

District 07 Mobility Performance Report

2019 First Quarter

**DEPARTMENT OF TRANSPORTATION
OFFICE OF SYSTEM MODELING, DATA COLLECTION AND ANALYSIS
DIVISION OF OPERATIONS**

May 27, 2019
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District 07 Mobility Performance Report

2019 First Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 7 contains two counties located in coastal southern California: Los Angeles and Ventura Counties. Both counties are urban, with Los Angeles being the most populous county in the United States with almost 10.2 million residents. Ventura County has a population of 859,000. Although these are urban counties, they do contain a large amount of sparsely populated National Forests and National Recreation Areas.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- Lost Lane Miles (equivalent lost productivity)
- Detection Health

This report is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The Mobility Performance Report (MPR) presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and delay from vehicles traveling below 35 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based on engineering experience and District input.

FINDINGS

In this 2019 first quarter, the total delay at the 35mph speed threshold equaled 16.9 million vehicle hours of delay (VHD), a decrease of 3.0 percent over previous quarter. Where only 2.0 percent of VHD were generated in Ventura County and 98.0 percent were generated in Los Angeles County. Whereas about 45 percent of VHD in Los Angeles county were generated from I-405, US-101 and I-10 freeways. Similarly, total delay at the 60mph speed threshold equaled 35.8 million VHD, Same as previous quarter.

Vehicle Miles Traveled within District 7 in this quarter was 9.0 billion miles, a decrease of 431 million miles (4.5 percent) over previous quarter.

The average weekday daily delay in this quarter was approximately 247 thousand VHD at 35 mph and 510 thousand VHD at 60 mph threshold.

Tuesdays then Fridays were the most congested days of the week, AM Peak hour was at 8:00 am and PM peak hour was at 5:00 pm. The peak periods extended from 6:00 am to 9:30 am and from 2:30 pm to 7:00 pm.

The peak hour in the weekend (Saturday and Sunday) was at 3:00 pm and delays extends between 1:00 pm and 6:00 pm

Top Ten Bottlenecks for the 2019 First Quarter:

Rank	Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Daily Duration (hrs)
1	I405-S	HOWARD HUGHES PKWY	PM	48.7	24.90	64	6.2	403,876	4.1
2	I405-N	NORDHOFF	PM	68.642	44.87	61	8.8	364,330	4.4
3	I5-S	OSMOND	PM	116.8	0.20	61	12.4	264,026	2.7
4	US101-S	GAREY STREET	PM	1.798	0.45	61	6.1	247,474	3.6
5	I405-N	WATERFORD	PM	55.9	32.11	65	3.7	223,983	4.0
6	I405-N	PALMS BLVD	AM	52.312	28.54	61	6.9	221,811	2.4
7	I105-E	LONG BEACH 2	PM	11.9	R11.9	74	4.8	207,242	4.3
8	I210-E	HIGHLAND	PM	36.089	R35.8	48	6.7	188,607	3.3
9	I10-E	CENTRAL AVE	PM	14.7	16.84	48	10.3	174,140	2.0
10	I605-S	FLORENCE	PM	11.216	R9.164	51	6.3	173,046	3.7

Project Status:

The Following D7 Projects are currently being constructed or are scheduled for construction. These current or future (planned) projects will relieve congestion in D7.

LA 5: WIDEN FREEWAY, CONSTRUCT HIGH OCCUPANCY VEHICLE (HOV) LANES; EA 21593 (Segment 3)

In Los Angeles county, in Santa Fe springs and Norwalk, from 0.1 mile north of Carmelita road overcrossing to 0.1 mile north of Silverbow avenue pedestrian overcrossing Widen Interstate 5 by adding one HOV lane and one or two mixed-flow lanes in each direction and upgrade the inside and outside shoulders to standard width

LA 5: CONSTRUCT HIGH OCCUPANCY VEHICLE (HOV) LANES; EA 121844 (SEGMENT 4)

In Los Angeles county, Glendale and Burbank from I-5/SR-134 separation to magnolia boulevard overcrossing bridge Add one HOV lane in each direction along I-5 between SR-134 to Magnolia Blvd.

LA 10: WIDEN FREEWAY, CONSTRUCT HIGH OCCUPANCY VEHICLE (HOV) LANES; EA 1193U (Segment 3)

In LA County from Citrus Ave. in West Covina to SR-57 in Pomona. Constructing one HOV lane in each direction. The proposed typical half section consists of an 8-foot inside shoulder, 12-foot HOV lane, 12-foot inside mixed-flow lane, three 12-foot mixed-flow lanes and a 10-foot outside

LA 10: WIDEN FREEWAY, CONSTRUCT HIGH OCCUPANCY VEHICLE (HOV) LANES; EA 1170U (Segment 2)

In LA County from Puente Ave in city of Baldwin Park to Citrus St. in West Covina. This project proposes to reduce traffic congestion on the I-10 by constructing one HOV lane in each direction from Puente Avenue to Citrus Avenue. The proposed typical half section consists of an 8-foot inside shoulder, 12-foot HOV lane, 12-foot inside mixed-flow lane, three 12-foot mixed-flow lanes and a 10-foot outside shoulder.

