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Section 1: Executive Summary

Most Significant Impact Events

| Planned Event | | |
|------------------------|---|--|
| Date: N/A | Location: Various | Event Detail: No planned events during Q4 2021 had significant impacts to traffic. |
| Unplanned Event | | |
| Date: 11/24, PM | Location: I-70 EB before Wentzville Pkwy | Event Detail: Multi-vehicle accident resulting in closure of I-70 EB. Traffic diverted at David Hoekel Pkwy and Route T/W. AMI signal plans implemented on I-70 interchanges at T/W, David Hoekel, and Wentzville Pkwy; and signal timings changed at Wentzville Pkwy @ W Pearce to facilitate diverted traffic volumes traveling around the incident. All lanes blocked for 1 hour for tows and PD investigation, timing changes remained in place for nearly 2 hours. |

Operator Summary

October - December had a **total of 202 incidents** impacting mainlines of major arterials within St Charles County. Of these incidents, **105 occurred during the weekday commuter peak times**. The GGL operator performed signal timing adjustments to facilitate diversions and **mitigate congestion and backups for 12 of these incidents**.









Top 5 Arterial Congestion Locations – October - December 2020 vs. 2021









| | Arterial Congestion Locations 2020 | Base Impact | Average Queue Length (miles) | Average Daily Duration | Total duration |
|---|---|-------------|------------------------------|------------------------|----------------|
| 1 | NB 5 th St @ I-70 | 10,850 | 0.33 | 5 h 55 m | 22 d 17 h 23 m |
| 2 | NB Wentzville Pkwy @ W Pearce Blvd | 10,201 | 0.15 | 13 h 56m | 53 d 11 h 25 m |
| 3 | NB Mid Rivers Mall Dr. @ Central School Rd. | 9,517 | 0.41 | 4 h 26 m | 17 d 1 h 22 m |
| 4 | WB Mexico Rd @ Cave Springs Rd/ Muegge Rd | 7,406 | 0.30 | 4 h 28 m | 17 d 3 h 10 m |
| 5 | SB MO 94 @ I-70 | 6,009 | 0.83 | 1 h 26 m | 5 d 12 h 9 m |

| | Arterial Congestion Locations 2021 | Base Impact | Average Queue Length (miles) | Average Daily Duration | Total duration |
|---|---|-------------|------------------------------|------------------------|----------------|
| 1 | SB MO K @ MO 364/ MO N | 14,520 | 3.13 | 54 m | 3 d 11 h 43 m |
| 2 | NB 5 th St @ I-70 | 13,783 | 0.33 | 7 h 32 m | 28 d 21 h 44 m |
| 3 | NB Wentzville Pkwy @ W Pearce Blvd | 11,014 | 0.16 | 14 h 14 m | 54 d 14 h 44 m |
| 4 | WB Harvester Rd @ MO 364 SOR | 8,800 | 0.37 | 4 h 19 m | 16 d 13 h 49 m |
| 5 | WB Mexico Rd. @ Cave Springs/Muegge Rd. | 8,371 | 0.30 | 5 h 1 m | 19 d 6 h 13 m |

Source: RITIS with HERE probe speed data for major arterial corridors only for all days. Locations ranked on 'Base Impact': the aggregation of queue length over time for segments ending at noted location in mile minutes.

