

TECHNICAL MEMORANDUM

Existing and Future Conditions

Introduction

The Missoula Metropolitan Planning Organization (MPO), Montana Department of Transportation (MDT), and the City of Missoula are developing a Safety Action Plan (SAP) for the Reserve Street corridor. The purpose of the SAP is to identify feasible and effective strategies to reduce fatal and serious injury crashes on Reserve Street in alignment with the Federal Highway Administration's (FHWA) Safe System Approach¹.

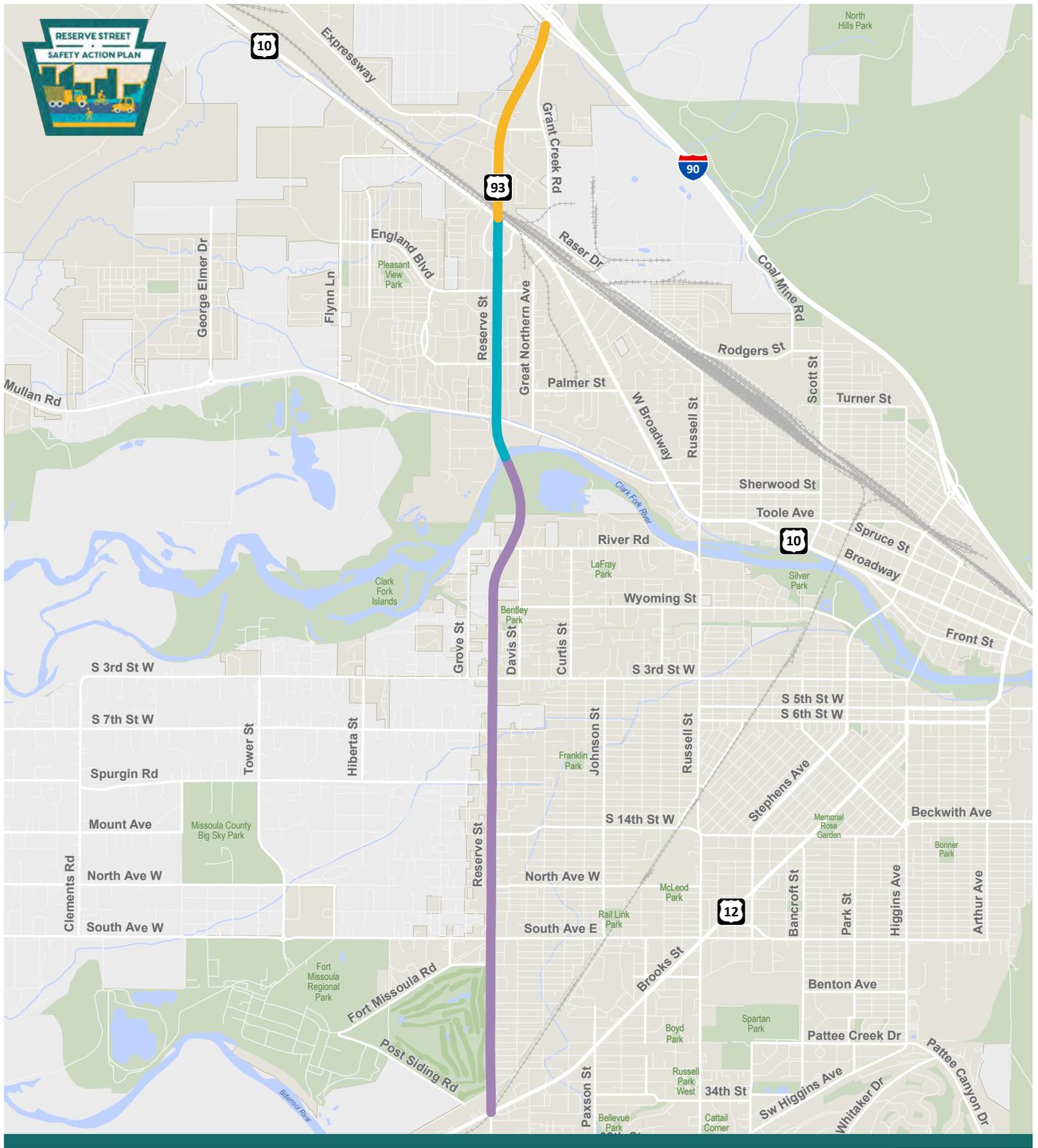
This memorandum summarizes existing plans, projects, and existing conditions along the Reserve Street corridor. The findings contained in this memorandum will be used to develop projects and strategies to improve roadway safety. Projects and strategies will prioritize reducing fatal and serious injury crashes, while ensuring that Reserve Street continues to serve the diverse needs of the surrounding land uses and people traveling along the corridor.

STUDY CORRIDOR

Reserve Street (US-93) is one of the most critical corridors in the Missoula region. It provides access to a variety of adjacent land uses, including commercial areas, schools, and residential neighborhoods, which generate travel by a range of modes. It also serves through-traffic traveling to and from I-90 and other regional routes, including freight movement. As such, Reserve Street is essential for the movement of people, goods, and services, locally and throughout the region. Balancing the competing needs of local and regional traffic is one of the key safety-related challenges this plan will need to consider.

The SAP will cover Reserve Street from I-90 to US 12. This unique and complex corridor is comprised by three distinct sections, illustrated in Figure 1 and described below.

¹ Federal Highway Administration. *What is a Safe System Approach?* <https://www.transportation.gov/NRSS/SafeSystem>



- I-90 to Broadway
- Broadway to Clark Fork River
- Clark Fork River to US 12
- City Limits
- Park/Open Space



Figure 1

Reserve Street Corridor

Data Sources: City of Missoula, Missoula County

1. **I-90 to Broadway:** This segment is characterized by a mix of highway-oriented commercial and industrial uses. Land uses are influenced by the presence of I-90, with several hotels and restaurants serving regional travelers. Outside the highway ramps, pedestrian crossings are limited to one uncontrolled midblock crossing at the Homewood Suites hotel and one signalized intersection at Expressway.
2. **Broadway to Clark Fork River:** This segment is characterized by big-box and outparcel commercial development, serving local and regional traffic. Access is generally limited to public street intersections, most of which are not signalized, as well as right-in/right-out driveways. Pedestrian crossing opportunities are limited to signalized intersections spaced over 1,000 feet apart. Grade separation of the railroad tracks and Broadway creates a different character and user experience in this area.
3. **Clark Fork River to US 12:** This segment is primarily residential with some more locally oriented commercial fronting Reserve Street, especially on the southern end of the corridor. There are two schools along this section (C S Porter Middle School and Big Sky High School), as well as Fort Missoula Regional Park and Community Medical Center. There are limited controlled or enhanced crossing opportunities and Reserve Street divides the surrounding residential areas. The Milwaukee and Bitterroot trails have grade-separated crossings under and over Reserve Street.

TRANSPORTATION DISADVANTAGED POPULATIONS

The Missoula MPO serves a population of approximately 109,000 residents, over 20% of whom are identified as disadvantaged according to the Council on Environmental Quality's (CEQ) Climate and Economic Justice Screening Tool (CEJST), as shown in Figure 2. CEJST evaluates transportation disadvantage at the census-tract level based on eight "categories of burdens" - Climate Change, Energy, Health, Housing, Legacy Pollution, Transportation, Water and Wastewater, and Workforce Development. Those tracts that are at or above the 90th percentile for at least one of these categories, or that are located on Federally Recognized Tribal land, are categorized as disadvantaged.

Within the Missoula MPO, there are four tracts identified by CEJST as disadvantaged because they meet at least one burden threshold. Three of the four disadvantaged tracts, representing 19% of the MPO's total population and 91% of its disadvantaged population, are located on the east side of Reserve Street. The disadvantaged designation for these census tracts is driven by the presence of low-income populations, projected flood and wildfire risk, and the level of households lacking indoor plumbing. These characteristics fall within the Climate Change, Housing, and Water and Wastewater burden categories. Although these tracts do not meet the burden threshold for the Transportation category, they rank between the 66th and 80th percentiles for traffic proximity and volume, which indicates increased health risks from motor vehicle pollutants for residents in these areas.

While the west side of Reserve Street does not meet the CEJST definition of disadvantaged, this area serves a regional hospital and associated clinics, senior living facilities, and social services for other vulnerable populations.

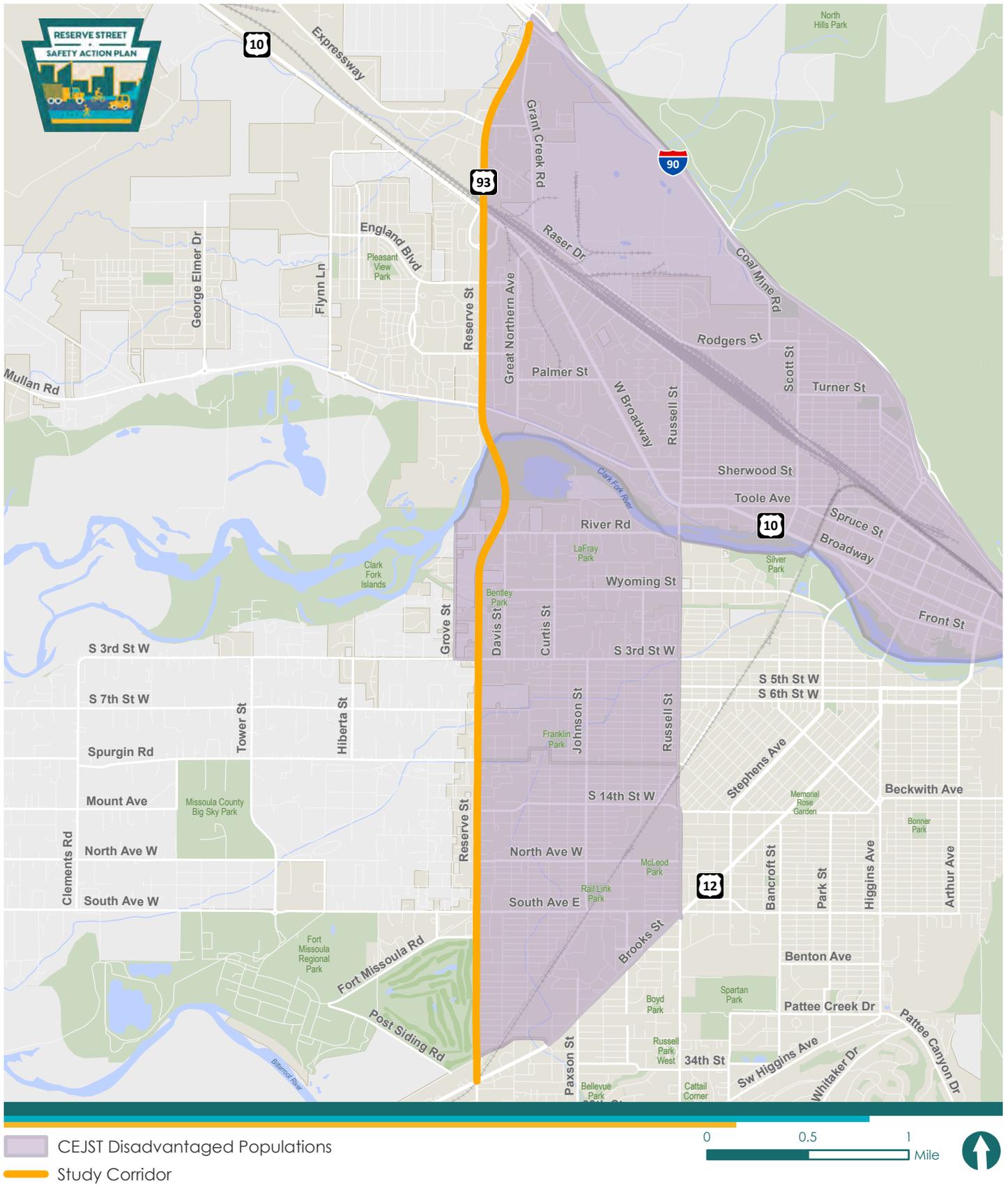


Figure 2

Disadvantaged Populations

Data Sources: USDOT CEJST

Document Review

This section identifies adopted and in-process plans that are relevant to this project. Specifically, it reviews previously identified projects that impact transportation on Reserve Street. The project team reviewed the documents listed in Table 1. Figure 1 illustrates planned projects and studies in the area.

