



# **SB 1 Program Application Transmittal Sheet**

**Project Name:** I-10/County Line Road Interchange Project

**Nominating Agency/Agencies:** City of Calimesa and City of Yucaipa

**Implementing Agency/Agencies:** City of Calimesa and City of Yucaipa

**Total Project Cost:** \$8,800,000

**Requesting Cost:** \$6,160,000

**Project Location:** Interstate 10 and County Line Road

**City/Cities:** City of Calimesa and City of Yucaipa

**County/Counties:** County of Riverside and County of San Bernardino

**Post Miles:** SBD R38.949 to RIV R0.239

**Legislative Districts:**

**Assembly Districts:** 42<sup>nd</sup> District

**Senate Districts:** 23<sup>rd</sup> District

**Program(s) Applying for:**

- Local Partnership Program (LPP@catc.ca.gov)
- Solutions to Congested Corridors Program (SCCP@catc.ca.gov)
- Trade Corridor Enhancement Program (TCEP@catc.ca.gov)

# CALIFORNIA TRANSPORTATION COMMISSION 2018 TRADE CORRIDOR ENHANCEMENT PROGRAM (TCEP)

Interstate 10 and County Line Road Interchange



**TCEP Funding Requested: \$6,160,000**

**Project Type:**

Highway and Surface Transportation Improvements  
to more Efficiently Accommodate the Movement of Freight

**Project Applicants:**

City of Calimesa and City of Yucaipa

**Project Location:**

City of Calimesa and City of Yucaipa,  
County of Riverside and County of San Bernardino



January 30, 2018

Susan Bransen, Executive Director  
California Transportation Commission  
1120 N Street, MS-52  
P.O. Box 942873  
Sacramento, CA 95814

**RE: 2018 Trade Corridor Enhancement Program Application – Calimesa-Yucaipa: County Line Road Interchange Project**

Dear Ms. Bransen,

On behalf of the Cities of Calimesa and Yucaipa, we are pleased to submit this grant application for the Trade Corridor Enhancement Program, which is a joint project between the cities. Both cities are eligible to submit an application for 2018 Trade Corridor Enhancement Program because the project is located on Interstate 10, federally designated Trade Corridor of National and Regional Significance and along the common city limit line. The project will significantly contribute to the freight system's economic activity and vitality, relieve congestion on the I-10 freeway, improve safety, security, and resilience of the freight system, improve the freight movement system infrastructure, implements innovative technology and reduces environmental impacts to the project area.

The Project is located along the Riverside and San Bernardino county line, County Line Road from County Line Lane on the West to Bryant Street on the East. The Project includes interchange (roundabout construction is the locally preferred alternative), roadway corridor, drainage, and related improvements. The Caltrans interchange approval process will ultimately determine the geometrics of the interchange. This regionally significant Project is included in the Southern California Association of Governments' (SCAG) *Sustainable Mobility: A Regional Transportation Plan for Southern California* and furthers the goals of the California Freight Mobility Plan, as well as the guiding principles of the California Sustainable Freight Action Plan.

Thank you for your consideration. If you have any questions, please call Bonnie Johnson at (909) 795-9801.

Sincerely,

Bonnie Johnson, City Manager  
City of Calimesa

Raymond A. Casey, City Manager  
City of Yucaipa

## Section B. Government Code Section 14525.3

The *Interstate 10 (I-10) and County Line Road Interchange Project* is not a new bulk coal terminal project and will not be used to handle, store, or transport coal in bulk. As such, the Project will not have significant environmental impacts related to bulk coal handling.

## Section C. Street and Highway Code Section 100.15

The *I-10/County Line Road Interchange Project* is an interchange improvement project in the Cities of Calimesa and Yucaipa, and in the Counties of Riverside and San Bernardino, but reversible lanes are not a viable solution for this project. The Project will provide improvements to the existing freeway interchange area only by constructing roundabout intersections at both on/off ramps while maintain the existing overpass structure. Additionally, the length of improvements is around 0.2 miles and thus not a good candidate for reversible lanes.

## Section D. Project and Proposed Benefits

### i. Project Title and Brief Description

The *Interstate 10 (I-10)/County Line Road Interchange Project* (Project) is located at Interstate 10 and County Line Road, in the Cities of Calimesa and Yucaipa, in the Counties of Riverside and San Bernardino, respectively. County Line Road serves as a major arterial roadway for existing and proposed residential, commercial, and industrial sites for both the Cities. The Project is a highway improvements and surface transportation project that will accommodate freight movement along I-10 and improve the efficiency of the local roadway to facilitate goods movement. The Project will address traffic congestion and safety coupled with facilitation of growth and non-motorized transportation systems. The existing County Line Road diamond interchange does not have sufficient capacity to serve the current traffic volumes and utilizes two-way stop control at each ramp, thus resulting in poor efficiency in exiting I-10, causing backup onto the freeway mainline. The Project proposes to construct two (2) multi-lane roundabouts, together with street, pedestrian, and bicycle improvements, to improve the safety and efficiency of the interchange. The use of roundabouts, in lieu of signalized intersections, provides adequate capacity and LOS for the interchange to maintain the existing underpass bridge structure, thus significantly reducing right-of-way and construction costs to construct a new interchange bridge. Roundabouts will be constructed at each off/on ramp and street improvements will be implemented to the east and west to tie into existing roadway systems; refer to **Attachment A** for the Project Exhibit. This Project is the primary focus for both Cities to implement a multi-modal solution to address traffic congestion, improve safety, and accommodate interregional projects (i.e. truck climbing lane along I-10 eastbound).

This Project expands on the successful efforts of the Cities in securing SAFETEA-LU and MSRC grant funding to complete similar improvements along the County Line Road corridor to the east.

More specifically, the multi-lane roundabout at Calimesa Boulevard. Due to its close proximity to the interchange, the Calimesa Boulevard roundabout is required to ensure efficient traffic movements through the interchange are maintained. The Calimesa Boulevard roundabout project, funded in part by a SAFETEA-LU grant, has already begun environmental compliance processing, design, and right-of-way acquisition. Additionally, the MSRC grant funding will provide street improvements along County Lien Road from Calimesa Boulevard to the east; see **Attachment A**. This TCEP grant will help the Cities complete the remaining improvements and provide a safe and efficient interchange, while helping revitalize the community through the creation of long- and medium-term jobs.

**ii. Project Priority**

The Project is the only application for the Cities of Calimesa and Yucaipa, and thus, our highest priority project.

**iii. Project Background and Purpose and Needs Statement**

*The Project is a highway improvements and surface transportation project that will accommodate freight movement along I-10 and improve the efficiency of the local roadway to facilitate goods movement, while addressing traffic congestion and safety, coupled with facilitation of growth and non-motorized transportation systems.*

I-10 and County Line Road have been the focal points for infrastructure improvement projects in the Cities of Calimesa and Yucaipa, as well as the Counties of Riverside and San Bernardino. County Line Road, intersecting I-10 an international trade corridor, serves as a primary arterial for access to the I-10 for the Cities of Calimesa and Yucaipa. Further, it is a major access point for existing and proposed residential, commercial, and industrial sites. The existing I-10/County Line Road diamond interchange does not have sufficient capacity to serve the current traffic volumes, thereby experiencing stacking onto the freeway system mainline. This portion of the I-10 is also part of a 2-mile grade for trucks headed eastbound, thus exacerbating traffic conditions. Reconfiguration of the I-10/County Line Road Interchange will address existing deficiencies and accommodate projected growth, including proposed widening and truck climbing lines along I-10, resulting in improved good movement throughout the corridor. This Project is the primary focus for both Cities. Additionally, the existing I-10 and County Line Road interchange relies on two-way stop control at each ramp that does not provide sufficient capacity to serve the current traffic volumes, let alone future volumes. Further, over the last 10 years, there have been 87 traffic accidents along the Project route, of which four resulted in fatalities. Extensive community workshops, meetings, studies, and surveys that commenced in 2010 have taken place in both Cities and continue to occur in connection with concurrent projects along County Line Road. This community involvement addresses many of the community concerns connected with the I-10/County Line Road.

Considering that the transportation systems were constructed in the early 1990's, around the same time as both Cities incorporated, the existing systems are in a state of disrepair. Existing roadway infrastructure is in need of replacement and the transportation systems do not include sufficient capacity for existing and future transportation network efficiency, mobility of goods, accessibility

and mobility of people, or economic growth. In addition, congestion significantly undermines the environmental sustainability of the community. Given this, the Cities are challenged to provide for a growing population while maintaining the quality of life, economic vitality, and diverse environment that has made them a desirable place to live and work.

Roundabouts sufficiently satisfy the guidelines outlined by the California Transportation Commission (CTC) in *Resolution G-17-32*, inasmuch as they:

- increase throughput, freight traffic velocity, and reduce the variability and unpredictability of travel time;
- increase the safety of the public, industry workers, and traffic;
- reduce daily hours of delay on the system and improve access to freight facilities;
- relieve freight system bottlenecks;
- employ multi-modal strategies, thereby increasing port and transportation system throughput while reducing truck idling times;
- offer interregional benefits by linking regions/corridors to serve statewide or national trade corridor needs;
- reduces local and regional emissions of diesel particulate (PM10 and 2.5), carbon monoxide, nitrogen oxides, greenhouse gases, and other pollutants; and
- ultimately stimulates local economic activity, enhances trade value, and preserves/creates jobs.

### ***Capacity and Efficiency***

The U.S. Department of Transportation (US-DOT), Federal Highway Administration (FHWA) – Office of Safety, 2010 Roundabouts Technical Study highlighted both operational and safety benefits provided by roundabouts.<sup>1</sup> The key operational performance benefit provided by the Project is reduced lane requirements. By implementing roundabout at each intersection, the existing freeway underpass bridge structure can remain, which substantially reduces the need for additional right-of-way and construction costs, while also lowering overall delay when compared to signalized and multi-way stop-controlled intersections.

Land Use Policy 1.4, established under the City of Calimesa’s 2014 General Plan, guides the current and future infrastructure improvement projects establishing arterial roads to “...carry both local and through traffic and be improved to maintain a LOS ‘C’ or better.”<sup>2</sup> County Line Road is a primary arterial road for both Cities, yet maintains a LOS below ‘D’. Serving as an arterial roadway and public transit service route, the roadway offers no pedestrian or bicycle pathways and low-to-zero multi-modal transportation features. The Project will provide an acceptable LOS for both existing and future traffic volumes, provide safe access to existing transit routes, and provide safe and efficient bicycle and pedestrian facilities throughout the interchange facility.

