

<b>RTIP ID#</b> <i>(required)</i> ORA-2120010					
<b>Project Description</b> <i>(clearly describe project)</i> The <i>safety</i> project is on southbound (SB) Route 405 from Sand Canyon Avenue (PM 2.60) to Culver Drive off-ramp (PM 5.831) in the city of Irvine, Orange County. The project proposes to replace obsolete temporary railing (Type K) with permanent Type 60 concrete barrier along the centerline of Route 405 within the project limits, and to extend the second auxiliary lane on SB Route 405 from Culver Drive off-ramp to Jeffrey Road/University Drive. See Attachment A.					
<b>Type of Project</b> <i>(use Table 1 on instruction sheet)</i> Change to existing state highway					
<b>County</b> Orange	<b>Narrative Location/Route &amp; Postmiles</b> I-405, from Culver Drive off-ramp to Jeffrey Road/University Drive.  <b>Caltrans Projects – EA#</b> 1212000018				
<b>Lead Agency:</b> Caltrans					
<b>Contact Person</b> Arman Behtash	<b>Phone#</b> 949-724-2029	<b>Fax#</b> 949-756-7633	<b>Email</b> Arman_behtash@dot.ca.gov		
<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>					
<input checked="" type="checkbox"/>	<b>Categorical Exclusion (NEPA)</b>	<b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>	<b>Other</b>
<b>Scheduled Date of Federal Action:</b>					
<b>Current Programming Dates</b> <i>as appropriate</i>					
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>	
<b>Start</b>	12/12/12	2/1/13	11/1/13	4/1/15	
<b>End</b>	9/1/13	4/1/14	11/1/14	10/1/16	
<b>Project Purpose and Need (Summary):</b> <i>(attach additional sheets as necessary)</i>					
<u>Need:</u> The existing 12,700 feet median temporary railing (Type K) on Route 405 between Sand Canyon Avenue and Culver Drive has been used for over 15 years and eventually exceeded its design service life of 5 years. The existing freeway configuration between Route 55 and Culver Drive on SB Route 405 reduces lanes from 6 to 4 lanes within relatively a short distance. The termination of the existing two-auxiliary-lane system on SB Route 405 at the Culver Drive off-ramp causes the motorists to queue-jump from the trapped lane condition at off-ramp through gore area to mainline freeway. This condition has resulted in a concentration of traffic accidents.					
<u>Purpose:</u> It is proposed to replace the obsolete temporary railing (Type K) in the median with permanent Type 60 concrete barrier along the centerline of Route 405 within the project limits, and extend the second auxiliary lane on SB Route 405 from Culver Drive off-ramp to Jeffrey Road/University Drive. Extending the second auxiliary lane from Culver off-ramp to logical termini at Jeffrey Road / University Drive interchange would reduce the severity and number of traffic accidents by eliminating the trap condition and allowing a smoother lane transition past Culver Drive Interchange.					

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

Residential

**Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**  
 The LOS will remain at C (existing and future). There will be no changes to the “Truck Percentage”.  
 The 2010 Traffic Volumes on California State Highway System shows the annual ADT of Route 405 and  
 Culver’s ramps within the project limits:

Freeway:

<i>Description</i>	<i>PM</i>	<i>Current 2010 Annual ADT</i>	<i>Future 2040 Annual ADT</i>
Sand Canyon Avenue	2.875	260,000	343,500
Jeffrey Road	3.947	253,000	334,500
Culver Drive	5.618	279,000	369,000

Ramps:

<i>Description</i>	<i>Current 2012 ADT</i>	<i>Future 2040 ADT</i>
Culver SB Loop On-Ramp	5,315	7,023
Culver SB Tangent On-Ramp	6,480	8,532
Culver SB Off-Ramp	21,331	28,184
Jeffrey SB Off-Ramp	9,616	12,706

**RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**  
 The 2010 Traffic Volumes on California State Highway System shows the annual ADT of Route 405 and Culver’s ramps within the project limits:

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

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**Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)**  
 There are no impacts on other facilities.

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

**A. Alternative 1**

No Build. This alternative is contrary to Caltrans' goal of minimizing accidents and congestion on metropolitan freeways throughout the State.

**B. Alternative 2 - Recommended Alternative**

This alternative proposes to:

- Remove and replace 12,700 ft existing temporary railing (Type K) in the median with permanent concrete barrier (Type 60) along the freeway centerline.
- Pave median area between stations 174+80 and 302+00.
- Modify/adjust existing underground drainage in the median to install grate inlets along both sides of the proposed median barrier.
- Extend existing second auxiliary lane from SB Route 405 Culver off-ramp to University Drive/Jeffrey Road.
- Realign SB Culver Drive off and on-ramps to accommodate the auxiliary lane extension.
- Construct tie-back wall under Culver Drive overcrossing on SB Route 405.
- Install underground drainage system with grate inlets along SB Route 405 outside shoulders from stations 305+00 to 329+00 to replace existing V-ditch.
- Replace all roadside signs where needed.