Table 1 Planning Documents Relevant to Reserve Street

Document (Year)	Description
Missoula Connect: 2050 Long Range Transportation Plan (2020)	Identifies Reserve St. as a critical corridor for the local and regional economies. Identifies two segments on Reserve St. having among the five highest crash rates in the Missoula area.
Long Range Transportation Plan Update (In Progress)	Will update the Missoula Connect plan with new data.
Our Missoula 2045 Land Use Plan (2024)	Establishes guidelines and recommendations to inform zoning and development decisions in the City of Missoula. Includes Place Types and Street Types, which provides design objectives, typical treatment options, desired function, and mode emphasis for roadway classifications. Identifies Reserve Street as a Regional Connector – a critically important roadway to the regional travel network that should generally serve as a gateway to the urban core, where it can transition to Regional or Community Mixed-Use facilities.
Missoula Active Transportation Plan (2011)	Identifies Reserve St. north of River Rd as having the second highest number of pedestrian-involved/bicycle-involved crashes (among high-volume corridors) despite relatively low ped/bike volumes
Missoula Community Transportation Safety Action Plan (2019)	Addresses changes in safety concerns, crash trends, mitigation strategies, innovative technologies, and federal requirements since prior plan in 2013. Identifies three emphasis areas for subsequent five years: Intersection Crashes, Non-Motorized Users, and High-Risk Behavior. Identified multiple intersections on Reserve St. as having high crash numbers.
Pedestrian Facilities Master Plan (2018)	Assesses the pedestrian network and anticipated needs within the Missoula urban area and evaluates project prioritization processes and funding recommendations. Identifies multiple intersections on Reserve St. as high priorities for intersection improvements.
Bicycle Facilities Master Plan (2017)	Identifies locations on Reserve St. with high crash counts, as well as network gaps on Reserve St. Entirety of current project extents are scored BLTS 4.
Reserve Street Community Input Project (2021)	Gathered community experiences and input on how to improve Reserve St. and recommended ways to facilitate increased public awareness of projects, efforts, and planning. Identified emphasis areas including multimodal transportation, accessibility, and beautification.
2035 Our City Growth Policy (2015)	Identifies congestion on Reserve St. as a challenge for emergency responders. Identified Reserve Street as a source of frustration for drivers and pedestrians. Identified Reserve Street as far and away the focus of most residents' concerns, including issues with travel times, congestion, crossing by bike or foot, and lack of alternative routes.

Document (Year)	Description
Mullan Area Neighborhoods Master Plan (2020)	Lays out the shared planning effort between City and County for what is now known as the Sx ^w tpqyen Neighborhoods Master Plan
Bicycle and Pedestrian Count Program (2018)	Analyzes bicycle and pedestrian counts taken throughout the city, including two locations on Reserve St. Data was used in multiple grant applications, including a Transportation Alternatives request to fund sidewalk and bike lane improvements along South Ave between Reserve St. and Fort Missoula Regional Park.
Unified Planning Work Program (2023)	Describes transportation planning activities to occur during the following fiscal year in the MPO's planning area.
Montana Comprehensive Highway Safety Plan (2020)	Identifies four emphasis areas for reducing crashes statewide: Roadway departure and intersection crashes, Impaired driving, Unrestrained vehicle occupants, and Emergency response and post-crash care.
Montana Vulnerable Road User Safety Assessment (2023)	Analyzes statewide trends in VRU crashes and identifies factors related to crash risks, including traffic volumes, posted speeds, lighting, and urban environments. Also identifies Missoula as a location with a high number of VRU crashes.
Active MDT Projects in or adjacent to study area	US 93 Corridor Study – Missoula to Florence

The following documents were also reviewed, but do not have projects directly affecting Reserve Street:

- MDT Statewide Transportation Improvement Plan, 2024-2028 (2024)
- Missoula Transportation Improvement Program, FY2024-FY2028 (2023-2024)
- 2035 Our City Growth Policy 5-Year Review (2021)
- Missoula Transportation Options Action Plan (2023)
- Missoula Area Transportation Survey (2019)

Safety Analysis

This section describes the methods and findings of the crash analysis conducted for Reserve Street, described below:

- **Corridor-Wide Crash Patterns:** A comprehensive review of the most recent five years of crash data to identify trends, including crash locations, highest injury severities, collision types, and other characteristics commonly associated with fatal or serious injuries.
- **Corridor Screening:** A screening of roadway segments and intersections to identify areas with the highest relative crash severity based on historical crash data and to assess infrastructure characteristics associated with these higher severity crashes.

Crash patterns are summarized based on the highest severity injury experienced by any person involved in the crash using the KABCO Injury Classification Scale, a system recognized by the Federal Highway Administration.² The KABCO scale assigns a letter to the highest severity type resulting from a crash: fatal (K), suspected serious injury (A), suspected minor injury (B), possible injury (C), unknown injury (U), and property damage only (PDO). While a single crash may involve multiple injuries of varying severities, this assessment focuses only on the highest injury severity. For example, a “fatal crash” means that there was at least one fatality resulting from the crash.

CORRIDOR-WIDE CRASH PATTERNS

This section summarizes the crash patterns and trends on the Reserve Street corridor, based on the most recent five years of crash data (January 1, 2019, to December 31, 2023) provided by MDT. This data includes all crashes reported by the Montana Highway Patrol and may not represent the total number of crashes along the corridor, as some crashes go underreported if emergency responders or law enforcement are not contacted.

Historically, Reserve Street has had some of the highest crash rates within the MPO. The *Missoula Connect 2050 Long Range Transportation Plan* identifies two sections of Reserve Street (Broadway Street to Mullan Road and 3rd Street to 39th Street) as having some of the highest crash rates in the planning area. Reserve Street also has a high frequency of crashes compared to other corridors within the MPO. As shown in Table 2, there have been more total, fatal and serious injury, and bicycle and pedestrian crashes on Reserve Street than similar sections of Broadway Street and Brooks Street.

² Federal Highway Administration. (N.D.). *KABCO Injury Classification Scale and Definitions by State*. https://safety.fhwa.dot.gov/hcip/spm/conversion_tbl/pdfs/kabco_ctable_by_state.pdf

Table 2 Comparison of Crash Frequencies on Corridors in Missoula (Data from 2019-2023)

Crash Totals (2019 - 2023)	Reserve St (Brooks St to I-90)	Broadway St (Reserve St to Van Buren St)	Brooks St (Reserve St to Higgins)
Fatal or Serious Injury	66	49	13
Bicycle/Pedestrian	30	27	8
Total Crashes	1664	965	711

In the 10-year period between January 1st, 2014, and December 31st, 2023, there were 3,593 crashes on Reserve Street between the I-90 ramps and US 12 (Brooks Street). Figure 3 summarizes crashes severity and year and Figure 4 focuses on fatal and suspected serious injury crashes by year for the 10-year period.

Figure 3 Crashes by Severity by Year

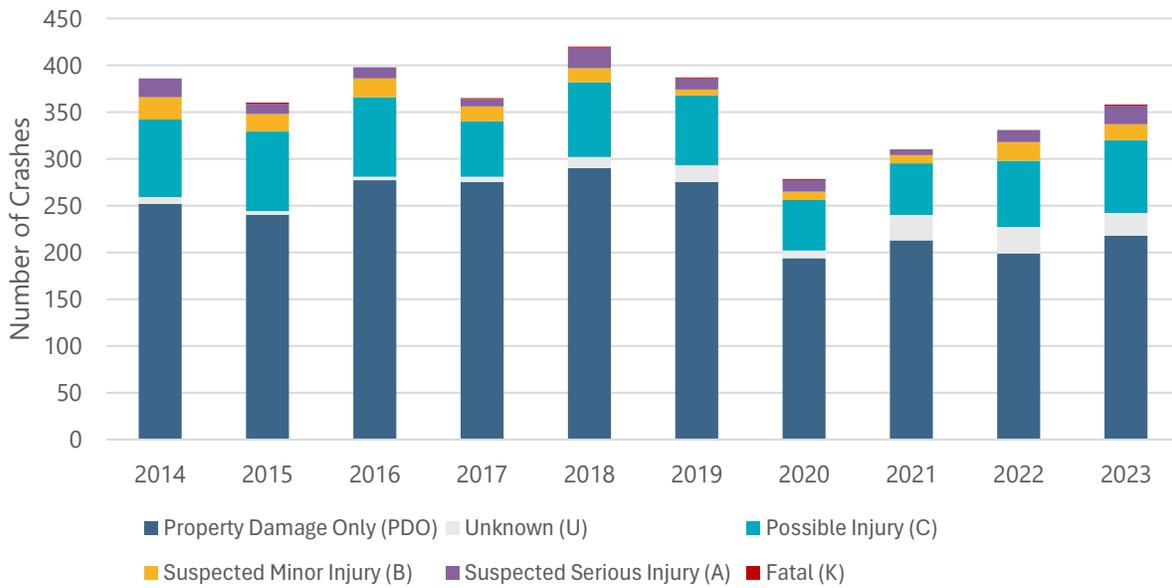
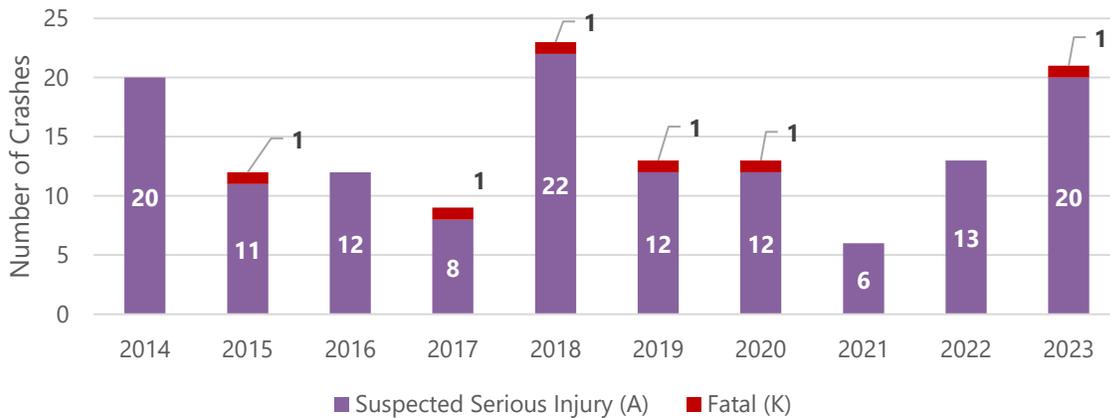


Figure 4 Fatal and Suspected Serious Injury Crashes by Year



In the 10-year period, the total number of crashes varied between 278 and 387 crashes per year. The highest number of crashes occurred in 2018, while 2020 had the lowest, reflecting a 28% decrease from the previous year. This sharp decline can likely be attributed to reduced traffic volumes during the COVID-19 pandemic. However, fatal and serious injury crashes remained the same between 2019 and 2020 and were similar in 2023 (21 crashes) as compared to 2018 (23 crashes), despite there being fewer total crashes in 2023.

This analysis focuses on crashes in the most recent five-year period (2019-2023). Fatal and suspected serious injury crashes during this period are relatively similar to what has been seen during the 10-year period shown in the preceding figures, though total crash numbers have been lower during this time.

Crash Severity & Crash Type

Crashes are displayed by severity in Figure 5 and summarized by crash type in Figure 6. In Figure 6, the values at the end of each bar indicate the total number of fatal and suspected serious injury crashes, followed by the proportion of those crashes relative to all fatal or suspected serious injury crashes (e.g., rear-end crashes accounted for 23 fatal and suspected serious injury crashes, which represents 35% of all fatal and suspected serious injury crashes). Appendix A contains a more detailed breakdown of crashes by type and severity.

Figure 5 Crashes by Severity

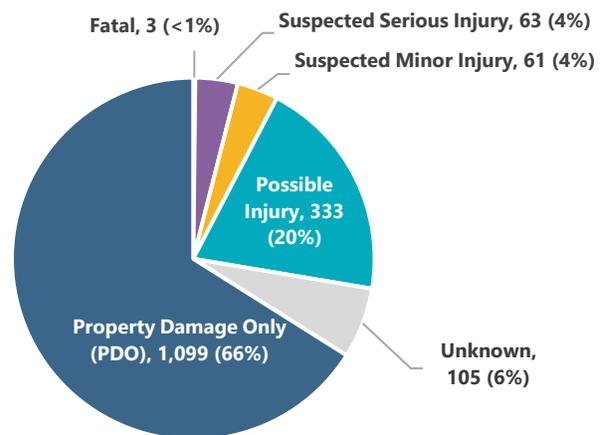
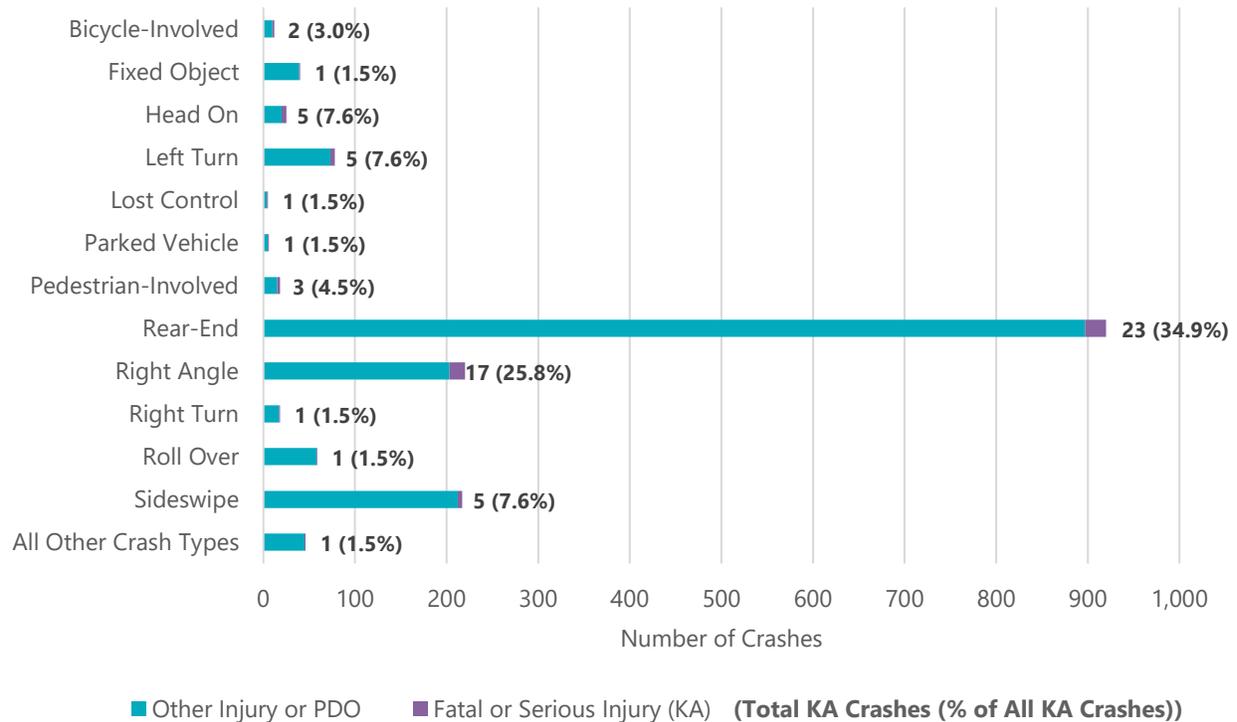


Figure 6 Crash Types by Severity



The four most frequent crash types are rear-end (55% of all crashes), right angle (13%), sideswipe (13%), and left turn (5%).

