

District 07 Mobility Performance Report

2021 First Quarter

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

April 18, 2021
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District 07 Mobility Performance Report

2021 First 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. 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

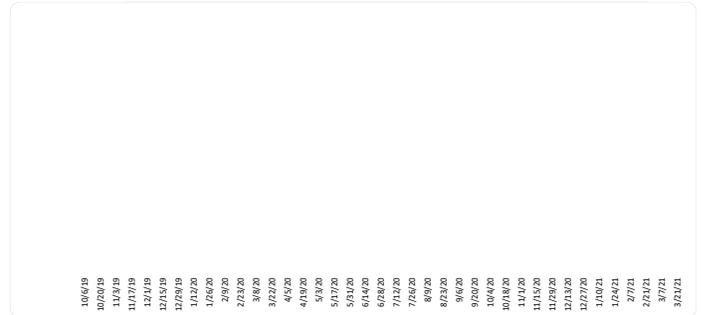
This information is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed along the State Highway System. The Mobility Performance Report presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and 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 First quarter (January – March of 2021), the cases of the COVID-19 virus in California plummeted and began to average at a lower rate after the vaccine was distributed to tens of millions of people. The normal way of life was almost restored, and congestion on the freeway started to show on AM and PM peak hours.

➤ Having said that, the Vehicle Miles Traveled (VMT) across all district 7 freeways at the end of March have restored to 95% of its February 2020 pre-pandemic values.

In summary, total VMT in this first quarter was 8.23 billion miles - a 1.6 percent decrease over the previous quarter, and 0.4 percent decrease from a year ago.



➤ Delays started to increase gradually in this quarter. There were 6.7 million Vehicle Hours of Delay (VHD) at the 35-mph speed threshold – an increase of 4.6 percent over previous quarter and still a decrease of 49.4 percent from a year ago.

Two percent of the 6.7 million VHD were generated in Ventura County and 98 percent were generated in Los Angeles County. About 55 percent of VHD in Los Angeles County were generated from I-405, I-10, I-5 and US-101 freeways.

Similarly, a total of 18.5 million VHD occurred at the 60-mph speed threshold, an increase of 6.0 percent over the previous quarter.

➤ These delays were equivalent to 252 Lost Lane Miles Hours (LLM) from the freeway network in the PM Peak Period, compared to the 247 LLM from previous quarter.

➤ The average weekday daily delay in this quarter was approximately 96,000 VHD at 35-mph speed threshold, and 261,000 VHD at 60-mph speed thresholds (5.2 percent and 6.4 Percent increase respectively over the previous quarter.)

➤ Fridays were the most congested days of the week, followed by Thursdays. Morning peak hour was at 8:00 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 3:00 PM, and peak period extended between 1:00 PM and 4:00 PM.
- Good loop detectors in this first quarter were 51.1 percent of the total loops- an increase of 6.0 percent over the previous quarter.

Top Ten Bottlenecks for the 2021 First Quarter:

| Rank | County | Location | Shift | Fwy | Abs PM | CAPM | 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 | 34.23737 | -118.47293 | 58 | 6.0 | 195,546 | 208.4 |
| 2 | Los Angeles | Howard Hughes Pkwy | PM | I405-S | 48.67 | 24.9 | 33.97654 | -118.38727 | 61 | 5.4 | 192,133 | 183.8 |
| 3 | Los Angeles | Sycamore Ave | PM | I10-E | 8.15 | R10.3 | 34.03404 | -118.35266 | 61 | 4.6 | 159,280 | 244.3 |
| 4 | Los Angeles | NB 605 To EB 210 Conn | PM | I210-E | 36.89 | R36.6 | 34.13340 | -117.95441 | 49 | 7.2 | 145,259 | 141.3 |
| 5 | Los Angeles | Palms Blvd. | AM | I405-N | 52.31 | 28.54 | 34.01921 | -118.42385 | 60 | 4.2 | 101,617 | 178.1 |
| 6 | Los Angeles | Pasadena Ave. | PM | I5-N | 136.63 | 20 | 34.07698 | -118.21927 | 46 | 3.9 | 99,112 | 153.4 |
| 7 | Los Angeles | Florence Ave. | PM | I605-S | 11.22 | R9.164 | 33.93521 | -118.09989 | 55 | 4.0 | 96,677 | 214.2 |
| 8 | Los Angeles | Los Angeles St. | PM | I10-E | 13.63 | 15.78 | 34.03115 | -118.26001 | 61 | 2.7 | 94,270 | 243.3 |
| 9 | Los Angeles | Gaspar Ave. | PM | I5-S | 128.75 | 12.18 | 34.00246 | -118.15116 | 59 | 3.1 | 89,914 | 156.2 |
| 10 | Los Angeles | N Of 110 | PM | I405-S | 36.95 | 13.18 | 33.85834 | -118.28787 | 41 | 5.7 | 89,499 | 99.0 |

