

**RTIP ID#** *(required)* RIV060116

**TCWG Consideration Date:** 4/28/2020

**Project Description** *(clearly describe project)*

The City of Calimesa (City), in cooperation with the California Department of Transportation (Caltrans) and the County of Riverside (County), is proposing to upgrade and reconfigure the existing I-10/Cherry Valley Boulevard Interchange (project) from Post Mile (PM) R2.1 to R3.8. The I-10/Cherry Valley Boulevard interchange is located on I-10 between Singleton Road and Oak Valley Parkway (See Figures 1 and 2). The I-10/Cherry Valley Boulevard interchange is a major access point for existing and proposed residential and commercial development. The existing configuration is a diamond interchange, with stop control at the ramp termini. The on- and off-ramps at the interchange consist of one lane. Within the project area, Cherry Valley Boulevard is a two-lane roadway with a posted speed limit of 35 miles per hour west of the interchange and a posted speed limit of 55 miles per hour east of the interchange. Per the City of Calimesa’s General Plan, Cherry Valley Boulevard is classified as a Major Arterial. The Cherry Valley Boulevard Overcrossing (OC) (PM R3.05, Bridge Number 56-0481) is a four-span, concrete-girder bridge constructed in 1965 and is approximately 273 feet long, 47 feet wide, and crosses six lanes of traffic over I-10. Reconfiguring the interchange would improve traffic operations and relieve congestion associated with existing and planned development anticipated in the City of Calimesa and surrounding areas.

**Alternative 1 – No-Build.** Under this alternative, no reconstruction or improvements would be made to the existing I-10/ Cherry Valley Boulevard interchange, other than routine roadway maintenance and the current relocation of Roberts Road south along Cherry Valley Boulevard, resulting in a signalized intersection, by another project. This alternative does not address the purpose and need of the proposed project.

**Alternative 3 – Diverging Diamond.** Depicted in Figure 3, this alternative would reconstruct the current interchange into a diverging diamond interchange (DDI) and realign Calimesa Boulevard. This interchange configuration crosses each direction of traffic to the opposite side, optimizing left-turn movements and reducing conflict points. This alternative would utilize two separate overcrossing structures for each direction of Cherry Valley Boulevard.

Cherry Valley Boulevard would be widened to two lanes in each direction within the project limits. Sidewalks would be provided along Cherry Valley Boulevard to allow pedestrian access along the corridor. Right-turn pockets would be provided approaching the westbound on-ramp and eastbound on-ramp. These right turn pockets would include a bicycle buffer and bypass the Cherry Valley Boulevard crossovers. Channelized turning would also be added on Cherry Valley Boulevard to connect to Calimesa Boulevard, which would have a signalized stop control at Calimesa Boulevard turning onto Cherry Valley Boulevard. All on- and off-ramps at the interchange would be realigned and reconstructed to multilane ramps. The entry ramps in both directions will accommodate California Highway Patrol (CHP) enforcement areas and ramp metering that reduce to a single lane entering the freeway. An auxiliary lane would be added to the eastbound off-ramp and westbound on-ramp to provide additional storage.

**Alternative 4 – Partial Cloverleaf.** Depicted in Figure 4, this alternative would reconstruct the current interchange into a partial cloverleaf configuration and realign Calimesa Boulevard. The proposed westbound loop on-ramp would serve eastbound vehicles on Cherry Valley Boulevard and a proposed westbound direct on-ramp would provide a free-flow movement for westbound vehicles on Cherry Valley Boulevard. The eastbound ramps would be widened and maintain their current tight diamond configuration.