Rear-end crashes also account for the highest proportion of fatal and serious injury crashes, though at a lower proportion (35%) than for total crashes (55%). Right angle crashes account for the second greatest proportion of fatal and serious injury crashes (26%). Head-on, left turn, and sideswipe crashes each represent about 8% of fatal and serious injury crashes, tying for the third-highest proportion. Right-angle, head-on, left-turn, pedestrian-involved, and bicycle-involved crashes all account for a greater proportion of fatal and serious injury crashes than for total crashes, indicating these crashes tend to be more severe than other crash types.

Key attributes of the three crashes resulting in fatalities include:

- All occurred at an intersection, with one each reported at the Schramm Street, International Drive, and Mullan Road intersections.
- Two were left turn-opposite direction crashes at unsignalized intersections. One of these crashes occurred with snow on the roadway surface.
- One was a reported pedestrian-involved crash at Mullan Road while crossing the Mullan Road approach.

Key attributes of the 63 crashes resulting in a suspected serious injury include:

- Most crashes (90%) occurred at intersections. Of these, 68% were at unsignalized intersections and 32% were at traffic signals. Rear end crashes represented the highest proportion of suspected serious injury crashes (32%), followed by right angle crashes (29%).
- Of the six crashes resulting in a suspected serious injury that occurred on segments between intersections, five were rear-end crashes.

Crash Location

Crash patterns for intersections and segments shown are detailed in the following sections. Figure 7 shows the distribution of all crashes by location type, and Figure 8 shows the distribution for just fatal and serious injury crashes.

Figure 7 Crashes by Location Type

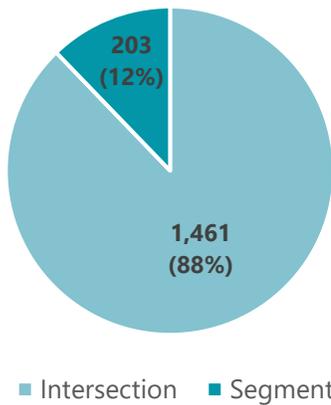


Figure 8 Fatal and Serious Injury Crashes by Location Type

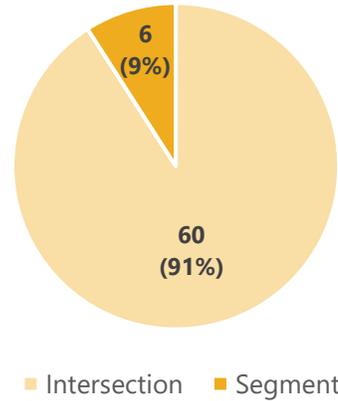


Figure 9 summarizes all crashes by location, and Figure 10 summarizes fatal and serious injury crashes by location.

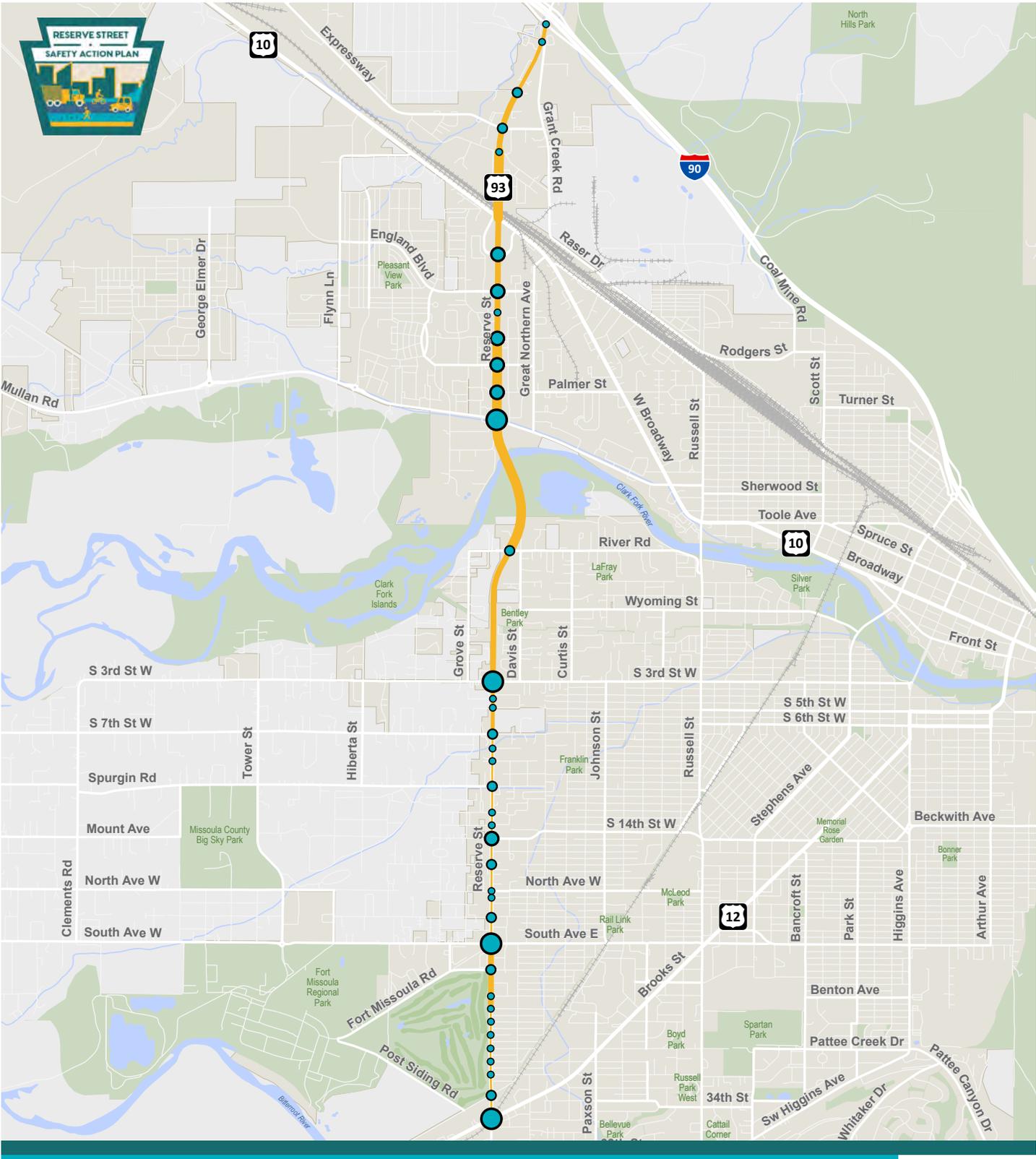
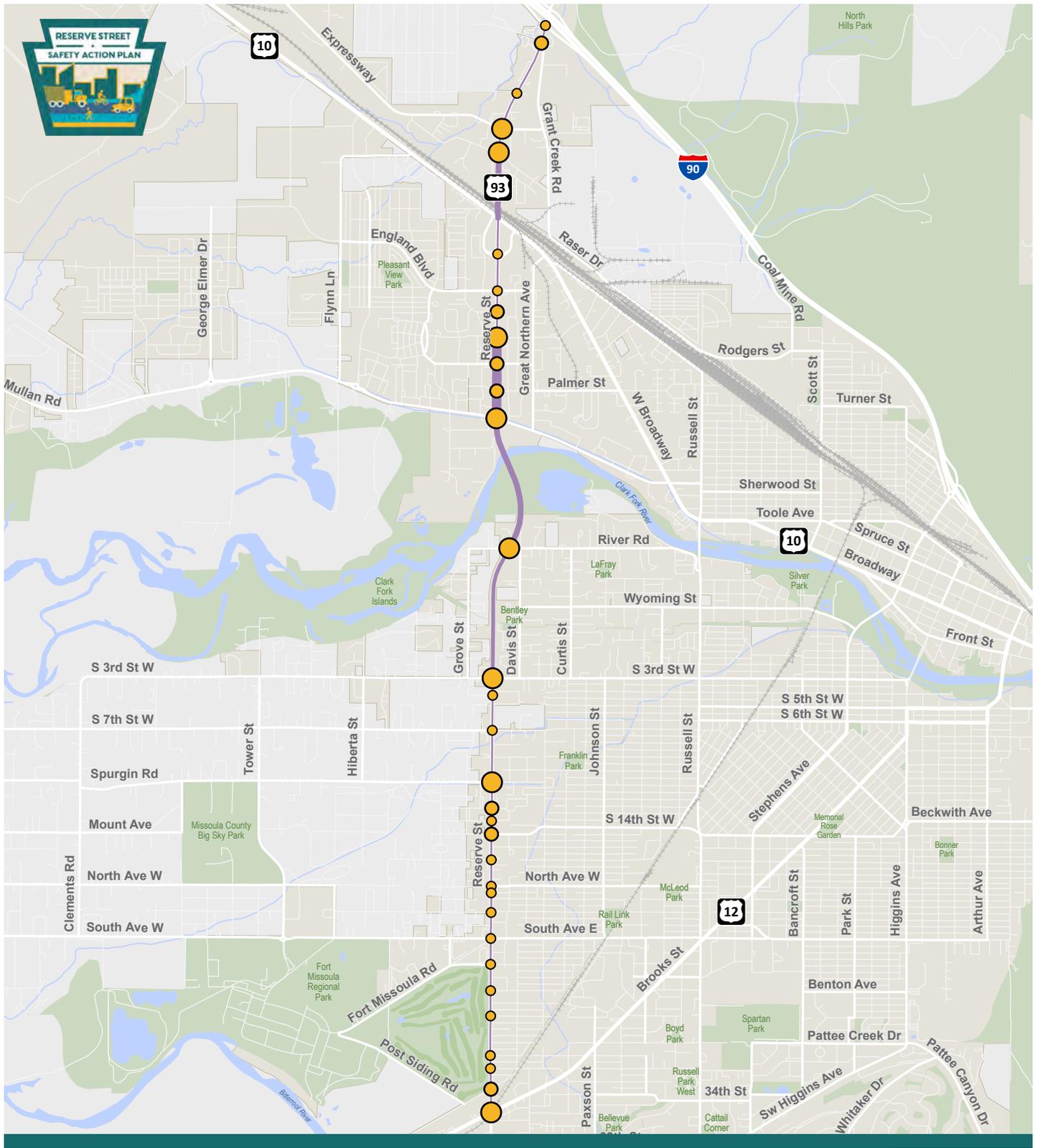


Figure 9

Crash Summary

Data Sources: City of Missoula, Missoula County, MDT



Intersection Fatal and Serious Injury Crashes

- 0
- 1
- 2
- 3 - 5

Segment Fatal and Serious Injury Crashes per Mile

- 0.0
- 0.1 - 1.6
- 1.7 - 3.2
- 3.3 - 5.1



Figure 10
Crash Severity

Data Sources: City of Missoula, Missoula County

INTERSECTIONS

There were 1,461 intersection-related crashes within the five-year study period, representing 88% of all crashes on Reserve Street. Of these crashes, three crashes resulted in a fatality and 57 resulted in a suspected serious injury. Table 3 summarizes these crashes by severity for each intersection on Reserve Street. Crash rates (crashes per million entering vehicles (MEV)) are calculated for intersections where traffic volumes were counted for this project. Intersections displayed in **bold** had three or more fatal or serious injury crashes within the 5-year period.