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>2020 Q1</td><td>8.27</td></tr> <tr><td>2020 Q4</td><td>8.37</td></tr> <tr><td>2021 Q1</td><td>8.23</td></tr> </table> | Quarter | VMT (Billions) | 2020 Q1 | 8.27 | 2020 Q4 | 8.37 | 2021 Q1 | 8.23 | Over one year ago | Over last quarter |
| | | Quarter | VMT (Billions) | | | | | | | | |
| | | 2020 Q1 | 8.27 | | | | | | | | |
| 2020 Q4 | 8.37 | | | | | | | | | | |
| 2021 Q1 | 8.23 | | | | | | | | | | |
| -0.4% | -1.6% | | | | | | | | | | |
| 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>2020 Q1</td><td>13.2</td></tr> <tr><td>2020 Q4</td><td>6.4</td></tr> <tr><td>2021 Q1</td><td>6.7</td></tr> </table> | Quarter | VHD (Millions) | 2020 Q1 | 13.2 | 2020 Q4 | 6.4 | 2021 Q1 | 6.7 | Over one year ago | Over last quarter |
| | | Quarter | VHD (Millions) | | | | | | | | |
| | | 2020 Q1 | 13.2 | | | | | | | | |
| 2020 Q4 | 6.4 | | | | | | | | | | |
| 2021 Q1 | 6.7 | | | | | | | | | | |
| -49.4% | 4.6% | | | | | | | | | | |
| 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>2020 Q1</td><td>189</td></tr> <tr><td>2020 Q4</td><td>91</td></tr> <tr><td>2021 Q1</td><td>96</td></tr> </table> | Quarter | VHD (Thousands) | 2020 Q1 | 189 | 2020 Q4 | 91 | 2021 Q1 | 96 | Over one year ago | Over last quarter |
| | | Quarter | VHD (Thousands) | | | | | | | | |
| | | 2020 Q1 | 189 | | | | | | | | |
| 2020 Q4 | 91 | | | | | | | | | | |
| 2021 Q1 | 96 | | | | | | | | | | |
| -49.4% | 5.2% | | | | | | | | | | |
| 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>2020 Q1</td><td>29.1</td></tr> <tr><td>2020 Q4</td><td>17.5</td></tr> <tr><td>2021 Q1</td><td>18.5</td></tr> </table> | Quarter | VHD (Millions) | 2020 Q1 | 29.1 | 2020 Q4 | 17.5 | 2021 Q1 | 18.5 | Over one year ago | Over last quarter |
| | | Quarter | VHD (Millions) | | | | | | | | |
| | | 2020 Q1 | 29.1 | | | | | | | | |
| 2020 Q4 | 17.5 | | | | | | | | | | |
| 2021 Q1 | 18.5 | | | | | | | | | | |
| -36.3% | 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>2020 Q1</td><td>403</td></tr> <tr><td>2020 Q4</td><td>245</td></tr> <tr><td>2021 Q1</td><td>261</td></tr> </table> | Quarter | VHD (Thousands) | 2020 Q1 | 403 | 2020 Q4 | 245 | 2021 Q1 | 261 | Over one year ago | Over last quarter |
| | | Quarter | VHD (Thousands) | | | | | | | | |
| | | 2020 Q1 | 403 | | | | | | | | |
| 2020 Q4 | 245 | | | | | | | | | | |
| 2021 Q1 | 261 | | | | | | | | | | |
| -35.3% | 6.4% | | | | | | | | | | |

