-Ramp*	R52.194	0.000	0.00	1.16	0.002	0.29	0.81
Monroe Street Off-Ramp	R54.524	0.000	0.22	1.46	0.008	0.39	1.03
Monroe Street On-Ramp	R54.915	0.000	0.00	0.00	0.002	0.23	0.63
Jackson Street Off-Ramp	R55.575	0.000	0.37	0.94	0.008	0.39	1.03

Notes:

- * Collision data is limited to 28 months at these locations. (8/17/2017 to 12/31/2019)
- 1. Bold text indicates that actual collision rate is higher than statewide average collision rate.
- 2. Ramp collisions are per Million Vehicles (MV). Mainline collisions are per Million Vehicle Miles (MVM).
- 3. Source: Caltrans District 8 Table B, 3/23/2020

Within the study area the eastbound and westbound mainline actual collision rates are lower than the average statewide collision rates for similar facilities, except for the actual fatal rate (0.013), which exceeds the statewide average (0.004) in the eastbound and westbound directions.

For all ramp locations, the actual fatal collision rate is lower than the statewide average rate. At the Eastbound I-10 Off-Ramp to Monroe Street the actual total collision rate (1.46) exceeds the statewide average rate (1.03).

At the Westbound I-10 Off-Ramp to Monroe Street the actual fatal plus injury rate (0.67) exceeds the statewide average rate (0.39). At the Westbound I-10 On-Ramp from Monroe Street the actual total collision rate (1.77) exceeds the statewide average rate (0.63) and the actual fatal plus injury rate (1.36) exceeds the statewide average rate (0.23).

At the Jefferson Street Off-Ramp the actual total collision rate (5.77) exceeds the statewide average rate (1.03) and the actual fatal plus injury rate (2.31) exceeds the statewide average rate (0.39). At the Jefferson Street On-Ramp the actual total collision rate (1.16) exceeds the statewide average rate (0.81).

Table 6 summarizes the percentage of collisions, by accident type, within the study area on I-10 and the Monroe Street interchange ramps.

Table 6. I-10 Mainline and Ramp Collision Type Summary

Location	Type of Collisions							
	Head-On	Side-Swipe	Rear-End	Broad side	Hit Object	Over-turn	Auto-Pedestrian	Other
<i>Westbound I-10</i>								
Westbound I-10 Mainline from Jackson Street to Jefferson Street	0.0%	28.6%	25.7%	0.0%	37.1%	8.6%	0.0%	0.0%
Jackson Street On-Ramp	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%
Monroe Street Off-Ramp	14.3%	14.3%	71.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Monroe Street On-Ramp	46.1%	7.7%	0.0%	38.5%	7.7%	0.0%	0.0%	0.0%
Jefferson Street Off-Ramp*	0.0%	0.0%	20.0%	60.0%	20.0%	0.0%	0.0%	0.0%
<i>Eastbound I-10</i>								
Eastbound I-10 Mainline from Jefferson Street to Jackson Street	0.0%	31.2%	25.0%	6.3%	25.0%	8.3%	2.1%	2.1%
Jefferson Street On-Ramp*	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Monroe Street Off-Ramp	0.0%	15.4%	76.9%	7.7%	0.0%	0.0%	0.0%	0.0%
Monroe Street On-Ramp	No collision data for review period							
Jackson Street Off-Ramp	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: * Collision data is limited to 28 months at these locations. (8/17/2017 to 12/31/2019)

Source: Caltrans District 8 TASAS, 3/23/2020

On the I-10 westbound mainline, Hit Object (37.1%) is the highest collision type, followed by Side-Swipe (28.6%) and Rear-End (25.7%).

At the westbound Monroe Street Off-Ramp, the primary collision type is Rear-End (71.4%) followed by Head-On and Sideswipe (14.3%).

At the westbound Monroe Street On-Ramp, Head-On (46.2%) is the highest collision type, followed by Broadside (38.5%).

On the I-10 eastbound mainline, Side-Swipe (31.3%) is the highest collision type, followed by Rear-End (25%) and Hit Object (25.0%).

At the eastbound Monroe Street Off-Ramp, most collisions are Rear-End (76.9%) followed by Side-Swipe (15.4%) and Broadside (7.7%).

At the westbound Jefferson Street Off-Ramp, Broadside (60%) is the highest collision type, followed by Rear-End (20%) and Hit Object (20%).

At the eastbound Jefferson Street On-Ramp, Hit Object (100%) is the highest collision type.

At the eastbound Monroe Street On-Ramp, no collisions were reported.

Primary Collision Factors are summarized in the table below.

Table 7. Primary Collision Factors

Location	Primary Collision Factors										
	HBD	FTC	FTY	IT	ESS	OV	ID	OTD	UNK	FA	NS
Westbound I-10											
Westbound I-10 Mainline from Jefferson Street to Jackson Street	11.4%	0.0%	0.0%	37.1%	22.9%	17.1%	0.0%	8.6%	2.9%	0.0%	0.0%
Jackson Street On-Ramp	0.0%	0.0%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Monroe Street Off-Ramp	0.0%	28.6%	28.6%	0.0%	28.6%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Monroe Street On-Ramp	0.0%	0.0%	69.2%	0.0%	7.7%	23.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Jefferson Street Off-Ramp*	20.0%	0.0%	0.0%	0.0%	20.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Eastbound I-10											
Eastbound I-10 Mainline from Jefferson Street to Jackson Street	2.1%	0.0%	2.1%	43.8%	27.1%	14.6%	2.1%	6.3%	2.1%	0.0%	0.0%
Jefferson Street On-Ramp*	0.0%	0.0%	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monroe Street Off-Ramp	23.1%	0.0%	7.7%	0.0%	69.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monroe Street On-Ramp	No collision data for review period										
Jackson Street Off-Ramp	0.0%	0.0%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: * Collision data is limited to 28 months at these locations. (8/17/2017 to 12/31/2019)

HBD = Influence of Alcohol

IT = Improper Turn

OTD = Other Than Driver

FTC = Following Too Closely

ESS = Speeding

UNK = Unknown

FTY = Failure to Yield

OV = Other Violations

FA = Fell Asleep

ID = Improper Driving

NS = Not Stated

Collision data shows Improper Turn (37.1%), Speeding (22.9%) and Other Violations (17.1%) as the primary collision factors along the westbound I-10 mainline between Jefferson Street and Jackson Street. Collision data shows Following Too Closely (28.6%), Failure To Yield (28.6%) and Speeding (28.6%) as the primary collision factor along the Monroe Street westbound off-ramp. Collision data shows Failure to Yield (69.2%) and Other Violations (23.1%) as the primary collision factors along the Monroe Street westbound on-ramp.

Collision data shows Improper Turn (43.8%), Speeding (27.1%) and Other Violations (14.6%) as the primary collision factors along the eastbound I-10 mainline between Jefferson Street and Jackson Street. Collision data shows Speeding (69.2%), Influence of Alcohol (23.1%) and Failure To Yield (7.7%) as the primary collision factors along the Monroe Street eastbound off-ramp.

Collision data shows Other Violations (60.0%), Speeding (20.0%) and Influence of Alcohol (20.0%) as the primary collision factors along the Jefferson Street westbound off-ramp. Along the eastbound on-ramp, Improper Turn (100%) was the primary collision factor.

Collision Analysis Conclusion

Based on the available collision data and proposed project improvements, it is expected that the number and severity of collisions will decrease after the project is constructed.

The proposed project would enhance safety on the mainline by adding dedicated acceleration and deceleration lanes at the Monroe Street westbound and eastbound on- and off-ramps and an auxiliary lane between the eastbound Monroe Street on-ramp and the Jackson Street off-ramp. These lanes will provide a dedicated lane for exiting and merging vehicles separate from the mainline through traffic. This is likely to enhance weaving maneuverability and reduce the collision frequency and severity of Sideswipe and Rear-End type collisions, which are primary collision types on I-10.

Collision data shows that a high percentage of ramp incidents were Head-on, Rear-End, Broadside and Hit Object type collisions. The proposed project is expected to reduce the frequency and severity of Head-on, Rear-End, and Broadside collision types on the interchange ramps by re-aligning the Monroe Street ramps to be perpendicular, as opposed to skewed, for improved intersection visibility and maneuverability. The project will widen all interchange ramps, 1 to 3 lanes at the off-ramp and 1 to 2 lanes at the on-ramp termini to separate turn movements and provide dedicated receiving lanes. The project will implement the latest Caltrans signing and striping for improved visibility.

The proposed project is expected to reduce the frequency and severity of Hit Object type collisions, at the interchange, by moving roadside objects outside the clear recovery zone, making the objects breakable, or shielding the objects with a standard barrier in accordance with the latest Caltrans design standards.

5. ALTERNATIVES

5A. VIABLE ALTERNATIVES

Three alternatives were evaluated for the proposed project:

- Alternative 1 – No-Build
- Alternative 2 – Tight Diamond Interchange (Preferred Alternative)
- Alternative 4 – Diverging Diamond Interchange

The proposed project alternatives are described in further detail below. Alternatives 2 (Preferred Alternative) and 4 cost estimates are included as *Attachment E*, Alternative 2 (Preferred Alternative) right-of-way data sheet is included as *Attachment F*, Alternative 2 (Preferred Alternative) Storm Water Data Report Signed Cover Sheet is included as *Attachment G*, and Alternative 2 (Preferred Alternative) and 4 geometric plans are included as *Attachments C and D*, respectively.