Cherry Valley Boulevard would be widened to two lanes in each direction with sidewalk in the eastbound direction. The I-10/Cherry Valley Boulevard OC would be reconstructed to accommodate two through lanes in each direction, channelized left-turn lanes, and sidewalks. Right-turn pockets would be provided approaching the westbound on-ramp and eastbound on-ramp. Channelized turning would also be added on Cherry Valley Boulevard to connect to Calimesa Boulevard, which would have a signalized stop control at Calimesa Boulevard turning onto Cherry Valley Boulevard. The westbound loop on- and off-ramps would be realigned and reconstructed to intersect adjacent to Calimesa Boulevard creating a signalized intersection. The proposed westbound direct on-ramp and eastbound on- and off-ramps would be realigned and widened to multilane ramps. The entry ramps in both directions will accommodate CHP enforcement areas and ramp metering that reduce to a single lane entering the freeway. An auxiliary lane would be added to the eastbound off-ramp and westbound on-ramp to provide additional storage.

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

<b>Type of Project</b> <i>(use Table 1 on instruction sheet)</i> Reconfigure existing interchange				
<b>County</b> Riverside	<b>Narrative Location/Route &amp; Postmiles:</b> 08-RIV-10-R2.1/R3.8 <b>Caltrans Projects – EA#</b> 0G170			
<b>Lead Agency:</b> California Department of Transportation				
<b>Contact Person</b> Keith Cooper	<b>Phone#</b> (213) 312-1752	<b>Fax#</b> N/A	<b>Email</b> Keith.Cooper@icf.com	
<b>Hot Spot Pollutant of Concern</b> <i>(check one or both)</i> <b>PM2.5 X</b> <b>PM10 X</b>				
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	<input checked="" type="checkbox"/> EA or Draft EIS	<input type="checkbox"/> FONSI or Final EIS	<input type="checkbox"/> PS&E or Construction	<input type="checkbox"/> Other
<b>Scheduled Date of Federal Action:</b> 2021				
<b>NEPA Assignment – Project Type</b> <i>(check appropriate box)</i>				
<input type="checkbox"/> Exempt	<input type="checkbox"/> Section 326 –Categorical Exemption	<input checked="" type="checkbox"/> Section 327 – Non-Categorical Exemption		
<b>Current Programming Dates</b> <i>(as appropriate)</i>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	12/27/2018	10/1/2021	10/1/2021	1/1/2024
<b>End</b>	10/1/2021	10/1/2023	10/1/2023	09/01/2025
<b>Project Purpose and Need (Summary):</b> <i>(attach additional sheets as necessary)</i> The purpose of the proposed project is to: <ul style="list-style-type: none"> <li>• Relieve congestion and improve traffic operations at the Interstate 10 (I-10)/Cherry Valley Boulevard interchange; and</li> <li>• Address increased travel associated with existing and planned development anticipated in the City of Calimesa and surrounding areas.</li> </ul> <p>The project addresses the following needs and transportation deficiencies:</p> <ul style="list-style-type: none"> <li>• Due to expected continuing increases in traffic volumes associated with planned development in the area, this interchange is expected to not satisfy applicable operational performance standards by the design horizon year of 2045.</li> </ul>				
<b>Surrounding Land Use/Traffic Generators</b> <i>(especially effect on diesel traffic)</i> Land uses north of I-10 in the vicinity of the proposed project predominantly consists of residential development, with interspersed commercial land uses. South of I-10, land uses within the project vicinity consists of residential development.				

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

**AADT and Truck AADT Opening Year (2025) Conditions for the No-Build and Build Alternatives**

Segment	AADT	Non-Trucks	Trucks
I-10 north of the Cherry Valley Blvd ramps	84,500	77,700	6,800
I-10 south of the Cherry Valley Blvd ramps	122,900	113,000	9,900
Cherry Valley Blvd east of the I-10 ramps	14,900	13,700	1,200
Cherry Valley Blvd west of the I-10 ramps	24,500	22,500	2,000

AADT, non-truck, and truck volumes are estimated to be unchanged under the Build Alternatives when compared to the No-Build Alternative at Opening Year 2025.

The truck percentage is estimated to be **8.7%** for Opening Year 2025 conditions.

