

# District 07 Mobility Performance Report

2020 Fourth Quarter

**DEPARTMENT OF TRANSPORTATION**  
**OFFICE OF SYSTEM PERFORMANCE**  
**DIVISION OF OPERATIONS**

January 24, 2021  
: Ashraf Armanious

## District 07 Mobility Performance Report

---

2020 Fourth Quarter

### EXECUTIVE SUMMARY

#### Overview

Caltrans District 7, consisting of Los Angeles and Ventura counties, is part of the second-largest urban region in the United States. Los Angeles County is the most populous county in the United States with more than 10.2 million residents as of 2019. Ventura County has a population of 0.85 million. These two counties have a large amount of sparsely populated national forests and national recreation areas.

The Quarterly Mobility Performance Report (MPR) compares information with over a year ago and over previous quarter in the following performance measures:

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

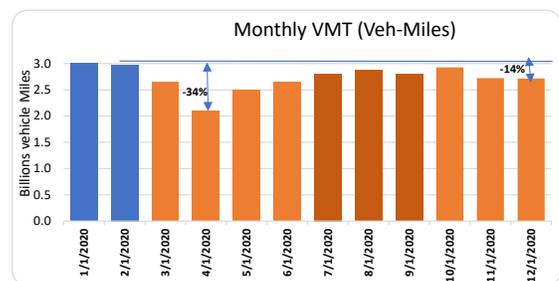
This information is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed along the State Highway System. The Mobility Performance Report presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and delay from vehicles traveling below 35 mph. The delay at the 35 mph speed threshold represents severe congestion while delay at 60 mph speed threshold represents both light and heavy congestions. These two speed thresholds are set by Caltrans based on engineering judgement.

## FINDINGS

➤ In this Fourth quarter (October – December of 2020), the cases of the COVID-19 virus in California increased. A new wave of this virus continues to spread and the dramatic rise in infections continues to impact the driving patterns. New restrictions and stay home orders were implemented. California still remains one of the highest infected states, and most businesses are either closed or continue to operate under very strict health conditions. Many residents have returned to quarantine at home.

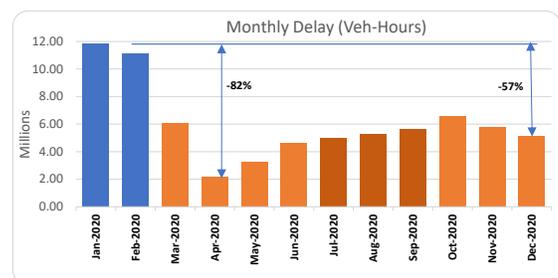
➤ Having said that, the Vehicle Miles Travelled (VMT) across all district 7 freeways have started to decrease slightly from the third quarter.

In summary, total VMT in the fourth quarter was 8.37 billion miles - a decrease of 0.12 billion miles a 1.4 percent decrease over the previous quarter, and 10.5 percent decrease from a year ago.



By the end of December 2020, VMT was almost 14 percent short from start of the pandemic.

➤ Again, due to the increase in virus cases, delays started to decrease over the last two months of this quarter. There were 6.4 million Vehicle Hours of Delay (VHD) at the 35-mph speed threshold – an increase of 17.8 percent over previous quarter and still a decrease of 63.1 percent from the 17.3 million VHD of a year ago.



Two percent of the 6.4 million VHD were generated in Ventura County and 98 percent were generated in Los Angeles County. About 50 percent of VHD in Los Angeles County were generated from I-405, I-10, I-5 and US-101 freeways.

Similarly, a total of 17.5 million VHD occurred at the 60-mph speed threshold, an increase of 9.6 percent over the previous quarter.

➤ These delays were equivalent to 247 Lost Lane Miles Hours (LLM) from the freeway network in the PM Peak Period, compared to the 459 LLM from previous year.

- The average weekday daily delay in this quarter was approximately 91,000 VHD at 35-mph speed threshold, and 245,000 VHD at 60-mph speed thresholds (21.9 percent and 12.9 Percent increase respectively over the previous quarter.)
- Fridays were the most congested days of the week, followed by Thursdays. Morning peak hour was at 7:00 AM. Afternoon peak hour was at 4:00 PM. The peak periods extended from 7:00 AM to 8:00 AM and from 3:00 PM to 5:00 PM.
- The weekend’s peak hour (Saturday and Sunday) was at 2:00 PM, and peak period extended between 1:00 PM and 3:00 PM.
- Good Loop Detectors in this fourth quarter were 48.6 percent of the total loops- an increase of 4.0 percent over the previous quarter.

