

<b>FTIP ID#</b> <i>(required)</i> ORA130060				
<b>TCWG Consideration Date:</b> April 22, 2014				
<b>Project Description</b> <i>(clearly describe project)</i> The Orange County Transportation Authority (OCTA), in coordination with the California Department of Transportation (Caltrans), is proposing to convert the existing full-time buffer-separated and limited-access High Occupancy Vehicle (HOV) facility to a continuous-access HOV facility on Interstate 5 (I-5) from Oso Parkway to Grand Avenue and from State Route 57 (SR-57) to State Route 91 (SR-91). See Figures 1 and 2, attached. The proposed work includes removing existing striping and pavement markers, restriping and installing new pavement markers, and replacing off-center or damaged inductive loop detectors. All work would be within existing Caltrans right-of-way (ROW). The project would result in no change in the number of HOV or general purpose (GP) lanes within the project limits.				
<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-5 from Oso Parkway to Grand Avenue; and from SR-57 to SR-91 (PM 14.42-31.12/34.30-41.08)  <b>Caltrans Projects – EA#</b> 0L8501			
<b>Lead Agency:</b> OCTA				
<b>Contact Person</b> Keith Cooper	<b>Phone#</b> 213-312-1752	<b>Fax#</b> 213-312-1799	<b>Email</b> <a href="mailto:Keith.cooper@icfi.com">Keith.cooper@icfi.com</a>	
<b>Hot Spot Pollutant of Concern</b> <i>(check one or both)</i> <b>PM2.5</b> <input checked="" type="checkbox"/> <b>PM10</b> <input checked="" type="checkbox"/>				
<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>	<input type="checkbox"/> <b>EA or Draft EIS</b>	<input type="checkbox"/> <b>FONSI or Final EIS</b>	<input type="checkbox"/> <b>PS&amp;E or Construction</b>	<input type="checkbox"/> <b>Other</b>
<b>Scheduled Date of Federal Action:</b> 2015				
<b>NEPA Assignment – Project Type</b> <i>(check appropriate box)</i>				
<input type="checkbox"/> <b>Exempt</b>	<input type="checkbox"/> <b>Section 326 –Categorical Exemption</b>		<input checked="" type="checkbox"/> <b>Section 327 – Non-Categorical Exemption</b>	
<b>Current Programming Dates</b> <i>(as appropriate)</i>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	2011	2011	N/A	2015
<b>End</b>	2015	2015	N/A	2016

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

Freeways with buffer-separated, limited access HOV lanes operate as two separate highway facilities that only allow weaving between the HOV and the GP lanes at predetermined locations. Operational issues associated with this type of facility are:

- Weaving between the HOV and the GP lanes is difficult when substantial speed differences occur between the two. For example, motorists who attempt to exit a high-speed HOV lane must slow down considerably in order to enter the much slower GP lane; while vehicles entering the HOV lane from the slower GP lane must try to match the speed of the HOV lane.
- Due to closely spaced interchanges, motorists may find it difficult to cross numerous high-volume GP lanes during peak hours from the entry/exit point to the adjacent on/off-ramp. For example, at many locations within the project limits, a motorist must cross 4 or more GP lanes in less than a mile to access a freeway off-ramp from an HOV exit point. A similar experience occurs when a motorist tries to access the HOV entry point from a freeway on-ramp or risk sitting in stop-and-go traffic until the next available HOV access point is reached. During the peak hours, the GP lanes are often heavily congested.
- Violations occur across the HOV buffer. Motorists who do not find the acceptable space necessary to merge into the GP lane within the predetermined HOV access point might cross the HOV buffer, and motorists who are sitting in slow-moving GP lanes might attempt to cross the HOV buffer rather than wait for the appropriate HOV access location.

OCTA has requested for Caltrans to change the existing HOV facility from limited access striping on I-5 to continuous access striping. This proposed HOV modification is an approved strategy by Caltrans for HOV operations and can be implemented as a local choice. The proposed continuous access HOV lanes will provide users with legal and unrestricted movement to and from the HOV facility. With continuous access, motorists have the ability to enter and exit the HOV facility at convenient locations where they find sufficient space in adjacent traffic, thereby spreading out the weaving activities along the entire length of the route, which may lead to less speed differences between the two facilities. In addition, a continuous access HOV facility will help avoid weaving at congested locations, thereby improving the overall freeway operational performance for all commuters across the HOV and GP lanes.