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

**AADT and Truck AADT Design Year (2045) Conditions for the No-Build and Build Alternatives**

Segment	AADT	Non-Trucks	Trucks
I-10 north of the Cherry Valley Blvd ramps	116,600	107,200	9,400
I-10 south of the Cherry Valley Blvd ramps	176,400	162,200	14,200
Cherry Valley Blvd east of the I-10 ramps	30,700	28,200	2,500
Cherry Valley Blvd west of the I-10 ramps	58,200	53,500	4,700

AADT, non-truck, and truck volumes are estimated to be unchanged under the Build Alternatives when compared to the No-Build Alternative at Horizon Year 2045.

The truck percentage is estimated to be **8.7%** for Design Year 2045 conditions.

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

**Intersection Operations – Opening Year (2025) Conditions for the No-Build and Build Alternatives**

Intersection	Control	Alt. 1 – No-Build		Alt. 3 – Diverging Diamond		Alt. 4 – Partial Cloverleaf	
		AM	PM	AM	PM	AM	PM
1. I-10 EB Off/On-Ramps/Singleton Rd	Side Street Stop	A / 9.9 (SBR)	B / 12.6 (SBL)	B / 10.3 (SBL)	B / 11.4 (SBL)	B / 10.7 (SBL)	B / 11.2 (SBL)
2. I-10 WB Off/On-Ramps/Singleton Rd	Side Street Stop	A / 8.0 (NBR)	B / 11.1 (NBR)	A / 9.0 (NBL)	B / 14.4 (NBL)	B / 10.2 (NBL)	B / 11.3 (NBR)
3. Cherry Valley Blvd/Palmer Ave/Desert Lawn Drive	Signal	<b><u>F / 499.7</u></b>	<b><u>F / 378.1</u></b>	C / 27.7	C / 22.1	C / 25.8	C / 20.8
4A. Cherry Valley Blvd/Roberts Rd	Signal	<b><u>F / 166.5</u></b>	<b><u>F / 318.6</u></b>	B / 13.5	B / 19.0	B / 12.3	B / 19.0
4B. Old Roberts Road/Cherry Valley Blvd	--	--	--	--	--	--	--
5. I-10 EB Off/On-Ramps/Cherry Valley Blvd	Signal/Roundabouts	<b><u>E / 70.4</u></b>	<b><u>F / 125.8</u></b>	C / 22.0	B / 14.7	B / 11.4	B / 13.4
6. I-10 WB Off/On-Ramps/Cherry Valley Blvd	Signal/Roundabouts	<b><u>E / 57.4</u></b>	C / 27.1	A / 7.1	A / 5.7	--	--
7. Calimesa Blvd/Cherry Valley Blvd	Side Street Stop/ Signal	<b><u>F / 146.4 (WBT)</u></b>	C / 14.2 (SBL)	C / 22.0	A / 9.5	C / 20.6	B / 15.2
8. I-10 EB Off/On-Ramps/Oak Valley Pkwy	Signal	B / 11.1	B / 17.1	B / 11.1	B / 17.4	B / 11.6	B / 17.0
9. I-10 WB Off/On-Ramps/Oak Valley Pkwy	Signal	A / 8.4	B / 11.0	A / 8.6	B / 10.9	A / 8.9	B / 11.1