Alternative 1 – No Build

Under this alternative, no reconstruction or improvements would be made to the existing I-10/Monroe Street interchange other than routine maintenance. Without the proposed improvements and with anticipated daily traffic growth – the existing Monroe Street and corresponding I-10 ramps will experience increased delays and diminished operations within the interchange.

Alternative 2 – Tight Diamond Interchange (Preferred Alternative)

This alternative would widen and reconstruct the existing interchange in a TDI configuration. Improvements include widening Monroe Street, reconstructing the I-10 overcrossing, the Channel Bridge, and the I-10 ramps. Monroe Street at the I-10 overcrossing and Channel Bridge would accommodate two through lanes in each direction and would include two left-turn lanes at each ramp intersection for access to I-10. Proposed bridge dimensions are provided in the table below.

Table 8. Alternative 2 Proposed Bridge Type and Dimensions

ALTERNATIVE 2 BRIDGE TYPE AND DIMENSIONS				
Bridge Name	Structure Type	Bridge Length	Bridge Width	Structure Depth
Monroe Street OC (I-10)	CIP/PS Concrete Box Girder	253'	111'-4"	5'-6"
Monroe Street OC (CVSC)	CIP/PS Concrete Box Girder	489'-9"	125'	6'-7"

Alternative 2 includes the construction of a 6.5-ft wide sidewalk and 10-ft Class II, on street bike / LSEV path located on both sides of Monroe Street along the limits of improvement. The sidewalk and the Class II bike/LSEV path vary in width at the southern and northern join locations.

The City, County and its consultant, with concurrence from the I-10/Monroe PDT, selected Alternative 2 as the Preferred Alternative on July 1, 2020. The City Council previously identified Alternative 2 as the LPA at the July 17, 2019 City Council meeting. Alternative 2 was selected as the Preferred Alternative based on the following considerations when compared to Alternative 4:

- Alternative 2 maintains the existing configuration and facilitates driver familiarity.
- Alternative 2 provides the fewest conflict points for pedestrian, bicycle, and multi-modal users.
- Alternative 2 better accommodates future widenings and ramp re-configurations with less impact.
- Alternative 2 better addresses traffic operation improvements
- Alternative 2 requires less right-of-way acquisition
- Alternative 2 has an overall lower project cost

Alternative 4 – Diverging Diamond Interchange

This alternative would widen and reconstruct the existing interchange in a DDI configuration. A DDI is a type of diamond interchange in which the northbound and southbound direction of travel cross to opposite sides between signalized crossover intersections. The DDI allows for two-phase

operations at both signalized crossover intersections. The configuration of the DDI contributes to a safer intersection by reducing vehicle speeds and reducing the number of vehicle conflict points. Improvements include widening Monroe Street, reconstructing the I-10 overcrossing, the Channel Bridge, and the I-10 ramps. Two separate bridge structures, left and right, would be constructed parallel to each other for each direction of travel over I-10 and the CVSC. Each bridge would accommodate two through lanes in each direction. Proposed bridge dimensions are provided in the table below.

Table 9. Alternative 4 Proposed Bridge Type and Dimensions

ALTERNATIVE 4 BRIDGE TYPE AND DIMENSIONS				
Bridge Name	Structure Type	Bridge Length	Bridge Width	Structure Depth
Monroe Street OC (I-10)	CIP/PS Concrete Box Girder	250'	56.5' (Left) 65.75' (Right)	5'-6"
Monroe Street OC (CVSC)	CIP/PS Concrete Box Girder	489'-9"	47'-3" (Left) 63'-3" (Right)	6'-7"

Alternative 4 includes the construction of a 6.5-foot wide sidewalk on both sides of Monroe Street along the limits of improvement. As the directions of travel cross over, pedestrians will cross to the inside of the interchange, and will be accommodated on a single 10-foot wide path between the I-10 ramps. A 10-ft, on street Class II bike/LSEV path is proposed on both sides of Monroe Street. LSEV and bike users also cross at the signalized crossover intersections and remain separated for each direction of travel.

Alternative 4 remains a viable alternative but was not selected as the Preferred Alternative by the PDT due to the following considerations when compared to Alternative 2:

- Alternative 4 has lower improvements in traffic operations
- Alternative 4 requires greater right-of-way acquisition
- Alternative 4 has an overall higher project cost

Common Build Alternative Features

The two build alternatives have the following design elements in common: Utility relocations within the existing bridge structures. Retaining walls at the northwest, southwest, and southeast interchange quadrants. Minimum 4:1 graded slopes or flatter adjacent to the roadway and 2:1 maximum where appropriate. Two-lane ramp metered entrances at all interchange entrance ramps, including, *California Highway Patrol (CHP)* enforcement areas without *High Occupancy Vehicle Preferential Lanes (HOVPL)*. Crosswalks for all north and south crossing maneuvers for both alternatives. A paved *Maintenance Vehicle Pullout (MVP)* at all ramps.

Each alternative proposes to widen and regrade the westbound on-ramp to maintain a 4:1 or flatter slope and to accommodate one additional lane. The new grading and ramp widening impact the existing Caltrans right-of-way boundary as well as an existing 48" stormwater line (City). The stormwater line is proposed to be re-aligned within a new 30' drainage easement (City) along, but outside the new Caltrans right-of-way. This proposal may be revisited in final design and the

existing right-of-way and stormwater line may be protected in place with retaining walls and or other design variations.

Alternatives 2 and 4 include acceleration and deceleration lanes at the westbound on- and off-ramps and a deceleration lane at the eastbound off-ramp to improve traffic operations and to meet Caltrans ramp metering requirements. From the ramp convergence point, the westbound Monroe Street on-ramp acceleration lane length is 1,000-feet long parallel to I-10. From the ramp divergence point east, the westbound Monroe Street off-ramp deceleration lane length is 1,300-feet long parallel to I-10. From the ramp divergence point west, the eastbound Monroe Street off-ramp deceleration lane length is 600-feet long parallel to I-10.

Alternatives 2 and 4 include an auxiliary lane in the eastbound direction between the Monroe Street on-ramp and the Jackson Street off-ramp. The auxiliary lane is approximately 2,650-feet long as measured from the on- and off-ramp convergent and divergent points parallel to I-10. The auxiliary lane is comprised of one 12-foot wide lane with one 10-foot wide shoulder.

Alternatives 2 and 4 would require realignment of CVAG's planned CV Link multi-use trail within the project limits to accommodate the widening of Monroe Street and provide the minimum vertical undercrossing clearance.

Alternatives 2 and 4 would provide standard shoulders on Monroe Street.

Nonstandard Design Features

Proposed nonstandard design features for Alternative 2 (Preferred Alternative) are listed in the "Nonstandard Design Features" table below. A Design Standard Decisions Document for Alternative 2 was approved by Caltrans on September 28, 2020.

Table 10. Alternative 2 (Preferred Alternative) Nonstandard Design Features

Design Standard HDM Tables 82.1A & 82.1B (Standards are Boldface and <u>Underlined</u> accordingly)	Location	Standard Requirement	Existing	Proposed Requirement	Justification (See approved DSDD for full justification statement)
202.2 (1) – Standards for Superelevation 203.2 – Standards for Curvature – Minimum Radius	“MO4” Sta 28+88.49 to 30+38.49	R= 400’ e=9.0% DS=30 mph	R=300’ e=-1.5% DS=30 mph	R=400’ e=4.0% DS=30 mph CS= 36 mph	The westbound on-ramp is constrained by existing right-of-way. Shifting the ramp further west to provide a standard superelevation rate would increase right-of-way impacts and require new retaining walls. Alternatively, providing the standard superelevation rate with the proposed horizontal design would result in nonstandard transitions. The proposed design improves the existing ramp geometry while minimizing impacts. The proposed 4.0% superelevation rate is consistent with the alternative design guidance provided in the HDM, Figure 202.2, for constrained conditions. The proposed design provides a comfort speed design speed of 36-mph which exceeds the design speed of 30-mph. Drainage is not anticipated to be an issue for the proposed design based on the ramp profile and cross-fall providing positive flow.
<u>204.3 – Standards for Grade</u>	“MO4” Sta 18+82.00 to 21+50.00	0.30%	0.16%	WB On-Ramp: 0.20%	Providing the standard profile grade (0.30%) at this location would violate the 5.0% maximum gore cross-fall between the westbound on-ramp and I-10 outer lane (join lane). Reconstructing mainline lanes to provide a standard gradient improvement of 0.10% to 0.14% would excessively increase the project cost with minimal benefit to operations, maintenance and/or facility performance. Furthermore, the 5.0% gore cross-fall requirement is a safety issue for freeway merging vehicles and, thus, the gore cross-fall was prioritized over standardizing the ramp profile.
<u>309.1 (2) (a) – Clear Recovery Zone</u>	WB On-Ramp “MO4” Sta 25+57.31 EB On-Ramp “MO2” Sta 42+50.00	30’	n/a	Type 1A Pole Offset 8-feet from ETW	The placement of ramp meter poles is necessary for the operation of the highway facility and they cannot be moved or eliminated. There are no Caltrans’ standard plans to make Type 1A poles yielding or breakaway. Guardrail is a longer fixed object than a single ramp meter pole and would likely increase the on-ramp collision rate.