The communities of Calimesa and Yucaipa continue to experience significant growth, leaving narrow roadways, dangerous freeway intersections, and unmetered freeway entrances as part of

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<sup>1</sup> <https://safety.fhwa.dot.gov/intersection/innovative/roundabouts/fhwasa10006/>

<sup>2</sup> <http://www.cityofcalimesa.net/Forms/Calimesa%20General%20Plan.pdf>

the rural landscape that continues to exist in a growing suburban area of San Bernardino and Riverside counties. According to a report released by the U.S. Census Bureau on March 24, 2016, Riverside County’s population growth rate in the first half of the current decade was the second highest in the State; expanding 7.8 percent between April 2010 and July 2015.<sup>3</sup> Correspondingly, San Bernardino County was reported by The Sun on April 25, 2015, as one of the fastest growing economies in the State. One of the challenges in sustaining the growing economy, which is cited in the article, is to ensure that the infrastructure is in place to accommodate the growth and attract developers to the region.<sup>4</sup>

Regionally, per U.S. Census Data, Riverside and San Bernardino Counties combined have experienced an over 80% population increase between 1960 and 2010, with nearly 40% of that increase since 1990. California Department of Transportation (Caltrans), Average Daily Trip Calculations demonstrates a similar pattern in traffic congestion, as depicted in **Table 1** below. Between 1993 and 2016, average daily trips along I-10 at County Line Road more than doubled. Caltrans began tracking on- and off-ramp congestion in 2005, and the County Line Road ramps experienced a 6% increase in congestion in just three years, compared with the latest calculations from 2008.

**Table 1 – I-10 Traffic Volumes at County Line Road**

Year	Peak Hour ADT	Peak Month ADT	Annual ADT
1993	4,300	59,000	55,000
2003*	6,550	92,500	87,000
2016*	8,850	114,000	110,500

Source: <http://traffic-counts.dot.ca.gov/>  
 \*Westbound and Eastbound Daily Trips Averaged

Reduced freight and commuter travel times are essential community-identified needs, as well as being an integral point for Caltrans and Southern California Association of Government (SCAG) funding. SCAG’s 2016 Regional Transit Plan and Sustainable Communities Strategy (RTP/SCS) identifies two ways to boost employment and economic growth for the region – providing jobs for people in highway and rail construction, operation and maintenance, and by boosting the economic competitiveness of the region by making it a more attractive place to do business.<sup>5</sup> The Project will create jobs and make the Cities more attractive places to live and work by addressing infrastructure needs along County Line Road, in coordination with several additional projects that have been completed or are scheduled for immediate commencement, thereby leveraging already committed Federal, State, and local funds to ensure unitary improvement of a key arterial roadway.

<sup>3</sup> <https://patch.com/california/banning-beaumont/census-riverside-countys-five-year-growth-rate-second-highest-state-0>

<sup>4</sup> <https://www.sbsun.com/2015/04/15/san-bernardino-county-is-one-of-the-fastest-growing-economies-heres-why/>

<sup>5</sup> SCAG’s 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy; page 156

## *Safety*

The Cities used the Transportation Information Mapping System (TIMS) to analyze the traffic collision history along County Line Road. Over the last 10 years, TIMS identified 87 traffic accidents along the Project route, of which four resulted in fatalities. Public safety has been a prevailing concern for both Cities, as well as the overall condition of a roadway that serves as a predominant transportation corridor for commercial, industrial, retail, and residential zones within the region. This Project will benefit over 110,000 yearly travelers.

The FHWA 2010 Roundabouts Technical Study lists several benefits of installing roundabouts at intersections that have a high volume of multimodal forms of transportation to decrease the number of injury and fatal accidents. Roundabout studies have shown a reduction in both fatalities and injury accidents, which would statistically increase as the population grows and if traffic signals were utilized instead of roundabouts. Studies by the FHWA in 2009 show a 70% reduction in all annual accidents, an 88% reduction in injury accidents, and a 100% reduction in fatality accidents with the employment of roundabouts.

On October 15, 2014, 3-vehicles had stopped due to traffic along I-10 at County Line Road, Yucaipa. Another vehicle quickly approached, unaware of the stagnant traffic ahead, rear ending the first vehicle at a very high-speed, causing a several car pileup and causing injuries to three people. This is just one example of the safety issues under current conditions.

Construction of the Project's proposed multimodal transportation systems for pedestrians and bicycles will enhance safety for all users. The innovative roundabout intersection design, together with the addition of sidewalks and designated bike lanes, will reduce the number of conflicts for users, creating a space in which users are mutually aware of one another, and users are visible and predictable in their actions.<sup>6</sup> This awareness, paired with the reduced speed of traffic at the roundabout intersections, will reduce the overall rate and severity of all collisions, including those with pedestrian and bicyclists involved.

## *Bicycles and Pedestrians*

Pedestrians in particular will benefit from the implementation of the innovative roundabout design and the addition of sidewalk throughout the Project area. A US-DOT funded study indicates that "roundabouts are likely safer for pedestrians than traditional intersections for three reasons: (a) roundabouts can handle the same or higher pedestrian capacity as a traditional intersection, (b) roundabouts have fewer pedestrian-vehicle conflict points, and (c) any pedestrian crashes would involve lower impact speeds."<sup>7</sup>

Additionally, bicyclists will benefit from the implementation of the roundabout design, as well as designated bicycle lanes. "Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements

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<sup>6</sup> National Association of City Transportation Officials (NACTO). Urban Street Design Guidelines (2014)

<sup>7</sup> Stone, John R., KoSok Chae, and Sirisha Pillalamarri. "The Effects of Roundabouts on Pedestrian Safety." Raleigh: Department of Civil Engineering, North Carolina State University (2002)

between bicyclists and motorists.”<sup>8</sup> Also, the number of collisions will be reduced for bicyclists at the roundabout intersections proposed by the Project. The number and severity of collisions at an intersection is directly related to the number of conflict points at a given intersection. Standard four-way signalized intersections contain 32 potential conflict points. Roundabouts will provide safer conveyance for bicyclists, as they only contain eight potential conflict points as bicyclists queue, merge and cross automobile and pedestrian traffic.<sup>9</sup> The Project will provide safe, predictable movement of people and goods along roadway, bicycle lanes, and sidewalks.

The City of Calimesa is a contributor to the Western Riverside Council of Governments Non-Motorized Transportation Plan, which provides a regional backbone network of bicycle and pedestrian facilities to provide enhanced transportation mobility options in an effort to move people and goods efficiently. Calimesa does not have any existing bicycle lanes as part of existing roadways; however, Calimesa does maintain a series of multi-use trails, which accommodate bicycles as well as pedestrians. Calimesa’s General Plan delineates the policies and action items established by the community and City Council, Policy TM 12-13, which outlines the goals and objectives that have been established in the City when developing multi-use trails that provide a linkage with recreational facilities.<sup>10</sup> Further, the City of Calimesa has a planned 3.9-mile segment of Class II bicycle lanes along Bryant Street and Singleton Road that will provide connectivity between the Project and the neighboring Cities of Yucaipa and Beaumont.

Additionally, the City of Yucaipa is a contributor to the San Bernardino Associated Government Non-Motorized Transportation Plan, which identifies facility priorities to enable local jurisdictions to create attractive and usable infrastructure that will enhance the enjoyment and quality of life for the residents of San Bernardino County. Yucaipa has approximately 29 miles of approved Class I and II bicycle lanes, with recent additional funding approved by the Mobile Source Air Pollution Reduction Review Committee (MSRC) adding another 11 miles of Class II bicycle lanes. The Project aims to build on this success.

### ***Environmental***

According to the FHWA’s Report on the benefits of installing roundabouts rather than signalized and all-way stop-controlled intersections, “Roundabouts often provide environmental benefits by reducing vehicle delay and the number and duration of stops compared with signalized or all-way stop-controlled alternatives. Even when there are heavy volumes, vehicles continue to advance slowly in moving queues rather than coming to a complete stop. This can reduce noise and air quality impacts and fuel consumption significantly by reducing the number of acceleration/deceleration cycles and time spent idling”.<sup>11</sup> The Project’s roundabout design results in a continuous flow of traffic, significantly reducing vehicular stopping at intersections. Reduced stopping along I-10 will effectively reduce dependence on oil and GHG emissions.

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<sup>8</sup> National Association of City Transportation Officials (NACTO). Urban Bikeway Design Guidelines (2014)

<sup>9</sup> US Department of Transportation Federal Highway Administration. “Roundabouts, An Informational Guide”(2000)

<sup>10</sup> <http://www.cityofcalimesa.net/Forms/Calimesa%20General%20Plan.pdf>, Section 3-13

<sup>11</sup> Department of Transportation, Federal Highway Administration, Office of Safety, FHWA-SA-10-006

The most significant contributor to air pollution is idling traffic as a result of congestion. In addition to peak-hour traffic delays, during off-peak hours drivers often sit idle at signalized intersections, creating “dead time” in which no vehicles are crossing the intersection, while other vehicles are waiting to cross. Further, the existing roadway and interchange do not have sufficient capacity to serve the current traffic volumes. The project’s roundabout system will significantly reduce these traffic delays and in turn, reduce GHG emissions by over 1,500 tons per year.

The roundabout Project also eliminates the need to acquire significant portions of right-of-way for a new underpass bridge. Without the project, ultimate growth would require a new underpass, resulting in significant right-of-way acquisition. Therefore, the Project will reduce construction impacts through innovative design measures.

The Project will quantitatively decrease traffic congestion resulting in GHG emission reduction, and limit construction impacts, with no adverse impacts to the environment. See **Section D-xv** for further discussion on GHG benefits.

As established in both the 2018 TCEP criteria and SCAG’s 2016 RTP/SCS, economic competitiveness coupled with quantifiable air quality improvements are fundamental guidelines when applying for local, State, and Federal funding. The Project demonstrates economic competitiveness through the already established benefits of employing roundabouts which would otherwise require costly road-widening while only minimally reducing traffic congestion and freight/commuter travel times.

#### **iv. Project Scope and Anticipated Benefits**

The *I-10/County Line Road Interchange Project* is an innovative congestion, safety, and asset management project. It leverages partnerships and funds from local, regional and federal sources as well as private funds, all while saving millions in future development funds due to its innovative design techniques. The Project will construct two (2) multi-lane roundabouts at I-10 freeway together with associated full width street improvements along County Line Road between 7<sup>th</sup> Place in the west and Calimesa Boulevard in the east; as shown on the Project exhibit included in **Attachment A**. The Project eliminates the need to acquire significant portions of right-of-way and significantly reduced typical interchange construction costs.

The eight-state I-10 Freeway is the most extensive goods movement corridor in the United States. As a major regional east-west freeway corridor, I-10 is heavily used by travelers between Los Angeles, Riverside and San Bernardino counties, and it is also a major truck route between Southern California, the rest of the nation, and Mexico. Due to its vast interlinking freight and commuter corridors throughout the eight States, the I-10 Freeway has regional significance in delivering millions of dollars in goods annually from the Los Angeles Basin to the Low Desert communities and beyond. In addition, housing costs have risen exponentially in the Los Angeles Basin, creating an increasing demand on affordable housing stock farther east, specifically to the communities of Redlands, Yucaipa, Calimesa, Beaumont, Banning, and lower desert communities. Key outcomes and outputs provided by the Project to this critical goods movement corridor are presented in **Table 2**.