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

The immediate project vicinity is intensely urbanized, and includes typical urban land uses such as commercial, retail, and residential uses, among other uses. With respect to land uses that generate heavy truck trips, such uses are generally limited to various big box retail establishments within the project vicinity.

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

The opening year 2017 ADT volumes are predicted to range from 175,000 to 295,000 within the I-5 project limits (see Table 2, attached) under both the Build Alternative and No Build Alternative. The percentage of truck traffic is predicted to range from 6.2 percent to 9.6 percent within the project limits, similar to existing conditions. As the project would not change the number of HOV or GP lanes (i.e., no change in capacity), traffic volumes, truck traffic percentage, and LOS would be identical under the Build Alternative when compared to No Build.

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

The horizon year 2035 ADT volumes are predicted to range from 212,000 to 325,000 within the I-5 project limits (see Table 3, attached) under both the Build Alternative and No Build Alternative. The percentage of truck traffic is predicted to range from 6.2 percent to 9.6 percent within the project limits, similar to existing conditions. As the project would not change the number of HOV or GP lanes (i.e., no change in capacity), traffic volumes, truck traffic percentage, and LOS would be identical under the Build Alternative when compared to No Build.

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

The proposed project would have no interchange or intersection elements, and no interchanges or intersections would be affected (directly or indirectly) as part of the proposed project.

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

The proposed project would have no interchange or intersection elements, and no interchanges or intersections would be affected (directly or indirectly) as part of the proposed project.

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

The proposed project would not have any traffic redistribution effects, as there would be no changes in freeway capacity. There would be no change in the number of HOV or GP lanes at any location along the project limits. Effects on congestion would be negligible.

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

Per criteria under 40 CFR 93.123(b)(1), the proposed project does not qualify as project of local air quality concern (POAQC). The proposed project is not a new or expanded highway project that would have a significant number or increase in the number of diesel vehicles. Traffic volumes, fleet mix, and LOS along the I-5 project limits under the Build Alternative would be identical to No Build Alternative conditions.

The project meets the Clean Air Act requirements and is not a project of air quality concern under 40 CFR 93.123(b)(1).