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

**Intersection Operations – Design Year (2045) Conditions for the No-Build and Build Alternatives**

Intersection	Control	Alt. 1 – No-Build		Alt. 3 – Diverging Diamond		Alt. 4 – Partial Cloverleaf	
		AM	PM	AM	PM	AM	PM
1. I-10 EB Off/On-Ramps/Singleton Rd	Signal	C / 29.3	<u>F / 143.6</u>	C / 29.1	<u>E / 57.2</u>	C / 29.1	<u>E / 56.1</u>
2. I-10 WB Off/On-Ramps/Singleton Rd	Signal	<u>E / 60.8</u>	<u>F / 150.5</u>	<u>E / 71.2</u>	D / 53.8	<u>E / 69.0</u>	<u>E / 57.0</u>
3. Cherry Valley Blvd/Palmer Ave/Desert Lawn Drive	Signal	<u>F / 994.6</u>	<u>F / 171.4</u>	C / 25.9	B / 18.2	C / 23.8	B / 17.2
4A. Cherry Valley Blvd/Roberts Rd	Signal	<u>F / 264.8</u>	<u>F / 174.7</u>	C / 26.1	<u>E / 63.8</u>	C / 23.4	<u>E / 66.5</u>
4B. Old Roberts Road/Cherry Valley Blvd	--	--	--	--	--	--	--
5. I-10 EB Off/On-Ramps/Cherry Valley Blvd	Signal/ Roundabouts	<u>F / 108.9</u>	<u>F / 103.8</u>	C / 24.3	B / 16.9	B / 10.4	B / 19.7