| 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 -40.9% ↓ | Monday -1.1% ↓ |
| | | Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter |
| | | - | Friday 10.6% ↑ |
| 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 |
| | | 8 AM -72.5% ↓ | 6 AM -23.9% ↓ |
| | | Largest Magnitude Weekday Increase over one year ago | Largest Magnitude Weekday Increase over last quarter |
| | | 12 AM 25.5% ↑ | 4 PM 12.9% ↑ |
| 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 -50.8% ↓ | 7 AM -68.3% ↓ |
| | | Largest Magnitude Saturday Increase over one year ago | Largest Magnitude Saturday Increase over last quarter |
| | | 9 PM 15% ↑ | 3 PM 65.4% ↑ |
| 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 -55.1% ↓ | 5 PM -29.2% ↓ |
| | | Largest Magnitude Sun./Holiday Increase over one year ago | Largest Magnitude Sun./Holiday Increase over last quarter |
| | | 2 AM 109.7% ↑ | 1 PM 30.3% ↑ |

| Measure | Graph | Percentage Change | | | | | | | | |
|---|--|---|--|--|--------------------|----------------------|--|--|----------------------|--------------------|
| Total Vehicle Hours of Delay (VHD) by County at 35 mph | | <table border="1"> <tr> <td>Largest Magnitude Decrease over one year ago</td> <td>Largest Magnitude Decrease over last quarter</td> </tr> <tr> <td>Los Angeles -49.5%</td> <td>Ventura -5.7%</td> </tr> <tr> <td>Largest Magnitude Increase over one year ago</td> <td>Largest Magnitude Increase over last quarter</td> </tr> <tr> <td>-</td> <td>Los Angeles 4.8%</td> </tr> </table> | Largest Magnitude Decrease over one year ago | Largest Magnitude Decrease over last quarter | Los Angeles -49.5% | Ventura -5.7% | Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter | - | Los Angeles 4.8% |
| | | Largest Magnitude Decrease over one year ago | Largest Magnitude Decrease over last quarter | | | | | | | |
| Los Angeles -49.5% | Ventura -5.7% | | | | | | | | | |
| Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter | | | | | | | | | |
| - | Los Angeles 4.8% | | | | | | | | | |
| Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph | | <table border="1"> <tr> <td>Largest Magnitude Decrease over one year ago</td> <td>Largest Magnitude Decrease over last quarter</td> </tr> <tr> <td>AM Peak -67.1%</td> <td>Off-Peak Night -6.2%</td> </tr> <tr> <td>Largest Magnitude Increase over one year ago</td> <td>Largest Magnitude Increase over last quarter</td> </tr> <tr> <td>Off-Peak Night 28.3%</td> <td>Off-Peak Day 11.2%</td> </tr> </table> | Largest Magnitude Decrease over one year ago | Largest Magnitude Decrease over last quarter | AM Peak -67.1% | Off-Peak Night -6.2% | Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter | Off-Peak Night 28.3% | Off-Peak Day 11.2% |
| | | Largest Magnitude Decrease over one year ago | Largest Magnitude Decrease over last quarter | | | | | | | |
| AM Peak -67.1% | Off-Peak Night -6.2% | | | | | | | | | |
| Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter | | | | | | | | | |
| Off-Peak Night 28.3% | Off-Peak Day 11.2% | | | | | | | | | |
| Average Number of Good and Bad Detectors | | <table border="1"> <tr> <td>Change in Good over one year ago</td> <td>Change in Good over last quarter</td> </tr> <tr> <td>-12%</td> <td>6%</td> </tr> <tr> <td>Change in Bad over one year ago</td> <td>Change in Bad over last quarter</td> </tr> <tr> <td>5%</td> <td>-4%</td> </tr> </table> | Change in Good over one year ago | Change in Good over last quarter | -12% | 6% | Change in Bad over one year ago | Change in Bad over last quarter | 5% | -4% |
| | | Change in Good over one year ago | Change in Good over last quarter | | | | | | | |
| -12% | 6% | | | | | | | | | |
| Change in Bad over one year ago | Change in Bad over last quarter | | | | | | | | | |
| 5% | -4% | | | | | | | | | |