LA 405: IN LOS ANGELES COUNTY, FROM I-10 TO US101 WIDEN FOR HOV LANE; EA 12030

Widen the existing northbound 405. This project will provide continuous Carpool lanes on I-405 by closing the last gap.

LA 101: IN LOS ANGELES COUNTY, ON SOUTHBOUND US-101, BETWEEN LANKERSHIM BLVD OFF-RAMP AND BARHAM BLVD OFF-RAMP; EA 29920

- Construct a new southbound (SB) on-ramp from Universal Studios Boulevard (USB).
- Improve freeway operation by shifting and widening SB US-101 to extend the existing two-lane portion of the Lankershim/Regal on-ramp.
- Modify freeway geometric designs to improve stopping sight distance in the area of the new USB SB on-ramp.
- Eliminate undesirable weaving situation by closing the existing SB Barham/Bennett off-ramp while retaining the existing SB Barham/Bennett on-ramp for safety.

TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.

- LA 105: IN LOS ANGELES COUNTY, FROM CALIFORNIA STREET AND IMPERIAL HIGHWAY TO STUDEBAKER ROAD; EA 30460
- LA 605: FROM LA COUNTY LINE TO RTE. 210; EA 31190
- LA 110: BETWEEN SR-47 and I-5; EA 31200

This list of ongoing or planned projects is only a partial list, please contact CALTRANS for more details.

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <thead> <tr> <th>Quarter</th> <th>VMT (Billions)</th> </tr> </thead> <tbody> <tr> <td>2018 Q1</td> <td>9.23</td> </tr> <tr> <td>2018 Q4</td> <td>9.5</td> </tr> <tr> <td>2019 Q1</td> <td>9.06</td> </tr> </tbody> </table>	Quarter	VMT (Billions)	2018 Q1	9.23	2018 Q4	9.5	2019 Q1	9.06	Over one year ago	Over last quarter
Quarter	VMT (Billions)										
2018 Q1	9.23										
2018 Q4	9.5										
2019 Q1	9.06										
		-1.8%	-4.5%								
		↓	↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <thead> <tr> <th>Quarter</th> <th>VHD (Millions)</th> </tr> </thead> <tbody> <tr> <td>2018 Q1</td> <td>14.9</td> </tr> <tr> <td>2018 Q4</td> <td>17.4</td> </tr> <tr> <td>2019 Q1</td> <td>16.9</td> </tr> </tbody> </table>	Quarter	VHD (Millions)	2018 Q1	14.9	2018 Q4	17.4	2019 Q1	16.9	Over one year ago	Over last quarter
Quarter	VHD (Millions)										
2018 Q1	14.9										
2018 Q4	17.4										
2019 Q1	16.9										
		13.7%	-3%								
		↑	↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <thead> <tr> <th>Quarter</th> <th>VHD (Thousands)</th> </tr> </thead> <tbody> <tr> <td>2018 Q1</td> <td>210</td> </tr> <tr> <td>2018 Q4</td> <td>250</td> </tr> <tr> <td>2019 Q1</td> <td>247</td> </tr> </tbody> </table>	Quarter	VHD (Thousands)	2018 Q1	210	2018 Q4	250	2019 Q1	247	Over one year ago	Over last quarter
Quarter	VHD (Thousands)										
2018 Q1	210										
2018 Q4	250										
2019 Q1	247										
		17.5%	-1%								
		↑	↓								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <thead> <tr> <th>Quarter</th> <th>VHD (Millions)</th> </tr> </thead> <tbody> <tr> <td>2018 Q1</td> <td>31.5</td> </tr> <tr> <td>2018 Q4</td> <td>35.8</td> </tr> <tr> <td>2019 Q1</td> <td>35.8</td> </tr> </tbody> </table>	Quarter	VHD (Millions)	2018 Q1	31.5	2018 Q4	35.8	2019 Q1	35.8	Over one year ago	Over last quarter
Quarter	VHD (Millions)										
2018 Q1	31.5										
2018 Q4	35.8										
2019 Q1	35.8										
		13.6%	0%								
		↑	---								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <thead> <tr> <th>Quarter</th> <th>VHD (Thousands)</th> </tr> </thead> <tbody> <tr> <td>2018 Q1</td> <td>434</td> </tr> <tr> <td>2018 Q4</td> <td>497</td> </tr> <tr> <td>2019 Q1</td> <td>510</td> </tr> </tbody> </table>	Quarter	VHD (Thousands)	2018 Q1	434	2018 Q4	497	2019 Q1	510	Over one year ago	Over last quarter
Quarter	VHD (Thousands)										
2018 Q1	434										
2018 Q4	497										
2019 Q1	510										
		17.7%	2.6%								
		↑	↑								