6. I-10 WB Off/On-Ramps/Cherry Valley Blvd	Signal/ Roundabouts	<u>F / 100</u>	<u>E / 64.6</u>	B / 11.3	A / 8.9	--	--
7. Calimesa Blvd/Cherry Valley Blvd	Side Street Stop/ Signal	C / 20.5 (SBL)	C / 21.1 (SBL)	C / 22.1	A / 9.3	C / 25.5	B / 18.6
8. I-10 EB Off/On-Ramps/Oak Valley Pkwy	Signal	B / 15.4	B / 18.4	B / 14.3	C / 31.2	B / 14.5	C / 32.4
9. I-10 WB Off/On-Ramps/Oak Valley Pkwy	Signal	<u>E / 56</u>	B / 12	B / 10.8	B / 12.7	B / 11	B / 13.0

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

No traffic redistribution is anticipated to occur as a result of proposed project improvements. The proposed project would improve existing roadway facilities rather than develop new facilities or provide access to areas that currently lack access.

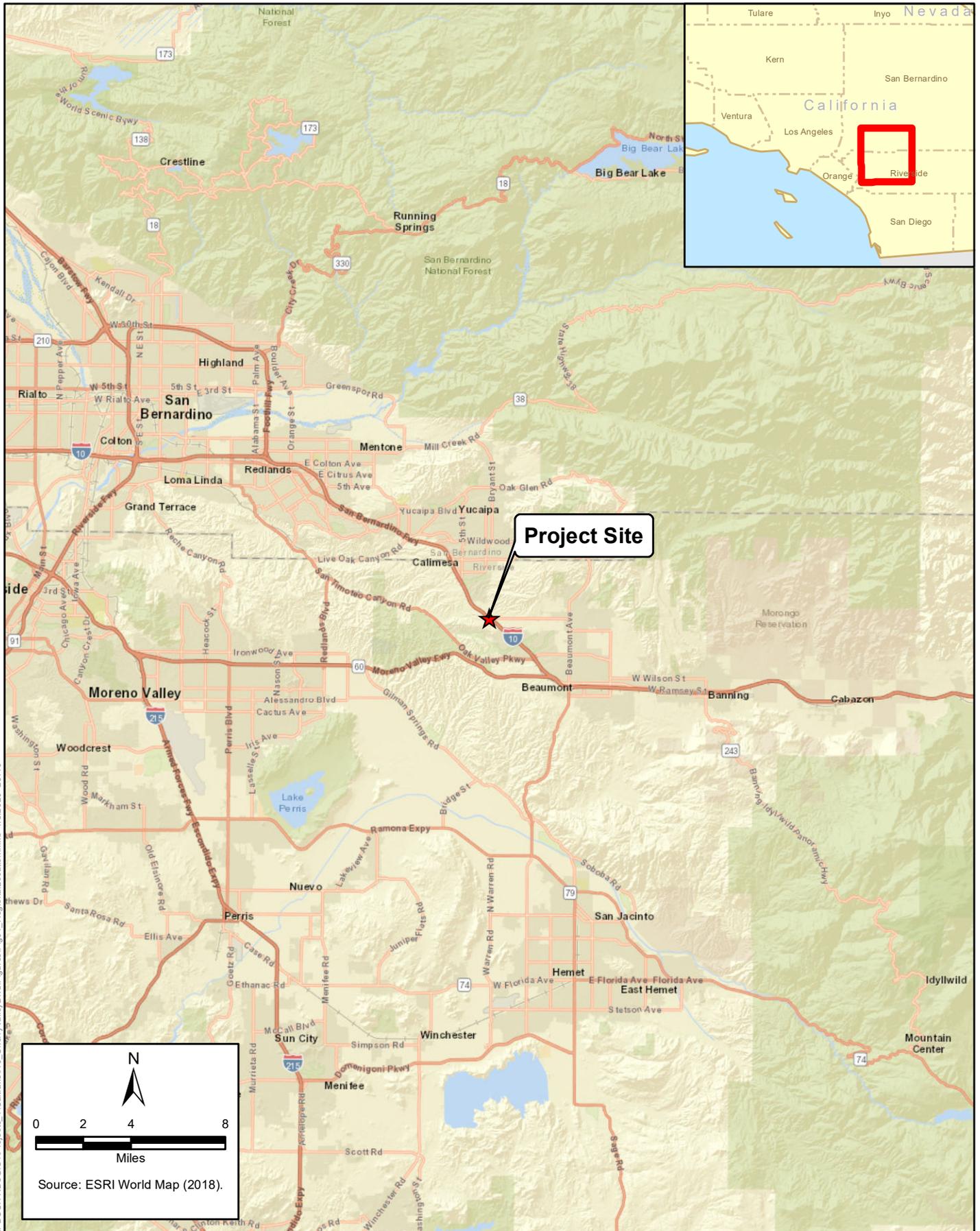
**Comments/Explanation/Details** *(attach additional sheets as necessary)*