In addition to the benefits presented in **Table 2**, medium-term construction jobs will be created not only with the construction of the Project, but with the subsequent commercial, retail, and residential development. The provision of these jobs will improve the jobs/housing ratio, having a long-term beneficial impact on employment on a local level while connecting residents with vital City centers and developments. The Project will enhance the delivery of goods along I-10, while enhancing the mobility to residents, seniors, students and workforce with retail and commercial centers, public service centers, and educational opportunities while providing safe access to non-motorized and public transportation.

**Table 2 – Anticipated Benefits**

Inputs	Outputs	Outcomes	Long Term Impacts
Roadway Reconstruction	-12' Travel Lanes (min.) -Raised Median	-0.2 miles of Improved Roadway	-Decreased Travel Time -Safe Left Turn Movements -Decreased Transportation Costs
Ramp Intersection Improvements	-Two Roundabout Intersections	-Two Intersections -Reduced Conflict Points from 32 to 8 -ADA Accessibility	-Improved Traffic Efficiency -Reduced GHG Emissions -Improved Emergency Response Times -Improved Bicycle and Pedestrian Safety -Improved Public Transportation Efficiency
Pedestrian and Bicycle Improvements	-5' Bike Lanes -6' Sidewalks -Curb Separation for Pedestrians	-0.2 miles of Class II Bike Lanes -0.2 miles of Sidewalks -Connectivity to existing Systems	-Mitigated Pedestrian and Bicycle Insecurity -ADA Accessibility -Improves Public Transportation Access

**v. California Freight Mobility Plan and California Sustainable Freight Action Plan**

The I-10/County Line Road Interchange Project outcomes and outputs coincide with the goals established in both the California Freight Mobility Plan and the California Sustainable Freight Action Plan. As described in previous sections, the Project is economically competitive and boosts economic growth in the region. By employing ITS elements, such as arterial and freeway management using Roundabouts at freeway on and off-ramps, the Project will reduce the overall costs of road-widening, installing traffic signals and signal technology, long-term operation and maintenance, reduction of lane requirements, reduces traffic congestion and acceleration/deceleration cycles along an essential trade corridor; thus encouraging improved freight movement and multi-modal transportation for residents, seniors, students, and workforce connecting them with retail and commercial employment centers, public service centers, and educational opportunities.

Traditional interchange capacity enhancement projects require an overall project budget of more than \$50 million, which is \$41.2 million above the projected costs of the I-10/County Line Road Interchange Project of \$8.8 million. The Project's anticipated economic benefits create unequivocal project competitiveness and possible economic growth when compared with upcoming or proposed trade corridor projects throughout the region. Our Benefit Cost Analysis (BCA) provides the data to substantiate our assertion of being economically competitive and the above referenced statistics on expected growth in the region coupled with the already booming regional economic surge justifies our claim that the Project will greatly augment the local economy and increase local job opportunities.

California Freight Mobility Plan (CFMP) goals reach beyond economic growth and competitiveness and require a standard of improving the safety, security, and resilience of the freight transportation system. The Project, as outlined in the Project Scope, implements roundabouts at intersections converted from conventional intersection forms, thereby experiencing significant safety improvements. According to US-DOT<sup>12</sup>, roundabouts have demonstrated substantial safety and operational benefits compared to most other intersection forms and controls, with significant reductions in fatal and injury crashes. Using the Transportation Information Mapping System (TIMS) to analyze the traffic collision history at I-10 and County Line Road, the Cities identified 87 traffic accidents along the Project route, of which four resulted in fatalities. The Project implements several safety improvements provided through the installation of roundabouts, thereby satisfying the CFMP goal of improving the safety, security, and resilience of the freight transportation system.



The CFMP goals require that projects also exhibit Environmental Stewardship by avoiding and reducing adverse environmental and community impacts of the freight transportation system, as well as use innovative technology and practices to operate, maintain, and optimize the efficiency of the freight transportation system while reducing its environmental and community impacts. As established in previous sections, roundabouts offer an efficient solution to traffic congestion (also a goal), freeway stacking, provide traffic calming, decrease the number of acceleration/deceleration points, contribute to the reduction of overall emissions and PM10 and 2.5; thereby greatly diminishing the overall environmental threats to the public and to the freight transportation system. Further, at the I-10/County Line Road Interchange, roundabouts significantly cut down on the scope and duration of construction.

Lastly, the CFMP goals challenge projects to improve the state of good repair of the freight transportation system. The Project is located along a well-established freight corridor, I-10, inefficiencies of the existing interchange are causing significant delays to the critical freight

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<sup>12</sup> US-DOT Proven Safety Countermeasures – Roundabouts (2012)

movement along I-10. The Project will mitigate these impacts by providing an efficient interchange, while accommodating the proposed new truck climbing lane on I-10 east.

**vi. Community Engagement**

Beginning in 2010, the Cities of Calimesa and Yucaipa as well as the Counties of San Bernardino and Riverside, have combined their efforts to engage residents regarding the studies being conducted on the proposed improvements along I-10 and several arterial roads, including County Line Road. Through these studies and surveys, which include innumerable community meetings, community workshops, and public meetings to discuss and plan the proposed changes to occur along I-10 and County Line Road. Among the concerns expressed and needs identified; the community has placed public safety, traffic calming, reduction in traffic congestion, lessened commuter travel time, and pathways for multi-modal transportation as priorities along these vital transportation and freight corridors. Early on in this process, property owners within the Project radius were engaged through public information fact sheets, social networking sites, announcement boards, and the City's website.

Since that time, the community continues to be informed of the improvements being made along these corridors and arterial roadways and are provided information on all public meetings or agenda items that pertain to the development and construction along County Line Road or I-10. As the Project continues, community member's concerns will be noted and addressed when appropriate and validated, to ensure a successful and favorable completion of the Project.

**vii. Addressing Community-Identified Needs**

As a result, and through the community workshops, meetings, studies, and surveys that began in 2010 and continue to occur in connection with concurrent projects taking place along County Line Road, in the Cities of Calimesa and Yucaipa; the Project addresses many of the community concerns connected with the interchange located at I-10 and County Line Road. Public safety is a primary concern of both communities, cities, and counties. Public safety is improved by several outcomes of employing a roundabout at freeway intersections and congested arterial roadways where road-widening would otherwise be necessary to achieve the same outputs; as outlined by US-DOT.<sup>13</sup>

Other prevalent community-identified needs are also addressed through the installation of the proposed roundabouts, as identified in the referenced US-DOT fact sheet regarding roundabouts, as they have been proven to reduce traffic congestion, thereby calming traffic and lessening freight and commuter travel time. The Project also encompasses the addition of pedestrian and bicycle paths, as well as providing an ITS element to encourage other forms of multi-modal transportation.

***Disadvantaged Low-Income Community***

According to EPA's Cal-Enviro Screen 3.0, the Project is located directly within an area that received two of the highest possible scores as a Disadvantaged Community (DAC), see Cal-Enviro Screen 3.0 map included as **Attachment B**. County Line Road from 5<sup>th</sup> St. to the I-10 freeway

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<sup>13</sup> US-DOT Proven Safety Countermeasures – Roundabouts (2012)

and east to Oak Glen Road was identified as falling within 61-65%, as seen in the attached Cal-Enviro map. Cal-Enviro screening also identifies the area adjacent this area as an area that falls within 71-75%, which denotes a predominately DAC. Therefore, the Project provides an opportunity for economic growth and an increase in job opportunities to area that has been identified as a severely DAC; as determined by the EPA.<sup>14</sup>

The City of Calimesa, located along the entire southern portion of the Project area, is a rural and DAC. Calimesa has a population of around 8,000, with a Median Household Income (MHI) of \$44,817, about 76% of the average MHI in the U.S., based on 2008-2013 U.S. Census Data. Though the City of Yucaipa has a larger population of around 53,000, U.S. Census Tract data indicates that the Project area is bounded on the Yucaipa/north side by 13 census tract blocks, nine of which (or 70% of the area) consist of a population considered to be a DAC averaging 69% of the average MHI in the U.S.<sup>15</sup>

Whereas, the City of Calimesa is a rural DAC, the Project will serve as a catalyst for future development in an area that has the landscape and opportunity for growth, but needs infrastructural improvements that will attract corporate, industrial, and retail businesses to the area. Construction of the Project will generate job opportunities in the local construction sector, thereby decreasing some of the highest unemployment rates in the region. SCAG's RTP/SCS provides quantitative data on the expected employment impact from construction, operations, and maintenance funding for San Bernardino County, estimating an additional ~26,000 jobs, as well as an additional ~27,000 employment opportunities in Riverside County.<sup>16</sup> The Project is anticipated to create and stimulate construction jobs for the next 30 years when combined with local development projects. Upon completion of the improvements, both large development (estimated 4,000 single family residential units will be constructed by development projects adjacent to the Project) and infill development projects in retail sector are anticipated to create jobs in perpetuity.

#### **viii. Community Needs Map**

According to the Environmental Protection Agency's (EPA) Cal-Enviro Screen 3.0, the Project is located directly within an area that received two of the highest possible scores as a Disadvantaged Community (DAC). As shown in the Cal-Enviro Screen 3.0 Map included as **Attachment B**, the areas surrounding the County Line Road Interchange are identified as falling between the 31-40 percent and the 61-70 percent ranges. Therefore, the Project provides an opportunity for economic growth and an increase in job opportunities to area that has been identified as a severe DAC, as determined by the EPA.

#### **ix. Project Cost Estimate**

Project costs include Preliminary Engineering and Environmental Documentation (PA&ED), Plans, Specifications, and Estimates (PS&E), Right-of-Way acquisition, Construction, Construction Contingencies, and Construction Management. Construction costs include mobilization, demolition and roadway removals, roadway construction (as described in the Project

<sup>14</sup> <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

<sup>15</sup> <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

<sup>16</sup> SCAG – 2016-40 Regional Transportation Plan/Sustainable Communities Strategy, pg. 159, Table 7.1

Scope), landscape and irrigation, utility relocation, lighting and electrical, signing and striping, and traffic control and construction staging. Due to application page limits, the detailed construction cost estimate is provided on the Calimesa's TCEP grant website at <http://cityofcalimesa.net/grants.htm>. The detailed Project cost estimate includes an itemized breakdown of quantities, unit costs and overall costs. A summary of construction costs is presented in **Table 3** below. Additional information on the amount and source of all funds committed to the Project can be found in the Project Programming Request (PPR) form, included in **Section F**.

Comparatively, the costs of the *I-10/County Line Road Interchange Project* are substantially less than the current Caltrans project located on I-10 near Redlands with an estimated \$25.8 million project cost.<sup>17</sup> This is an example of the potential costs associated with expanding the roadway, adding lanes, and installing signals rather than maintaining the current over/underpass widths and installing roundabouts.