Table 3 Intersections by Crash Severity and Crash Rate (Crashes per Million Entering Vehicles)

Intersection	Traffic Control	Crash Severity						Total Crashes (% of Total)	Crash Rate (per MEV)
		K	A	B	C	PDO	U		
I-90 Eastbound Ramps	Signalized	0	1	2	3	16	0	22 (1.5%)	-
Grant Creek/ Michael Rd	Unsignalized	0	2	1	5	10	0	18 (1.2%)	-
Schramm St	Unsignalized	1	0	2	4	22	0	29 (2%)	-
Expressway Rd	Signalized	0	3	4	4	32	5	48 (3.3%)	0.93
International Dr	Unsignalized	1	2	1	4	14	2	24 (1.6%)	0.48
Broadway Ramps	Signalized	0	1	1	6	76	2	86 (5.9%)	1.46
England Blvd	Signalized	0	1	1	23	56	8	89 (6.1%)	1.35
Tina Ave	Unsignalized	0	2	1	3	14	0	20 (1.4%)	-
American Way	Unsignalized	0	5	3	13	31	3	55 (3.8%)	1.05
Union Pacific St	Signalized	0	2	3	27	55	3	90 (6.2%)	1.45
Palmer St	Unsignalized	0	2	1	8	37	5	53 (3.6%)	0.97
Mullan Rd	Signalized	1	2	5	26	102	9	145 (10%)	1.74
River Rd	Unsignalized	0	3	1	9	25	3	41 (2.8%)	0.63
S 3rd St	Signalized	0	5	6	28	76	9	124 (8.5%)	1.56
Olofson	Unsignalized	0	1	0	0	9	2	12 (<1%)	-
S 5th St	Unsignalized	0	0	0	1	2	1	4 (<1%)	-
7th St	Unsignalized	0	1	0	7	24	3	35 (2.4%)	-
S 8th St	Unsignalized	0	0	1	0	5	0	6 (<1%)	-
S 9th St	Unsignalized	0	0	0	0	1	0	1 (<1%)	-
Spurgin Rd	Unsignalized	0	3	0	10	21	2	36 (2.5%)	0.61
Sunset Ln	Unsignalized	0	2	1	4	6	3	16 (1.1%)	-
S14th St	Unsignalized	0	1	0	1	3	0	5 (<1%)	-
Mount Ave	Signalized	0	2	1	12	33	3	51 (3.5%)	0.81
Strand Ave/ Pool Ln	Unsignalized	0	1	2	8	14	1	26 (1.8%)	-
North Ave	Unsignalized	0	1	0	4	11	1	17 (1.2%)	-
Kent Ave	Unsignalized	0	1	0	1	4	2	8 (<1%)	-

Intersection	Traffic Control	Crash Severity						Total Crashes (% of Total)	Crash Rate (per MEV)
		K	A	B	C	PDO	U		
Central Ave	Unsignalized	0	1	1	8	17	0	27 (1.8%)	0.52
South Ave	Signalized	0	1	2	20	69	8	100 (6.8%)	1.36
Dearborn Ave	Unsignalized	0	1	5	7	25	3	41 (2.8%)	0.74
Benton Ave	Unsignalized	0	1	0	5	7	2	15 (1%)	-
Mary Ave	Unsignalized	0	0	0	2	0	1	3 (<1%)	0.06
Agnes Ave	Unsignalized	0	1	2	0	1	1	5 (<1%)	-
Harve Ave	Unsignalized	0	0	0	1	2	0	3 (<1%)	-
Ernest Ave	Unsignalized	0	0	1	0	2	1	4 (<1%)	-
Dixon Ave	Unsignalized	0	1	1	0	2	0	4 (<1%)	-
McDonald Ave	Unsignalized	0	1	0	0	5	0	6 (<1%)	-
Old US 93	Unsignalized	0	2	2	5	28	4	41 (2.8%)	0.86
Brooks Street	Signalized	0	4	3	23	113	8	151 (10%)	1.96
Grand Total		3	57	54	282	970	95	1,461 (100%)	N/A

Crash rates are provided here as another data point for comparing locations within Reserve Street. However, this plan is focused on reducing fatal and serious injury crashes, so the number of these crashes is the primary metric used for identifying locations for further review.

Figure 11 shows distribution of intersection-related crashes by traffic control (i.e., signalized vs. unsignalized), and Figure 12 shows the same distribution for just fatal and suspected serious injury crashes.

Figure 11 Total Intersection-Related Crashes

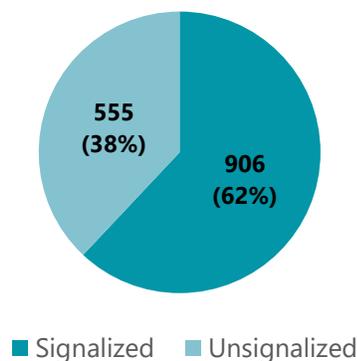
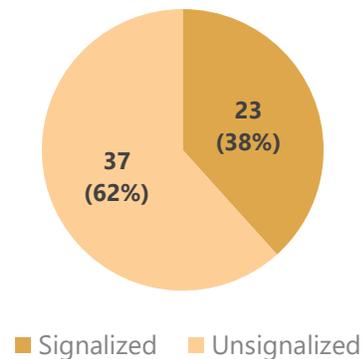


Figure 12 Intersection-Related Fatal and Serious Injury Crashes



Crashes at unsignalized intersections disproportionately resulted in fatal or suspected serious injuries, accounting for only 38% of all intersection-related crashes but 62% of intersection crashes resulting in fatal or suspected serious injuries.

Figure 13 and Figure 14 show the top crash types for signalized and unsignalized intersections, respectively. The values at the end of each bar indicate the total number of crashes resulting in fatal and serious injuries, followed by the proportion of those crashes relative to all fatal and serious injury crashes for each traffic control type (e.g., rear-end crashes accounted for nine serious injury crashes (zero fatalities), which represents 39% of all of these crashes at signalized intersections).

Figure 13 Top Signalized Intersection-Related Crash Types

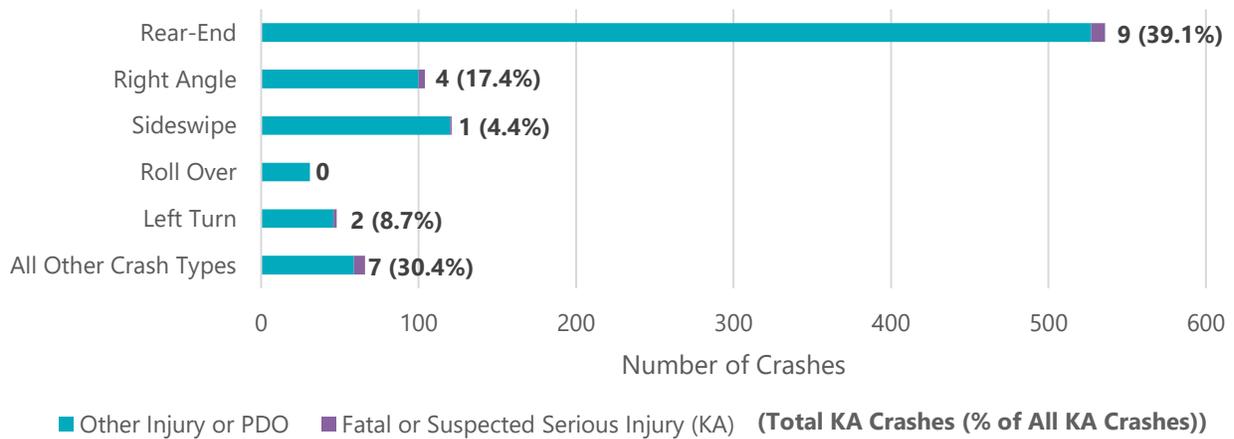
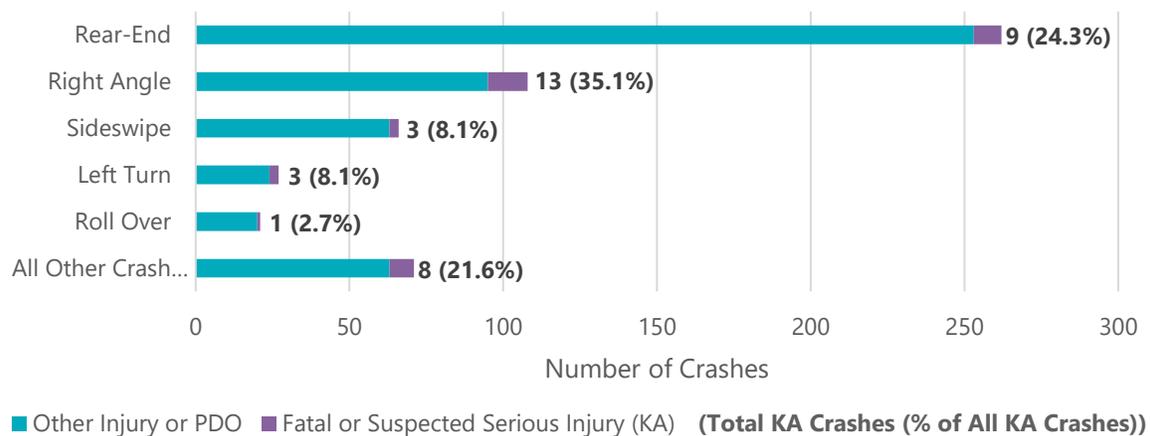


Figure 14 Top Unsignalized Intersection-Related Crash Types



Notable observations include:

- Fatal and suspected serious injury crashes are distributed at intersections throughout the corridor, with 30 of the 37 intersections having at least one of these types of crashes.
 - American Way and South 3rd Street had the most suspected serious injury crashes per intersection, with five of these crashes at each location. Brooks Street (US 12) was the next highest intersection, with four suspected serious injury crashes.
- Brooks Street had the highest crash rate (1.96), highest total number of crashes (151), and the third-highest fatal and suspected serious injury crash count over the five-year period (four total fatal and suspected serious injury crashes).

- Rear-end crashes represent the highest proportion of total crashes and fatal and suspected serious injury crashes at signalized intersections.
 - Seven of the ten signalized intersections had over 15 crashes per year, including Broadway Ramps, England Boulevard, Union Pacific Street, Mullan Road, S 3rd Street, South Avenue, and Brooks Street.
 - Ramp terminals generally have fewer conflict points compared to typical signalized intersections; however, the Broadway ramps exhibit a higher crash frequency compared to most other intersections on the corridor, with 90% of crashes being rear-end crashes.
- The most common crash type at unsignalized intersections is rear-end, followed by right angle. However, right angle crashes are more likely to result in a fatal or suspected serious injury compared to rear-end crashes.
 - Rear end crashes at unsignalized intersections may occur when people do not react in time to a vehicle slowing down to make a turn off of Reserve Street or to a vehicle turning onto Reserve Street from a driveway or side street.
 - Between Brooks Street and River Road, drivers can use the center turn lane to complete two-stage left turns. However, between the I-90 ramps and River Road, dedicated left-turn pockets on Reserve Street prevent two-stage left turns from side streets. Nine of the thirteen right-angle crashes resulting in a serious injury occurred in this section where two-stage turns are not possible.

SEGMENTS

There were 203 segment crashes within the five-year study period. Of these crashes, none resulted in a fatality, but six resulted in a suspected serious injury. Figure 15 shows the top crash types for segment crashes. As shown, rear-end crashes are the most common crash type for all crash severities, as well as suspected serious injury crashes (60% of segment crashes and 83% of segment suspected serious injury crashes). The next most common crash type is sideswipe (15% of segment crashes and 17% of segment suspected serious injury crashes).

Figure 15 Top Crash Types for Segment Crashes

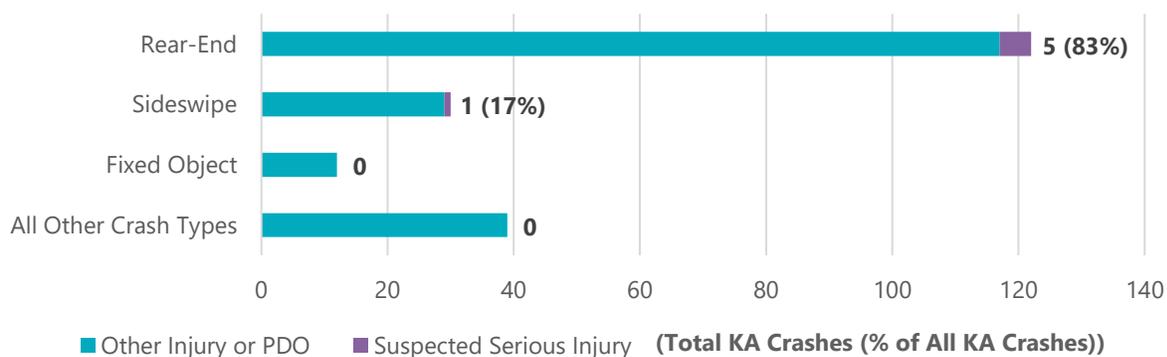


Table 4 summarizes crash severity and crash rate (crashes per vehicle miles traveled (VMT)) for roadway segments. These segments were determined based on changes in the 2023 Average Annual Daily Traffic (AADT) data from MDT. As described in the Intersections section, crash rates are most reliable when

comparing segments within Reserve Street. Segments that are displayed in **bold** had two or more serious injury crashes.

Table 4 Segment Crashes by Severity and Crash Rate per Million VMT

Crash Segment	A	B	C	PDO	U	Total	Crash Rate per Million VMT
I-90 Interchange to Schramm St	0	0	2	5	0	7 (3.4%)	0.47
Schramm St to International Dr	0	0	1	10	0	11 (5.4%)	0.86
International Dr to Broadway St Bridge	1	1	4	11	0	17 (8.3%)	0.98
Broadway St Bridge to American Way	0	0	4	21	1	26 (13%)	0.74
American Way to Mullan Rd	2	1	5	13	2	23 (11%)	0.96
Mullan Rd to River Rd	2	2	20	38	5	67 (33%)	1.55
River Rd to S 3rd St W	1	3	6	16	1	27 (13%)	0.62
S 3rd St to S 7th St	0	0	0	4	0	4 (2%)	0.24
S 7th St to Mount Ave	0	0	1	0	0	1 (<1%)	0.03
Mount Ave to South Ave	0	0	3	2	0	5 (2.5%)	0.16
South Ave E to Mary Ave	0	0	5	7	1	13 (6.4%)	0.74
Mary Ave to Brooks St	0	0	0	2	0	2 (1%)	0.07
Total	6	7	51	129	10	203	-

Notable segment observations include:

- Mullan Road to River Road has the highest crash rate, followed by International Drive to Broadway Street Bridge and American Way to Mullan Road.
- The Mullan Road to River Road segment represents 33% of all crashes and 33% of all segment suspected serious injury crashes.
- The International Drive to Broadway Street Bridge segment represents 8% of segment crashes and 17% of segment suspected serious injury crashes
- The River Road to S 3rd St W segment represents 13% of segment crashes and 17% of segment suspected serious injury crashes.