Nonstandard design features for Alternative 4 include the same nonstandard design features of Alternative 2 above. Alternative 4 would also introduce an additional boldface nonstandard design feature for the distance between ramp intersection and local road intersection, however, a queuing

analysis demonstrated that Alternative 4 would operate acceptably with the proposed nonstandard spacing. Additionally, Alternative 4, as shown in *Attachment D. Geometric Drawings – Alternative 4* includes nonstandard lane widths for entrance ramp and exit ramp curves. At the time the concept for Alternative 4 was introduced and discussed by the PDT, a previous version of the Caltrans HDM was current. Recent updates to the HDM include updated ramp widening for trucks. Alternative 4 was not selected as the Preferred Alternative, therefore the design for Alternative 4 will not advance to PS&E. If Alternative 4 is considered in the future, updates to the geometry or a DSDD would be required to address the nonstandard lane widths.

Interim Features

No interim features were proposed for Alternative 2 or Alternative 4.

Transportation System Management

Transportation System Management (TSM) strategies increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. Examples of TSM strategies include: ramp metering, acceleration lanes, turning lanes, reversible lanes and traffic signal coordination. TSM also encourages automobile, public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. Modal alternatives integrate multiple forms of transportation modes, such as pedestrian, bicycle, automobile, rail, and mass transit.

Although TSM measures alone could not satisfy the purpose and need of the project, the following TSM measures have been incorporated into the build alternatives for this project:

- A 6.5-foot wide sidewalk and Class II LSEV and bike lanes along both sides of Monroe Street.
- Two-lane ramp metered entrances at all interchange entrance ramps.
- A 1,000-foot acceleration lane at the westbound on-ramp, a 1,300-foot deceleration lane at the westbound off-ramp, a 600-foot deceleration lane at the eastbound off-ramp and an auxiliary lane between the eastbound Monroe Street on-ramp to the Jackson Street off-ramp

High Occupancy Vehicle (Bus and Carpool) Lanes

A Fact Sheet Exception to Ramp Metering Policy was submitted to District HQ Traffic Operations and concurred on April 25, 2019 for the *Ramp Meter Design Manual (RMDM)* boxed standard, RMDM Section 1.1 – Number of Metered Entrance Ramp Lanes, which states, “HOV preferential lanes shall be provided wherever ramp meters are installed, and each HOV preferential lane should be metered.” All proposed project entry ramps feature a multilane design, ramp metering, CHP enforcement areas, and an acceleration or auxiliary lane beyond the ramp convergence point, but HOVPL were not provided. The existing I-10 freeway within the project limits does not have HOV or HOT lanes in either direction, nor are any HOV, Park and Ride, and transit facilities planned along I-10 within the project limits through the project design year in both the 2020 RTP and 2017 TCR. With no existing or planned HOV facilities within the project limits and through the project design year 2045; there is no local or regional ridesharing incentive or time saving

benefit to adding HOV preferential lanes to the Monroe interchange ramps. Therefore, HOV preferential lanes are not included in the project.

Ramp Metering

According to the Caltrans RMDM, dated February 2018, only the westbound I-10 on-ramp is planned for ramp metering. The project proposal includes ramp metering on both the I-10 westbound and eastbound on-ramps with two general purpose lanes per the Caltrans RMDM, without HOVPL. A paved MVP will be provided at all interchange on- and off-ramps in consult with applicable Caltrans units.

California Highway Patrol (CHP) Enforcement Areas

CHP enforcement areas will be included on all entrance ramps.

Park-and-Ride Facilities

No Park and Ride facilities are existing or planned as part of this project because there are no HOV facilities planned within the project limits.

Utility Impacts

Preliminary contacts have been initiated with utility owners and the scope of the project communicated. Utility coordination and verification will be continued through the PS&E and construction phases. An “Existing Utility Plan” of mapped project utilities is included as *Attachment L*.

Utility companies involved in the project include:

- *SoCal Gas (SCG)*
- *Ventura Sanitary District (VSD)*
- *Imperial Irrigation District (IID)*
- *Coachella Valley Water District (CVWD)*
- *Indio Water Authority (IWA)*

The types of facilities impacted, and agreements required include:

Table 11. Utility Facility Types and Agreements Required

Utility Company/Owner	Utility Type	Agreement Required	Notes
SCG	6” Gas Lines	Yes	Relocate two (2) existing gas lines from existing bridge to new bridge.
VSD	8” Sewer Line	Yes	Adjust existing manholes to grade.
IID	Overhead Line	No	Protect in place.
IID	Electric Line	Yes	Relocate existing IID service structures.
IWA	12” Water Line	Yes	Relocate one (1) existing water line from existing bridge to new bridge.

No longitudinal encroachments exist or will be required for any facility, however, an encroachment exception will be required for the two (2) high pressure SoCal Gas Lines. Two (2) high pressure

SoCal Gas lines to be relocated from the old to the proposed new bridge are long lead time items and will require special handling and coordination with Structures Design. Prior to any ground disturbing activities, the contractor shall notify Underground Service Alert to ensure that all utility owners positively locate all underground transmission lines and facilities. Utility potholing is required, as applicable, prior to relocating existing underground service lines. Preliminary utility cost data is provided with the “Right-of-Way Data Sheet” as *Attachment F* of this PR.

Railroad Involvement

No railroad involvement is planned as part of this project because there are no railroad facilities within the project limits.

Highway Planting

Highway planting of disturbed areas is proposed with the project. Disturbed areas and slopes will be hardscaped, planted and irrigated for aesthetic, erosion control, and water quality purposes. Permanent erosion control, irrigation, drought tolerant and low maintenance landscape palettes, and planting plans, including tree replacement (as needed, and as determined by the District Landscape Architect), will be prepared in accordance with the CMP-RC and approved by the City and the Caltrans Landscape Architect and Maintenance representative in coordination with project stakeholders during the final PS&E design phase. The project will include a plant establishment period. The plant establishment period will be determined during PS&E based on the scope and scale of planting as approved by the above-mentioned stakeholders. For the purposes of PA/ED, a plant establishment period of 250 days was assumed in the cost estimate.

Erosion Control

Erosion control will be applied to all graded slopes and disturbed areas affected by the project to address site soil stabilization and the deposition of sediments in adjacent surface waters. The Erosion Control Plan will be reviewed by the Caltrans Landscape Architect and Maintenance representative during the PS&E phase and will be in accordance with the latest Caltrans Standard Plans and Standard Special Provisions. A *Storm Water Pollution Prevention Plan (SWPPP)* will be developed and implemented by the contractor during the construction phase, but prior to the start of soil disturbing work to control construction related pollutants. The total Disturbed Soil Area (DSA) corresponding to the project is 42.03 acres, with 33.35 acres within Caltrans Right-of-Way and 8.68 acres outside of Caltrans Right-of-Way. Erosion control measures may include the use of soil binders, velocity dissipation devices, flared end sections for culverts, soil roughening/track walking graded slopes, straw or wood fiber mulch, dry seeding, and hydraulic mulching/seeding along slopes and other areas susceptible to erosion. Hard surfaces, such as rock slope protection, would be proposed at culvert outlets to dissipate energy. Benches or terraces would be provided on high cut and fill slopes to reduce concentrated flows with a maximum side slope of 4:1, except where steeper conditions are needed or applicable.

A SWPPP will be prepared by the contractor to address and control site water pollutants related to stormwater discharge and construction activities and to identify appropriate construction site Best Management Practices (BMP's).

Refer to *Section 11. External Agency Coordination* for anticipated certifications and agreements.

Noise Barriers

A *Noise Study Report (NSR)* was prepared in accordance with FHWA noise standards under the requirements of *Title 23, Part 772 of the Code of Federal Regulations (Title 23 CFR 772)* “Procedures for Abatement of Highway Traffic Noise” and concurred by Caltrans on November 18, 2019. The purpose of the NSR is to evaluate traffic noise impacts and potential noise abatement (reductions) measures within the project study area. To evaluate traffic noise impacts, a traffic noise model was prepared for the existing and future no-build and build alternatives. The model was calibrated to field recorded short-term and long-term noise and traffic data. LOS C/D and year 2045 forecasted traffic volumes, as documented in the I-10/Monroe Street TOAR, were used to predict future traffic noise levels and to assess noise receptor impacts within the project area. The project proposals, Alternative 2 and 4, were found to not result in a substantial increase in noise and no traffic noise impacts were predicted to occur at noise receptors within the study area and, therefore, no noise abating measures (noise barriers) are required. Detailed data, analysis, and methodologies used can be referenced in the NSR.

Construction noise control shall conform to the provisions in Section 14-8.02, “Noise Control,” of the Caltrans 2018 Standard Specifications and 14-8.02 “Noise Control” of the Standard Special Provisions. The requirements state that all equipment shall be fitted with adequate mufflers and operated according to the manufacturers’ specifications. Construction noise varies greatly depending on the construction process, type and condition of equipment used, as well as layout of the construction site. Temporary construction noise impacts would be unavoidable at areas located immediately adjacent to the proposed project alignment.

Nonmotorized and Pedestrian Features

Alternatives 2 (Preferred Alternative) and 4 provide access and mobility of non-motorized vehicles and pedestrians within the project limits along Monroe Street. Crosswalks will be provided for all north and south crossing maneuvers for both alternatives. Alternative 4 provides a shared, 10-ft, center pathway that will allow east and west crossings at the westbound and eastbound ramp intersections. A Class II bikeway for bikes and LSEV users is provided in both directions of travel for each build alternative. The Class II bikeway limits are from Showcase Parkway to just south of the Coachella Valley Stormwater Channel. A Class IV bike lane may be considered in PS&E. Monroe Street connectivity to the multi-use CV Link trail is provided just south of the Coachella Valley Stormwater Channel on both sides of Monroe Street.