Project construction would require less than 5 years. As such, construction emissions analysis for project-level conformity is not required.

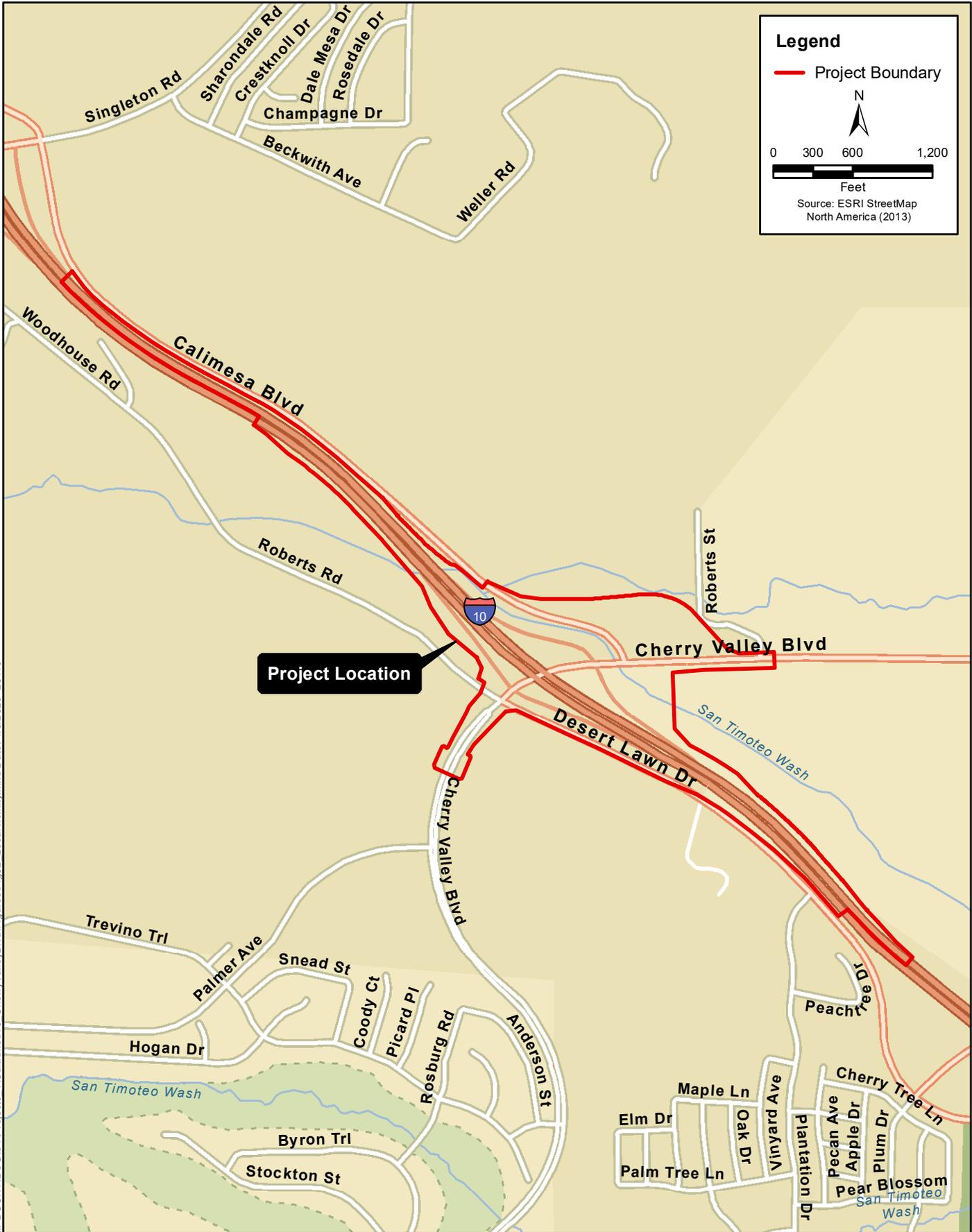
Under 40 CFR 93.123(b)—PM10 and PM2.5 Hot Spots—the following criteria are utilized to determine the potential for the proposed project to qualify as a Project of Air Quality Concern (POAQC):

