District 07
Mobility Performance Report

2023 Third Quarter

DEPARTMENT OF TRANSPORTATION
OFFICE OF SYSTEM PERFORMANCE
DIVISION OF OPERATIONS

October 16, 2023

: Ashraf Armanious

2023 Third 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 2020. Ventura County has a population of 0.84 million.

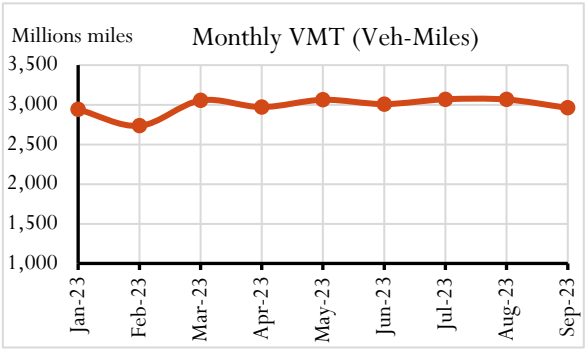
The Quarterly Mobility Performance Report (MPR) compares information with over a year ago and over previous quarter in the following performance measures:

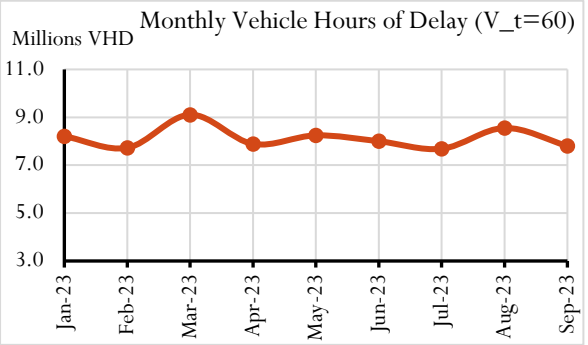
- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD) and Bottleneck Locations
- Lost Lane Miles Hours (equivalent lost productivity)
- Detection Health

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 Third quarter (July to September of 2023), Vehicle miles of Travel (VMT) across all district 7 freeways were 9.1 billion miles, a slight increase of 0.6 percent from previous quarter.
- Congestion and delays in the third quarter remained largely unchanged from the second quarter.
  - There was 24 million Vehicle Hours of Delay (VHD) at the 60-mph speed threshold, a decrease of 0.4 percent over previous quarter and a decrease of 2.7 percent from a year ago.
  - Only 3.5 percent of the 24 million VHD were generated in Ventura County, and 96.5 percent were generated in Los Angeles County.





  - About 47 percent (4.1 million VHD- at the 35-mph speed threshold) in Los Angeles County were generated from 3 freeways only, I-405 (21%), I-5 (13%), and I-10 (13%).
- These delays were equivalent to 294 Lost Lane Miles Hours (LLM)* from the freeway network during the PM Peak Period, compared to 280 LLM from previous quarter.
- The average weekday daily delay in this quarter was approximately 127,000 VHD at 35-mph speed threshold, and 326,000 VHD at 60-mph speed thresholds (3.3 percent and 2.7 Percent increase respectively over the previous quarter.)
- Thursdays were the most congested days of the week, followed by Fridays. Morning peak hour was at 8:00 AM. Afternoon peak hour was at 5:00 PM. The peak periods extended from 7:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM.
- Weekend's peak hour (Saturday and Sunday) was at 3:00 PM, and peak period extended between 1:00 PM and 5:00 PM.

* **Lost Lane Miles Hours (Lost Productivity):** This is the number of lane-mile-hours that are lost due to the freeway operating under congested conditions. When the freeway is in congestion - speed is below 35 mph - PeMS find the ratio between the measured flow and the capacity for this location. This drop in capacity is due to the fact that the freeway is operating in congested conditions instead of in free flow)

- By the end of the third quarter, loop detectors in good service condition account for only 29.3 percent of the total loops, while 70.7 percent of total loop detectors are nonoperational. Almost 5.7 percent of the total loops were out due to construction projects.