Needed Roadway Rehabilitation and Upgrading

Pavement rehab on existing pavement is not proposed. In 1999 a pavement rehabilitation project (EA 452801) was completed on I-10 within the project limits. In 2012 the City widened and improved the westbound on- and off-ramps, Monroe Street north of the westbound ramp terminal intersection, and the eastbound off-ramp as part of project EA 0N750. According to the 2019 Pavement Condition Survey, no pavement distress was observed on I-10 within the proposed project limits.

Needed Structural Rehabilitation and Upgrading

The project team assessed bridge structure replacement and bridge structure widening for the existing Monroe Street bridge structure(s) over I-10 and the CVSC. The *Value Analysis (VA)* study

team also assessed the bridge structure replacement and bridge structure widening for both bridges. Refer to *Section 6B. Value Analysis* for additional information.

- The bridges were constructed in 1972 and will be over 50 years old by the projects estimated opening year (2025).
- The existing bridges require seismic retrofit to meet current seismic standards.
- Retrofit, maintenance, and rehabilitation of the existing bridges will not add to or prolong the existing bridges service-life beyond the existing 75-year lifespan.
- Widening and maintaining the existing bridges structure will create discontinuities in bridge lifespan.
- Existing, unwidened, bridge sections will need to be replaced in less than 25 years, at a future escalated cost.

The project build-alternatives propose to demolish, reconstruct, and widen the existing bridges to provide additional traffic capacity, address seismic deficiencies, and provide a uniform service-life of 75 years. Replacing the existing bridges would provide an opportunity to use the latest bridge engineering advancements; use longer span lengths; incorporate local design aesthetics and reduce the number of constructed piers within CVSC. The existing CVSC bridge foundations are susceptible to scour and would require extensive measures to protect the existing foundations, increasing impacts within the channel. A bridge type selection meeting will be held in the final design phase to further review the bridge replacement strategy.

The Monroe Street Overcrossing *Advanced Planning Study (APS)* was concurred by Caltrans on January 7, 2019. The I-10 APS approved general plan sheets are included as *Attachment K*. A CVSC bridge APS was prepared and concurred by the County on February 5th, 2019. The CVSC bridge is under the City's jurisdiction.

Cost Estimates

See *Section 8 Funding, Programming, and Estimate* for project cost information.

Right-of-Way Data

Overland, Pacific, & Cutler in collaboration with Michael Baker International prepared Right-of-Way Data Sheets for each alternative which were concurred by Caltrans on April 28, 2020. The Right-of-Way Data Sheet related to the Preferred Alternative is included as *Attachment F*. The table below summarizes project impacts and right-of-way costs by alternative. The total right-of-way cost includes utility relocation costs, parcel condemnation, and right-of-way support costs and includes a 25% contingency and escalation of 6 percent per year over 3.25 years.

Table 12. Right-of-Way Acquisition Summary

	Number of Impacted Parcels	Temporary Construction Easement (SQFT)	Permanent Easement (PE) (SQFT)	Right-of-Way Required in Fee (Acquisition) (SQFT)	Total Right-of-Way Cost
Alternative 2 (Preferred Alternative)	12	652,200	51,000	108,000	\$7,188,000
Alternative 4	12	649,000	55,000	118,000	\$7,318,000

Under Alternatives 2 (Preferred Alternative) and 4, the impacted properties are commercial, industrial and storm channel property types, impacting 12 assessor's parcel lots, 3 vacant, 8 permanent and or temporary easements, and 1 CVWD parcel.

Effect of Projects-Funded-by-Others on State Highway

PA/ED is funded by the City and subsequent project phases are likely to be locally funded. The project proposals improve intersection capacity and performance for study intersections within Caltrans right-of-way through the 2045 design year. Acceleration and deceleration lanes to and from the interchange ramps and an auxiliary lane between eastbound Monroe and Jackson Street, improve merge and diverge weaving maneuvers. Project build alternatives includes ramp metering at all interchange entrance ramps, as well as, CHP enforcement areas.

East of the I-10/Monroe Street Interchange project, the City proposes to improve the Jackson Street interchange from two to four lanes over I-10 and CVSC. The project (EA 0M910) is in the PA/ED phase, is locally funded by the City, and independent of the I-10/Monroe Street project. Coordination with EA 0M910 will be completed in PS&E to understand construction overlap and resolve potential conflicts.

Geotechnical Considerations

A *Preliminary Geotechnical Design Report (PGDR)* was submitted to Caltrans and concurred on November 6, 2018. Further geotechnical investigations will be required during final design of the I-10 overcrossing and Channel Bridge interchange improvements. Per the PGDR, non-standard walls (such as mechanically stabilized earth walls, Type 1 walls on pile foundations, tie-back walls and soil nail walls) will be required for retaining walls due to the peak ground acceleration at this project site, which is estimated to be over 0.6g. A structure specific foundation report for the non-standard walls will be prepared in PS&E. It is anticipated that approximately 50 borings will be required during final design. Infiltration basins are proposed in the undeveloped areas between the on- and off-ramps and I-10.

5B. REJECTED ALTERNATIVES

Partial Cloverleaf and Roundabout alternatives were studied in the Pre-PID phase and documented in the approved PSR-PDS in which the configurations failed initial traffic LOS thresholds and/or did not achieve the Project Purpose and Need.

Alternative 3, from the approved PSR-PDS, proposed to reconstruct and widen the existing interchange in a SPI configuration. The SPI intersection type controls all at grade traffic

movements through one signalized intersection. Left-turns from the exit ramps are typically 45 to 60 degrees with 150-ft to 200-ft radii. Alternative improvements included reconstructing and widening Monroe Street, the I-10 bridge overcrossing, the Coachella Valley Stormwater Channel Bridge, and the I-10 ramps. Monroe Street at the I-10 bridge and CVSC bridge overcrossings would have accommodated two (2) through lanes in each direction and included two (2) left turn lanes at each ramp intersection for access to I-10.

On June 28, 2018, the PDT elected to remove Alternative 3 from further study and to proceed in PA/ED with Alternative 2 – TDI and Alternative 4 – DDI interchange types. The decision resulted from City input, the Draft Preliminary VA Study Report, and an Alternative Screening Analysis. The Alternative Screening Analysis assessed the project alternatives on four qualitative and quantitative categories, which included Traffic Operations and Performance, Multi-Modal Safety, Corridor Impacts, and Community Expectations. The SPI ranked lowest in the screening, the results of which were documented in the June 2018 PDT meeting minutes.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. HAZARDOUS WASTE

A *Phase I Initial Site Assessment (ISA)* has been prepared and concurred by Caltrans on September 13, 2019. The Phase I ISA identifies project sites that have hazardous waste materials from new or historical environmental conditions and recommends a course of action. The Phase I ISA revealed the following *Recognized Environmental Conditions (REC)* in connection with the subject site:

- Historical Agricultural Uses: Residual herbicide/pesticide contamination in on-site surface soils is likely to be present on subject sites – APNs 610-330-027, 610-093-037, 610-020-034, and 610-020-036.

The ISA recommends further action be taken on the following items:

Soil Contamination at APNs 610-330-027, 610-093-037, 610-020-034, and 610-020-036:

A Phase II/Site Characterization Specialist should conduct sampling in PS&E to determine whether residual herbicide/pesticide contamination, including residual lead contamination, exists within areas of proposed right-of-way acquisition for *Assessor's Parcel Numbers (APN)* 610-330-027, 610-093-037, 610-020-034, and 610-020-036 (due to historical agricultural production activities). Results of the sampling would indicate soil management practices that may need to be employed, including the reuse of soils on-site, disposal of soils off-site, and worker safety precautions that may be necessary during construction.

Polychlorinated Biphenyls (PCBs):

Although the on-site transformers have not resulted in a REC on the subject site, any transformer to be relocated/removed during site construction/demolition should be conducted under the purview of the local purveyor to identify property-handling procedures regarding PCBs.

Asbestos Containing Materials (ACMs):

Asbestos testing occurred during the PA/ED phase. Based on the Asbestos & Lead-Based Paint Sampling Summary Letter, dated September 17, 2018, and concurred by Caltrans on November 8, 2018; the two on-site bridge structures (I-10 overcrossing and Channel Bridge) are associated with ACMs. All on-site ACM should be abated by a licensed asbestos abatement contractor prior to demolition/renovation activities.

Lead Based Paints (LBPs):

Based on the Asbestos & Lead-Based Paint Sampling Summary Letter, dated September 17, 2018, and concurred by Caltrans on November 8, 2018; LBP concentrations along Monroe Street remain below the LBP threshold of 1.0 mg/cm², and are not considered LBPs. The concrete bridges had grey and light grey paints, as well as various colors of graffiti paint. The lead concentrations to these paints were all less than 1.0 milligrams per square centimeter (mg/cm²), which is the definition of a LBP. Yellow and white road paint and curb paints also had lead concentrations less than 1.0 mg/cm². The paints were in intact (good condition) at the time of the survey, however, some of the paints do contain minimal amounts of lead. Title 8 California Code Regulations (CCR) 1532.1 (Lead) may require workers that perform either manual demolition, manual scraping or sanding of painted surfaces to undergo an exposure assessment including air monitoring of the breathing zone. Specifications for air sampling will be included with the project special provisions if receptors are determined to be needed in the vicinity of the project area. All traffic paint, damaged or disturbed during construction, on the mainline or on the local road, will be replaced and material waste disposed of, in accordance with the project special provisions, the CCR, and the latest Caltrans standards. Note, the I-10 mainline was constructed in 1972 and was not sampled during the LBP survey. The project does not propose to disturb mainline lanes, however, mainline traffic paint will be reevaluated during the final design phase with the preparation of the construction staging plans.