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SOURCE: ESRI Streetmap USA

**Figure 1**  
**Regional Vicinity Map**  
**I-5 HOV Access Conversion Project**



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SOURCE: ESRI Streetmap USA

**Figure 2**  
**Project Location Map**  
**I-5 HOV Access Conversion Project**

Table 1: Existing Traffic Data

Description	Northbound						Southbound						2013 2-way Weekday ADT	Caltrans 2012 Truck %	K %	D %
	Restricted HOV Access at Station (Y/N)	AM Peak Hour		PM Peak Hour		ADT	Restricted HOV Access at Station (Y/N)	AM Peak Hour		PM Peak Hour		ADT				
		HOV	GP	HOV	GP			HOV	GP	HOV	GP					
<b>Existing (2013)</b>																
Buena Park, Beach Blvd	N	350	5,620	790	5,280	111,000	N	600	4,120	560	4,930	93,000	204,000	9.4%	5.67%	51.96%
Buena Park, Stanton Ave	Y	350	5,360	790	5,310	109,000	Y	720	5,850	700	6,650	122,000	231,000	9.4%	5.82%	52.27%
Fullerton, Orangethorpe	Y	270	5,110	660	5,760	108,000	Y	600	3,640	450	3,800	81,000	189,000	9.4%	5.65%	52.59%
Fullerton, SR-91 Junction	Y	270	3,690	660	4,520	88,000	Y	600	3,640	450	3,800	81,000	169,000	6.2%	5.58%	53.49%
Anaheim, Magnolia St	Y	270	3,690	660	4,520	88,000	Y	600	5,930	450	6,650	130,000	218,000	6.2%	5.63%	53.93%
Anaheim, La Palma	Y	510	6,050	1,290	7,600	131,000	N	1,190	6,490	940	7,160	136,000	267,000	6.2%	6.36%	54.40%
Anaheim, Brookhurst St	N	510	5,960	1,290	7,590	136,000	Y	1,410	6,260	920	7,080	139,000	275,000	6.2%	6.14%	54.42%
Anaheim, Euclid St	Y	480	5,930	1,310	7,820	130,000	N	1,410	7,080	920	7,150	150,000	280,000	9.6%	6.14%	53.58%
Anaheim, Lincoln Ave	N	480	6,160	1,310	8,550	139,000	Y	1,530	7,060	940	6,960	140,000	279,000	9.5%	6.37%	53.83%
Anaheim, South St	Y	470	6,390	1,460	8,590	139,000	Y	1,410	7,630	690	6,890	135,000	274,000	9.5%	6.43%	52.58%
Anaheim, Ball Rd	Y	470	6,450	1,460	8,450	144,000	Y	1,410	8,030	690	6,980	137,000	281,000	9.5%	6.26%	51.80%
Anaheim, Harbor Blvd	N	540	5,720	1,520	7,470	125,000	N	1,310	8,030	870	6,980	139,000	264,000	9.5%	6.38%	51.91%
Anaheim, Haster/Anaheim Blvd	Y	460	6,420	1,470	8,380	138,000	Y	1,340	7,450	760	7,030	142,000	280,000	9.6%	6.30%	52.96%
Anaheim, Katella Ave	Y	430	6,420	1,250	8,380	120,000	Y	1,250	6,870	710	7,080	133,000	253,000	9.5%	6.89%	53.78%
Orange, State College Blvd	Y	770	7,990	1,370	8,870	140,000	Y	930	8,130	950	7,550	145,000	285,000	7.0%	6.58%	51.26%
Orange, Chapman Ave	Y	770	6,370	1,370	7,580	139,000	Y	930	8,210	950	7,650	145,000	284,000	7.0%	6.18%	51.88%
Santa Ana, SR-57 Junction	Y	770	6,080	1,370	7,030	136,000	Y	930	4,570	950	5,560	111,000	247,000	7.0%	6.04%	54.70%

Notes:

HOV - High Occupancy Vehicle

GP - General Purpose

ADT - Average Daily Traffic

K - K factor. The percentage of the ADT in both directions during the peak hour. Values in this table are derived by dividing the 2-way peak hour volume by the ADT

D - D factor. The percentage of traffic in the peak direction during the peak hour. Values in this table are derived by dividing the peak hour by the sum of both directions during the peak hour.

Peak hour and Average Daily Traffic (ADT) volumes were collected from Caltrans Performance Measurement System (PeMS).

The data shown used a one month sample size in 2013 (October, 2013). Replacement months were utilized in cases where observation percentages fell below 90% at a given location.

The data shown reflects 2013 conditions.

Description	Northbound					Southbound					2017 2-way ADT
	AM Peak Hour		PM Peak Hour		ADT	AM Peak Hour		PM Peak Hour		ADT	
	HOV	GP	HOV	GP		HOV	GP	HOV	GP		
<b>Year 2017</b>											
Buena Park, Beach Blvd	360	5,810	810	5,460	115,000	630	4,270	580	5,090	96,000	211,000
Buena Park, Stanton Ave	360	5,540	810	5,500	113,000	750	6,050	730	6,870	126,000	239,000
Fullerton, Orangethorpe	280	5,280	680	5,960	112,000	630	3,770	470	3,920	84,000	196,000
Fullerton, SR-91 Junction	280	3,810	680	4,670	91,000	630	3,770	470	3,920	84,000	175,000
Anaheim, Magnolia St	280	3,810	680	4,670	91,000	630	6,140	470	6,870	134,000	225,000
Anaheim, La Palma	520	6,250	1,330	7,860	135,000	1,240	6,720	972	7,400	141,000	276,000
Anaheim, Brookhurst St	530	6,170	1,330	7,840	141,000	1,460	6,470	950	7,330	144,000	285,000
Anaheim, Euclid St	490	6,140	1,350	8,080	134,000	1,460	7,330	960	7,400	155,000	289,000
Anaheim, Lincoln Ave	500	6,360	1,360	8,850	144,000	1,580	7,300	980	7,190	145,000	289,000
Anaheim, South St	490	6,610	1,510	8,890	144,000	1,450	7,890	720	7,130	140,000	284,000
Anaheim, Ball Rd	490	6,670	1,510	8,740	149,000	1,450	8,310	720	7,220	142,000	291,000
Anaheim, Harbor Blvd	560	5,910	1,570	7,720	129,000	1,350	8,300	890	7,220	144,000	273,000
Anaheim, Haster/Anaheim Blvd	480	6,630	1,510	8,670	143,000	1,380	7,700	780	7,270	147,000	290,000
Anaheim, Katella Ave	450	6,630	1,290	8,660	124,000	1,300	7,100	730	7,320	138,000	262,000
Orange, State College Blvd	800	8,270	1,420	9,172	145,000	960	8,400	990	7,810	150,000	295,000
Orange, Chapman Ave	800	6,580	1,420	7,830	144,000	960	8,490	990	7,920	150,000	294,000
Santa Ana, SR-57 Junction	800	6,290	1,420	7,269	141,000	960	4,730	990	5,750	115,000	256,000