Section 2: System Status Update

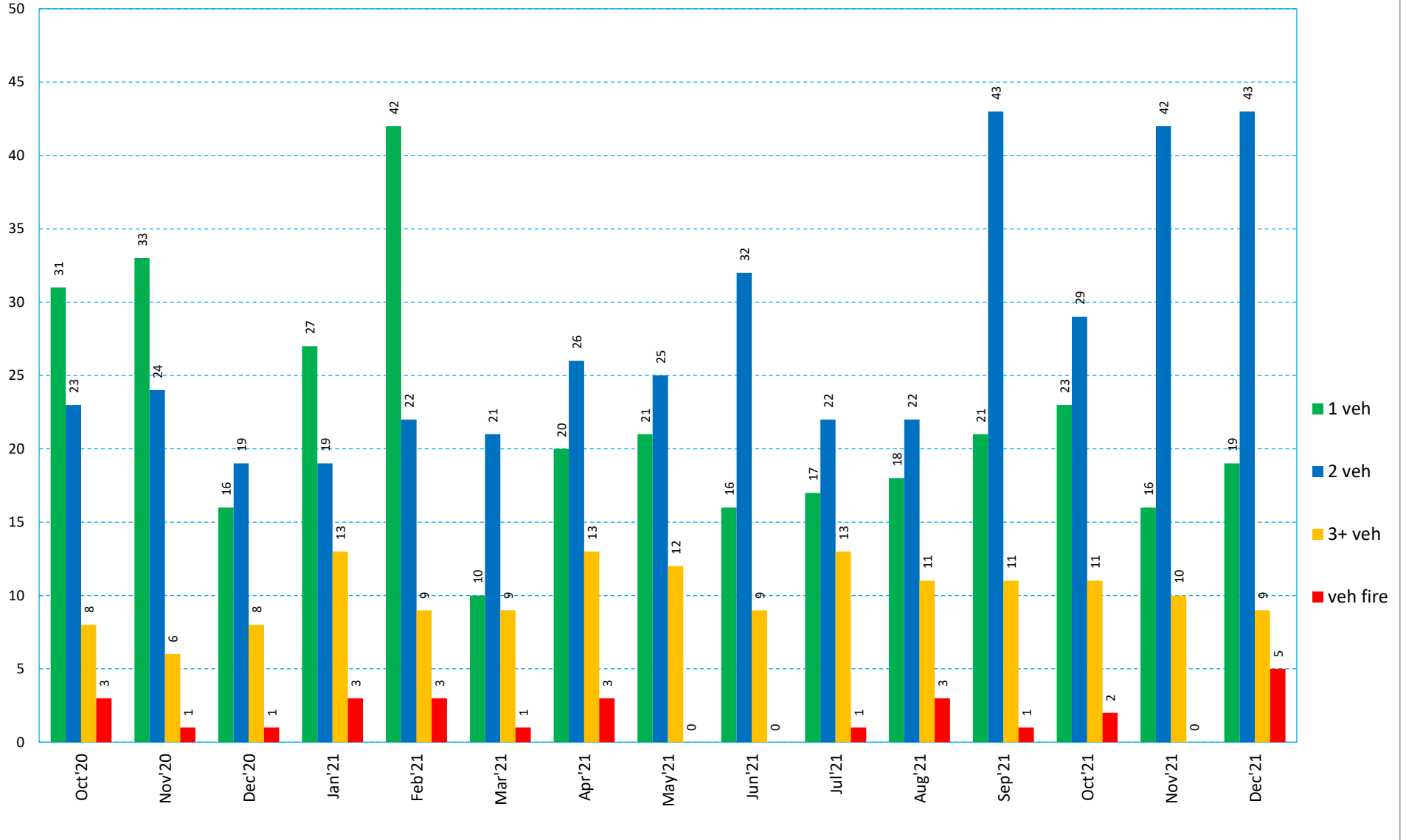
| Device Type | No. | | % Reliable | | Trend |
|--|------|------|------------|------|---|
| | Last | This | Last | This | |
|  Signals Communicating on TCS | 348 | 353 | 98% | 99% |  |
|  CCTV's working | 156 | 180 | 87% | 95% |  |
|  Bluetooth Devices Reporting | 69 | 62 | 68% | 61% |  |
|  Intersections on TDMS | 129 | 140 | 84% | 87% |  |

| Device Type | No. | | % Reliable | | Trend |
|--|---------|---------|------------|------|--|
| | Last | This | Last | This | |
|  Cellular & Radio Devices | 38 | 38 | 95% | 95% |  |
|  DMS Boards | 4 | 4 | 100% | 100% |  |
|  Traffic Count Stations | 0 | 6 | 0% | 67% |  |
|  Fiber Optic Cable | 63.0 mi | 63.0 mi | 100% | 100% |  |

GGL Device Efforts

- Integrated new PTZ cameras from City of St Charles into TransSuite.
- Added various intersections to the TDMS.
- Added Layer II connection to O'Fallon City Hall for new TMC office.
- Added new signal and cameras at Lombard St & S Main St to TCS for City of St Charles.

Trailing 15-Month Freeway Events in St. Charles County



Managed Incidents

- **10/7 PM – I-70 WB at Cave Springs Rd.** 2 vehicle accident in left lane, later moved to right shoulder. Incident caused approximately 3-mile queue. Traffic observed diverting at I-70 WB to W Clay. Signal timings adjusted for WB I-70 to WB W Clay diversion at Zumbuhl Rd, and adjusted at Cave Springs Rd at W Clay to facilitate movement back on to freeway past the incident.
- **10/19 PM – I-70 EB @ US 61 NB Ramp.** Overturned tractor trailer crash closing ramp EB I-70 to NB US 61. Event duration 4+ hours due to cargo removal needing a crane to lift some cargo out of place and other cargo needing to be removed by hand. Signal timing adjusted at I-70 and Route A signals for drivers having to U-Turn to get back to US 61 NB via I-70 WB. Timing changes kept in place until end of afternoon peak period.
- **11/24, PM – I-70 EB before Wentzville Pkwy.** Multi-vehicle accident resulting in closure of I-70 EB. Traffic diverted at David Hoekel Pkwy and Route T/W. AMI signal plans implemented on I-70 interchanges at T/W, David Hoekel, and Wentzville Pkwy; and signal timings changed at Wentzville Pkwy @ W Pearce to facilitate diverted traffic volumes traveling around the incident. All lanes blocked for 1 hour for tows and PD investigation, timing changes remained in place for nearly 2 hours.
- **12/16, PM – I-70 WB past Zumbuhl Rd, vehicle fire.** Signal timings changed at I-70 and Caves Springs and Zumbuhl interchanges due to backups and traffic diverting off freeway. Event duration 1-1/2 hours. Queue 3 miles.
- **12/28, AM – I-70 EB at Cave Springs Rd, multi-vehicle accident.** Signal timings changed at I-70 and Caves Springs interchange, Zumbuhl interchange, and Cave Springs Rd at Mexico Rd signal due to traffic diverting off I-70 EB to Veterans Memorial Pkwy EB. Event duration 1 hour. Queue 2 miles.