Unknown Hazardous Materials:

All impacted existing electrical equipment and treated wood waste from *Metal Beam Guardrail (MBGR)* or sign posts will be removed and disposed of by the contractor in accordance with the latest Caltrans Standard Specifications and the CCR.

The contractor must conduct work in compliance with the Caltrans Unknown Hazards Procedures for Construction. If suspect contamination is discovered by any party during site disturbance/construction activities, work should cease near the find. A qualified Phase II/Site Characterization Specialist must sample/test the suspect materials prior to removal from the site and subsequent disposal. The Specialist must document the results and recommend further action, as necessary, including contacting appropriate regulatory agencies.

Aerially Deposited Lead (ADL)(No REC):

An Aerially Deposited Lead report (dated October 26, 2018) was concurred by Caltrans on November 29, 2018. Based on the ADL report, the maximum and 95 percent *Upper Confidence Level (UCL)* concentrations of total lead (90.6 and 10.02 mg/kg, respectively) are less than the *Department of Toxic Substances Control (DTSC)* health-risk based screening level of 320 mg/kg. All soils, except for those in the vicinity of boring location B19, are acceptable for unrestricted

reuse on-site. Boring location B19 is located within APN 610-093-037, which is proposed for partial ROW acquisition, will be buried beneath the Monroe Street fill /widening and has been historically involved agricultural uses. Thus, in general, lead contamination due to ADL is not anticipated within soils on the subject site. Therefore, ADL has not resulted in a REC on the subject site.

6B. VALUE ANALYSIS

Goals and Performance Attributes

A VA study was conducted between May 21 and May 24, 2018. The VA study team included full-time and part-time representation from the County, Caltrans, and Consultant team members. A pre-VA Study meeting held on April 4, 2018 established the VA study goals of:

- 1 Evaluate the “value” of three (3) build alternatives (Alt 2-TDI, Alt 3-SPI, Alt 4-DDI,) to rank and reject the lowest value-added build alternative.
- 2 Evaluate the feasibility of widening the existing I-10 overcrossing bridge and Coachella Valley Stormwater Channel bridge.
- 3 Field review of the project by the PDT.

The study team members developed key performance attributes to assess the cost, performance, time, and risk (value) of each viable alternative and their variations. The VA team studied several variations for each build alternative. The alternative variations, scope of work, and the VA team’s recommended course of action are summarized in table 13.

Table 13. VA Study Alternative Variations and Options

VA STUDY ALTERNATIVE VARIATIONS AND OPTIONS				
ID	Interchange Type	Interchange Variation	Variation Scope of Work	VA Team Recommended Course of Action
2A	Tight Diamond	Full Reconstruction	Reconstruct the existing interchange in a Tight Diamond configuration replacing the existing I-10 OC and Channel Bridge structures.	<u>Study TDI variant in PA/ED based on value index ranking.</u>
2B	Tight Diamond	Symmetrical Widening	Symmetrically widen (equal width widening on each side of bridges) the existing interchange bridge structures and reconfigure ramps in a Tight Diamond configuration. This option keeps the existing Monroe Street centerline, but will require three construction stages.	
2C	Tight Diamond	Asymmetrical Widening	Asymmetrically widen (widen mostly to the right of the existing bridges) the existing interchange bridge structures and reconfigure ramps in a Tight Diamond configuration. This option reduces construction time by reducing the number of construction stages.	
3A	Single Point	Full Reconstruction	Reconstruct the existing interchange in a Single Point Interchange configuration replacing the existing I-10 OC and Channel Bridge structures.	<u>Reject SPI. The SPI had the lowest value index ranking.</u>
3B	Single Point	Symmetrical Widening	Symmetrically widen (equal width widening on each side of bridges) the existing interchange bridge structures and reconfigure ramps in a Single Point interchange configuration. This option keeps the existing Monroe Street centerline but requires three construction stages.	
3C	Single Point	Asymmetrical Widening	Asymmetrically widen (widen mostly to the right of the existing bridges) the existing interchange bridge structures and reconfigure ramps in a Single Point configuration. This option reduces construction time by reducing the number of construction stages.	
4A	Diverging Diamond	Construct New Bridge and Retrofit Existing Bridge	Reconfigure the existing interchange in a Diverging Diamond interchange configuration. Retrofit the existing bridges and construct a new separate bridge to the right of the existing bridges.	<u>Study DDI variant in PA/ED based on value index ranking.</u>
4B	Diverging Diamond	Construct Two New Bridge	Reconfigure the existing interchange in a Diverging Diamond interchange configuration. Construct four (4) new bridges I-10 OC (2) and Channel Bridge (2) structures.	

VA Recommendation

The VA team recommended to further study variants of the TDI (ID 2A-C) or DDI (ID 4A or 4B) interchanges and to reject the SPI (3A-C) in PA/ED. The VA team ranked the TDI and DDI interchange highest in value-index. The SPI had the lowest value-index ranking due to its larger footprint, higher costs, and longer estimated construction times.

The VA team did not recommend a specific bridge strategy, but noted:

- The existing bridges need to be seismically retrofitted if saved and widened. Widening options provided the greatest value in the TDI and DDI options.
- For the TDI, asymmetrical widening (option 2C) provided greater value by reducing the number of construction stages as opposed to symmetrical widening.
- Seismic retrofitting does not reset the existing bridge service life. The existing bridge service life was estimated to be 30 years, after which, the existing retrofitted bridges may need to be replaced at potentially higher future costs.
- Full-reconstruction would reset the bridge(s) service life and bring the bridge structures to current seismic and Caltrans design codes.

A Draft Preliminary VA Study Report was prepared and submitted to the District and County for review and record on September 26, 2018.

VA Implementation Meeting and Final Report

A VA Study Implementation Meeting was held on September 6, 2018 to validate the Draft Preliminary VA Study Report findings and to prepare a Final VA Study Report. The City, County, and Caltrans staff, including the District VA Coordinator, Nassim Elias, agreed to implement the Draft Preliminary VA Study Report recommendations of rejecting the SPI and proceeding in PA/ED with the TDI and DDI alternatives.

The following alternative variations were presented and implemented to the Project by the team members:

- Alternative 2 – TDI: Asymmetrical, full bridge reconstruction and widening.
- Alternative 4 – DDI: Full bridge reconstruction and widening.
- Alternative 3 – Reject SPI per the VA Study recommendations.

The project team selected full bridge reconstruction to extend bridge service life and to bring the bridges to current seismic code and Caltrans standards. See *Section 5A. Needed Structural Rehabilitation and Upgrading* for more information on the existing bridge structures.

A Final VA Study Report was prepared based on the above VA Implementation Meeting results and submitted to the County and District on September 26, 2018 for record.

6C. RESOURCE CONSERVATION

The proposed project would not require the use of water, except for minor amounts during construction. Therefore, the project would not have a significant impact to the public water supply. Recycling and stockpiling of the removed existing asphalt concrete and Portland Cement Concrete pavement will be determined during final design. The traffic signs and traffic signal poles identified for removal would be removed and salvaged by the contractor to become State property available for recycling. The project proposals involve no planned use of natural resources beyond fuel and energy needed during construction and maintenance activities, including the materials needed for construction that require energy to produce and transport them to the project site. The project would not result in adverse impacts related to energy consumption in the study area or region compared to the no-build alternative. No avoidance, minimization, or mitigation measures are required.

6D. RIGHT-OF-WAY ISSUES

The Tight Diamond interchange configuration (Alternative 2) would permanently impact parcels in all four quadrants of the existing interchange. The project would permanently impact parcels on both sides of Monroe Street that are located north of the interchange, from the westbound I-10 ramps to Showcase Parkway. South of the interchange, from the CVSC to Oleander Avenue, permanent impacts to parcels in the southwest and southeast quadrants would occur. Temporary impacts are anticipated in all four interchange quadrants and on both sides of Monroe Street, which includes minimum impacts to two existing gas stations (76 Oil and Mobil), both located in the southwest quadrant of the interchange. Due to the new bridge construction over the CVSC, temporary and permanent impacts to the channel and existing right-of-way are anticipated and coordination with CVWD would be required throughout the project.

Relocation Impact Study

No person(s) or businesses are displaced as part of the I-10 Monroe Interchange Project and a Relocation Impact Study is not required.

Airspace Lease Areas

The I-10 Monroe Street interchange project is within Airport Compatibility Zone E of the Bermuda Dunes Airport, a privately held, public-use general aviation airport. The Airport is located approximately 2-miles west of the interchange south of I-10 and near the Jefferson Street Interchange in the City of Bermuda Dunes. According to Table 2A of the Riverside County Airport Land Use Capability Plan (CLUP) (2004), the project proposal does not violate any Zone E requirements of Hazards to Flight or propose objects greater than 100-feet.

6E. ENVIRONMENTAL COMPLIANCE

Caltrans is the CEQA Lead Agency for all improvement projects on the SHS. Caltrans is also the NEPA Lead Agency for this project. The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

In compliance with CEQA documentation requirements, Caltrans approved an *Initial Study (IS)*, with *Mitigated Negative Declaration (MND)*. In compliance with NEPA documentation requirements, Caltrans approved an *Environmental Assessment (EA)* with *Finding of No Significant Impact (FONSI)*. Consistent with Caltrans requirements, the IS with MND and EA prepared for this project, was prepared as a combined Environmental Document (IS with MND/EA). The Cover Page, signed Title Sheet, and signed FONSI from the approved IS with MND/EA is included as *Attachment I*.