**Table 3 – Cost Estimate**

Description	PA&ED	PS&E	Right-of-Way	Construction	Project Total
County Line Road Interchange Improvements	\$2,000,000	\$1,500,000	\$1,570,000	\$3,730,000	\$8,800,000
<b>Total:</b>	<b>\$2,000,000</b>	<b>\$1,500,000</b>	<b>\$1,570,000</b>	<b>\$3,730,000</b>	<b>\$8,800,000</b>

In addition to the Project, the adjacent intersection of County Line Road and Calimesa Boulevard will receive a similar upgrade, employing the ITS element of a roundabout to reduce congestion and increase public safety and health. This project already underway and funded through the SAFETEA-LU grant offered by the US-DOT.

**x. Preconstruction Project Component Funding**

The Project is seeking funding for both preconstruction and construction Project components; therefore, will fund the Project through construction as described herein.

**xi. Ability to Absorb Cost Overruns**

As demonstrated through completion of various other capital project by both Cities, the Cities have experience in delivering projects of this size and overcoming unique challenges associated with them (e.g. utility relocation coordination, planning and coordination with multiple agencies, etc.). Experience in overcoming these challenges is essential to deliver a successful project within time constraints and budget. To aid in the process, the *I-10/County Line Road Interchange Project* will be designed in accordance with applicable Caltrans, City, and County standards. Additionally, since the majority of improvements can be installed within existing right-of-way, little right-of-

<sup>17</sup> <https://consmap.dot.ca.gov/>

way is required for the Project with the majority being for ramp widening. As described above, the Cities are already under progress with the County Line Road and Calimesa Boulevard roundabout project and are committed to seeing this Project through.

The project includes primarily asphalt concrete improvements that are typically resilient and will minimize life-cycle costs. Completed improvements will be included in infrastructure maintenance programs funded through Measure A (Riverside County) and Measure I (San Bernardino County), local gas tax revenue and other revenue sources to ensure project life in perpetuity.

**xii. Project Delivery Plan**

The *I-10/County Line Road Interchange Project* has negligible risk because the vast majority of the roadway sections fall within existing right-of-way. Additionally, with the Cities vast knowledge of the corridor, there will be no surprises with utility coordination and relocation. Further, Caltrans will be involved throughout the process to ensure all the necessary approvals are achieved. These factors will help expedite the Project and avoid costly delays of grant funding obligation. Construction will be segmented into stages to avoid conflicts with construction staging, equipment and work performance. As shown herein, construction will commence in September 2022.

**xiii. Description of the Transportation Corridor and Function**

I-10, constructed in 1957, spans across eight States, 2,460 miles of roadway, serving as a major trade corridor for southern states where it extends from the West Coast to the East Coast; connecting to numerous ports and Mexico. I-10 connects a vast number of major cities to the entire nation, including but not limited to: Los Angeles, Houston, New Orleans, Phoenix, San Antonio, El Paso, Baton Rouge, Tallahassee, Tucson, Jacksonville, Palm Springs, San Bernardino, Riverside, and Santa Monica. I-10 intersects many other major interstate corridors, including Interstates 20, 40, 95, 5; thereby connecting the entire nation to the southern states, ports, and bordering countries. The function of the Project is to eliminate off-ramp stacking onto I-10 and the accommodate the proposed truck climbing lanes along I-10 east.

**xiv. Projected Quantitative and Qualitative Measures**

As described in greater detail in **Section D-xix**, numerous traffic studies, confirm that installing roundabouts provides a significant reduction in both fatalities and injury accidents that occur along roadways. Studies by the FHWA in 2009 show a 70% reduction in all annual accidents, an 88% reduction in injury accidents, and a 100% reduction in fatality accidents with the employment of roundabouts. The proposed roundabouts will significantly reduce the number of vehicle conflict points and associate number and severity of crashes. Using the Caltrans BCA Model 6.0, the Project will provide an accident benefit of \$53.0 million over 20-years.

Again, as described in greater detail in **Section D-xix**, travelers along I-10 are subject to significant delays along this stretch of highway due to off-ramp stacking onto the mainline freeway and the volume of cars trying to enter the freeway (between three and five minutes in total). Improvements to traffic efficiencies are directly related to the value of travel time savings generated by the Project

(i.e. reduced congestion, queuing and delays, etc.). Using the Caltrans BCA Model 6.0, the Project will provide a travel time savings of \$100.5 million over 20-years. Further, the proposed Project will accommodate a proposed Caltrans project to construct a truck climbing lane on eastbound I-10, which will also provide for interregional efficiency improvements along this corridor.

As described in **Section D-xviii**, the *I-10/County Line Road Interchange Project* will implement advanced multi-modal improvements to the interchange to mitigate the significant delays along I-10. The roundabout interchange will significantly reduce capital costs, construction scope, right-of-way impacts, and GHG emissions. Additionally, this innovative approach will provide vastly improved safety and efficiency along I-10, a critical freight transportation system.

Again, as presented in **Section D-xix**, these project improvements will also result in significant air quality improvements, benefiting both environmental sustainability and quality of life. Using the Caltrans BCA Model 6.0, the Project provide 30,698 tons of CO<sub>2</sub> emissions savings over 20-years. Overall the Project will provide an emissions savings of \$2.7 million over 20-years.

Finally, as described in **Section D-iv**, the SCAG 2016 RTP/SCS cited quantitative data on the expected employment impact from construction, operations, and maintenance funding for San Bernardino County, estimating an additional ~26,000 jobs, as well as an additional ~27,000 employment opportunities in Riverside County.<sup>18</sup> The Project itself is anticipated to create and stimulate construction jobs for the next 30 years when combined with local development projects. Upon completion of the improvements, both large development (estimated 4,000 single family residential units will be constructed by development projects adjacent to the Project) and infill development projects in retail sectors are expected to commence, creating an immediate benefit of increased job opportunities and economic growth.

#### xv. **Emissions Reduction**

The Project will provide a positive impact on air quality. The *I-10/County Line Road Interchange Project* will provide efficient traffic patterns along I-10 and across the County Line Road arterial roadway, in turn reducing vehicle miles traveled because trips can be completed with less congestion and subsequent vehicular idling. The Project will provide savings by reducing greenhouse gas emissions, as well as wear and tear on roadways and motor vehicles due to reduced vehicle idling and improved roadway surface conditions; in addition to other benefits by implementing sustainability initiatives. These changes in overall travel behaviors result in less oil dependence and reduced emissions.

Further described in **Section D xix**, the Project will provide a travel time savings of \$5.0 million annually through vastly improved efficiency. Using the Caltrans BCA Model 6.0, the resultant air quality improvements and associated value over a 20-year period include:

- CO<sub>2</sub> emissions savings of 30,689 tons, valued at \$1.0 million
- CO emissions savings of 57 tons, valued at \$7,000
- NO<sub>x</sub> emissions savings of 35 tons, valued at \$1.5 million

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<sup>18</sup> SCAG – 2016-40 Regional Transportation Plan/Sustainable Communities Strategy, pg. 159, Table 7.1

- PM<sub>10</sub> emissions savings of <1 ton, valued at \$163,000
- PM<sub>2.5</sub> emissions savings of <1 ton, with no associated value per Caltrans
- SO<sub>x</sub> emissions savings of <1 ton, valued at \$42,000
- VOC emissions savings of 9 tons, valued at \$28,000

The total value of emissions improvements is \$2.7 million over a 20-year period and provide benefits to both environmental sustainability and quality of life in the Cities and surrounding communities. Additional community benefits include reduced construction scope and duration by avoiding a new underpass bridge structure due to the traffic efficiencies provided by the roundabouts.

Further, the City also evaluated the GHG impacts due to commuters avoiding the existing County Line Road Interchange in lieu of Oak Glen Road in Yucaipa or Sandalwood Drive in Calimesa. Commuter that would normally use County Line Road Interchange, choose to use Oak Glen Road or Sandalwood Drive as their freeway or local road access point due to its existing deficiencies. The Cities estimates approximately 150 commuters utilize the alternate interchanges to avoid the inefficiencies at County Line Road. The resultant GHG impacts of traveling an additional 2.7 miles to use Oak Glen Road Interchange in lieu of County Line Road Interchange are 182 tons of CO<sub>2</sub> annually. Additionally, the resultant GHG impacts of traveling an additional 1.1 miles to use Sandalwood Drive Interchange in lieu of County Line Road Interchange are 59 tons of CO<sub>2</sub> annually. That annual emissions impact is equivalent to the GHG emissions from 47 passenger vehicles driven for 1-year or the CO<sub>2</sub> emissions from 24 homes' energy use for 1-year.<sup>19</sup> The Project will eliminate these impacts and reduce vehicle miles traveled by 93 percent.

#### **xvi. Regional Transportation Plan Correlation**

SCAG's RTP/SCS identifies the region as the largest international gateway in the U.S., supported by airports, land ports of entry, seaports, railways, highways, and warehouse distribution centers. In 2014, regional airports handled nearly \$96 billion in international air cargo, moving \$515 billion in international trade, and generating 2.9 million jobs in the Goods Movement industry.<sup>20</sup> SCAG's primary focus of goods movement is highlighted in the RTP/SCS, pinpointing three key elements to creating economic growth while reducing the overall environmental, infrastructural, and public health impact: 1) decrease the cost of wasted labor hours and fuel from truck congestion on highways; 2) reduce the annual cost (\$14.6 billion) of air pollution in the SCAG region; and, 3) decrease the vehicle hours of delay per day at rail-highway crossings across the region by 2014. Of these three key factors, two are mitigated through the improvements being implemented in the I-10/County Line Road Interchange Project.

As outlined in **Section D-xix**, supported by studies and research conducted by the US-DOT and FHWA, roundabouts are recognized as an efficient and effective method in relieving traffic congestion and highway stacking when used at freeway interchanges and on/off ramps. As such,

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<sup>19</sup> Per EPA Greenhouse Gas Equivalencies Calculator.

<sup>20</sup> SCAG's 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy; page 46

the reduction of traffic congestion and delays improves the overall environmental impact in the SCAG region, resulting in a decrease in annual costs of air pollution.

Both US-DOT and FHWA reports on roundabouts provide insight on the overall expected decrease in vehicle hours of delay at highway crossings, as implemented by the Project. In the Report, the FHWA lists the benefits of installing roundabouts rather than signalized and all-way stop-controlled intersections, identifying roundabouts as providing environmental benefits by reducing vehicle delay and the number and duration of stops compared with signalized or all-way stop-controlled alternatives. Even when there are heavy volumes, vehicles continue to advance slowly in moving queues rather than coming to a complete stop. This can reduce noise and air quality impacts and fuel consumption significantly by reducing the number of acceleration/deceleration cycles and time spent idling.<sup>21</sup>

SCAG's RTP/SCS supports our statements above touting a significant increase in job opportunities and economic activity. SCAG studies prove that transportation investments which reduce traffic congestion can allow people to interact more readily with a larger pool of like-minded experts, increasing the learning and innovation in a regional economy. Through this interaction, firms are empowered to innovate in ways that lower costs, improve products, and lead to larger market share. Overtime, that improved innovation environment will attract mobile labor and capital (workers and firms) from other regions, further boosting economic activity.<sup>22</sup>

#### **xvii. Management Strategy**

The *I-10/County Line Road Interchange Project* will follow typical Caltrans project processing, beginning with a Project Study Report, then Project Approval and Environmental Documentation, followed by Plans, Specifications, and Estimates, then onto Construction. Working closely with Caltrans will provide the necessary management strategies to ensure the I-10 corridor goals and objectives are maintained and future improvements are accounted for in current designs, to the greatest extent possible. Both Cities have great working relationships with Caltrans District 8 staff, including the current processing of the I-10 and Cherry Valley Boulevard interchange improvements.