County	# Det	% Good	% Bad	% Construction
Los Angeles	10625	27.8	72.2	4.7
Ventura	616	54.7	45.3	23.7
Totals	**11,241**	**29.3**	**70.7**	**5.7**

- Top Ten Bottlenecks for the 2023 Third Quarter:

Rank	County	Location	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (hours)
1	Los Angeles	Garfield Ave.	PM	I5-S	127.33	10.76	33.986224	-118.136014	63	4.7	238,041	287
2	Los Angeles	Howard Hughes Pkwy.	PM	I405-S	48.672	24.9	33.976541	-118.387273	62	5.0	236,673	228
3	Los Angeles	Solano Ave.	PM	I110-N	25.01	25.08	34.075092	-118.232059	65	3.7	205,248	305
4	Los Angeles	Stagg St.	PM	I405-N	66.972	43.2	34.213275	-118.473134	49	7.7	190,871	200
5	Los Angeles	National Blvd.	AM	I405-N	52.93	29.16	34.026728	-118.429807	60	5.6	178,768	209
6	Los Angeles	Paramount Blvd.	PM	SR60-E	7.914	R7.74	34.035853	-118.093489	62	5.1	165,032	237
7	Los Angeles	Adams Blvd.	AM	I110-N	20.53	20.6	34.026085	-118.275163	65	4.2	161,776	234
8	Los Angeles	Pasadena Ave.	PM	I5-N	136.633	20	34.076978	-118.219273	65	3.1	148,928	254
9	Los Angeles	Robertson Blvd.	AM	I10-W	5.66	R7.81	34.029948	-118.392928	65	3.9	143,503	234
10	Los Angeles	Vernon Ave.	PM	I110-S	18.82	18.89	34.002226	-118.281220	65	3.3	136,578	198

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 I-405: EA 34070, LA CIENEGA BLVD SOUTHBOUND ON AND OFF-RAMPS IMPROVEMENTS.

This project widens the southbound I-405 La Cienega Blvd exit ramp from one to two lanes, from the diverge point on, and then widens to four lanes at the ramp terminal intersection. The entrance ramp from La Cienega Blvd will be widened from one lane to two lanes up through the ramp meter line and then taper to one lane to join the existing collector-distributor road just before the Century Blvd UC.

LA SR-57: EA 27912, IN LOS ANGELES COUNTY, IN DIAMOND BAR AND CITY OF INDUSTRY ON ROUTE 60 FROM E60-S57 CONNECTOR OC TO GOLDEN SPRINGS DRIVE UC.

Reconstruct Grand Ave OC, Reconstruct NB SR-57 Connector to EB SR-60, Construct EB SR-60 Bypass

Off-Ramp to Grand Ave, Construct EB SR-60 Bypass, Construct SB Grand Ave To EB SR-60 Loop On-Ramp.

LA I-405: EA 29360, IN TORRANCE. INTERCHANGE IMPROVEMENTS AND NEW AUX LN.
This project will improve Interstate 405 (I-405) @ Crenshaw Boulevard & 182nd Street interchange and add auxiliary lanes on I-405 between Western Avenue and Crenshaw Boulevard in Los Angeles County. Improvements include constructing a new southbound on-ramp from northbound Crenshaw Boulevard.

TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.