In accordance with Senate Bill (SB) 743 CEQA regulatory changes, Caltrans and the PDT determined a Vehicle Miles Traveled (VMT) based significance determination is not warranted for the proposed project. Under the Caltrans “VMT CEQA Significance Determination for State Highway System Projects Implementation Timeline Memorandum”, dated April 13, 2020, a VMT-based significance determination may be required for projects that initiated on or after December 28, 2018 and which have reached or will reach Caltrans’ Milestone 020 (“Begin Environmental”) before September 15, 2020. The proposed project-initiated the environmental phase (Milestone 020) on March 18, 2018, which is outside and prior to the start of the VMT implementation timeline established under the above noted memorandum. Therefore, a VMT-based significance determination is not warranted for this project.

6F. AIR QUALITY CONFORMITY

The project proposal is included in the 2020 RTP/SCS and 2019 FTIP as RIV071254. The project proposal was submitted to stakeholders (SCAG) at the September 25, 2018 *Transportation Conformity Working Group (TCWG)* meeting and again on August 27, 2019 (for the addition of an eastbound auxiliary lane), pursuant to the interagency consultation requirement of 40 CFR 93.105 his(1)(i). The project was determined to be **Not a Project Of Air Quality Concern** and determined to conform to the State Implementation Plan for air quality.

6G. TITLE VI CONSIDERATIONS

Caltrans and the *Federal Highway Administration (FHWA)* policies demonstrate a commitment to Title VI of the Civil Rights Act, which ensures that no person in the United States shall, on the grounds of race, color, national origin, sex, disability, or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial assistance. Implementation of the project will not result in an adverse impact on minority or low-income neighborhoods, communities or groups and will not have adverse effects on public transit, pedestrian traffic or low mobility groups. The project will improve bike and pedestrian access by adding new sidewalk, curb ramps and dedicated bike lanes across the interchange in both directions. Currently, sidewalk only exists on one side, therefore adding new sidewalk, curb ramps and dedicated bike lanes will provide improved continuation of access.

6H. LIFE-CYCLE COST ANALYSIS

A *Life Cycle Cost Analysis (LCCA)* was submitted to Caltrans and concurred on August 29, 2019. The LCCA estimates and determines the long-term cost effectiveness of various pavement designs.

LCCA cost analysis forms are included as *Attachment N*. The LCCA considered Alternative 2 (Preferred Alternative) as the basis alternative for study and segmented the project into three parts:

Segment 1: I-10 Monroe Interchange Ramps

Segment 2: Monroe Street (Arterial)

Segment 3: Eastbound mainline auxiliary lane between Monroe and Jackson Street

Segment 1 consists of reconstructing and widening the I-10/Monroe Street on- and off-ramps. Segment 2 consists of reconstructing and widening Monroe Street. Segment 3 consists of constructing a new eastbound, mainline auxiliary lane between Monroe and Jackson Street.

RealCost v2.5.4CA was used to perform the LCCA analysis. Construction unit costs were determined using the *Caltrans Construction Cost Data* tool. Pavement sections are from the I-10/Monroe Street *Preliminary Materials Report (PMR)* concurred by Caltrans on December 14, 2018. There are no known drained bases within the project area and will be confirmed in the PS&E phase. Traffic Index (TI) values are from the Caltrans provided TI Memorandum. Traffic values are from the TOAR. A 20- and 40-year design life was used for analysis which follows a 55-year analysis period. The LCCA input values and results are summarized in the tables below.

Table 14. LCCA Results for Segment 1 – I-10/Monroe Street Ramps

SEGMENT 1 – I-10/MONROE STREET RAMPS				
Pavement Alternative	Material	Design Year	TI Value	Total Life Cycle Cost
1*	HMA	20	TW=10.0, Shld=6.0	\$2,291,000
2*	HMA w/ RHMA	20	TW=10.0, Shld=6.0	\$1,242,000
3	HMA w/ RHMA	40	TW=11.0, Shld=7.0	\$2,023,000
4	HMA w/ RHMA	40	TW=11.0, Shld=7.0	\$2,042,000
5	JPCP w/ Lateral Support	40	TW=11.0, Shld=7.0	\$1,360,000
6	JPCP w/o Lateral Support	40	TW=11.0, Shld=7.0	\$1,388,000

Note:

* HMA 20-year design life is not recommended per the HDM but is included for comparison purposes and consistency with the approved LCCA.

Although Pavement Alternative 2 has the lowest life cycle cost, Pavement Alternative 5 was selected as the recommended Segment 1 Pavement Alternative for its longer design life and marginal cost difference over Pavement Alternative 2.

Table 15. LCCA Results for Segment 2 – Monroe Street

SEGMENT 2 – MONROE STREET				
Pavement Alternative	Material	Design Year	TI Value	Total Life Cycle Cost
1	HMA w/ RHMA	40	TW=12.5, Shld=7.5	\$1,242,000
2	HMA w/ RHMA	40	TW=12.5, Shld=7.5	\$2,023,000
3	CRCP w/ Lateral Support	40	TW=12.5, Shld=7.5	\$2,042,000
4	CRCP w/o Lateral Support	40	TW=12.5, Shld=7.5	\$1,360,000

Pavement Alternative 3 was the lowest cost alternative and is the recommended Segment 2 Pavement Alternative.

An LCCA analysis was not performed for Segment 3 and *Continuously Reinforced Concrete Pavement (CRCP)* is considered the default pavement type based on the segment's 19.5 TI value and HDM criteria. The Caltrans HDM Chapter 620, Index 621.1 – Continuously Reinforced Concrete Pavement, states that CRCP is the preferred pavement type for new construction, concrete overlays and widening or reconstruction (when suitable) for TI's greater than 13 and under HDM Figure 623.11 (Rigid Pavement, Desert, Subgrade Type II) CRCP is the only pavement type considered for TI's greater than 17. Based on PDT discussion and direction from District Design Oversight, Segment 3 is considered part of the mainline pavement section which has a 19.5 TI value per the approved TI memorandum. Therefore, CRCP is considered the default pavement type based on the segments TI value and HDM criteria discussed above.

6I. REVERSIBLE LANES

Assembly Bill 2542 amended California Streets and Highways code to require, effective January 1, 2017, that the Department or a regional transportation planning agency demonstrate that reversible lanes were considered when submitting a capacity-increasing project or a major street or highway lane realignment project to the California Transportation Commission for approval (California Streets and Highways Code, Section 100.015). However, reversible lanes were not considered for the I-10/Monroe Street Interchange Improvement Project because it was programmed prior to January 1, 2017.

7. OTHER CONSIDERATIONS AS APPROPRIATE

Public Hearing Process

A public hearing was held virtually via Zoom on June 9, 2020 based on Governor Newsom's executive order, as well as recommendations from the California Department of Public Health to stay at home, except as needed, in order to help maintain social distancing requirements due to the Coronavirus pandemic. The virtual public hearing provided an opportunity for the public, community and interest groups, media, and government agencies to obtain information on the project, to ask questions regarding the Project, and to provide comments. The comments, in general, discussed the project's right-of-way acquisitions, traffic impacts, build alternative

preferences, and accessibility during construction. The comments were formally addressed in the Final IS/EA. No changes to the project design or mitigation measures were needed as a result of the public circulation, public hearing, and public comments received.

Route Matters

Freeway Agreements were recorded between the City of Indio and the State on August 19, 1966 and between the County of Riverside and State on October 1, 2019 for I-10 through the project study area, including the Monroe Street interchange. A new Freeway Agreement will be prepared because the current Freeway Agreement prepared in 1966 does not reflect the current City limits nor the current access point. Preparation of a new Freeway Agreement in PS&E will be coordinated with the nearby I-10/Jackson Street project (EA 0M910).

The proposed project does not modify or create new access points, therefore consent from the California Transportation Commission is not required for a new public road connection.

A Freeway Maintenance Agreement recorded between the City and State on July 16, 2014 describes agreed to City and Caltrans maintenance responsibilities. According to the agreement, the City is responsible for City owned streets and roads and Caltrans is responsible for the freeway mainline and ramps within the project study area. The City is responsible for all above deck facilities on Monroe Street and within the Caltrans right-of-way, including, pavement surfacing, lighting, traffic management systems, sidewalks, and bridge rails up to the ramp termini. Caltrans is responsible for the structure below the bridge deck. The Freeway Maintenance Agreement will be updated during the PS&E phase.

Permits

The table below shows agency permits anticipated for the project.

Table 16. Permits and Approvals Needed Summary

PERMITS AND APPROVALS NEEDED SUMMARY		
Agency	Permit/Approval	Status
US Army Corps of Engineers (ACOE)	Section 404 Nationwide Permit	RCTD to obtain permit
Colorado River Basin Regional Water Quality Control Board (CRBRWQCB) and State Water Resources Control Board (SWRCB)	Section 401 Water Quality Certification	RCTD to obtain permit
	Section 402 NPDES (National Pollutant Discharge Elimination System) (Construction Activity)/Caltrans NPDES Permit CAS000003 and CAS000002 (General Permit)	RCTD to obtain permit, as the applicant for the Notice of Intent (NOI)
California Department of Fish and Wildlife (CDFW)	Section 1602 Approval	RCTD to obtain permit
Coachella Valley Water District (CVWD)	Encroachment Permit	RCTD to obtain permit

Note: NPDES Permit Nos. CAS000003 & CAS000002 are issued and CAS000002 requires an NOI to be submitted 30 days prior to construction.