Congestion by Route

| Route | County | Vehicle Hours of Delay at 35 mph | | | Difference 2021 Q1-2020 Q1 | | Difference 2021 Q1-2020 Q4 | | Rank | | |
|---------------|-------------|----------------------------------|------------------|------------------|----------------------------|---------------|----------------------------|-------------|---------|---------|---------|
| | | 2020 Q1 | 2020 Q4 | 2021 Q1 | Absolute | Percentage | Absolute | Percentage | 2020 Q1 | 2020 Q4 | 2021 Q1 |
| | | I-405 | Los Angeles | 2,826,647 | 940,822 | 1,069,223 | -1,757,424 | -62.2% | 128,401 | 13.6% | 1 |
| I-10 | Los Angeles | 1,603,143 | 816,834 | 936,633 | -666,510 | -41.6% | 119,799 | 14.7% | 3 | 2 | 2 |
| US-101 | Los Angeles | 2,055,596 | 727,098 | 820,058 | -1,235,538 | -60.1% | 92,960 | 12.8% | 2 | 4 | 3 |
| I-5 | Los Angeles | 1,084,383 | 808,377 | 789,100 | -295,284 | -27.2% | -19,277 | -2.4% | 4 | 3 | 4 |
| I-210 | Los Angeles | 966,840 | 623,187 | 485,265 | -481,574 | -49.8% | -137,922 | -22.1% | 5 | 5 | 5 |
| I-110 | Los Angeles | 787,732 | 488,476 | 410,246 | -377,486 | -47.9% | -78,230 | -16.0% | 6 | 6 | 6 |
| SR-60 | Los Angeles | 659,532 | 353,700 | 399,210 | -260,322 | -39.5% | 45,510 | 12.9% | 7 | 7 | 7 |
| I-605 | Los Angeles | 575,585 | 347,006 | 392,099 | -183,486 | -31.9% | 45,093 | 13.0% | 8 | 8 | 8 |
| I-710 | Los Angeles | 513,399 | 246,579 | 353,834 | -159,565 | -31.1% | 107,255 | 43.5% | 9 | 10 | 9 |
| I-105 | Los Angeles | 497,711 | 230,583 | 259,700 | -238,010 | -47.8% | 29,118 | 12.6% | 10 | 11 | 10 |
| SR-14 | Los Angeles | 153,068 | 276,756 | 161,332 | 8,264 | 5.4% | -115,424 | -41.7% | 14 | 9 | 11 |
| SR-91 | Los Angeles | 407,671 | 128,023 | 149,611 | -258,059 | -63.3% | 21,589 | 16.9% | 11 | 13 | 12 |
| SR-57 | Los Angeles | 188,753 | 142,223 | 127,468 | -61,285 | -32.5% | -14,755 | -10.4% | 13 | 12 | 13 |
| SR-134 | Los Angeles | 376,435 | 77,806 | 104,749 | -271,686 | -72.2% | 26,943 | 34.6% | 12 | 15 | 14 |
| US-101 | Ventura | 142,672 | 105,847 | 96,162 | -46,510 | -32.6% | -9,685 | -9.1% | 15 | 14 | 15 |
| SR-71 | Los Angeles | 111,965 | 40,424 | 75,621 | -36,344 | -32.5% | 35,197 | 87.1% | 17 | 16 | 16 |
| SR-118 | Los Angeles | 132,552 | 16,804 | 30,296 | -102,256 | -77.1% | 13,492 | 80.3% | 16 | 17 | 17 |
| SR-2 | Los Angeles | 85,969 | 4,244 | 13,517 | -72,452 | -84.3% | 9,273 | 218.5% | 18 | 20 | 18 |
| SR-118 | Ventura | 23,049 | 9,475 | 10,999 | -12,050 | -52.3% | 1,524 | 16.1% | 19 | 18 | 19 |
| SR-33 | Ventura | 3,309 | 3,395 | 3,222 | -87 | -2.6% | -174 | -5.1% | 21 | 21 | 20 |
| SR-23 | Ventura | 20,268 | 911 | 2,389 | -17,879 | -88.2% | 1,478 | 162.2% | 20 | 23 | 21 |
| SR-47 | Los Angeles | 1,119 | 8,057 | 1,159 | 40 | 3.6% | -6,897 | -85.6% | 23 | 19 | 22 |
| SR-90 | Los Angeles | 1,901 | 1,055 | 196 | -1,705 | -89.7% | -860 | -81.5% | 22 | 22 | 23 |
| SR-126 | Los Angeles | 478 | 60 | 49 | -429 | -89.7% | -11 | -17.6% | 24 | 24 | 24 |
| SR-170 | Los Angeles | 0 | 0 | 0 | 0 | | 0 | | | | |
| TOTALS | | 13,219,775 | 6,397,739 | 6,692,138 | -6,527,637 | -49.4% | 294,398 | 4.6% | | | |

SR-170 ALL Loops are down from Mid December 2018