Measure	Hours (Thousands)	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		<p>Largest Magnitude Decrease over one year ago</p> <p>Sun/Hol -24.7% ↓</p> <p>Largest Magnitude Increase over one year ago</p> <p>Tuesday 30.4% ↑</p>	<p>Largest Magnitude Decrease over last quarter</p> <p>Thursday -11.3% ↓</p> <p>Largest Magnitude Increase over last quarter</p> <p>Monday 28.9% ↑</p>
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		<p>Largest Magnitude Weekday Decrease over one year ago</p> <p>10 PM -26.6% ↓</p> <p>Largest Magnitude Weekday Increase over one year ago</p> <p>5 PM 20.9% ↑</p>	<p>Largest Magnitude Weekday Decrease over last quarter</p> <p>7 AM -5.3% ↓</p> <p>Largest Magnitude Weekday Increase over last quarter</p> <p>4 PM 4.6% ↑</p>
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		<p>Largest Magnitude Saturday Decrease over one year ago</p> <p>7 PM -11.1% ↓</p> <p>Largest Magnitude Saturday Increase over one year ago</p> <p>3 PM 19.6% ↑</p>	<p>Largest Magnitude Saturday Decrease over last quarter</p> <p>6 PM -28.8% ↓</p> <p>Largest Magnitude Saturday Increase over last quarter</p> <p>1 PM 19.8% ↑</p>
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		<p>Largest Magnitude Sun./Holiday Decrease over one year ago</p> <p>4 PM -32.9% ↓</p> <p>Largest Magnitude Sun./Holiday Increase over one year ago</p> <p>-</p>	<p>Largest Magnitude Sun./Holiday Decrease over last quarter</p> <p>5 PM -52.7% ↓</p> <p>Largest Magnitude Sun./Holiday Increase over last quarter</p> <p>2 PM 0.4% ↑</p>

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Ventura -12.7% ↓	Los Angeles -2.5% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Los Angeles 14.3% ↑	-
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		-	Off-Peak Night -13.2% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 16% ↑	Off-Peak Day 1.6% ↑
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		14% ↑	-5% ↓
		Change in Bad over one year ago	Change in Bad over last quarter
		-15% ↑	9% ↓

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2019 Q1-2018 Q1		Difference 2019 Q1-2018 Q4		Rank		
		2018 Q1	2018 Q4	2019 Q1	Absolute	Percentage	Absolute	Percentage	2018 Q1	2018 Q4	2019 Q1
		I-405	Los Angeles	3,106,200	3,539,468	3,251,147	144,947	4.7%	-288,322	-8.1%	1
US-101	Los Angeles	2,197,421	2,665,762	2,534,788	337,366	15.4%	-130,975	-4.9%	2	2	2
I-10	Los Angeles	1,242,098	1,575,706	1,775,737	533,639	43.0%	200,031	12.7%	4	4	3
I-5	Los Angeles	1,541,799	1,617,447	1,495,454	-46,345	-3.0%	-121,993	-7.5%	3	3	4
I-210	Los Angeles	942,799	1,172,345	1,200,212	257,413	27.3%	27,867	2.4%	6	6	5
I-110	Los Angeles	1,134,495	1,303,996	1,178,857	44,362	3.9%	-125,140	-9.6%	5	5	6
I-605	Los Angeles	654,643	904,604	923,682	269,039	41.1%	19,078	2.1%	9	7	7
SR-60	Los Angeles	806,642	674,424	746,331	-60,312	-7.5%	71,907	10.7%	7	9	8
I-105	Los Angeles	670,751	688,377	713,148	42,397	6.3%	24,772	3.6%	8	8	9
SR-91	Los Angeles	510,203	670,955	633,259	123,057	24.1%	-37,695	-5.6%	10	10	10
I-710	Los Angeles	254,892	488,210	581,168	326,276	128.0%	92,957	19.0%	14	11	11
SR-134	Los Angeles	418,108	378,768	420,962	2,854	0.7%	42,194	11.1%	11	12	12
SR-57	Los Angeles	229,154	361,746	358,943	129,788	56.6%	-2,803	-0.8%	15	13	13
SR-14	Los Angeles	194,836	246,825	249,110	54,274	27.9%	2,286	0.9%	16	16	14
US-101	Ventura	298,868	267,566	213,870	-84,997	-28.4%	-53,695	-20.1%	13	15	15
SR-118	Los Angeles	109,146	216,772	193,535	84,389	77.3%	-23,237	-10.7%	17	17	16
SR-71	Los Angeles	26,186	85,654	156,832	130,646	498.9%	71,178	83.1%	20	20	17
SR-2	Los Angeles	97,515	90,983	112,553	15,038	15.4%	21,570	23.7%	18	19	18
SR-23	Ventura	51,049	100,412	75,404	24,355	47.7%	-25,008	-24.9%	19	18	19
SR-118	Ventura	22,718	55,208	36,142	13,424	59.1%	-19,066	-34.5%	21	21	20
SR-170	Los Angeles	327,878	297,091	32,425	-295,454	-90.1%	-264,666	-89.1%	12	14	21
SR-47	Los Angeles	22,436	3,718	3,828	-18,609	-82.9%	110	3.0%	22	22	22
SR-90	Los Angeles	830	1,602	2,377	1,547	186.3%	775	48.4%	23	23	23
SR-126	Los Angeles	20	17	3	-17	-83.5%	-13	-80.2%	24	24	24
TOTALS		14,860,687	17,407,654	16,889,764	2,029,076	13.7%	-517,890	-3.0%			