Vulnerable Road Users

Vulnerable road users, such as people walking and biking, are exposed to higher risk of fatalities and injuries on roadways. This is evident within the study period, as pedestrian-involved and bicycle-involved crashes represented 1.8% of all crashes, but 7.6% of all fatal and suspected serious injury crashes.

Pedestrian- and bicycle-involved crashes are summarized by severity in Figure 16. Overall, there was one pedestrian-involved crash that resulted in a fatality and four crashes that resulted in a suspected serious

injury (two pedestrian, two bicycle). According to City staff, it's possible that some reported pedestrian involved crashes actually involved bicyclists, as police officers sometimes classify people on bikes in the crosswalk as pedestrians to be consistent with state law.

Figure 16 Pedestrian- and Bicyclist-Involved Crashes by Severity

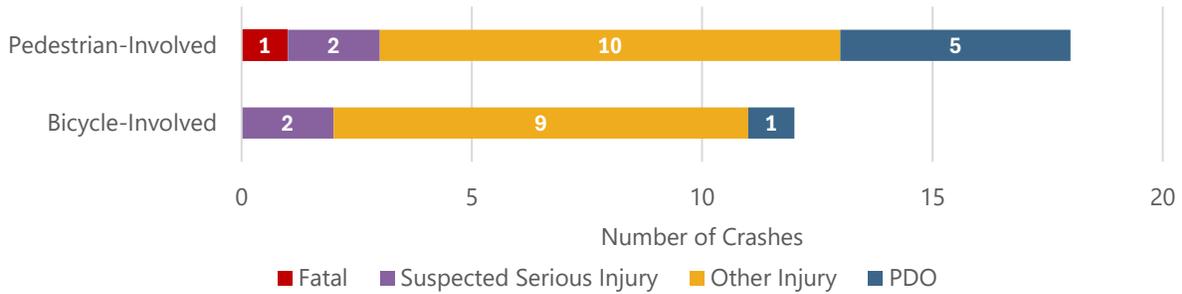
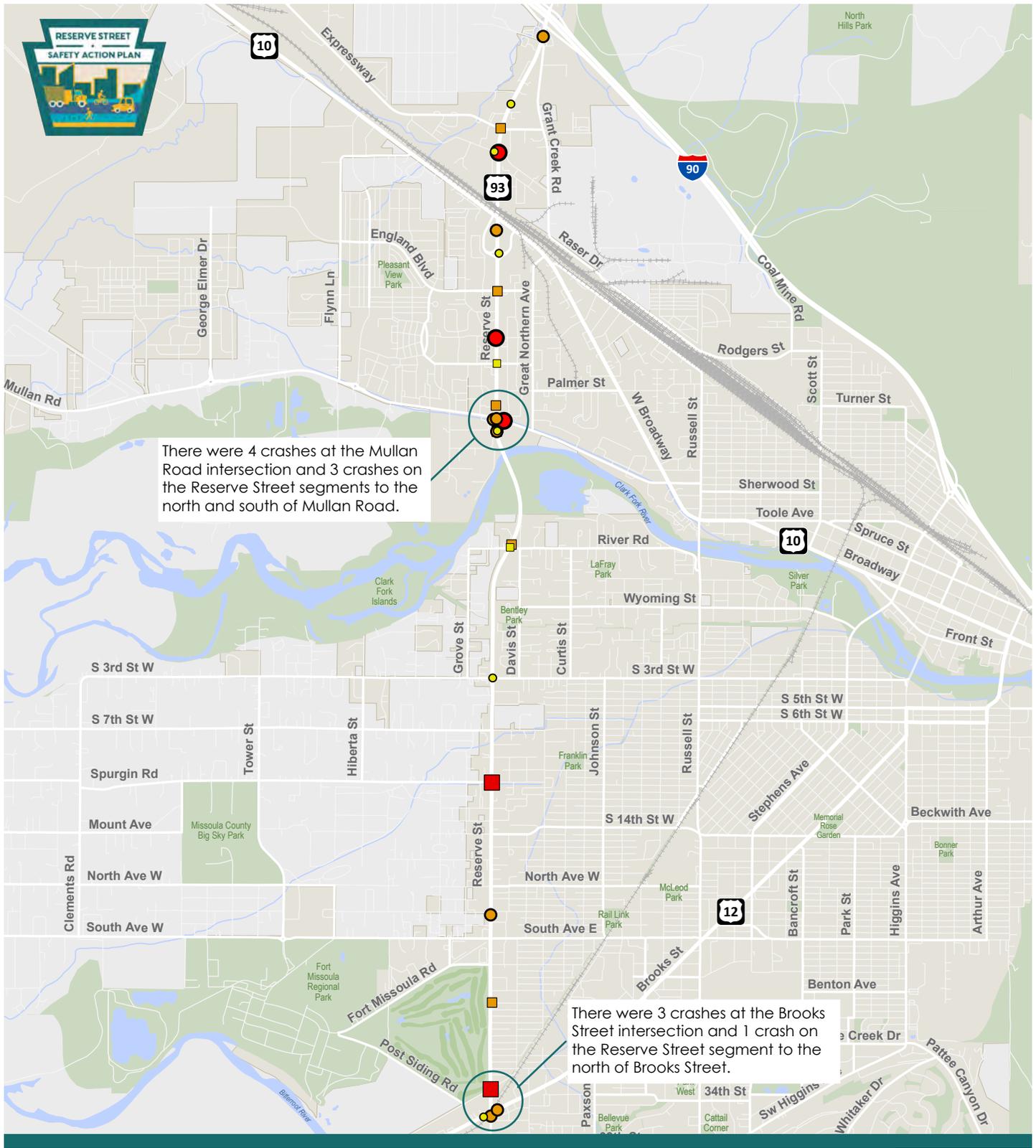


Figure 17 maps all pedestrian-involved and bicycle-involved crashes within the study period. Seventy-seven percent of pedestrian- or bicycle-involved crashes occurred at an intersection, including the one crash involving a pedestrian fatality at the Mullan Road intersection.



Pedestrian-Involved Crashes

- Fatal or Suspected Serious Injury Crash (3)
- Other Injury (9)
- PDO or Unknown Injury (6)

Bicycle-Involved Crashes

- Suspected Serious Injury (2)
- Other Injury (8)
- PDO or Unknown Injury (2)



Figure 17

Pedestrian and Bicycle Crashes

Data Sources: City of Missoula, Missoula County

CORRIDOR SCREENING

This section summarizes findings from two corridor screening assessments, the Equivalent Property Damage Only (EPDO) assessment and the Infrastructure Indicators assessment. These assessments aim to identify focus areas that could benefit from safety improvements by analyzing locations with the highest severity crashes, as well as locations with roadway or environmental characteristics that are commonly associated with these high severity crashes.

Equivalent Property Damage Only (EPDO) Assessment

High severity and high frequency crash locations were identified using the Equivalent Property Damage Only (EPDO) method, one of the safety network screening performance measures included in the *Highway Safety Manual*.³

The EPDO analysis methodology places greater emphasis on crash severity compared to other common methods that only consider crash frequency or rate, providing insight into locations that have low crash frequency but have experienced one or more fatal or suspected serious injury crashes. The EPDO method assigns societal costs to each crash by KABCO severity level to develop an equivalent property-damage only value based on magnitude relative to a PDO crash.

Table 5 EPDO Weights by Severity

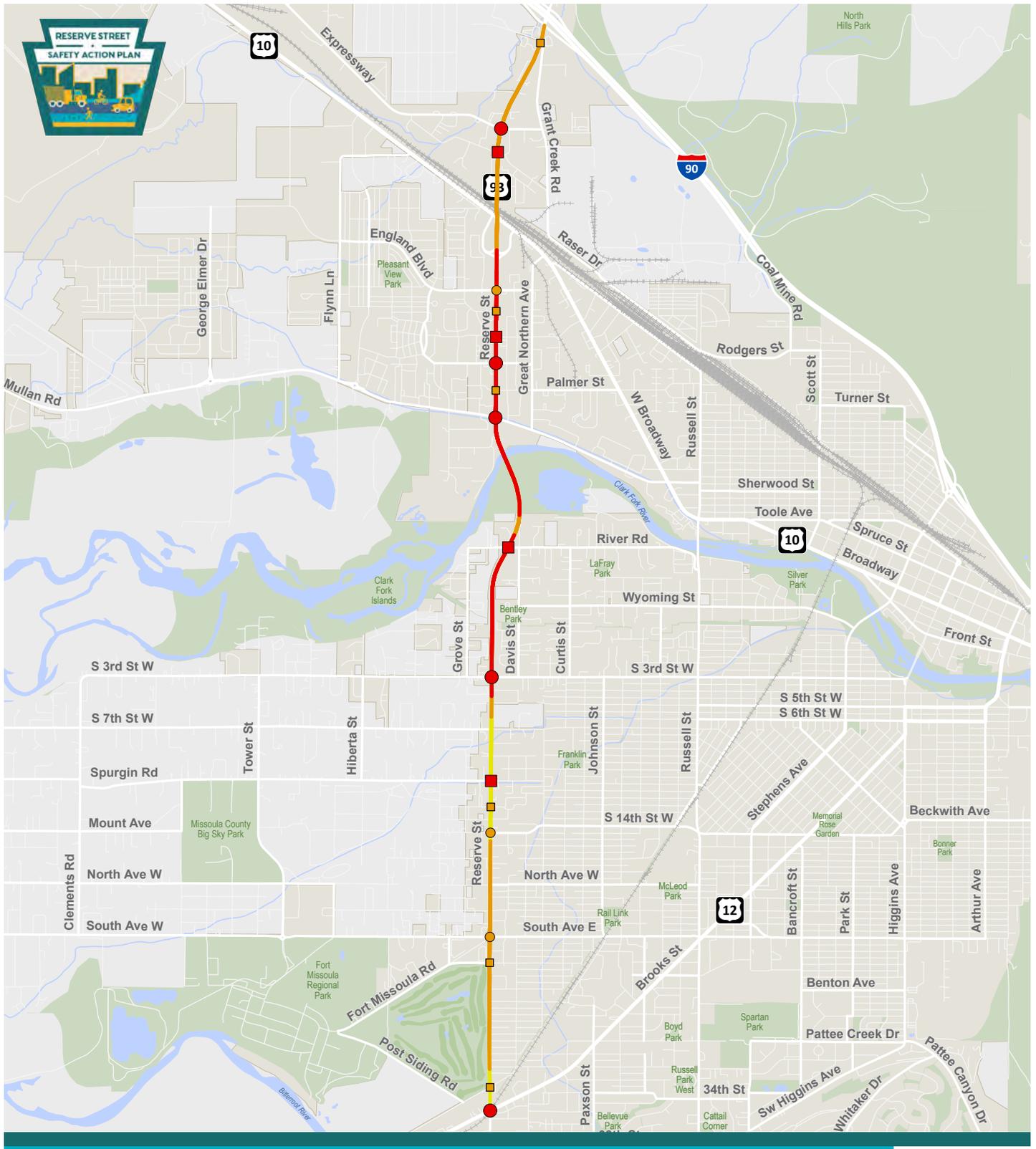
Severity (KABCO)	Societal Cost	EPDO Weight
K – Fatal Crash	\$\$\$\$	270.99
A – Suspected Serious Injury Crashes	\$\$\$\$	270.99
B – Visible Injury Crash	\$\$\$	38.74
C – Possible Injury Crash	\$\$	19.79
O – Property Damage Only Crash	\$	1.00

Source: *Federal Highway Administration, Benefit-Cost Analysis Guidance for Discretionary Grant Programs (2022)*.⁴

**Note: For this analysis, fatal and suspected serious injury crashes are weighted the same based on best practices to reduce the weight of fatal crashes and better identify high crash locations, in alignment with Safe System Approach’s focus on preventing both fatal and serious injury crashes.*

³ Association of American State Highway Transportation Officials. (2010). *Highway Safety Manual*. <https://www.highwaysafetymanual.org/Pages/default.aspx>

⁴ Monetized values were developed based on the FHWA’s 2022 *Benefit-Cost Analysis Guidance for Discretionary Grant Programs*. The monetized values for B, C, and O crashes align with those from FHWA, while adjustments were made to the values for K and A crashes through a weighted average approach to prevent any one K crash from overly affecting the final EPDO score.



Equivalent Property Damage Only (EPDO) Rankings

Top 25%

- Signalized
- Unsignalized
- Roadway Segment

Top 50%

- Signalized
- Unsignalized
- Roadway Segment



Figure 18

Crash History Screening

Data Sources: City of Missoula, Missoula County

INTERSECTIONS

Table 6 summarizes the intersections with the top 25% of EPDO scores.