#### **xviii. Innovative Technologies**

As described in greater detail in **Section D-iv**, the implementation of a roundabout interchange will significantly reduce capital costs, construction scope, right-of-way impacts, and GHG emissions. Additionally, this innovative approach will provide vastly improved safety and efficiency along I-10, a critical freight transportation system. Further, the cost savings provided by this innovative approach are of great benefit to the local DAC communities.

#### **xix. Benefit-Cost Analysis**

After completing the benefit cost analysis for the *I-10/County Line Road Interchange Project*, using Caltrans' Life-Cycle Benefit-Cost Analysis (BCA) Model 6.0, the net present value is \$152.7

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<sup>21</sup> U.S. Department of Transportation Federal Highway Administration. "Technical Summary: Roundabouts." (2008)

<sup>22</sup> SCAG's 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy; page 158

million with a benefit to cost ratio of 17.9. Overall, the project will generate benefits of \$161.8 million and costs of \$9.0 million. The costs and benefits analysis were laid out over 20 years and estimates are thought to be conservative. The following section describes the analysis in greater detail.

Regarding safety, numerous traffic studies, including those by the FHWA, confirm that installing roundabouts, provide a significant reduction in both fatalities and injury accidents that occur along roadways. As population has and continues to grow and traffic congestion increases, so do the number of traffic collisions. The proposed Project will install two roundabout interchanges to accommodate the increased traffic volumes. The proposed roundabout will significantly reduce the number of vehicle conflict points. Studies by the FHWA in 2009 show a 70% reduction in all annual accidents, an 88% reduction in injury accidents, and a 100% reduction in fatality accidents with the employment of roundabouts. As described, the proposed Project will incorporate these roadway features to improve safety.

Project accident and injury information was obtained through the TIMS, established by researchers at the Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley; and from the California Highway Patrol (CHP). The data sources were cross referenced to remove any duplicates prior to inputting into the Caltrans BCA Model 6.0. The data shows that over the past 10 years the following accidents have occurred in the project area: 50 collisions with complaint of pain injuries, 24 collisions with visible injuries, nine (9) collisions with severe injuries, and four (4) collisions that resulted in fatalities. Using the Caltrans BCA Model 6.0 and inputting the last 3-years accident data, the monetized value of injuries and fatalities was calculated to be \$53.0 million over 20-years, with an average annual accident cost savings of \$2.7 million with the Project.

Our next set of BCA pertains to economic competitiveness, environmental sustainability, and quality of life. Travelers along I-10 are subject to significant delays along this stretch of highway. Additionally, commuters trying to access the freeway on County Line Road are subject to significant delays, between three and five minutes in total to navigate the interchange, when traveling during the morning and evening peak travel times. In addition to slowing the movement of goods along I-10, these traffic related inefficiencies affect both Cities economic competitiveness in attracting businesses and environmental sustainability in generating excess greenhouse gas emissions, and livability and quality of life for its current and potential residents.

Traffic efficiencies are related to the value of travel time savings generated by reduced congestion, queuing and delays caused by red lights and stop signs. During daily peak travel time, commuters are delayed by a number of factors; in this case, the inefficiency of existing transportation systems are lane capacity and intersection control. Under existing conditions commuters are delayed 5.7 hours per year on average during peak hours and travel at an average speed of 3.7 miles per hour (mph). In Year 20, it is estimated that commuters would be delayed 10.3 hours per year, on average, during peak hours and travel at an average speed of 2.2 mph, without the proposed project improvements. However, in Year 20 with the implementation of the proposed project improvements, commuters would only be delayed an average of 0.5 hours per year in total during peak hours, and 95 percent reduction in travel time delays; and travel at an average speed of 19.9

mph, an 810 percent improvement in average speed along the Project corridor. Using the Caltrans BCA Model 6.0, the travel time savings was calculated to be \$100.5 million over 20-years, with an average annual travel time savings of \$5.0 million with the Project.

These same Project traffic efficiency improvements also result in significant air quality improvements, benefiting both environmental sustainability and quality of life. Using the Caltrans BCA Model 6.0, the Project will result in a CO<sub>2</sub> emissions savings of 1,534 tons annually. That annual emissions savings is equivalent to the greenhouse gas emissions from 298 passenger vehicles driven for 1-year or the CO<sub>2</sub> emissions from 150 homes' energy use for 1-year.<sup>23</sup> Further, the Project's 20-year CO<sub>2</sub> emissions savings of 30,689 tons is equivalent to the greenhouse gas emissions from 5,962 passenger vehicles driven for 1-year or the CO<sub>2</sub> emissions from 3,006 homes' energy use for 1-year.<sup>24</sup> In summary, the emissions cost savings were calculated to be \$2.7 million over 20-years, with an average annual emissions cost savings of \$0.13 million with the Project.

In addition to the traffic efficiency improvements, the *I-10/County Line Road Interchange Project* will provide a significant pavement condition improvement with new asphalt-concrete pavement throughout. The Caltrans BCA Model 6.0 accounts for pavement condition improvements as a vehicle operational cost savings. The Project will result in a vehicle operational cost savings of \$5.6 million over 20-years, with an average annual vehicle operational cost savings of \$0.3 million with the Project. The new pavement condition also provides a significant quality of life improvements, through both a reduced vehicle maintenance cost for travelers and a pleasurable driving experience.

As described in detail in **Section D-ix**, the Project costs include initial construction and ongoing operations and maintenance. For transportation infrastructure, in addition to general administration and operations costs, maintenance costs are estimated to include two weeks per year for routine landscape upkeep at a rate of \$50 per hour for two people, one day per year for as-needed lighting replacement at a rate of \$75 per hour. Further, on a 10-year basis, slurry seal treatment and restriping are anticipated at a unit cost of \$0.40 per square foot for slurry seal and \$0.20 per square foot for traffic control and striping replacement. Therefore, the total project operations and maintenance costs are estimated at \$16,800 per year on average or \$336,000 for the life of the project.

In summary, the total life-cycle cost of the project is \$9.0 million and the total life-cycle benefit of the project is \$161.8 million. **Table 4 and 5** below provides a summary of the BCA for both the northbound roundabout and southbound roundabout intersections, respectively. Due to application page limits, only the BCA summary tables are included in **Attachment C**; the full benefit-cost analysis, including assumptions and results, is available on the Calimesa's TCEP grant website at <http://cityofcalimesa.net/grants.htm>.

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<sup>23</sup> Per EPA Greenhouse Gas Equivalencies Calculator.

<sup>24</sup> Per EPA Greenhouse Gas Equivalencies Calculator.

**Table 4 – Project Benefit-Cost Analysis for Northbound Roundabout**

INVESTMENT ANALYSIS		SUMMARY RESULTS			
Life-Cycle Costs (mil. \$)	\$4.5				
Life-Cycle Benefits (mil. \$)	\$80.4				
Net Present Value (mil. \$)	\$75.9				
Benefit / Cost Ratio:	17.8				
Rate of Return on Investment:	125.6%				
Payback Period:	1 year				
<b>Should benefit-cost results include:</b>					
1) Induced Travel? (y/n)	<input type="checkbox"/> Y <small>Default = Y</small>				
2) Vehicle Operating Costs? (y/n)	<input type="checkbox"/> Y <small>Default = Y</small>				
3) Accident Costs? (y/n)	<input type="checkbox"/> Y <small>Default = Y</small>				
4) Vehicle Emissions? (y/n) <small>includes value for CO<sub>2e</sub></small>	<input type="checkbox"/> Y <small>Default = Y</small>				
		<b>ITEMIZED BENEFITS (mil. \$)</b>			
		Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
		\$42.1	\$7.7	\$49.8	\$2.5
		\$2.4	\$0.4	\$2.8	\$0.1
		\$24.1	\$2.4	\$26.5	\$1.3
		\$0.6	\$0.7	\$1.3	\$0.1
		<b>\$69.2</b>	<b>\$11.3</b>	<b>\$80.4</b>	<b>\$4.0</b>
		Person-Hours of Time Saved		4,956,607	247,830
		<b>EMISSIONS REDUCTION</b>			
		Tons		Value (mil. \$)	
		Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
		28	1	\$0.0	\$0.0
		15,221	761	\$0.5	\$0.0
		18	1	\$0.7	\$0.0
		0	0	\$0.1	\$0.0
		0	0		
		0	0	\$0.0	\$0.0
		5	0	\$0.0	\$0.0

**Table 5 – Project Benefit-Cost Analysis for Southbound Roundabout**

INVESTMENT ANALYSIS		SUMMARY RESULTS			
Life-Cycle Costs (mil. \$)	\$4.5				
Life-Cycle Benefits (mil. \$)	\$81.3				
Net Present Value (mil. \$)	\$76.8				
Benefit / Cost Ratio:	18.0				
Rate of Return on Investment:	127.0%				
Payback Period:	1 year				
<b>Should benefit-cost results include:</b>					
1) Induced Travel? (y/n)	<input type="checkbox"/> Y <small>Default = Y</small>				
2) Vehicle Operating Costs? (y/n)	<input type="checkbox"/> Y <small>Default = Y</small>				
3) Accident Costs? (y/n)	<input type="checkbox"/> Y <small>Default = Y</small>				
4) Vehicle Emissions? (y/n) <small>includes value for CO<sub>2e</sub></small>	<input type="checkbox"/> Y <small>Default = Y</small>				
		<b>ITEMIZED BENEFITS (mil. \$)</b>			
		Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
		\$42.8	\$7.9	\$50.6	\$2.5
		\$2.4	\$0.4	\$2.8	\$0.1
		\$24.2	\$2.4	\$26.6	\$1.3
		\$0.6	\$0.8	\$1.3	\$0.1
		<b>\$69.9</b>	<b>\$11.4</b>	<b>\$81.3</b>	<b>\$4.1</b>
		Person-Hours of Time Saved		5,036,715	251,836
		<b>EMISSIONS REDUCTION</b>			
		Tons		Value (mil. \$)	
		Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
		28	1	\$0.0	\$0.0
		15,467	773	\$0.5	\$0.0
		18	1	\$0.7	\$0.0
		0	0	\$0.1	\$0.0
		0	0		
		0	0	\$0.0	\$0.0
		5	0	\$0.0	\$0.0

**xx. Improvements to Private Infrastructure**

The I-10/County Line Road Interchange Project does not propose to make improvements to any privately-owned infrastructure.

