

# District 12 Mobility Performance Report

2016 3<sup>rd</sup> Quarter

**DEPARTMENT OF TRANSPORTATION**

October 19, 2016  
District 12 TMC

## DISTRICT 12 MOBILITY PERFORMANCE REPORT

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2016 3rd Quarter

### EXECUTIVE SUMMARY

#### Overview

Caltrans District 12 (Orange County) is located in southern California and is neighbors with District 7 (Los Angeles), District 8 (San Bernardino), and District 11 (San Diego). The total population in Orange County was 3,010,232. Orange County is the third most populous county in California, the sixth-most populous in the United States, and more populous than twenty-one U.S. states. Its county seat is Santa Ana. It is the second most densely populated county in the state.

The Mobility Performance quarterly analysis compares information from the most recent quarter and the previous 4 quarters, involving the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The MPR uses congestion at two speed thresholds: delay from vehicles traveling below 35 MPH and delay from vehicles traveling below 60 mph. The 35 MPH limit represents severe congestion while the 60 MPH limit represents light and heavy congestion. These thresholds/limits are set by Caltrans and are based upon engineering experience and District input.

## FINDINGS

In the second quarter, at 35 mph threshold, the total delay equaled to 3.6 million vehicle hours of delay (VHD) and at 60 mph threshold, the total delay was 8.5 million VHD. The average weekday VHD in this quarter was 50 thousand hours of delay at 35 MPH and 115 thousand hours of delay at 60 MPH.

### Top 10 Bottlenecks for the 3<sup>rd</sup> Quarter

Location	Name	Type	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
I405-N	BEACH 2	ML	16.53	16.76	33.734759	-117.99209	62	5.558065	135852.8	10735
SR55-N	EDINGER 2	ML	9.41	R9.41	33.726049	-117.83503	64	3.71875	98216.1	12055
I405-S	WARNER	ML	14.49	14.72	33.714839	-117.96594	64	4.642188	70082.5	11110
I5-N	JAMBOREE 2	ML	99.811	27.56	33.719391	-117.79454	60	2.675	65756.6	14820
SR57-S	CHAPMAN 3	ML	6.531	17.18	33.872312	-117.88046	64	4.851563	58601.2	14365
I5-N	1ST	ML	103.051	30.8	33.744413	-117.84128	64	1.759375	51440.7	16315
I5-S	MAIN 1	ML	105.188	33	33.766429	-117.86698	64	2.114063	45517.5	13685
I405-N	BROOKHUR2	ML	13.74	13.97	33.707312	-117.95652	62	3.798387	45357.5	6285
SR91-E	GYP SUM 2	ML	34.95	R16.6	33.868014	-117.70858	64	2.85625	44600.7	18030
I5-N	B ST	HV	102.251	30	33.739183	-117.82921	63	4.949206	42478.8	14750

## Quarterly Mobility Statistics

Measure	Graph	Percentage Change							
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2015</td><td>3.4</td></tr> <tr><td>2016</td><td>3.4</td></tr> </table>	Year	Q3	2015	3.4	2016	3.4	Over one year ago	Over last quarter
		Year	Q3						
2015	3.4								
2016	3.4								
		1.2% ↑	1.5% ↑						
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2015</td><td>3.6</td></tr> <tr><td>2016</td><td>3.6</td></tr> </table>	Year	Q3	2015	3.6	2016	3.6	Over one year ago	Over last quarter
		Year	Q3						
2015	3.6								
2016	3.6								
		1.8% ↑	18.4% ↑						
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2015</td><td>49</td></tr> <tr><td>2016</td><td>50</td></tr> </table>	Year	Q3	2015	49	2016	50	Over one year ago	Over last quarter
		Year	Q3						
2015	49								
2016	50								
		1.7% ↑	18.3% ↑						
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2015</td><td>7.9</td></tr> <tr><td>2016</td><td>8.5</td></tr> </table>	Year	Q3	2015	7.9	2016	8.5	Over one year ago	Over last quarter
		Year	Q3						
2015	7.9								
2016	8.5								
		7.7% ↑	15.3% ↑						
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2015</td><td>107</td></tr> <tr><td>2016</td><td>115</td></tr> </table>	Year	Q3	2015	107	2016	115	Over one year ago	Over last quarter
		Year	Q3						
2015	107								
2016	115								
		7.3% ↑	15.2% ↑						