Table 6 Top 25% EPDO Intersections

Rank	Intersection	Traffic Control	EPDO Score
1	International Dr	Unsignalized	678.6
2	S 3 rd St	Signal	445.3
3	Brooks St	Signal	355.3
4	Mullan Rd	Signal	326.4
5	Union Pacific St	Signal	250.1
6	American Way	Unsignalized	223.9
7	Expressway Rd	Signal	139.6
8	River Rd	Unsignalized	134.4
9	Spurgin Rd	Unsignalized	129.6

SEGMENTS

The roadway segment EPDO analysis was conducted using the 'sliding window' method, as recommended by the *Highway Safety Manual*, to effectively compare roadway segments of equal length. The sliding window method calculates EPDO by evaluating total EPDO in 0.5-mile segments (i.e., "windows"), and then sliding the window along the roadway 0.1-miles at a time. This method reduces the possibility of splitting locations with high concentrations of crashes into separate segments, which would reduce the EPDO value for segments that start and end in high-crash spots.

Reserve Street between the Broadway Ramps and S 3rd Street generally has higher EPDO scores compared to the rest of the corridor. The highest scoring 0.5-mile segment is between American Way and Clark Fork Drive.

Infrastructure Indicators

The project team also screened the corridor for locations with characteristics, or "infrastructure indicators," that are common to high severity or high frequency crash locations. While these locations may not have notable severe crash trends within the study period, they have characteristics that are observed at locations that have high-severity crashes, as identified from corridor-wide crash patterns, the EPDO screening results, and statewide and national research.

The factors evaluated in the infrastructure indicators screening are listed below. The characteristics include roadway design and environmental factors that may be correlated with higher crash severity. These characteristics can influence vehicle speed, driver behavior, and the presence of vulnerable users.

- Permissive left-turn signal phasing – Can result in conflicts between left-turning vehicles and through vehicles and people in the crosswalk.

- Right-turn slip lane – Leads to higher speed right turns and can create another conflict point with people walking or biking.
- Skewed unsignalized intersection – Reduces sight distance for vehicles making turns or trying to cross the street.
- Within ½ mile of a school – Can indicate the location is in an area with higher pedestrian, bicycle, and other vulnerable road user activity, especially children.

Other corridor-wide characteristics include:

- 45 miles-per-hour (MPH) speed limit – Higher speeds result in more kinetic energy when a crash occurs, which can increase crash severity.
- High driveway density – Driveways create conflict points.
- Lack of protected bicycle facilities – People biking must either share a lane with motor vehicle traffic or share the sidewalk with people walking.
- Limited pedestrian and bicycle crossings in some locations – Enhanced crossings can increase driver yielding to people crossing.

Figure 19 displays where these characteristics are present along the corridor.

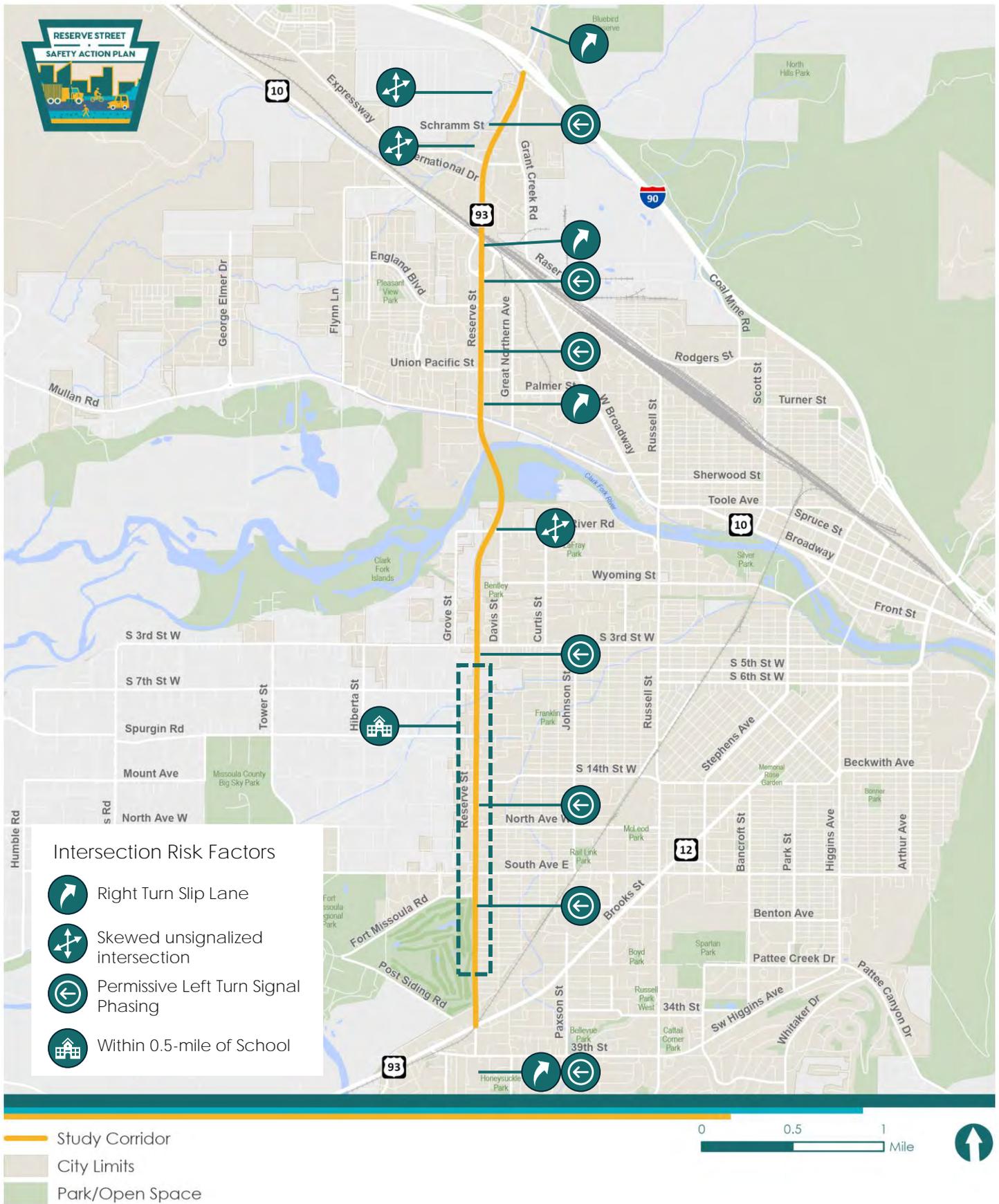


Figure 19

Infrastructure Indicators

Travel Patterns and Traffic Operations Analysis

This section summarizes an evaluation of existing travel patterns and an analysis of traffic operations at intersections along the Reserve Street corridor.

EXISTING TRAVEL PATTERN EVALUATION

The evaluation of existing travel patterns seeks to understand how Reserve Street is being used. The project team used Replica, a big-data provider, to analyze origin-destination patterns and trip lengths for those using Reserve Street. Data was collected in the fall season of 2023 and includes a dataset of approximately 76,000 trips. Figure 20 illustrates some of the key findings from that analysis.

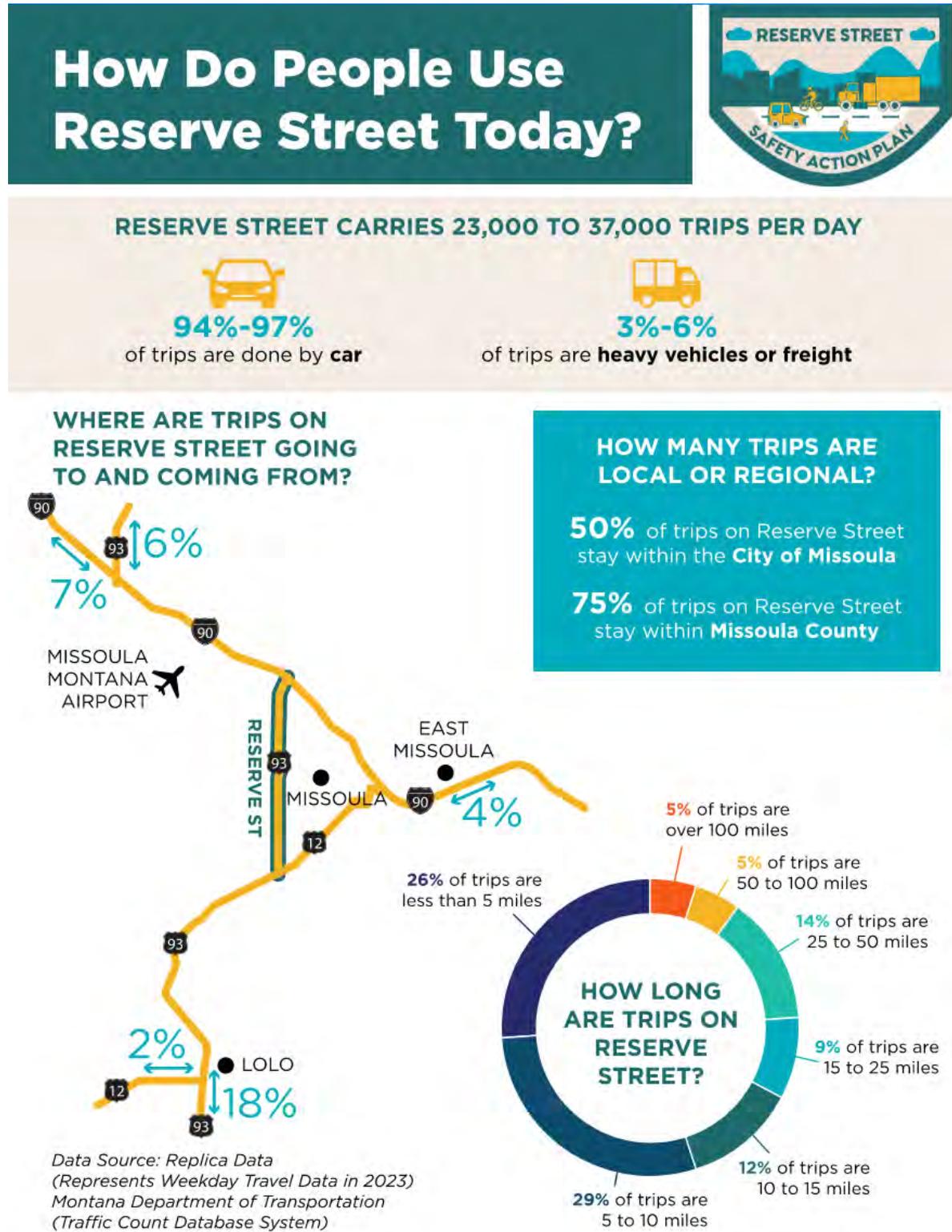
The number of trips per day on Reserve Street ranges from 23,000 (south of I-90) to 37,000 (between South Avenue and 3rd Street). Trips on Reserve Street are predominately completed by car or truck as opposed to by active transportation modes. Almost half of these trips are local and start and end within Missoula. Approximately 45% of trips are over 10 miles in length, including about 10% of trips being over 50 miles long. These findings indicate that Reserve Street serves significant portions of both local trips (generally staying in the city of Missoula or vicinity) and regional or pass-through trips (trips traveling from outside the city of Missoula). Future improvements to Reserve Street should take into consideration the needs of these two different types of trips.

A similar evaluation of existing travel patterns was performed for trips on Brooks Street to provide a comparison to travel patterns on Reserve Street. Key findings from that analysis are as follows:

- Average trip lengths on Reserve Street are about 25% higher than on Brooks Street.
- Approximately 60% of trips on Brooks Street begin and end within the City of Missoula, compared to 50% of trips on Reserve Street.
- The proportion of trips on Reserve Street and Brooks Street that begin and end within Missoula County is similar (approximately 75%).

This comparison of travel patterns between Reserve Street and Brooks Street show that Reserve Street likely serves a higher proportion of regional traffic than does Brooks Street. Both streets serve more regional traffic than does Higgins Avenue (i.e., about 80% of trips passing through the Hip Strip are less than 10 miles in length), which was previously analyzed similarly using Streetlight data for the Higgins Avenue Corridor Plan.

Figure 20 Reserve Street Travel Patterns



EXISTING TRAFFIC OPERATIONS ANALYSIS

The traffic operations analysis examines how certain intersections along Reserve Street function during the weekday AM and PM peak periods with their existing traffic controls and lane configurations. The purpose of this analysis is to provide a baseline that can be referenced when considering the potential trade-offs of safety treatments along Reserve Street (e.g., how would traffic operations change at an intersection if left-turn phasing was changed from permitted to protected?).

Study Intersections

The project team identified 18 intersections along the study corridor to analyze. These were selected through considerations of known traffic operations conditions, crash history, and to ensure a mix of coverage along the corridor. Table 7 summarizes the study intersections. The existing lane configurations for these intersections are shown in Appendix B.

Table 7. Traffic Analysis Study Intersections

ID	Intersection	Configuration	Traffic Control
1	Reserve St / Expressway Rd-Howard Raser Ave	Four-leg	Signalized
2	Reserve St / International Dr-Stockyard Rd	Four-leg	Unsignalized
3	Reserve St / Broadway Ramps	Two (divided) three-leg	Signalized/ Unsignalized
4	Reserve St / England Blvd	Four-leg	Signalized
5	Reserve St / American Way	Four-leg	Unsignalized
6	Reserve St / Union Pacific St	Four-leg	Signalized
7	Reserve St / Palmer St	Four-leg	Unsignalized
8	Reserve St / Mullan Rd	Four-leg	Signalized
9	Reserve St / River Rd	Four-leg	Unsignalized
10	Reserve St / S 3rd St	Four-leg	Signalized
11	Reserve St / Spurgin Rd	Four-leg	Unsignalized
12	Reserve St / Mount Ave	Four-leg	Signalized
13	Reserve St / Central Ave	Four-leg	Unsignalized
14	Reserve St / South Ave	Four-leg	Signalized
15	Reserve St / Dearborn Ave	Four-leg	Unsignalized
16	Reserve St / Mary Ave	Three-leg	Unsignalized
17	Reserve St / Old US 93	Four-leg	Unsignalized
18	Reserve St / Brooks St	Four-leg	Signalized

Traffic Volumes

Turning movement counts were collected at the study intersections on a typical midweek day in early October 2024 during clear weather conditions. Counts were conducted during the AM and PM peak

periods; intersections were then analyzed using individual peak hours. Volumes were not adjusted to account for any seasonal factor because the seasonal factor – collected from the MDT Traffic Adjustment Factors – for October was less than 1 (i.e., traffic volumes during October are generally higher than the annual average). Traffic count sheets and the relevant seasonal factor table are shown in Appendix C.