Top Ten Bottlenecks for the 2020 Fourth Quarter:

Rank	County	Location	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (hrs)
1	Los Angeles	Nordhoff St.	PM	I405-N	68.64	44.87	34.237367	-118.472933	59	7.7	210,909	216.7
2	Los Angeles	Howard Hughes Pkwy	PM	I405-S	48.67	24.9	33.976541	-118.387273	58	5.7	152,346	143.4
3	Los Angeles	Sycamore Ave	PM	I10-E	8.15	R10.3	34.034036	-118.352661	61	4.6	145,423	227.7
4	Los Angeles	Alvarado St	PM	US101-S	4.14	2.79	34.071462	-118.265891	59	2.7	115,845	219.3
5	Los Angeles	Pasadena Ave	PM	I5-N	136.63	20	34.076978	-118.219273	55	3.3	98,231	162.7
6	Los Angeles	Florence Ave	PM	I605-S	11.22	R9.164	33.935212	-118.099885	60	3.7	96,230	237.5
7	Los Angeles	Palms Blvd	AM	I405-N	52.31	28.54	34.019206	-118.423854	57	3.9	91,445	167.0
8	Los Angeles	Adams Blvd	AM	I110-N	20.53	20.6	34.026085	-118.275163	51	3.8	89,500	166.9
9	Los Angeles	Los Angeles St.	PM	I10-E	13.63	15.78	34.031145	-118.260012	61	2.6	87,140	242.9
10	Los Angeles	N-O Pathfinder Rd	PM	SR57-N	15.80	R3.98	33.998678	-117.837798	61	3.0	85,284	242.9

**Project Status:**

The Following Projects are currently being constructed or are scheduled for construction in District 7. These projects are expected to relieve traffic congestion in Los Angeles and Ventura counties.

**LA 5: WIDEN AND REALIGN FREEWAY (SEGMENT 2); EA 2159U**

Widen Interstate 5 by adding one High Occupancy Vehicle (HOV) lane and one or two mixed-flow lanes in each direction, reconstruction of Valley View Avenue Interchange, and adjacent frontage roads in Los Angeles County, in La Mirada and Santa Fe Springs, from Artesia Blvd to North Fork Coyote Creek.

**LA 5: WIDEN AND REALIGN FREEWAY, CONSTRUCT HOV LANES (SEGMENT 4); EA 21594**

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; remove and replace San Antonio Avenue Undercrossing, Imperial Highway Undercrossing, and Pioneer Boulevard Undercrossing; construct new southbound Imperial Highway off-ramp (over Pioneer Boulevard) structure in Los Angeles County from 0.4 mile south of San Antonio Drive Undercrossing to 0.7 mile north of Pioneer Boulevard Undercrossing.

**LA 5: WIDEN AND REALIGN FREEWAY, CONSTRUCT HOV LANES (SEGMENT 5); EA 21595**

Widen Interstate 5 by adding one HOV lane, one or two mixed-flow lanes in each direction and upgrade the inside and outside shoulders to standard width; remove and replace Florence Avenue Overcrossing, northbound on-ramp bridge from Florence Avenue, and Orr and Day Overhead railroad bridge in Los Angeles County from north of Orr and Day Overhead to I-605/I-5 Interchange.

**LA 5: WIDEN FREEWAY & CONSTRUCT HOV LANES (SEGMENT 4); EA 12184**

Add one HOV lane in each direction along I-5 in Los Angeles, Glendale, and Burbank from I-5/SR-134 separation to Magnolia Boulevard Overcrossing Bridge in Los Angeles County.

**LA 5: WIDEN & REALIGN FREEWAY FOR HOV LANES; REALIGN METROLINK RAILROAD TRACKS; EA 1218W**

Add one HOV lane in each direction in Burbank from West Magnolia Boulevard Overcrossing to 0.3 mile north of Buena Vista Street/Winona Avenue Undercrossing in Los Angeles County.

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

Construct one HOV lane in each direction along I-10 in LA County from Citrus Avenue in West Covina to SR-57 in Pomona.