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago -	Largest Magnitude Decrease over last quarter -
		Largest Magnitude Increase over one year ago Monday 21%	Largest Magnitude Increase over last quarter Wednesday 22.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 7 AM -14.7%	Largest Magnitude Weekday Decrease over last quarter 10 PM -35%
		Largest Magnitude Weekday Increase over one year ago 2 PM 26.7%	Largest Magnitude Weekday Increase over last quarter 6 PM 20.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 11 AM -19.7%	Largest Magnitude Saturday Decrease over last quarter 8 AM -57.6%
		Largest Magnitude Saturday Increase over one year ago 3 PM 30.6%	Largest Magnitude Saturday Increase over last quarter 1 PM 22%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 11 AM -40.4%	Largest Magnitude Sun./Holiday Decrease over last quarter 10 AM -20%
		Largest Magnitude Sun./Holiday Increase over one year ago 3 PM 21.7%	Largest Magnitude Sun./Holiday Increase over last quarter 3 PM 39%



Measure	Graph	Percentage Change	
<b>Total Vehicle Hours of Delay (VHD) by County at 35 mph</b>	<p>Hours (Millions)</p> <p>2015 Q3 2016 Q2 2016 Q3</p> <p>Orange</p>	<b>Largest Magnitude Decrease over one year ago</b> -	<b>Largest Magnitude Decrease over last quarter</b> -
	<b>Largest Magnitude Increase over one year ago</b> <b>Orange 1.8%</b> ↑	<b>Largest Magnitude Increase over last quarter</b> <b>Orange 18.4%</b> ↑	
<b>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</b>	<p>Miles</p> <p>2015 Q3 2016 Q2 2016 Q3</p> <p>AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)</p>	<b>Largest Magnitude Decrease over one year ago</b> <b>AM Peak -2.9%</b> ↓	<b>Largest Magnitude Decrease over last quarter</b> -
	<b>Largest Magnitude Increase over one year ago</b> <b>PM Peak 11.2%</b> ↑	<b>Largest Magnitude Increase over last quarter</b> <b>AM Peak 28.9%</b> ↑	
<b>Average Number of Good and Bad Detectors</b>	<p>Number of Detectors</p> <p>Average of Good Average of Bad</p> <p>2015 Q3 2016 Q2 2016 Q3</p>	<b>Change in Good over one year ago</b> <b>3%</b> ↑	<b>Change in Good over last quarter</b> <b>5%</b> ↑
	<b>Change in Bad over one year ago</b> <b>-13%</b> ↓	<b>Change in Bad over last quarter</b> <b>-17%</b> ↓	

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2016 Q3-2015 Q3		Difference 2016 Q3-2016 Q2		Rank		
		2015 Q3	2016 Q2	2016 Q3	Absolute	Percentage	Absolute	Percentage	2015 Q3	2016 Q2	2016 Q3
I5	Orange	1,035,119	832,635	901,516	-133,603	-12.9%	68,881	8.3%	1	1	1
I405	Orange	817,537	768,650	880,160	62,623	7.7%	111,510	14.5%	2	2	2
SR91	Orange	563,399	419,664	642,451	79,053	14.0%	222,787	53.1%	3	4	3
SR55	Orange	494,137	441,780	501,147	7,010	1.4%	59,367	13.4%	4	3	4
SR57	Orange	408,598	317,520	392,755	-15,843	-3.9%	75,235	23.7%	5	5	5
SR22	Orange	149,347	104,683	136,610	-12,737	-8.5%	31,927	30.5%	6	7	6
SR73	Orange	52,913	133,603	127,576	74,663	141.1%	-6,027	-4.5%	7	6	7
SR241	Orange	43,769	31,671	31,632	-12,137	-27.7%	-39	-0.1%	8	8	8
I605	Orange	14,628	12,891	25,311	10,683	73.0%	12,420	96.3%	9	9	9
SR133	Orange	5,024	7,782	9,697	4,673	93.0%	1,914	24.6%	10	11	10
SR261	Orange	666	10,390	727	61	9.1%	-9,664	-93.0%	11	10	11
SR39	Orange	421	109	0	-421	-100.0%	-109	-100.0%	12	12	
SR74	Orange	0	27	0	0		-27	-100.0%		13	
SR142	Orange	3	0	0	-3	-100.0%	0		13		