- (i) New or expanded highway projects with significant number/increase in diesel vehicles?*
  - ✓ Not a new highway project
  - ✓ Minor interchange improvements to relieve congestion (reducing delay and air pollutant emissions)
  - ✓ No substantial change in traffic volumes or truck percentages
- (ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?*
  - ✓ Improves operations at local intersections with projected LOS of E for the Design Year (2045), but these intersections do not have a significant number or percentage of diesel vehicles.
- (iii) New bus and rail terminals and transfer points?—Not Applicable*
- (iv) Expanded bus and rail terminals and transfer points?—Not Applicable*
- (v) Affects areas identified in PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan as site of violation?*
  - ✓ Not identified in a PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan as an area of potential violation

For the reasons noted above, the proposed project would not be considered a POAQC.



**Figure 1**  
**Regional Location**  
**I-10/Cherry Valley Boulevard Interchange Improvement Project**



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**Figure 2**  
**Local Vicinity Map**  
**I-10/Cherry Valley Boulevard Interchange Improvement Project**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
8	Riv	10			

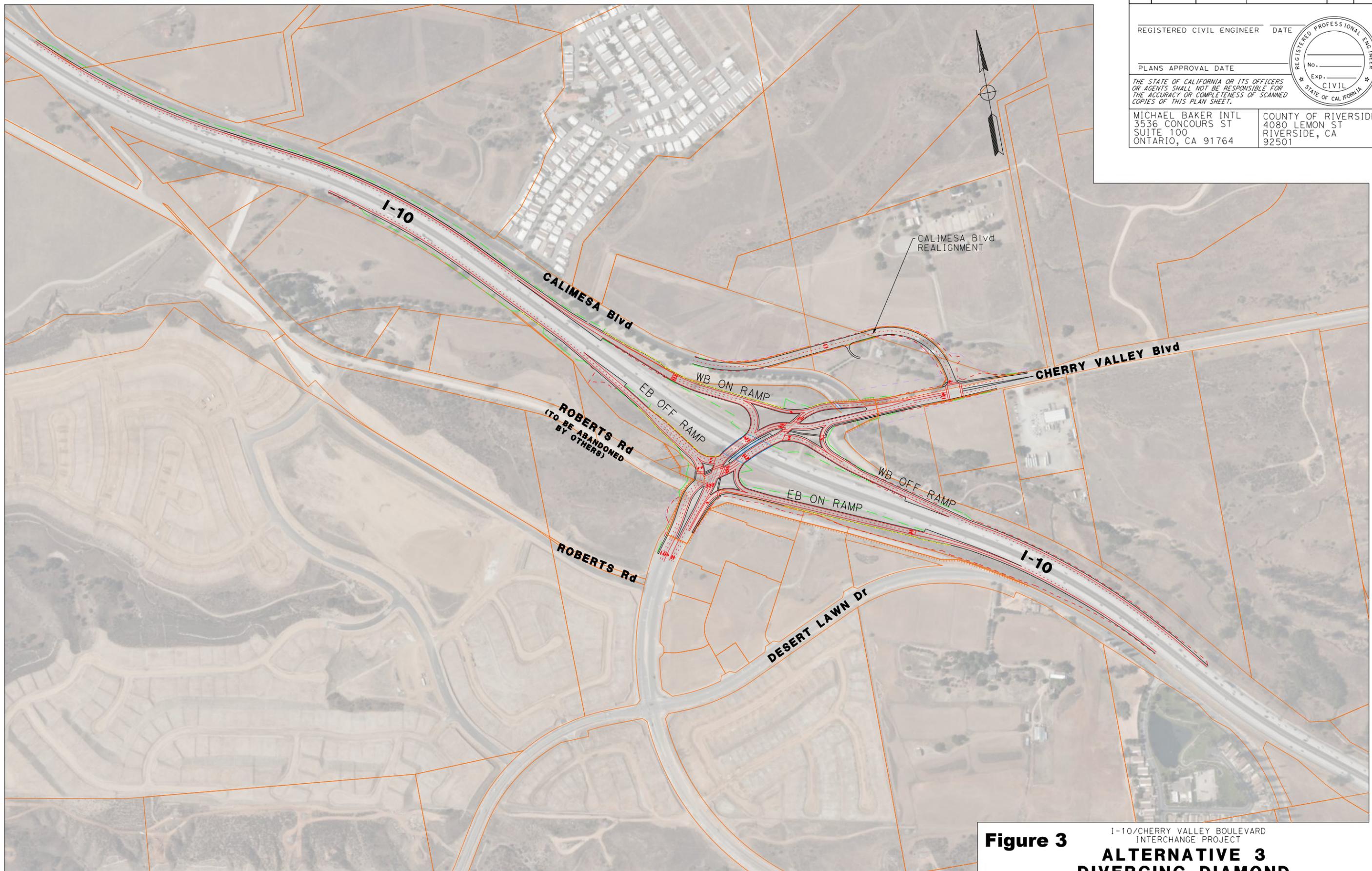
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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SUITE 100  
ONTARIO, CA 91764

COUNTY OF RIVERSIDE  
4080 LEMON ST  
RIVERSIDE, CA  
92501



**Figure 3** I-10/CHERRY VALLEY BOULEVARD INTERCHANGE PROJECT  
**ALTERNATIVE 3**  
**DIVERGING DIAMOND**  
SCALE = 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Et Caltrans		CHECKED BY	DATE REVISED

x  
x  
x  
x  
x  
x  
x

USERNAME => \$USER  
DGN FILE => \$REQUEST

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0000

PROJECT NUMBER & PHASE 0000000001

LAST REVISION | DATE PLOTTED => \$DATE  
00-00-00 | TIME PLOTTED => \$TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
8	Riv	10			