Cooperative Agreements

A Cooperative Agreement (08-1655) between the County of Riverside and Caltrans was executed on January 25, 2018, to upgrade the interchange at I-10/Monroe Street in the City of Indio. The agreement outlines each agency's PA/ED, PS&E, and right-of-way responsibilities for the project. The County is the implementing agency and responsible for managing the scope, cost, schedule and quality of work activities and products. Caltrans is responsible for oversight of the project which includes quality management work, and to issue an encroachment permit for work within Caltrans right-of-way. In the final design phase, a Construction Cooperative Agreement will be prepared for the construction phase and will outline the responsibilities of the County and Caltrans during construction.

Other Agreements

Cooperative Agreements between the City and CVAG and CVWD may be needed for CV Link modifications and improvements within the CVSC.

Report on Feasibility of Providing Access to Navigable Rivers

There are no traditional navigable waterways as defined by the Army Corps of Engineers found within the proposed project limits.

Public Boat Ramps

There are no public boat ramps within the proposed project limits.

Transportation Management Plan

A *Transportation Management Plan (TMP)* was submitted to Caltrans and concurred on November 18, 2019. The purpose of the TMP is to describe the location, strategies, and alternatives that will be employed to alleviate construction traffic delays; provide a safe work environment for motorists, pedestrians, and work force; and to minimize impacts to local businesses and residents. The TMP Data Sheet, which summarizes TMP strategies and cost, is included as *Attachment H*.

Proposed TMP strategies include:

- **Public Information:** A public awareness campaign will utilize media releases, paid advertising, public meetings, telephone hotlines, *Lane Closure System (LCS)*, and internet/email/social media notices to increase awareness of project activities and milestones.
- **Motorist Information:** Fixed and portable changeable message signs will be used to relay upcoming construction impacts, such as lane and road closures, directly to motorists.
- **Incident Management:** Project will employ *Construction Zone Enhanced Enforcement Program (COZEEP)*, *Traffic Management Center (TMC)*, traffic surveillance, and traffic control officers to minimize and respond to traffic incidents in and around work zones.
- **Construction Strategies:** Construction strategies will be evaluated for constructability and to minimize traffic flow impacts. Strategies include: Staging and Traffic Handling plans (PS&E), *Lane Requirement Charts (LRCs)*, short-term and long-term facility closures, and construction schedule.

- Demand Management: Develop strategies to remove traffic from construction zones by incentivizing ride sharing.
- Alternate Routes and Detours: Alternate routes will be evaluated as a strategy to minimize impacts to roadways under construction. Alternate detours for freeway mainline closures and connector/local interchange ramps will be prepared during the PS&E phase of project development.

Temporary and full closures are allowed under certain parameters. Transit routes and HOV lanes do not currently exist within the project limits and therefore will not be impacted during construction. Impacts to existing bus routes, bicycle access, emergency vehicle access, and pedestrian access will be temporary, and a plan will be developed in PS&E to provide access during construction. Refer to *Section 4B Regional and System Planning* and the section titled *Accommodation of Oversize Loads* for discussion on oversize loads. During construction, minimum Caltrans HDM vertical clearances will be met to accommodate oversize loads.

Stage Construction

Construction Staging would be required for all project work. In addition to TMP elements, all work areas will be protected by temporary safety devices, such as Temporary Railing (Type K), Temporary Crash Cushions, and other safety features in accordance with Federal, State, and Local Agency requirements.

Project construction is estimated to begin in 2023 and is estimated to last 24- to 28-months. Multiple construction stages will be used to allow continuous traffic flow, and will likely employ the use of Temporary Traffic Signals. Asymmetrical widening, where Monroe Street is widened mostly to the east, will allow traffic flow to alternate between work areas. Three general construction stages were identified in PA/ED based on this strategy and will be refined and revised in PS&E when Traffic Handling and Stage Construction plans are prepared. The anticipated construction stages are summarized in the table below:

Table 17. Anticipated Construction Stages

STAGE CONSTRUCTION	
Stage 1	Construct new bridge structures, walls, widen Monroe Street and ramp widenings east of existing Monroe Street (westbound off- and eastbound on-ramps), construct auxiliary lane and maintain traffic flow on existing Monroe Street.
Stage 2	Move traffic to the newly constructed eastside bridge structures and remove the existing bridge structures. Temporary paving may be required to maintain traffic flow.
Stage 3	Construct new bridge structures, walls, reconstruct Monroe Street and ramp widenings west of existing Monroe Street (westbound on- and eastbound off-ramps).

In addition, full closures of CV Link are not anticipated during construction of the I-10/Monroe Street Interchange Improvement Project. Temporary detours for CV Link users will be provided to maintain mobility. The bridge and CV Link construction activities are integrated, and as a result, CV Link realignment is anticipated to be accomplished over 18- to 24-months.

Accommodation of Oversize Loads

I-10 is included in the *National Highway System (NHS)*, the Department of Defense Priority Network, the *Strategic Highway Network (STRAHNET)*, and the *Rural and Single Interstate Routing System (RSIRS)*. The *Surface Transportation Assistance Act (STAA)* identifies I-10 as a “National Network” route for STAA trucks. I-10, within the project limits, is not identified in the *Extralegal Load Network (ELLN)* according to the Division of Traffic Operations (May 2001). Per the Caltrans HDM, 16-foot 6-inches shall be the minimum vertical clearance over the roadbed. Interchange geometrics have been designed to accommodate standard STAA truck movements in both build alternatives.

Graffiti Control

Aesthetic treatments for graffiti control will be evaluated and approved by the City, the Caltrans Landscape Architect and Caltrans Maintenance representatives, in coordination with project stakeholders, during the final PS&E design phase. At the onset of PS&E, an aesthetics workshop will be held, with additional meetings as necessary, to identify graffiti control deterrence measures, amongst other aesthetic topics. Potential graffiti control measures include textured concrete surfaces, painted/stained surfaces, and/or applied/mounted alternative materials, planting trees and shrubs, and or making access to key locations challenging.

Asset Management

According to the Office of Asset Management website, “Transportation Asset Management is a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively throughout their life cycle.” The Purpose and Need of the proposed project is to expand, upgrade, and improve the existing interchange capacity, flow, multi-modal access, and enhance safety in support of local and regional planned development and growth projections. The existing interchange is projected to operate deficiently through the project design year, 2045, catalyzing the need for improvements. All project stakeholders have reviewed and approved the Purpose and Need which has guided the development of effective project alternatives. The project considered multiple project alternatives to best optimize the long-term operational costs and maintenance of the interchange. Please refer to *Section 5. Alternatives* for additional information on the alternatives selected, as well as, alternatives rejected for further consideration. Additionally, an LCCA was performed to consider alternate pavement options and a pavement type was selected with City input based on the analysis results. An existing freeway maintenance agreement outlines the responsibilities of the State and the City in maintaining the interchange, as discussed in *Section 7. Other Considerations as Appropriate*. There are no outstanding issues carried over from the project initiation."

Complete-Streets

The project supports complete streets goals of “safe accommodations for all users of the transportation network” by improving automobile operations, adding new bike, pedestrian and LSEV infrastructure, connecting to local and regional bike and pedestrian networks, and maintaining existing Monroe Street transit operations. These improvements are discussed in detail within this report and are summarized below.

- The project will add a 10-foot wide Class II Bike/LSEV lane and a 6.5-foot wide sidewalk along both sides of Monroe Street through the project limits. Per the City's Draft General Plan Update, planned bicycle facilities extend north to Avenue 40, and south of Avenue 52. New bike, pedestrian and LSEV facilities on Monroe Street will connect the northern and southern halves of the City across I-10.
- The project will install new ADA compliant curb ramps and pedestrian push buttons where applicable, including cross-walks.
- The project will improve automobile operations by adding capacity with two new through lanes in each direction and new dedicated turn lanes for left- and right-turn movements. All traffic lanes will be standard, 12-feet wide and designed to accommodate truck turns.
- The project will connect to CV Link, the regional multi-modal trail facility, providing greater local and regional mobility for bike, LSEV, pedestrian or other non-motorized users originating from the City or traveling to the City.
- The project will maintain existing SunLine bus transit operations.

Climate Change Considerations

The I-10/Monroe Interchange Project IS with MND/EA, Chapter 3, CEQA Evaluation provides a detailed discussion and conclusion on Climate Change / Green House Gas (GHG) emissions with respect to the project. The report concludes that the Build Alternatives show no change in GHG emissions in 2025 and 2045 as compared to the No Build Alternative. In the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a determination regarding the significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, efforts to reduce GHG emissions will be implemented at the project level in addition to broader State and Federal programs, as outlined in the IS MND/EA, to help reduce the potential climate change effects of GHG emissions.

Broadband and Advance Technologies

Broadband and other advanced technologies will be considered in the final design phase.

Other Appropriate Topics

No other topics for discussion.

8. FUNDING, PROGRAMMING AND ESTIMATE

Funding

PA/ED is locally funded by the City. It has been determined that this project is eligible for Federal-aid funding. Environmental review, consultation, and actions required in accordance with applicable Federal laws for this project are being, or have been, carried out by the project team and Caltrans for CEQA and NEPA compliance. Funding for subsequent project phases are anticipated to be a combination of local funding from the City and CVAG. The City and County may pursue other state and federal funds.

Programming

The project proposal is listed in the 2020 RTP/SCS and 2019 FTIP as FTIP ID: RIV071254 and RTP ID: 3A07022. The 2019 FTIP programmed project cost is \$85,000,000 which is compatible to the current project estimate .