## Section E. Rail Investments

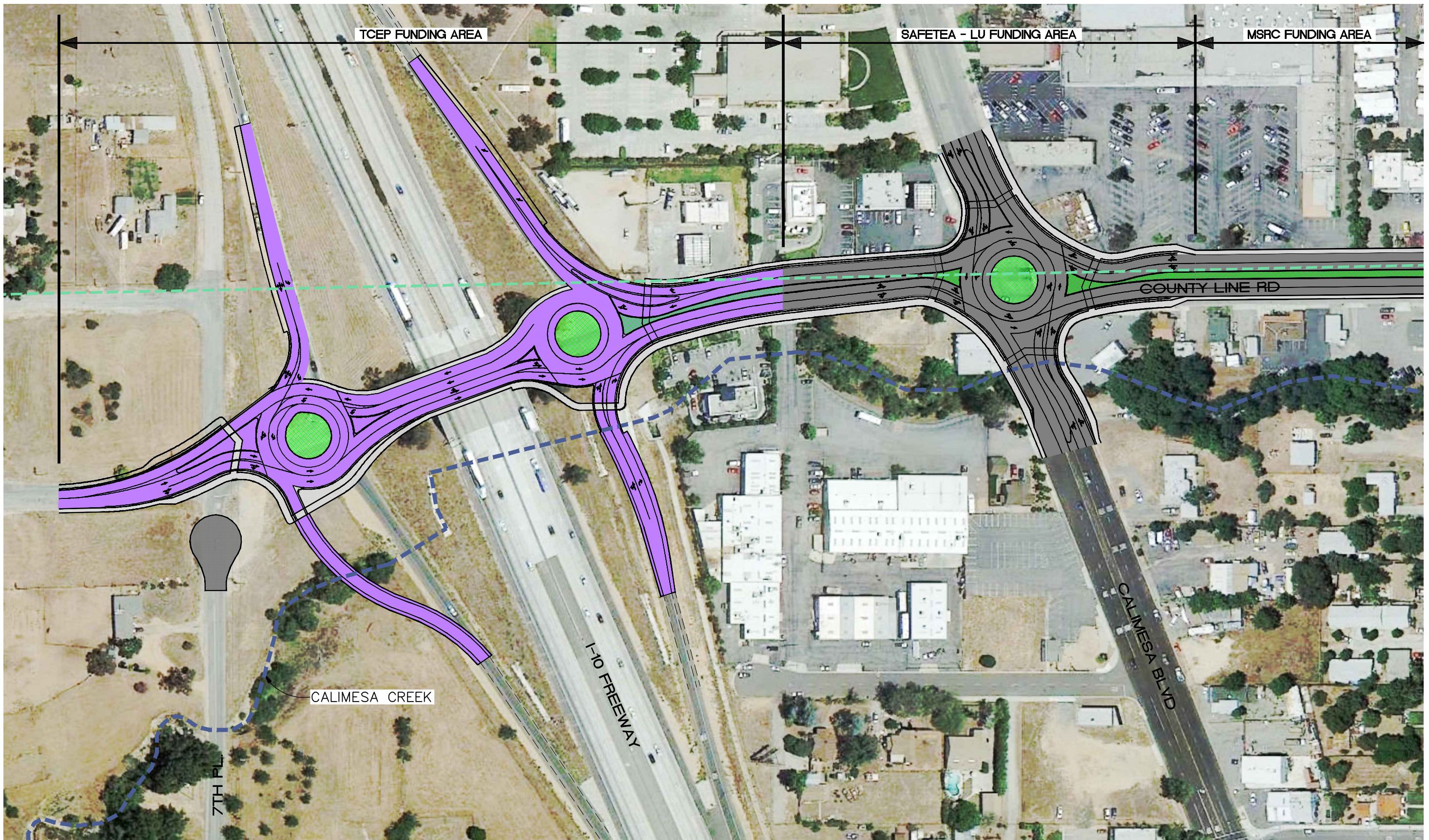
The I-10/County Line Road Interchange Project does not propose to make rail investments.

## Section F. Project Programming Request Form

The *I-10/County Line Road Interchange* Project Programming Request (PPR) form is included as **Attachment D**. As shown, the Project funding requests begin in Fiscal-Year 2018/2019 and continue through Fiscal-Year 2023/2024.

# **Attachment A**

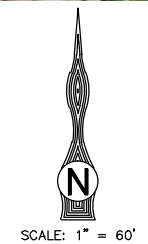
Project Exhibit



S:\CADD\133-29 County Line Road and I-10 Freeway\TIGER 2015 Exhibits\Interchange Feasibility Exhibit\_01-19-2018.dwg

**LEGEND:**

- EXIST. STORM CHANNEL/CREEK
- COUNTY BOUNDARY
- TCEP FUNDING AREA



**TKE**  
ENGINEERING

TKE ENGINEERING, INC.  
2305 CHICAGO AVENUE  
RIVERSIDE, CA 92507  
(951) 680-0440  
FAX: (951) 680-0490

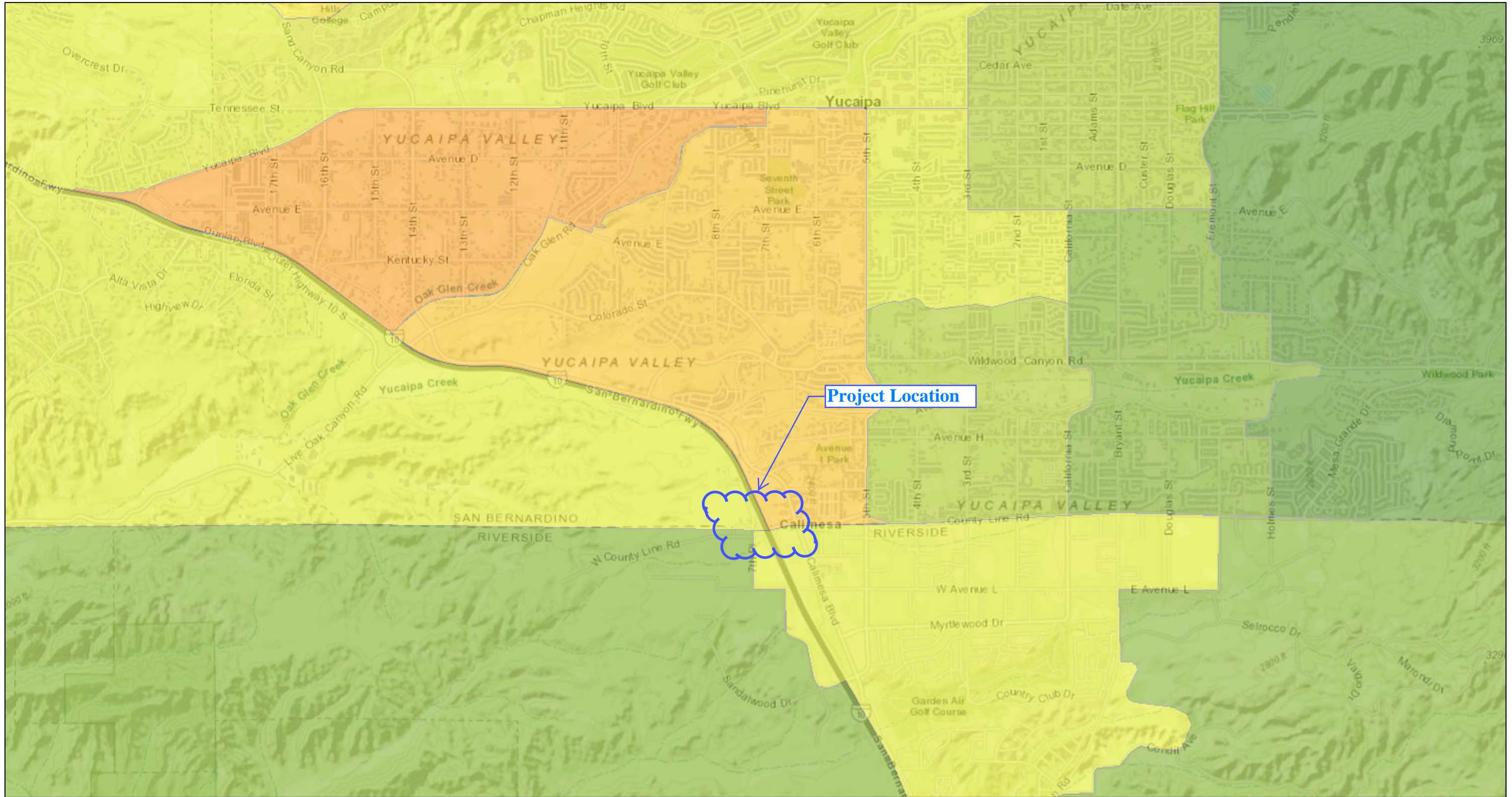
**CITY OF CALIMESA**

I-10/COUNTY LINE ROAD  
INTERCHANGE EXHIBIT

## **Attachment B**

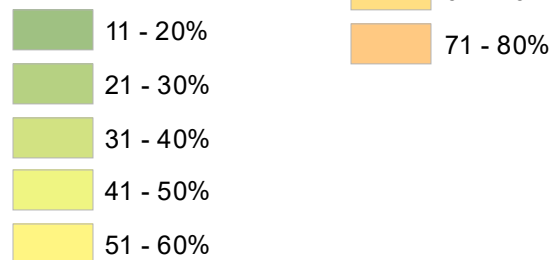
Cal-Enviro Screen 3.0 Map

# CalEnviroScreen 3.0 Results

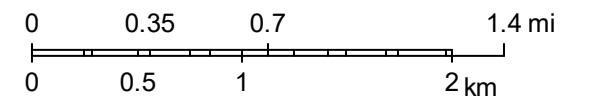


1/23/2018, 6:58:21 AM

CalEnviroScreen 3.0 Results



1:36,112



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS

# **Attachment C**

Caltrans Benefit Cost Analysis

District:

PROJECT:

EA:   
PPNO:

**1A PROJECT DATA**

**Type of Project** Remember to run model for both roads  
Select project type from list

**Project Location** (enter 1 for So. Cal., 2 for No. Cal., or 3 for rural)

Length of Construction Period  years  
One- or Two-Way Data  enter 1 or 2

Length of Peak Period(s) (up to 24 hrs)  hours

**1C HIGHWAY ACCIDENT DATA**

**Actual 3-Year Accident Data (from Table B)**

	Count (No.)	Rate
Total Accidents (Tot)	21	14.66
Fatal Accidents (Fat)	2	1.430
Injury Accidents (Inj)	8	5.36
Property Damage Only (PDO) Accidents	11	7.87

**Statewide Basic Average Accident Rate**

Rate Group	No Build	Build
Accident Rate (per million vehicle-miles)		
Percent Fatal Accidents (Pct Fat)		
Percent Injury Accidents (Pct Inj)		

**1B HIGHWAY DESIGN AND TRAFFIC DATA**

**Highway Design**

	No Build	Build
Roadway Type (Fwy, Exp, Conv Hwy)	F	F
Number of General Traffic Lanes	1	2
Number of HOV/HOT Lanes		
HOV Restriction (2 or 3)		
Exclusive ROW for Buses (y/n)	N	
Highway Free-Flow Speed	3	20
Ramp Design Speed (if aux. lane/off-ramp proj.)	35	35
Length (in miles) Highway Segment	0.2	0.2
Impacted Length	0.2	0.2

**Average Daily Traffic**

	No Build	Build
Current	<input type="text" value="1,277"/>	
Base (Year 1)	1,289	1,289
Forecast (Year 20)	1,521	1,521

**Average Hourly HOV/HOT Lane Traffic**

	No Build	Build
Average Hourly HOV/HOT Lane Traffic		0
Percent of Induced Trips in HOV (if HOT or 2-to-3 conv.)		100%

**Percent Traffic in Weave**

	No Build	Build
Percent Traffic in Weave		0.0%

**Percent Trucks** (include RVs, if applicable)

	No Build	Build
Percent Trucks	9%	9%

**Truck Speed**

	No Build	Build
Truck Speed		

**On-Ramp Volume**

	Peak	Non-Peak
Hourly Ramp Volume (if aux. lane/on-ramp proj.)	0	0
Metering Strategy (1, 2, 3, or D, if on-ramp proj.)		