## Notes:

HOV - High Occupancy Vehicle

GP - General Purpose

ADT - Average Daily Traffic

Opening year volumes were derived using the Orange County Projection 2010 (OCP-2010).

An annual growth rate (based on demographics i.e., population and employment) was applied to existing volumes to derive 2017 volumes.

The total growth used in this table is 3.4 percent over 4 years.

Table 3: Future Traffic Data

Description	Northbound					Southbound					2035 2-way ADT
	AM Peak Hour		PM Peak Hour		ADT	AM Peak Hour		PM Peak Hour		ADT	
	HOV	GP	HOV	GP		HOV	GP	HOV	GP		
<b>Year 2035</b>											
Buena Park, Beach Blvd	370	6,010	1,060	7,090	127,000	810	5,580	660	5,810	106,000	233,000
Buena Park, Stanton Ave	380	5,860	1,140	7,630	135,000	1,050	8,530	880	8,370	150,000	285,000
Fullerton, Orangethorpe	300	5,650	960	7,570	135,000	780	5,110	610	5,120	102,000	237,000
Fullerton, SR-91 Junction	300	4,140	960	6,010	110,000	780	5,110	610	5,120	102,000	212,000
Anaheim, Magnolia St	300	4,140	960	6,010	110,000	760	7,490	590	8,690	160,000	270,000
Anaheim, La Palma	550	6,480	1,640	9,680	151,000	1,380	7,500	1,020	7,730	157,000	308,000
Anaheim, Brookhurst St	520	6,430	1,590	8,650	155,000	1,680	7,440	1,010	7,760	160,000	315,000
Anaheim, Euclid St	490	6,400	1,500	9,030	148,000	1,640	8,250	1,010	7,810	172,000	320,000
Anaheim, Lincoln Ave	530	6,740	1,500	9,760	159,000	1,780	8,190	1,030	7,660	161,000	320,000
Anaheim, South St	500	6,830	1,670	9,810	157,000	1,600	8,660	740	7,440	152,000	309,000
Anaheim, Ball Rd	500	6,870	1,670	9,690	162,000	1,600	9,130	740	7,450	155,000	317,000
Anaheim, Harbor Blvd	610	6,430	1,780	8,770	148,000	1,480	9,100	950	7,650	165,000	313,000
Anaheim, Haster/Anaheim Blvd	510	6,690	1,700	9,170	160,000	1,550	8,620	830	7,720	165,000	325,000
Anaheim, Katella Ave	460	6,870	1,400	9,420	134,000	1,420	7,830	760	7,630	150,000	284,000
Orange, State College Blvd	810	8,390	1,540	9,980	155,000	1,040	9,070	1,110	8,820	161,000	316,000
Orange, Chapman Ave	820	6,750	1,600	8,850	159,000	1,050	9,260	1,060	8,500	166,000	325,000
Santa Ana, SR-57 Junction	850	6,690	1,620	8,300	160,000	1,050	5,140	1,080	6,330	131,000	291,000

Notes:

HOV - High Occupancy Vehicle

GP - General Purpose

ADT - Average Daily Traffic

Future forecast volumes were prepared using the Orange County Transportation Analysis Model (OCTAM) Version 3.4.

The forecasts were generated by time period (AM, PM and daily) and by general purpose (GP) and high occupancy vehicle (HOV) volumes.

The data shown represents 2035 conditions.