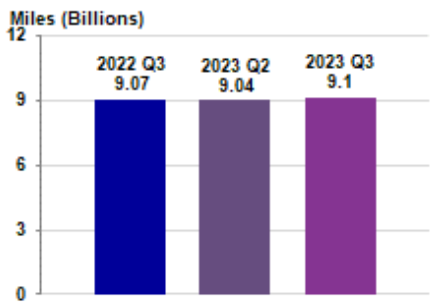
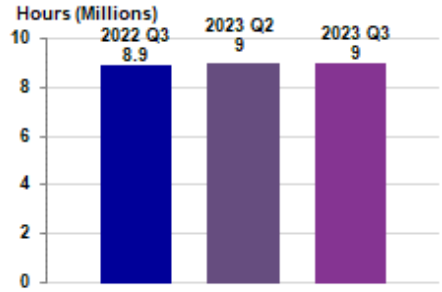
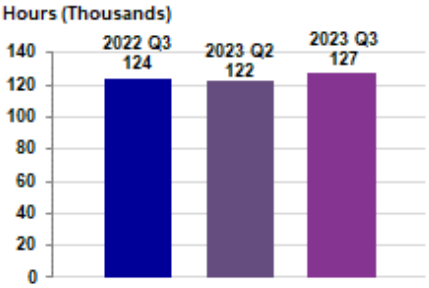
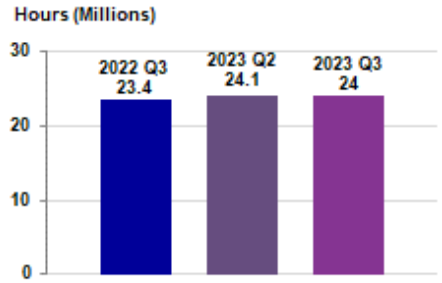
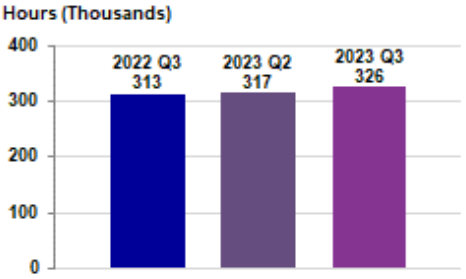
- **LA I-10: EA 32720**, Upgrade the existing transportation management system elements. In and near Santa Monica, from Lincoln boulevard to McClure tunnel; also, on route 10 (pm 2.1/18.3), route 2 (pm r18.7), route 101 (pm 11.8), and route 105 (pm r1.95).
- **LA SR-91: EA 33860**, Upgrade existing traffic management communication in and near Carson, from route 110 to orange county line; also, on route 2 (pm r18.7), route 5 (pm 6.8), route 105 (pm r2.0);
- **LA SR-60: EA 32710,** Upgrade transportation management system.
- **LA US-101: EA 33780**, in Los Angeles County, on rte. 101 from rte. 5 to rte. 405, on rte. 2 at rte. 134, on rte. 10 at rte. 5. This project proposes to upgrade the existing Transportation Management System (TMS) elements, including Closed-Circuit Television (CCTV) cameras, Changeable Message Signs, Vehicle Detection Stations, Ramp Metering Systems, and Internet Protocol (IP) ready network, as well as constructing Maintenance Vehicle Pullouts (MVPs) and Midwest Guardrail System (MGS).

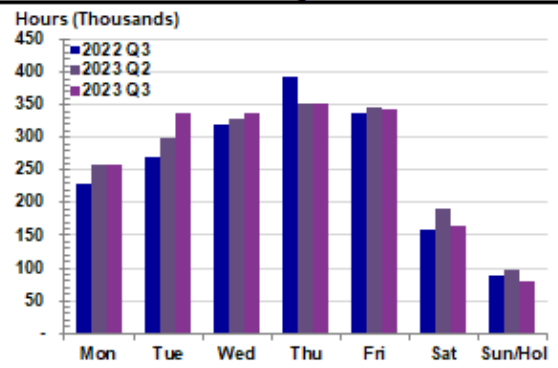
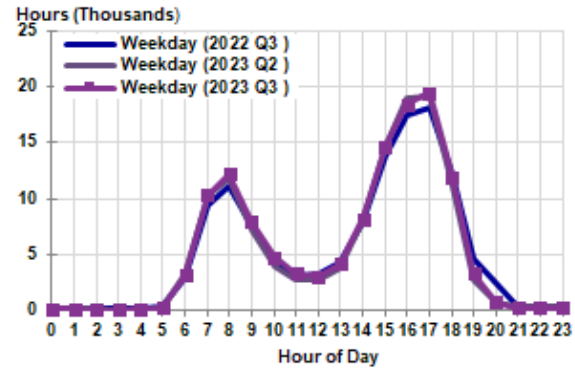
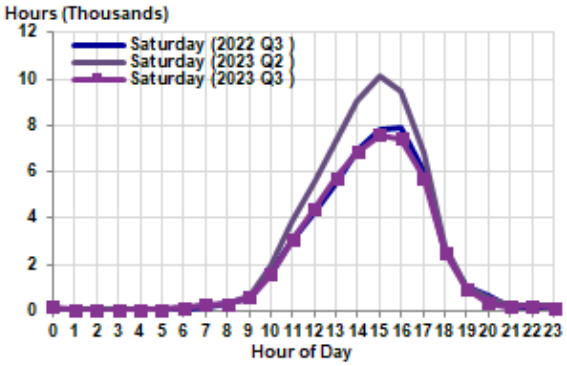
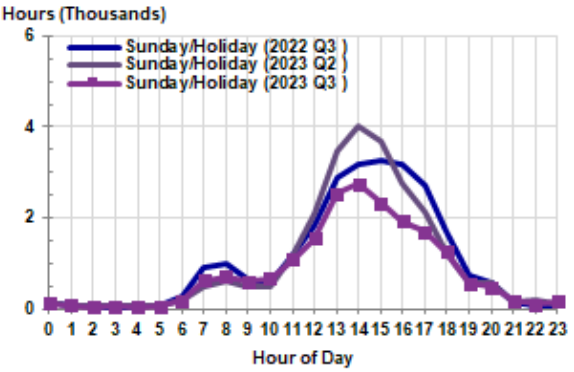
ROADSIDE SAFETY IMPROVEMENT PROJECTS