Traffic Operations Analysis

The City of Missoula and Missoula County do not have adopted mobility standards for signalized or unsignalized intersections. Guidance for roadway operations standards in the MDT Road Design Manual⁵ identifies a target level-of-service (LOS) C for urban arterials. However, for projects on existing roadways in urban areas, LOS D or E and a volume-to-capacity ratio (v/c) of less than 1.0 are often acceptable. This analysis therefore uses LOS E or better and a v/c of 1.0 as the performance standards.

The analysis used Synchro 12 software and its *Highway Capacity Manual (HCM) 7th Edition*⁶ reports to summarize the intersection traffic operations. The performance measures are reported for the intersection critical movement at unsignalized intersections and for the overall intersection at signalized intersections. Figure 21 presents a high-level summary of the traffic operations analysis results. Existing peak hour traffic volumes at the study intersections and the resultant v/c ratios, delays, and levels of service (LOS) are provided in Appendix D.

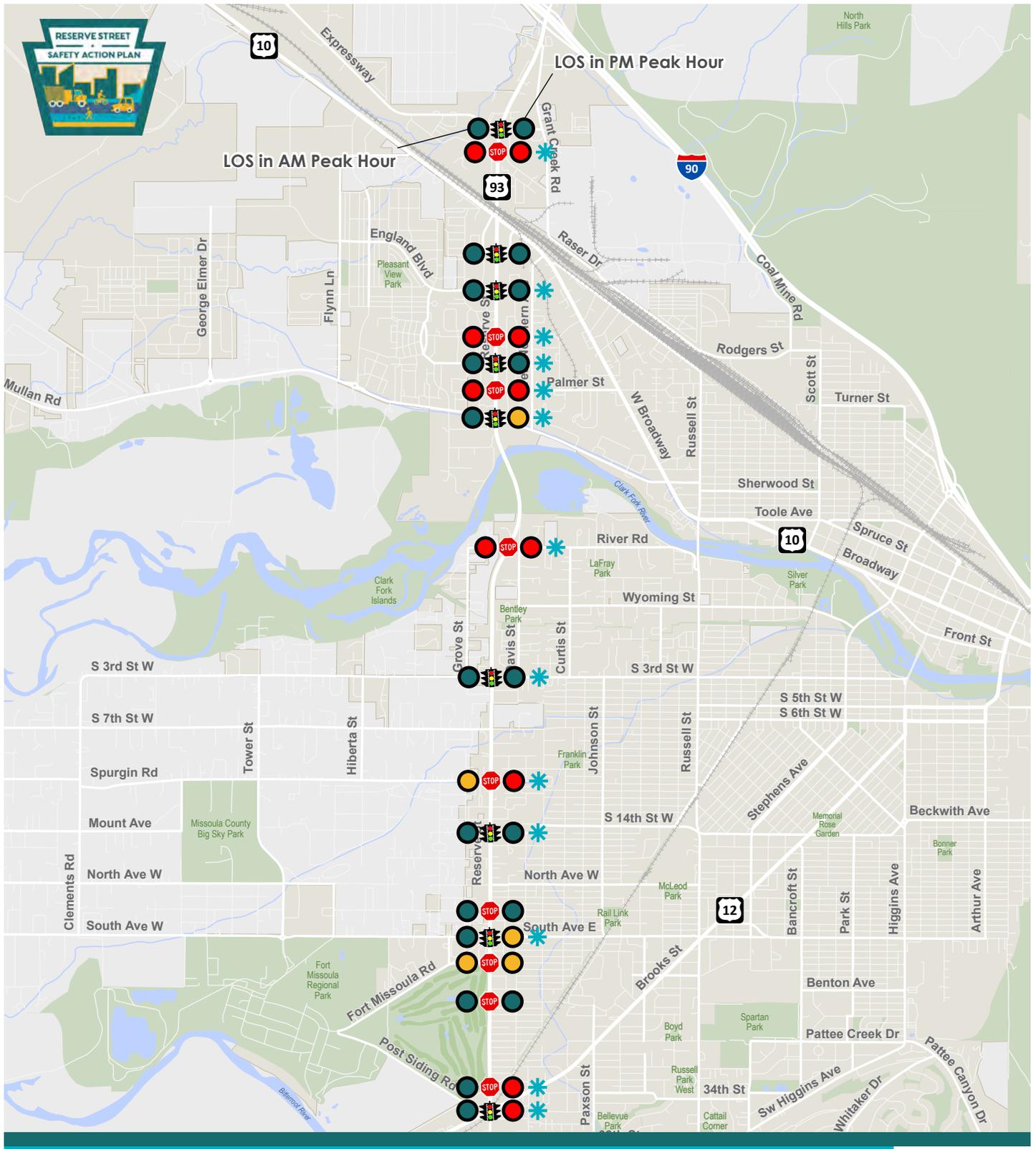
Four unsignalized intersections – International Drive-Stockyard Road, American Way, Palmer Street, and River Road – have critical movements that operate at LOS F during both peak hours. While delays for movements crossing or turning onto Reserve Street are high (meeting the LOS F threshold), v/c ratios for these movements generally remain low (below 0.60). The exception is International Drive-Stockyard Road, where the westbound approach is at capacity. Volumes for the critical movements at these intersections – particularly for left turns onto Reserve Street – were typically fewer than ten vehicles in the peak hour. Two other intersections have critical movements that operate at LOS F during the PM peak hour: Spurgin Road and Old US 93. The intersection at Brooks Street, which is signalized, also operates at LOS F during the peak hour.

While most signalized intersections meet the performance target at the intersection level, individual movements may still perform at LOS F or have a high v/c ratio.

Table 8 summarizes movements performing at LOS F or with a v/c over 1.00. These movements are also marked by asterisks in Figure 21.

⁵ Montana Department of Transportation. *Road Design Manual*. 2016.

⁶ Transportation Research Board. *Highway Capacity Manual 7th Edition*. 2022.



Level of Service

- LOS A-D
- LOS E
- LOS F



At least one movement at LOS F or with v/c > 1.0 in either peak hour

Traffic Control

- Signal
- TWSC



Data Sources: City of Missoula, Missoula County

Figure 21

Intersection Level of Service

Table 8 Movements at Intersections with LOS F or V/C > 1

Intersection	Traffic Control	Approach/Movement	Performance
AM Peak Hour			
Reserve St / International Dr-Stockyard Rd	Unsignalized	Westbound Left-Through-Right	LOS F; v/c > 1.0
Reserve St / American Way	Unsignalized	Eastbound Left	LOS F; v/c = 0.10
Reserve St / Union Pacific St	Signalized	Eastbound Through-Right	LOS F; v/c = 0.89
Reserve St / Palmer St	Unsignalized	Westbound Through-Right	LOS F; v/c = 0.18
Reserve St / Mullan Rd	Signalized	Eastbound Right	LOS F; v/c = 1.11
		Northbound Left	LOS F; v/c = 0.87
Reserve St / River Rd	Unsignalized	Eastbound Through-Left	LOS F; v/c = 0.57
Reserve St / S 3rd St	Signalized	Eastbound Through	LOS F; v/c > 0.90
		Westbound Left	LOS F; v/c > 0.90
Reserve St / South Ave	Signalized	Eastbound Left	LOS F; v/c = 0.79
		Northbound Right	LOS F; v/c > 0.90
Reserve St / Brooks St	Signalized	Northbound Left	LOS F; v/c = 0.83
PM Peak Hour			
Reserve St / International Dr-Stockyard Rd	Unsignalized	Eastbound	LOS F; v/c = 0.78
		Westbound	LOS F; v/c > 1.0
Reserve St / England Blvd	Signalized	Eastbound Left	LOS F; v/c = 0.78
		Eastbound Through Right	LOS F; v/c > 0.90
		Westbound Right	LOS F; v/c = 1.05
Reserve St / American Way	Unsignalized	Eastbound Left	LOS F; v/c = 0.66
		Westbound Left	LOS F; v/c = 0.36
		Westbound Through Right	LOS F; v/c = 0.70
Reserve St / Union Pacific St	Signalized	Eastbound Through-Right	LOS F; v/c > 0.90
Reserve St / Palmer St	Unsignalized	Westbound Left	LOS F; v/c = 0.87
		Westbound Through Right	LOS F; v/c = 0.84
Reserve St / Mullan Rd	Signalized	Westbound Left	LOS F; v/c = 0.89
		Westbound Through	LOS F; v/c > 0.90
		Northbound Left	LOS F; v/c > 0.90
Reserve St / River Rd	Unsignalized	Eastbound Through Left	LOS F; v/c = 0.63
		Westbound	LOS F; v/c = 0.78
Reserve St / S 3rd St	Signalized	Eastbound Through	LOS F; v/c = 0.89
		Westbound Right	LOS F; v/c = 0.73

Intersection	Traffic Control	Approach/Movement	Performance
Reserve St / Spurgin Rd	Unsignalized	Eastbound Left Through	LOS F; v/c = 0.17
Reserve St / Mount Ave	Signalized	Eastbound Left	LOS F; v/c = 0.50
		Eastbound Left	LOS F; v/c > 0.90
Reserve St / South Ave	Signalized	Westbound Left	LOS F; v/c = 0.86
		Eastbound Left Through	LOS F; v/c = 0.33
Reserve St / Old US 93	Unsignalized	Eastbound Left Through	LOS F; v/c = 0.33
Reserve St / Brooks St	Signalized	Eastbound Left	LOS F; v/c > 1.0
		Northbound Left	LOS F; v/c > 0.90

¹Overall intersection v/c is calculated via the Transportation Research Board's Highway Capacity Manual 2000 methodology

Future Conditions

With Missoula’s ongoing and projected growth, the built environment around Reserve Street is expected to change in terms of land use, form, and intensity. The recently adopted *Our Missoula 2045 Land Use Plan* (Missoula Land Use Plan) will help shape Reserve Street’s future. The Plan guides ongoing growth and development in the city and seeks to align the built environment with the surrounding transportation networks.

This section describes the Missoula Land Use Plan’s vision for Reserve Street in terms of the “Place Type” and “Street Type” framework presented in the plan. This section will be updated to include future volume projections once the updated Missoula MPO travel demand model is complete (expected Spring 2025). Also included in this section is a description of anticipated projects on the Reserve Street corridor.

CORRIDOR CONTEXT⁷

The Missoula Land Use Plan develops a framework for the urban area using defined Place Types and Street Types. By integrating Place Types with Street Types, Missoula aims for greater consistency between land use and transportation and a more functional transportation network.

Place Type

Reserve Street has the following adopted Place Types:

- *Limited Urban Mixed-Use* from I-90 south to the Clark Fork River and from 3rd Street south to Brooks Street, except for pockets of *Urban Mixed-Use High*.
- *Parks and Conservation Land, Limited Urban Residential, and Urban Residential Low* from the Clark Fork River south to 3rd Street.

⁷ The content in this section is based on information from the Missoula Land-Use Plan and incorporates text drafted by MPO staff

Much of the corridor is designated *Limited Urban Mixed-Use (LUM)*. This Place Type is characterized by automobile influence, large shopping centers, department stores, and businesses. These areas are primarily commercial, providing neighborhood and community-scale businesses and services, with residential uses allowed but not prioritized. The MPO expects the LUM areas of Reserve Street evolve toward more mixed-use environments, maintaining their commercial focus but gradually incorporating more residential elements, artisanal manufacturing, and adaptive reuse of existing structures. Future change could include new big-box retail, office buildings, and large apartment complexes, with building heights reaching up to six stories.

Reserve Street also includes pockets of *Urban Mixed-Use High (UMH)* at the intersections of Brooks Street, South Avenue, Mount Avenue, and 3rd Street. UMH envisions these areas as activity hubs, combining high-density residential, diverse businesses, and a variety of transportation options. Development is characterized by a wide variety of housing options, including multi-dwelling and large mixed-use apartment complexes. MPO staff expect that UMH areas on Reserve Street will see higher densities, greater proximity to services, and more support for active modes of travel. New construction will be encouraged to maximize height and density to create environments that feel more like a city center. The UMH place type seeks to prioritize street-level character and active use.

Street Type Context

The full extent of Reserve Street, from Brooks Street to I-90, is designated as *Regional Connector (RC)*. These streets are designed to accommodate high volumes of motor vehicle traffic, including freight, transit, and emergency services, while supporting connectivity between neighborhoods, job centers, and other regional corridors. Although RC streets have historically prioritized vehicle travel, the MPO expects a growing emphasis on improving multimodal connectivity.

For these street types, the plan recommends typical treatments that include controlled intersections, appropriately sized lanes, continuous sidewalks with tree-lined buffers, limited access points, and enhanced pedestrian crossings. RC streets seek to balance providing for higher motor vehicle volumes while not creating a barrier to cross for adjacent land-uses and neighborhoods. The plan expects the corridor to balance regional mobility needs with safe, equitable access for all users.