**Queue Formation** (if queuing or grade crossing project)

	Year 1	Year 20
Arrival Rate (in vehicles per hour)	0	0
Departure Rate (in vehicles per hour)	0	0

**Pavement Condition** (if pavement project)

	No Build	Build
IRI (inches/mile) Base (Year 1)		
Forecast (Year 20)		

**Average Vehicle Occupancy (AVO)**

	No Build	Build
General Traffic Non-Peak	1.30	1.30
Peak	1.15	1.15
High Occupancy Vehicle (if HOV/HOT lanes)	2.15	2.15

**1D RAIL AND TRANSIT DATA**

**Annual Person-Trips**

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		
Percent Trips during Peak Period	40%	
Percent New Trips from Parallel Highway		100%

**Annual Vehicle-Miles**

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		

**Average Vehicles/Train** (if rail project)

	No Build	Build
Average Vehicles/Train		

**Reduction in Transit Accidents**

	No Build	Build
Percent Reduction (if safety project)		

**Average Transit Travel Time**

	No Build	Build
In-Vehicle Non-Peak (in minutes)		0.0
Peak (in minutes)		0.0
Out-of-Vehicle Non-Peak (in minutes)	0.0	0.0
Peak (in minutes)	0.0	0.0

**Highway Grade Crossing**

	Current	Year 1	Year 20
Annual Number of Trains		0	
Avg. Gate Down Time (in min.)		0.0	

**Transit Agency Costs** (if TMS project)

	No Build	Build
Annual Capital Expenditure		\$0
Annual Ops. and Maintenance Expenditure		\$0

Model should be run for both roads for intersection or bypass highway projects, and may be run twice for connectors. Press button below to prepare model to enter data for second road. After data are entered, results reflect total project benefits.

Prepare Model for Second Road

Enter all project costs (in today's dollars) in columns 1 to 7. Costs during construction should be entered in the first eight rows.  
 Project costs (including maintenance and operating costs) should be net of costs without project.

1E PROJECT COSTS (enter costs in thousands of dollars)									
Col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Year	DIRECT PROJECT COSTS			SUBSEQUENT COSTS		Mitigation	Transit Agency Cost Savings	TOTAL COSTS (in dollars)	
	Project Support	R / W	Construction	Maint./ Op.	Rehab.			Constant Dollars	Present Value
<b>Construction Period</b>									
1	\$1,995	\$785	\$1,620					\$4,400,000	\$4,400,000
2								0	0
3								0	0
4								0	0
5								0	0
6								0	0
7								0	0
8								0	0
<b>Project Open</b>									
1				\$6				\$5,550	\$5,337
2				\$6				5,550	5,131
3				\$6				5,550	4,934
4				\$6				5,550	4,744
5				\$6				5,550	4,562
6				\$6				5,550	4,386
7				\$6				5,550	4,218
8				\$6				5,550	4,055
9				\$6				5,550	3,899
10				34				34,050	23,003
11				6				5,550	3,605
12				6				5,550	3,467
13				6				5,550	3,333
14				6				5,550	3,205
15				6				5,550	3,082
16				6				5,550	2,963
17				6				5,550	2,849
18				6				5,550	2,740
19				6				5,550	2,634
20				34				34,050	15,540
<b>Total</b>	\$1,995	\$785	\$1,620	\$168	\$0	\$0	\$0	\$4,568,000	\$4,507,687

$$\text{Present Value} = \frac{\text{Future Value (in Constant Dollars)}}{(1 + \text{Real Discount Rate})^{\text{Year}}}$$

District: 8

PROJECT: I-10 and County Line Rd Interchange - North Bound (Part 2)

EA:   
 PPNO:

3

## INVESTMENT ANALYSIS

### SUMMARY RESULTS

Life-Cycle Costs (mil. \$)	<input type="text" value="\$4.5"/>
Life-Cycle Benefits (mil. \$)	<input type="text" value="\$80.4"/>
Net Present Value (mil. \$)	<input type="text" value="\$75.9"/>
<b>Benefit / Cost Ratio:</b>	
	<input type="text" value="17.8"/>
<b>Rate of Return on Investment:</b>	
	<input type="text" value="125.6%"/>
<b>Payback Period:</b>	
	<input type="text" value="1 year"/>

	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
<b>ITEMIZED BENEFITS (mil. \$)</b>				
Travel Time Savings	\$42.1	\$7.7	\$49.8	\$2.5
Veh. Op. Cost Savings	\$2.4	\$0.4	\$2.8	\$0.1
Accident Cost Savings	\$24.1	\$2.4	\$26.5	\$1.3
Emission Cost Savings	\$0.6	\$0.7	\$1.3	\$0.1
<b>TOTAL BENEFITS</b>	<b>\$69.2</b>	<b>\$11.3</b>	<b>\$80.4</b>	<b>\$4.0</b>
<b>Person-Hours of Time Saved</b>			<input type="text" value="4,956,607"/>	<input type="text" value="247,830"/>

**Should benefit-cost results include:**

1) Induced Travel? (y/n)   
Default = Y

2) Vehicle Operating Costs? (y/n)   
Default = Y

3) Accident Costs? (y/n)   
Default = Y

4) Vehicle Emissions? (y/n)   
Default = Y  
includes value for CO<sub>2</sub>e

	Tons		Value (mil. \$)	
	Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
<b>EMISSIONS REDUCTION</b>				
CO Emissions Saved	28	1	\$0.0	\$0.0
CO <sub>2</sub> Emissions Saved	15,221	761	\$0.5	\$0.0
NO <sub>x</sub> Emissions Saved	18	1	\$0.7	\$0.0
PM <sub>10</sub> Emissions Saved	0	0	\$0.1	\$0.0
PM <sub>2.5</sub> Emissions Saved	0	0		
SO <sub>x</sub> Emissions Saved	0	0	\$0.0	\$0.0
VOC Emissions Saved	5	0	\$0.0	\$0.0

District:

PROJECT:

EA:   
PPNO:

**1A PROJECT DATA**

**Type of Project** Remember to run model for both roads  
Select project type from list

**Project Location** (enter 1 for So. Cal., 2 for No. Cal., or 3 for rural)

Length of Construction Period  years  
One- or Two-Way Data  enter 1 or 2

Length of Peak Period(s) (up to 24 hrs)  hours

**1C HIGHWAY ACCIDENT DATA**

**Actual 3-Year Accident Data (from Table B)**

	Count (No.)	Rate
Total Accidents (Tot)	21	12.08
Fatal Accidents (Fat)	2	1.178
Injury Accidents (Inj)	8	4.42
Property Damage Only (PDO) Accidents	11	6.48

**Statewide Basic Average Accident Rate**

Rate Group	No Build	Build
Accident Rate (per million vehicle-miles)		
Percent Fatal Accidents (Pct Fat)		
Percent Injury Accidents (Pct Inj)		

**1B HIGHWAY DESIGN AND TRAFFIC DATA**

**Highway Design**

	No Build	Build
Roadway Type (Fwy, Exp, Conv Hwy)	F	F
Number of General Traffic Lanes	1	2
Number of HOV/HOT Lanes		
HOV Restriction (2 or 3)		
Exclusive ROW for Buses (y/n)	N	
Highway Free-Flow Speed	3	20
Ramp Design Speed (if aux. lane/off-ramp proj.)	35	35
Length (in miles) Highway Segment	0.2	0.2
Impacted Length	0.2	0.2

**Average Daily Traffic**

	No Build	Build
Current	1,550	
Base (Year 1)	1,565	1,565
Forecast (Year 20)	1,847	1,847

**Average Hourly HOV/HOT Lane Traffic**

	No Build	Build
Average Hourly HOV/HOT Lane Traffic		0
Percent of Induced Trips in HOV (if HOT or 2-to-3 conv.)		100%

**Percent Traffic in Weave**

	No Build	Build
Percent Traffic in Weave		0.0%

**Percent Trucks** (include RVs, if applicable)

	No Build	Build
Percent Trucks	9%	9%

**Truck Speed**

	No Build	Build
Truck Speed		

**On-Ramp Volume**

	Peak	Non-Peak
Hourly Ramp Volume (if aux. lane/on-ramp proj.)	0	0
Metering Strategy (1, 2, 3, or D, if on-ramp proj.)		

**Queue Formation** (if queuing or grade crossing project)

	Year 1	Year 20
Arrival Rate (in vehicles per hour)	0	0
Departure Rate (in vehicles per hour)	0	0

**Pavement Condition** (if pavement project)

	No Build	Build
IRI (inches/mile) Base (Year 1)		
Forecast (Year 20)		

**Average Vehicle Occupancy (AVO)**

	No Build	Build
General Traffic Non-Peak	1.30	1.30
Peak	1.15	1.15
High Occupancy Vehicle (if HOV/HOT lanes)	2.15	2.15

**1D RAIL AND TRANSIT DATA**

**Annual Person-Trips**

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		
Percent Trips during Peak Period	40%	
Percent New Trips from Parallel Highway		100%

**Annual Vehicle-Miles**

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		
Average Vehicles/Train (if rail project)		

**Reduction in Transit Accidents**

	No Build	Build
Percent Reduction (if safety project)		

**Average Transit Travel Time**

	No Build	Build
In-Vehicle Non-Peak (in minutes)		0.0
Peak (in minutes)		0.0
Out-of-Vehicle Non-Peak (in minutes)	0.0	0.0
Peak (in minutes)	0.0	0.0

**Highway Grade Crossing**

	Current	Year 1	Year 20
Annual Number of Trains		0	
Avg. Gate Down Time (in min.)		0.0	

**Transit Agency Costs** (if TMS project)

	No Build	Build
Annual Capital Expenditure		\$0
Annual Ops. and Maintenance Expenditure		\$0

Model should be run for both roads for intersection or bypass highway projects, and may be run twice for connectors. Press button below to prepare model to enter data for second road. After data are entered, results reflect total project benefits.