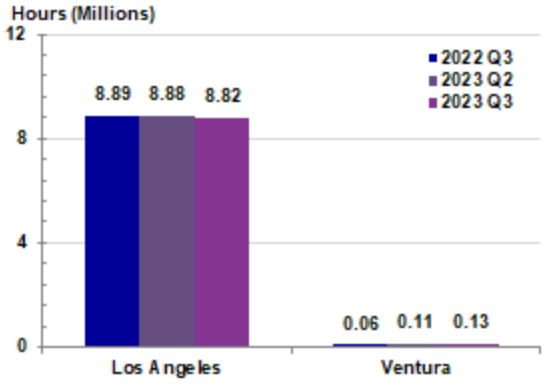
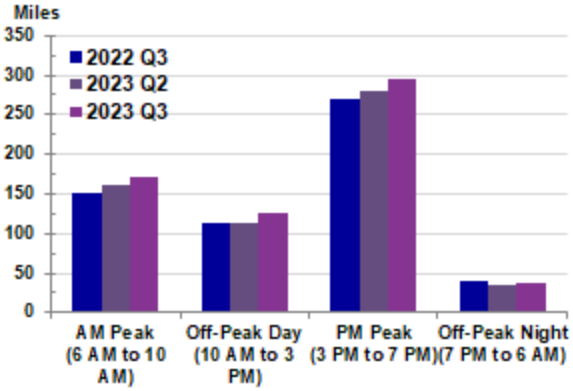
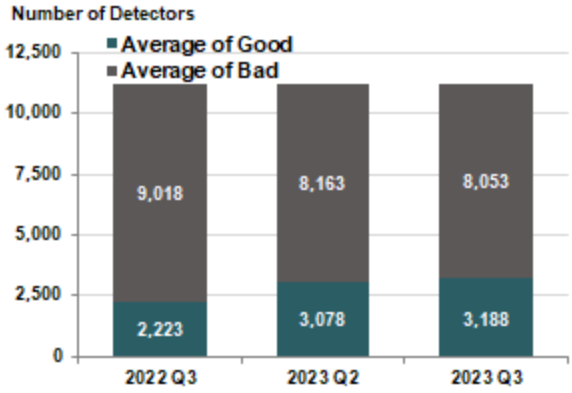
- **LA I-110: EA 31200,** In Los Angeles County at various locations. The project will replace some of the Transportation Management System (TMS) field elements, which includes replacement of the existing copper cables with fiber optic cables along the corridor and at all Closed-Circuit Television Cameras (CCTVs), Ramp Metering Systems (RMS), Vehicle Detection Stations (VDS), and Extinguishable Message Sign (EMS).
- **LA I-405: EA 32180,** in Los Angeles County near Carson and long beach at various locations from 0.1 mile north of route 710 to route 110/405 separation.

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	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		0.3%	0.6%
Total Vehicle Hours of Delay (VHD) at 35 mph		0%	-0.4%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		2.2%	3.3%
Total Vehicle Hours of Delay (VHD) at 60 mph		2.7%	-0.4%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		4.3%	2.7%