Table 18. 2019 FTIP Programming

Fund Source	Fiscal Year Estimate								
	Prior	19/20	20/21	21/22	22/23	23/24	24/25	Future	Total
Component	In thousands of dollars (\$1,000)								
PA/ED Support	-	-	-	-	-	-	-	-	-
PS&E Support	-	-	-	-	-	-	-	-	-
Right-of-Way Support	-	-	-	-	-	-	-	-	-
Construction Support	-	-	-	-	-	-	-	-	-
Preliminary Engineering	5,000	-	-	-	-	-	-	-	5,000
Right-of-Way	-	5,000	-	-	-	-	-	-	5,000
Construction	-	-	-	75,000	-	-	-	-	75,000
Total	-	5,000	-	75,000	-	-	-	-	85,000

Estimate

Project cost estimates were prepared for each build alternative and are included as *Attachment E*. The estimate quantities were based on project plans developed in PA/ED. The Caltrans 11-Page Preliminary Cost Estimate Template was used, and unit cost data was acquired from the Caltrans Cost Database for recent project bids of similar scope. Estimate escalation rates were taken from the Construction Cost Indices & Forecast (March 2018) table, per the *Interstate Highway System (IHS)* national list. Capital outlay costs are summarized in table 19.

Table 19. Alternative Cost Estimate Summary

CAPITAL OUTLAY COST SUMMARY				
	Current Year Cost		Escalated Cost	
	Alternative 2	Alternative 4	Alternative 2	Alternative 4
Total Roadway Cost	\$42,959,000	\$43,940,400	\$51,803,796	\$52,987,256
Total Structures Cost	\$20,022,071	\$19,345,625	\$24,144,400	\$23,328,682
Total Right-of-Way Cost	\$5,529,520	\$5,637,000	\$6,686,000	\$6,816,000
Total Capital Outlay Cost	\$68,511,000	\$68,924,000	\$82,635,000	\$83,132,000

Project costs are similar between build alternatives. For both project alternatives, the Total Support Cost, under the current year, is \$12,502,000 and \$13,822,289 escalated at 3.2% percent annually through 2022/2023 and, through 2025, 2.0% annually.

9. DELIVERY SCHEDULE

Table 20. Project Milestone Schedule

Project Milestones		Milestone Date	Milestone Designation
PROGRAM PROJECT	M015	May 2015	
BEGIN ENVIRONMENTAL	M020	March 2018	
NOTICE OF AVAILABILITY (NOA/NOI)	M035	May 2020	
CIRCULATE DPR & DED EXTERNALLY	M120	May 2020	
PA & ED (APPROVAL)	M200		November 2020
DRAFT STRUCTURES PS&E	M378		March 2021
PROJECT PS&E	M380		December 2022
RIGHT OF WAY CERTIFICATION	M410		December 2022
READY TO LIST	M460		March 2023
AWARD	M495		July 2023
APPROVE CONTRACT	M500		August 2023
CONTRACT ACCEPTANCE	M600		December 2025
END PROJECT EXPENDITURES	M800		June 2027
FINAL PROJECT CLOSEOUT	M900		August 2029

10. RISKS

A risk register was prepared summarizing projects risks, their type, responses and actions. A risk assessment workshop was held with the PDT on July 7, 2018 and the risk register was reviewed quarterly throughout PA/ED. The current risk register is included as *Attachment M*. A summary of risks with a high cost and time impact are listed below:

- **Funding:** Because of unsecured PS&E and Construction phase funding, project phases post PA/ED may be delayed or canceled, which would lead to the project missing its Purpose and Need objective. Cost escalation will result in higher future costs.
- **Right-of-Way:** Partial acquisitions are required within private property that may cause schedule delays and have unforeseen cost impacts and result in condemnation.
- **Utility Relocation:** Two high pressure SoCal Gas lines, and a 14" CVWD DW water line have been identified within the existing bridge structures and will require relocation.
- **Regulation Changes:** New NEPA, CEQA, FHWA and EPA rules may affect the environmental document and delay approval of the project.

11. EXTERNAL AGENCY COORDINATION

Federal Highway Administration (FHWA)

This PR has been reviewed by Caltrans' FHWA Liaison, Sergio Avila on August 13, 2020. The project is eligible for federal aid funding. Per the current Joint Stewardship and Oversight Agreement (Agreement) between the California Department of Transportation (Caltrans) and Federal Highway Administration (FHWA), dated May 28, 2015, this project is considered to be a Delegated Project. However, should any future situation/circumstance that will potentially classify

the project as a *Project of Division Interest (PoDI)* arises, Caltrans shall notify FHWA and reassess this project using the PoDI selection criteria outlined in the Agreement.

US Army Corps of Engineers

Coordination with the Department for:

- Clean Water Act Section 404

California Department of Fish and Wildlife

Coordination with the Department for:

- California Fish and Game Code Section 1602

Colorado River Regional Water Quality Control Board

Coordination with the Board for:

- Clean Water Act Section 4-1 - Water Quality Certification

State Water Resources Control Board

NPDES Permit Nos. CAS000003 & CAS000002 are issued and CAS000002 only requires an NOI to be submitted 30 days prior to construction.

Coachella Valley Association of Governments (CVAG)

Coordination meetings were held between project stakeholders CVAG, the City, and the County on April 17, 2018 and December 12, 2018 to communicate the Monroe Street widening CV Link impacts.

On April 17, 2018 it was determined that LSEV travel will be accommodated on Monroe Street within the Class II facility on both sides of Monroe Street. The limits of the LSEV Class II facility will extend north of the interchange to the nearest driveway, and as far south as the ultimate roadway width is proposed.

Based on December 12, 2018 discussions with CVAG and, additional discussions thereafter, the project team was informed that CV Link, through the Monroe Street segment, is scheduled to be constructed in 2019 and will likely be in operation prior to the widening of Monroe Street. Construction of the Monroe Street Interchange is anticipated to begin in 2023. Due to the widening and timing of Monroe Street improvements, it was determined that existing CV Link approaches (2019) to Monroe Street and the undercrossing will need to be reconstructed with the future interchange improvements to accommodate the new Monroe Street bridge width, depth and to maintain a minimum 10-foot vertical clearance at the undercrossing. As such, CV Link construction will not be tied to the Monroe Street Interchange project and will proceed independent of the interchange improvements. The interchange project will continue to coordinate with CVAG and the CV Link team. Overall, the Monroe Street widening will benefit CV Link by improving pedestrian, bike, and LSEV connectivity to and from CV Link/Monroe Street.

Coachella Valley Water District (CVWD)

Coordination with CVWD and several focus meetings were held during PA/ED. A meeting was held on September 25, 2018 to discuss Monroe Street widening improvements and impacts to the CVSC.

City of Indio (City)

A representative from the City of Indio was present and active at most PDT meetings throughout PA/ED. Additional focus meetings were held with the City as needed. A meeting was held on May 14, 2018 with the City Engineer and City Traffic Engineer, to discuss the alternative configurations and geometry related to the typical section for Monroe Street. The City expressed support of the DDI alternative for study in PA/ED and provided feedback on incorporating four (4) through lanes on Monroe Street and shared their preference for striped median over raised.

The City at the July 17, 2019 City Council meeting identified Alternative 2 as the LPA. The meeting was held in open session and attended by the public and there was no opposition raised toward the alternative.

12. PROJECT REVIEWS

Project reviews are listed in the table below:

Table 21. Project Reviews

Review	Reviewer Name	Date
Traffic Operations	Haissam Yahya	8/21/2020
Headquarters Project Delivery Coordinator	Luis Betancourt	8/26/2020
Project Manager	Martha Santana	8/4/2020
District Design Liaison, FHWA, ADA	Sergio Avila	8/13/2020
District Safety Review	Kevin Chen	8/13/2020
Constructability Review	Sadique Hossain	8/25/2020
District Traffic Manager	Abdullatif Afaneh	8/13/2020

13. PROJECT PERSONNELCity of Indio

Eric Weck, P.E. (760) 625-1838
Principal Civil Engineer

County of Riverside

John Ashlock, P.E. (951) 955-1511
Project Manager

Jan Bulinski (951) 955-6859
Environmental Manager

Caltrans District 8

Martha Santana, P.E. (909) 383-4971
Project Manager

Justine Niu, P.E. (909) 806-3202
Design Oversight

Francisco Codling (909) 383-6220
Oversight Engineer

Renetta Cloud (909) 383-6323
Senior Environmental Planner

Liana Griebisch (909) 806-3988
Environmental Planner (Generalist)

Consultant Team

Rebecca Young, P.E. (909) 974-4976
Project Manager – Michael Baker International

Jerusalem Verano, P.E. (909) 974-4938
Project Engineer – Michael Baker International

Court Morgan (909) 974-4938
Environmental Project Manager - ICF

14. ATTACHMENTS (105)

- Attachment A. Location Map (1)*
- Attachment B. Existing Conditions Map (1)*
- Attachment C. Geometric Drawings – Alternative 2 (20)*
- Attachment D. Geometric Drawings – Alternative 4 (23)*
- Attachment E. Project Cost Estimates (20)*
- Attachment F. Right-of-Way Data Sheet (8)*
- Attachment G. Storm Water Data Report (SWDR) Signed Cover Sheet (1)*
- Attachment H. Transportation Management Plan Data Sheet (5)*
- Attachment I. Final Environmental Document (Cover, Title Sheet, and FONSI) (5)*
- Attachment J. ISA Checklist (2)*
- Attachment K. Advanced Planning Study-General Plan (4)*
- Attachment L. Existing Utility Plans (7)*
- Attachment M. Risk Register (2)*
- Attachment N. LCCA Cost Analysis Forms (5)*
- Attachment O. Category Determination Request Memorandum (1)*