Prepare Model for Second Road

Enter all project costs (in today's dollars) in columns 1 to 7. Costs during construction should be entered in the first eight rows.  
 Project costs (including maintenance and operating costs) should be net of costs without project.

1E PROJECT COSTS (enter costs in thousands of dollars)									
Col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Year	DIRECT PROJECT COSTS			SUBSEQUENT COSTS		Mitigation	Transit Agency Cost Savings	TOTAL COSTS (in dollars)	
	Project Support	R / W	Construction	Maint./ Op.	Rehab.			Constant Dollars	Present Value
<b>Construction Period</b>									
1	\$1,995	\$785	\$1,620					\$4,400,000	\$4,400,000
2								0	0
3								0	0
4								0	0
5								0	0
6								0	0
7								0	0
8								0	0
<b>Project Open</b>									
1				\$6				\$5,550	\$5,337
2				\$6				5,550	5,131
3				\$6				5,550	4,934
4				\$6				5,550	4,744
5				\$6				5,550	4,562
6				\$6				5,550	4,386
7				\$6				5,550	4,218
8				\$6				5,550	4,055
9				\$6				5,550	3,899
10				34				34,050	23,003
11				6				5,550	3,605
12				6				5,550	3,467
13				6				5,550	3,333
14				6				5,550	3,205
15				6				5,550	3,082
16				6				5,550	2,963
17				6				5,550	2,849
18				6				5,550	2,740
19				6				5,550	2,634
20				34				34,050	15,540
<b>Total</b>	\$1,995	\$785	\$1,620	\$168	\$0	\$0	\$0	\$4,568,000	\$4,507,687

$$\text{Present Value} = \frac{\text{Future Value (in Constant Dollars)}}{(1 + \text{Real Discount Rate})^{\text{Year}}}$$

District: 8

PROJECT: I-10 and County Line Rd Interchange - South Bound (Part 2)

EA:   
 PPNO:

3

## INVESTMENT ANALYSIS

### SUMMARY RESULTS

Life-Cycle Costs (mil. \$)	\$4.5
Life-Cycle Benefits (mil. \$)	\$81.3
Net Present Value (mil. \$)	\$76.8
<b>Benefit / Cost Ratio:</b>	
	18.0
<b>Rate of Return on Investment:</b>	
	127.0%
<b>Payback Period:</b>	
	1 year

	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
<b>ITEMIZED BENEFITS (mil. \$)</b>				
Travel Time Savings	\$42.8	\$7.9	\$50.6	\$2.5
Veh. Op. Cost Savings	\$2.4	\$0.4	\$2.8	\$0.1
Accident Cost Savings	\$24.2	\$2.4	\$26.6	\$1.3
Emission Cost Savings	\$0.6	\$0.8	\$1.3	\$0.1
<b>TOTAL BENEFITS</b>	<b>\$69.9</b>	<b>\$11.4</b>	<b>\$81.3</b>	<b>\$4.1</b>
<b>Person-Hours of Time Saved</b>			5,036,715	251,836

**Should benefit-cost results include:**

1) Induced Travel? (y/n)   
Default = Y

2) Vehicle Operating Costs? (y/n)   
Default = Y

3) Accident Costs? (y/n)   
Default = Y

4) Vehicle Emissions? (y/n)   
Default = Y  
includes value for CO<sub>2</sub>e

	Tons		Value (mil. \$)	
	Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
<b>EMISSIONS REDUCTION</b>				
CO Emissions Saved	28	1	\$0.0	\$0.0
CO <sub>2</sub> Emissions Saved	15,467	773	\$0.5	\$0.0
NO <sub>x</sub> Emissions Saved	18	1	\$0.7	\$0.0
PM <sub>10</sub> Emissions Saved	0	0	\$0.1	\$0.0
PM <sub>2.5</sub> Emissions Saved	0	0		
SO <sub>x</sub> Emissions Saved	0	0	\$0.0	\$0.0
VOC Emissions Saved	5	0	\$0.0	\$0.0

Transportation Economics  
Caltrans DOTP

Cal-B/C - 3) Results  
Cal-BC62\_I-10 County Line Rd Interchange\_SB.Part2.xlsm

Page 6  
1/30/2018

# **Attachment D**

Project Programming Request Form

## PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

General Instructions

Amendment (Existing Project) No					Date:	1/30/18
District	EA	Project ID		PPNO	MPO ID	Alt Proj. ID
08						
County	Route/Corridor	PM Bk	PM Ahd	Project Sponsor/Lead Agency		
RIV	I-10	R38.949	R0.239	City of Calimesa		
SBD	I-10	R38.949	R0.239	MPO	Element	
				SCAG	Local Assistance	
Project Manager/Contact		Phone		E-mail Address		
Lori Askew		909-795-9801		<a href="mailto:laskew@cityofcalimesa.net">laskew@cityofcalimesa.net</a>		
<b>Project Title</b>						
I-10 and County Line Road Interchange						
<b>Location (Project Limits), Description ( Scope of Work)</b>						
The I-10/County Line Road Interchange Project is located on I-10 between Oak Glen Road and Sandalwood Drive. It is a major access point for existing and proposed residential, commercial, and industrial sites. The Project is a highway capacity and multimodal surface transportation enhancement project that addresses traffic congestion and safety together with facilitation of growth and non-motorized transportation systems. The Project proposes to use roundabout intersection at each ramp to improve efficiency without the need for a new overpass bridge, significantly reducing project costs. Additionally, the Project will increase access to multi-modal transportation, through installation of pedestrian and bicycle lanes, while decreasing the number of injury and fatality accidents associated with freeway on/off-ramp traffic congestion and freeway stacking.						
<b>Component</b>		<b>Implementing Agency</b>				
PA&ED		Cities of Calimesa and Yucaipa				
PS&E		Cities of Calimesa and Yucaipa				
Right of Way		Cities of Calimesa and Yucaipa				
Construction		Cities of Calimesa and Yucaipa				
<b>Legislative Districts</b>						
Assembly:	42	Senate:	23	Congressional:	8	
<b>Project Benefits</b>						
1) Increase throughput, freight traffic velocity, and reduce the variability and unpredictability of travel time. 2) Increase the safety of the public, industry workers, and traffic. 3) Reduce daily hours of delay on the system and improve access to freight facilities. 3) Relieve freight system bottlenecks. 4) Employ multi-modal strategies, thereby increasing port and transportation system throughput while reducing truck idling time. (Continued on back)						
<b>Purpose and Need</b>						
The existing I-10/County Line Road diamond interchange does not have sufficient capacity to serve the current traffic volumes, thereby experiencing stacking onto the freeway system mainline. This portion of the I-10 is also part of a 2-mile grade for trucks headed eastbound, thus exacerbating traffic conditions. Reconfiguration of the I-10/County Line Road Interchange will address existing deficiencies and accommodate projected growth, including proposed widening and truck climbing lines along I-10.						
<b>Category</b>		<b>Outputs/Outcomes</b>			<b>Unit</b>	<b>Total</b>
State Highway Road Construction		Modified / Improved Interchanges			each	1
Local streets and roads		Local road lane-miles rehabilitated			Miles	0.2
Local streets and roads		Pedestrian/Bicycle Facilities miles constructed			Miles	0.2
ADA Improvements Yes		Bike/Ped Improvements Yes			Reversible Lane analysis	Yes
Includes Sustainable Communities Strategy Goals Yes				Reduces Greenhouse Gas Emissions Yes		
<b>Project Milestone</b>					<b>Existing</b>	<b>Proposed</b>
Project Study Report Approved					03/01/19	
Begin Environmental (PA&ED) Phase						03/01/19
Circulate Draft Environmental Document			<b>Document Type</b>	EIR		03/01/20
Draft Project Report						03/01/20
End Environmental Phase (PA&ED Milestone)						09/01/21
Begin Design (PS&E) Phase						03/01/19
End Design Phase (Ready to List for Advertisement Milestone)						09/01/21
Begin Right of Way Phase						03/01/21
End Right of Way Phase (Right of Way Certification Milestone)						03/01/22
Begin Construction Phase (Contract Award Milestone)						09/01/22
End Construction Phase (Construction Contract Acceptance Milestone)						09/01/23
Begin Closeout Phase						09/01/23
End Closeout Phase (Closeout Report)						12/01/23

## ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento,

**PROJECT PROGRAMMING REQUEST**

DTP-0001 (Revised July 2017)

Date: 1/30/18

**Additional Information**

Project Benefits (continued):

- 5) Offer interregional benefits by linking regions/corridors to serve statewide or national trade corridor needs.
- 6) Reduces local and regional emissions of diesel particulate (PM10 and 2.5), carbon monoxide, nitrogen oxides, greenhouse gases, and other pollutants.
- 7) Stimulates local economic activity, enhances trade value, and preserves/creates jobs.

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**PROJECT PROGRAMMING REQUEST**

DTP-0001 (Revised July 2017)

Date: 1/30/18

District	County	Route	EA	Project ID	PPNO	Alt Proj. ID
08	RIV, SBD	I-10, I-10				
<b>Project Title:</b> I-10 and County Line Road Interchange						

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	
E&P (PA&ED)									Cities of Calimesa and Yucaipa
PS&E									Cities of Calimesa and Yucaipa
R/W SUP (CT)									Cities of Calimesa and Yucaipa
CON SUP (CT)									Cities of Calimesa and Yucaipa
R/W									Cities of Calimesa and Yucaipa
CON									Cities of Calimesa and Yucaipa
<b>TOTAL</b>									
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)		500	500	500	500			2,000	
PS&E		373	374	375	376			1,498	
R/W SUP (CT)									
CON SUP (CT)									
R/W				786	786			1,572	
CON						1,865	1,865	3,730	
<b>TOTAL</b>		873	874	1,661	1,662	1,865	1,865	8,800	

Fund No. 1:									Program Code
Existing Funding (\$1,000s)									Funding Agency
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	
E&P (PA&ED)									City of Calimesa
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
<b>TOTAL</b>									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)		75	75	75	75			300	
PS&E		56	56	56	56			224	
R/W SUP (CT)									
CON SUP (CT)									
R/W				118	118			236	
CON						280	280	560	
<b>TOTAL</b>		131	131	249	249	280	280	1,320	

Fund No. 2:									Program Code
Existing Funding (\$1,000s)									Funding Agency
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	
E&P (PA&ED)									City of Yucaipa
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
<b>TOTAL</b>									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)		75	75	75	75			300	
PS&E		56	56	56	56			224	
R/W SUP (CT)									
CON SUP (CT)									
R/W				118	118			236	
CON						280	280	560	
<b>TOTAL</b>		131	131	249	249	280	280	1,320	