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Thursday -10.3%	Largest Magnitude Decrease over last quarter Saturday -12.9%
		Largest Magnitude Increase over one year ago Tuesday 24.1%	Largest Magnitude Increase over last quarter Tuesday 12.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 8 PM -69.7%	Largest Magnitude Weekday Decrease over last quarter 4 PM -2.4%
		Largest Magnitude Weekday Increase over one year ago 5 PM 7%	Largest Magnitude Weekday Increase over last quarter 6 PM 7.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 4 PM -5.7%	Largest Magnitude Saturday Decrease over last quarter 3 PM -24.7%
		Largest Magnitude Saturday Increase over one year ago 1 PM 4.8%	Largest Magnitude Saturday Increase over last quarter 12 AM 39.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 4 PM -39.7%	Largest Magnitude Sun./Holiday Decrease over last quarter 3 PM -36.7%
		Largest Magnitude Sun./Holiday Increase over one year ago 10 AM 16%	Largest Magnitude Sun./Holiday Increase over last quarter 10 AM 34.8%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago Los Angeles -0.7%	Largest Magnitude Decrease over last quarter Los Angeles -0.6%
		Largest Magnitude Increase over one year ago Ventura 110.8%	Largest Magnitude Increase over last quarter Ventura 12%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago Off-Peak Night -3.9%	Largest Magnitude Decrease over last quarter –
		Largest Magnitude Increase over one year ago PM Peak 9.2%	Largest Magnitude Increase over last quarter PM Peak 4.8%
Average Number of Good and Bad Detectors		Change in Good over one year ago 43%	Change in Good over last quarter 4%
		Change in Bad over one year ago -11%	Change in Bad over last quarter -1%

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2023 Q3-2022 Q3		Difference 2023 Q3-2023 Q2		Rank		
Route	County	2022 Q3	2023 Q2	2023 Q3	Absolute	Percentage	Absolute	Percentage	2022 Q3	2023 Q2	2023 Q3
I–405	Los Angeles	1,861,532	1,951,804	1,880,611	19,079	1.0%	-71,193	-3.6%	1	1	1
I–5	Los Angeles	1,300,743	1,194,397	1,191,469	-109,274	-8.4%	-2,929	-0.2%	2	2	2
I–10	Los Angeles	889,892	1,007,452	1,101,853	211,960	23.8%	94,400	9.4%	4	3	3
US–101	Los Angeles	1,033,788	790,169	853,761	-180,027	-17.4%	63,592	8.0%	3	5	4
I–210	Los Angeles	827,402	881,384	833,179	5,777	0.7%	-48,205	-5.5%	5	4	5
I–605	Los Angeles	511,648	564,906	588,223	76,575	15.0%	23,317	4.1%	8	8	7
I–110	Los Angeles	531,049	581,200	563,324	32,275	6.1%	-17,876	-3.1%	7	7	8
I–710	Los Angeles	448,807	362,193	352,252	-96,555	-21.5%	-9,941	-2.7%	9	9	9
SR–91	Los Angeles	279,002	262,143	279,124	122	0.0%	16,981	6.5%	10	10	10
SR–14	Los Angeles	115,019	178,996	169,427	54,409	47.3%	-9,569	-5.3%	12	11	11
I–105	Los Angeles	191,563	159,242	141,539	-50,025	-26.1%	-17,703	-11.1%	11	12	12
SR–134	Los Angeles	98,163	158,919	94,917	-3,246	-3.3%	-64,003	-40.3%	13	13	13
US–101	Ventura	42,911	65,678	75,059	32,148	74.9%	9,381	14.3%	16	14	14
SR–57	Los Angeles	60,583	37,988	57,403	-3,180	-5.2%	19,415	51.1%	14	16	15
SR–118	Los Angeles	47,130	59,218	51,157	4,027	8.5%	-8,062	-13.6%	15	15	16
SR–118	Ventura	11,657	22,115	26,924	15,266	131.0%	4,808	21.7%	20	18	17
SR–23	Ventura	2,454	22,697	22,131	19,677	801.9%	-567	-2.5%	22	17	18
SR–33	Ventura	3,422	3,309	3,309	-113	-3.3%	0	0.0%	21	20	19
SRv47	Los Angeles	2,053	1,625	1,856	-196	-9.6%	231	14.2%	23	21	20
SR–71	Los Angeles	18,181	956	1,691	-16,490	-90.7%	735	76.8%	17	23	21
SR–126	Los Angeles	1,282	10	702	-581	-45.3%	692	6779.4%	24	24	22
SR–90	Los Angeles	27	3	8	-19	-69.5%	5	161.3%	25	25	23
SR–170	Los Angeles	15,554	1,500	0	-15,554	-100.0%	-1,500	-100.0%	18	22	
SRv2	Los Angeles	13,347	9,720	0	-13,347	-100.0%	-9,720	-100.0%	19	19	
TOTALS		**8,949,042**	**8,988,907**	**8,950,412**	**1,370**	**0.0%**	**-38,495**	**-0.4%**			