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

Construct one HOV lane in each direction along I-10 from Puente Avenue in city of Baldwin Park to Citrus Avenue in West Covina to reduce traffic congestion.

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

Modify interchange and improve both freeway systems access and safety on southbound US-101 between Lankershim Blvd. off-ramp and Barham Blvd. off-ramp in Los Angeles.

**TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.**

- LA 002: Repair/Restoration of the Intelligent Transportation System (ITS) in Los Angeles County and Ventura County. EA 34060.
- LA 10: Repair Ramp Metering and Vehicle Detection System on various routes. EA 34050.
- LA 405: Upgrade existing Traffic Management Communication System from Ventura Blvd. Undercrossing to I-5/I-405 Separation. EA 25710.

**ROADSIDE SAFETY IMPROVEMENT PROJECTS**

- LA 210: In Los Angeles County, in Pasadena and Arcadia from Fair Oaks to Huntington Dr. EA 30360
- LA 405: In Los Angeles County, Inglewood and Culver City, from I-105 to Port Road Undercrossing. EA 29630.
- LA 060: In the cities of Los Angeles, Monterey Park, Montebello, from Mednik Ave to Markland Drive. EA 29580.
- LA 005: In Los Angeles County at various locations. EA 29510.

This list of ongoing or planned projects is only a partial list, please contact CALTRANS District 7 for more details.

## Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Quarter</th><th>VMT (Billions)</th></tr> <tr><td>2019 Q4</td><td>9.35</td></tr> <tr><td>2020 Q3</td><td>8.49</td></tr> <tr><td>2020 Q4</td><td>8.37</td></tr> </table>	Quarter	VMT (Billions)	2019 Q4	9.35	2020 Q3	8.49	2020 Q4	8.37	Over one year ago	Over last quarter
		Quarter	VMT (Billions)								
		2019 Q4	9.35								
2020 Q3	8.49										
2020 Q4	8.37										
-10.5%	-1.4%										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Millions)</th></tr> <tr><td>2019 Q4</td><td>17.3</td></tr> <tr><td>2020 Q3</td><td>5.4</td></tr> <tr><td>2020 Q4</td><td>6.4</td></tr> </table>	Quarter	VHD (Millions)	2019 Q4	17.3	2020 Q3	5.4	2020 Q4	6.4	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
		2019 Q4	17.3								
2020 Q3	5.4										
2020 Q4	6.4										
-63.1%	17.8%										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2019 Q4</td><td>249</td></tr> <tr><td>2020 Q3</td><td>75</td></tr> <tr><td>2020 Q4</td><td>91</td></tr> </table>	Quarter	VHD (Thousands)	2019 Q4	249	2020 Q3	75	2020 Q4	91	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2019 Q4	249								
2020 Q3	75										
2020 Q4	91										
-63.5%	21.9%										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Millions)</th></tr> <tr><td>2019 Q4</td><td>36.1</td></tr> <tr><td>2020 Q3</td><td>16</td></tr> <tr><td>2020 Q4</td><td>17.5</td></tr> </table>	Quarter	VHD (Millions)	2019 Q4	36.1	2020 Q3	16	2020 Q4	17.5	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
		2019 Q4	36.1								
2020 Q3	16										
2020 Q4	17.5										
-51.6%	9.6%										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2019 Q4</td><td>501</td></tr> <tr><td>2020 Q3</td><td>217</td></tr> <tr><td>2020 Q4</td><td>245</td></tr> </table>	Quarter	VHD (Thousands)	2019 Q4	501	2020 Q3	217	2020 Q4	245	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2019 Q4	501								
2020 Q3	217										
2020 Q4	245										
-51.1%	12.9%										

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
		Thursday -53.9% ↓	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Friday 13.2% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		5 PM -56.3% ↓	-
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		3 AM 197.6% ↑	5 PM 22.4% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		5 PM -73.9% ↓	2 AM -12% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		7 AM 29% ↑	5 PM 56% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		5 PM -59.9% ↓	12 PM -19.2%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		4 AM 139.5% ↑	4 PM 81.4% ↑

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
		Los Angeles -62.8% ↓	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Los Angeles 17.9% ↑
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
		PM Peak -46.2% ↓	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	PM Peak 19.9% ↑
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-23% ↓	4% ↑
		Change in Bad over one year ago	Change in Bad over last quarter
		23% ↑	-4% ↓