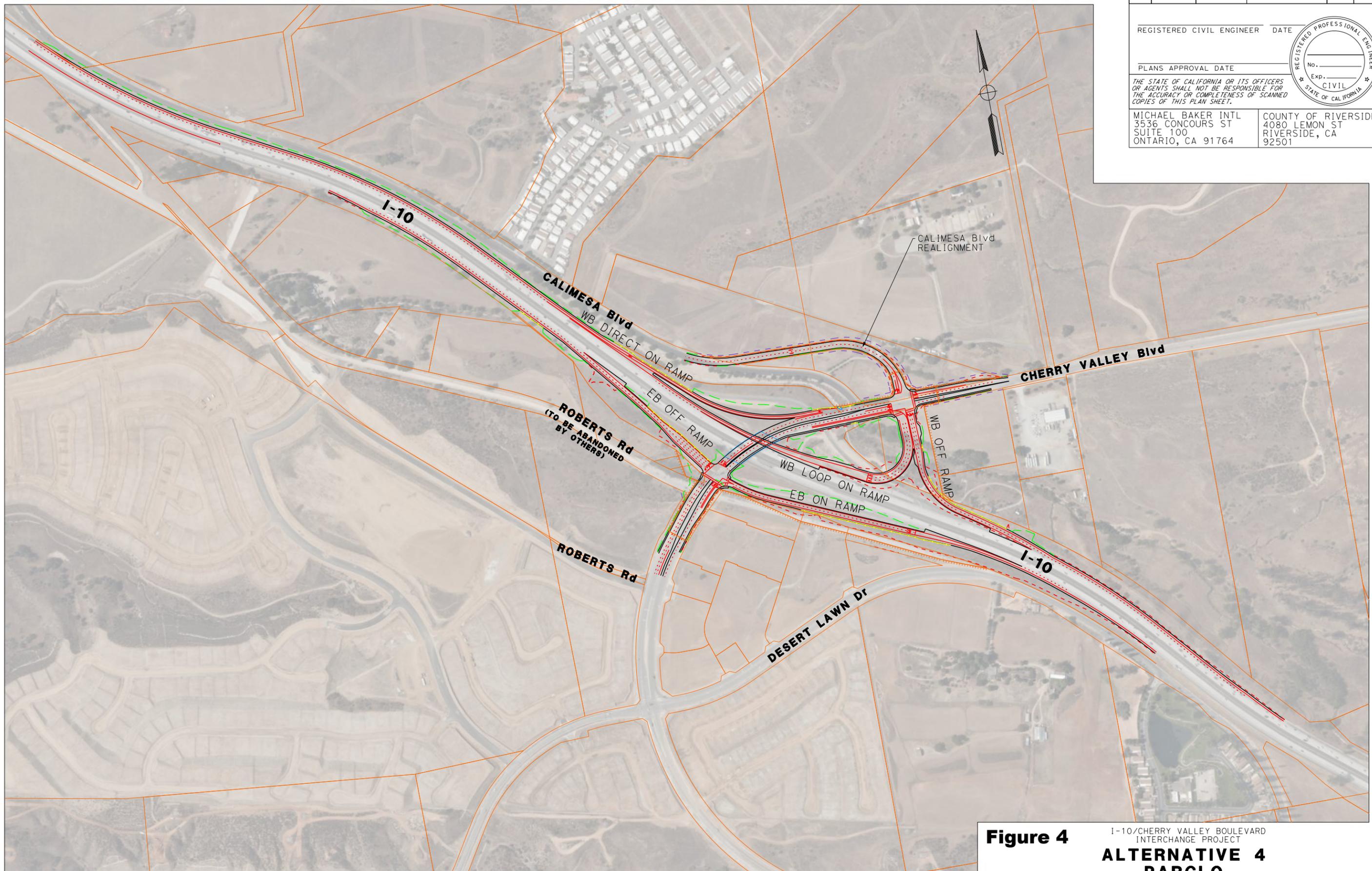
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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**Figure 4**  
I-10/CHERRY VALLEY BOULEVARD  
INTERCHANGE PROJECT  
**ALTERNATIVE 4  
PARCLO**  
SCALE = 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Et Caltrans		CHECKED BY	DATE REVISED

x  
x  
x  
x  
x  
x

USERNAME => \$USER  
DGN FILE => \$REQUEST

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0000

PROJECT NUMBER & PHASE 0000000001

LAST REVISION | DATE PLOTTED => \$DATE  
00-00-00 | TIME PLOTTED => \$TIME