FUTURE PROJECTS

MDT is planning to conduct a traffic signal retiming study on Reserve Street. The project will identify signal retiming recommendations and plans for implementation. It is anticipated that this project will begin in 2025.

Priority Items to Evaluate Further

Table 9 provides a draft list of 21 items, including individual locations and systemic issues, identified for further evaluation. Items with a specific location are mapped in Figure 22.

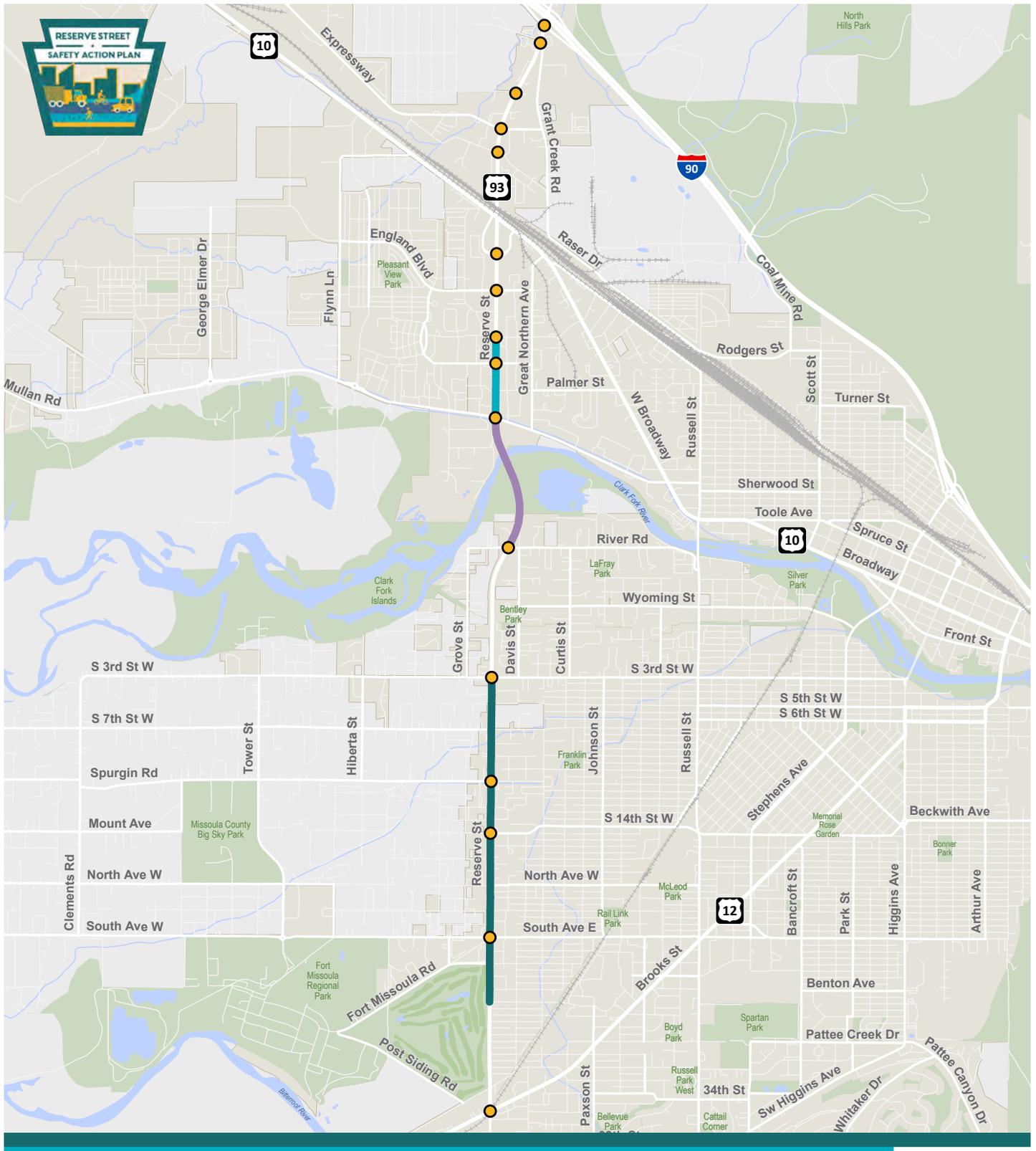
This draft list is based on findings from the existing conditions analysis, represented by a checkmark in the table for the following:

- **Crash History:** Checkmark indicates that this location is in the top 25% of EPDO scores, has three or more fatal or suspected serious injury crashes, or has 20 or more total crashes per year.
- **Infrastructure Indicators:** Checkmark indicates that this location has at least one of the infrastructure indicators.
- **Community Input:** *To be determined as feedback is still being gathered.*

These priorities will be the subject of further evaluation in the next stage of this project to identify potential treatments and strategies.

Table 9 Priority Items for Further Evaluation

Location/ Issue	Type	Crash History	Infrastructure Indicators	Community Input
I-90 Eastbound Ramps	Intersection (Signalized)		✓	
Grant Creek Rd (S of I-90)	Intersection (Unsignalized)		✓	✓
Schramm St	Intersection (Unsignalized)		✓	✓
Expressway Rd	Intersection (Signalized)	✓	✓	✓
International Drive	Intersection (Unsignalized)	✓	✓	✓
Broadway Ramps	Intersection (Signalized)		✓	✓
England Boulevard	Intersection (Signalized)		✓	✓
American Way	Intersection (Unsignalized)	✓		
Union Pacific Street	Intersection (Signalized)	✓	✓	✓
Mullan Rd	Intersection (Signalized)	✓	✓	✓
River Road	Intersection (Unsignalized)	✓	✓	✓
S 3 rd Street	Intersection (Signalized)	✓	✓	✓
Spurgin Road	Intersection (Unsignalized)	✓	✓	✓
Mount Ave	Intersection (Signalized)		✓	✓
South Avenue	Intersection (Signalized)	✓	✓	✓
Brooks Street	Intersection (Signalized)	✓	✓	✓
American Way to Mullan Road	Segment	✓		✓
Mullan Road to River Road	Segment	✓		✓
South 3 rd Street to Ernest Ave	Segment		✓	✓
45 MPH Speed Limit	Corridor-Wide/ Systemic		✓	✓
High Driveway Density	Corridor-Wide/ Systemic		✓	✓
Limited Crossing Locations for Pedestrians and Bicyclists	Corridor-Wide/ Systemic		✓	✓



- Yes
- American Way to Mullan Road
- Mullan Road to River Road
- S 3rd Avenue to Ernest Avenue
- City Limits
- Park/Open Space



Figure 22

Priority Items to Evaluate Further

Data Sources: City of Missoula, Missoula County

Summary & Next Steps

This memorandum highlights several key findings related to safety and travel patterns on the Reserve Street Corridor.

SAFETY FINDINGS

- Corridor-wide crash patterns:
 - Intersections account for most crashes, as well as fatal and serious injury crashes.
 - Crashes at unsignalized intersections are more likely to be severe than at signalized intersections. However, signalized intersections have higher traffic volumes, and more crashes occur at them.
 - Rear end and right-angle crashes are the most common crashes resulting in fatal and serious injuries.
 - Crashes are more likely to be severe for right-angle, head-on, left-turn, pedestrian-involved, and bicycle-involved crashes (i.e., they represent a higher percentage of fatal and suspected serious injury crashes compared to percentage of total crashes).
- Where fatal and serious injury crashes are occurring:
 - There were three or more fatal or serious injury crashes at the following intersections: Expressway Road, American Way, Mullan Road, River Road, S 3rd Street, Spurgin Road, and Brooks Street.
 - The segment of Reserve Street from Mullan Road to River Road (i.e., the Clark Fork river crossing) has the highest amount of non-intersection fatal or serious injury crashes.
 - Crashes are more heavily concentrated on the north half of the corridor.
 - The highest concentrations of crashes involving people walking or biking are at or in the vicinity of the Mullan Road and Brooks Street intersections.
- Other characteristics, or “infrastructure indicators,” that are common to high severity crashes and are present:
 - At intersections: Permissive left-turn signal phasing, right-turn slip lanes, and skewed unsignalized intersections.
 - Corridor-wide: 45 miles-per-hour (MPH) speed limit, accesses, lack of protected bicycle facilities, and limited pedestrian and bicycle crossings.

TRAVEL PATTERNS

- Reserve Street serves similar amounts of local trips (generally staying in the city of Missoula or vicinity) and regional or pass-through trips (trips traveling to/from outside the city of Missoula).
- Most movements along the corridor meet performance targets; however some movements experience heavy delay and/or at, or near, capacity during peak periods.
- Travel on Reserve Street is likely to increase as the Missoula region continues to grow.
 - As Reserve Street evolves toward more mixed-use environments, there will be an increased need to balance regional and local mobility with safe, equitable access for all users.

OTHER FINDINGS

- Insights from CEJST highlight that there are transportation disadvantaged populations on the Reserve Street corridor that should be considered when developing a vision for the corridor and identifying and prioritizing safety treatment strategies.

NEXT STEPS

The findings of this memo will be used to identify safety treatment strategies and evaluate candidate locations for those strategies. Strategies will be identified and prioritized based on the unique characteristics of the Reserve Street corridor (i.e., corridor-wide crash trends/infrastructure indicators and the locations shown in Figure 22), implementation considerations (i.e., costs, constructability, and trade-offs), and effectiveness of the strategies at reducing fatal and serious injury crashes. The effectiveness of the strategies will be evaluated through the lens of the Safe System Approach, as expressed through FHWA's *Safe System Roadway Design Hierarchy*, which provides four tiers of countermeasures (with Tier 1 typically being the most effective):

- **Tier 1 - Remove Severe Conflicts:** Includes countermeasures that separate people and vehicles moving at different speeds or directions. Potential Tier 1 countermeasures on Reserve Street could include raised medians or protected bike lanes.
- **Tier 2- Reduce Vehicle Speeds:** Includes countermeasures that reduce vehicle speeds, thereby reducing the likelihood of a crash and the severity of a crash should one occur. Potential Tier 2 countermeasures on Reserve Street could include a reduced, corridor-wide speed limit with additional speed management strategies (e.g., enforcement, traffic signals coordinated to lower vehicle speeds).
- **Tier 3 – Manage Conflicts in Time:** Includes countermeasures that separate users in time using traffic control devices to reduce conflicts. Potential Tier 3 countermeasures on Reserve Street could include conversion of permitted left-turn phasing to protected at signalized intersections or the implementation of pedestrian hybrid beacons or signals at crossings.
- **Tier 4 – Increase Attentive and Awareness:** Includes countermeasures that alert people to potential conflicts. Potential Tier 4 countermeasures on Reserve Street could include improved lighting or dynamic feedback signs.

In addition to the identification and prioritization of potential strategies on Reserve Street, the project team will work with MDT, the MPO, and the City to define a future vision for Reserve Street. The draft strategies, draft vision for Reserve Street, and findings from this memorandum will be presented to the public through a multi-day public outreach effort in March. The feedback received at the outreach effort will be used to refine the vision for Reserve Street and the strategies.

Appendix

- A. Crashes by Type and Severity
- B. Existing Lane Configurations and Traffic Controls
- C. Traffic Count Sheets
- D. Existing Peak Hour Volumes, V/C Ratios, Delay, and LOS

Appendix A
Crashes by Type and Severity

Table A.1 Crash by Type and Severity

Collision Type	Crash Severity						KA Crashes (% of Total KA)	Total Crashes (% of Total)
	K	A	B	C	U	PDO		
Bicycle	0	2	4	4	1	1	2 (3.0%)	12 (<1%)
Fixed Object	0	1	2	6	4	27	1 (1.5%)	40 (2.4%)
Head On	0	5	3	3	0	14	5 (7.6%)	25 (1.5%)
Left Turn	2	3	1	19	1	52	5 (7.6%)	78 (4.7%)
Lost Control	0	1	0	1	1	2	1 (1.5%)	5 (<1%)
Parked Vehicle	0	1	0	0	0	5	1 (1.5%)	6 (<1%)
Pedestrian	1	2	4	5	1	5	3 (4.5%)	18 (1%)
Rear-End	0	23	20	222	54	601	23 (34.9%)	920 (55.3%)
Right Angle	0	17	20	50	11	122	17 (25.8%)	220 (13.2%)
Right Turn	0	1	0	2	0	15	1 (1.5%)	18 (1.1%)
Roll Over	0	1	1	6	3	48	1 (1.5%)	59 (3.6%)
Sideswipe	0	5	5	9	23	175	5 (7.6%)	217 (13%)
All Other Crash Types	0	1	1	6	6	32	1 (1.5%)	46 (2.8%)
Grand Total	3	63	61	333	105	1,099	66	1,664

Table A.2 Crashes by Road Conditions and Severity

Road Conditions	Crash Severity						Total Crashes (% of Total)
	K	A	B	C	PDO	U	
Dry	2	51	52	243	818	82	1,248 (75%)
Ice/Frost	0	0	0	17	56	3	76 (4.6%)
Other	0	0	0	1	3	1	5 (<1%)
Snow	1	2	2	21	78	2	106 (6.4%)
Wet	0	10	7	51	1	3	222 (13.3%)
Unknown	0	0	0	0	141	13	4 (<1%)
Not Reported	2	0	0	0	2	1	3 (<1%)
Grand Total	3	63	61	333	1,099	105	1664

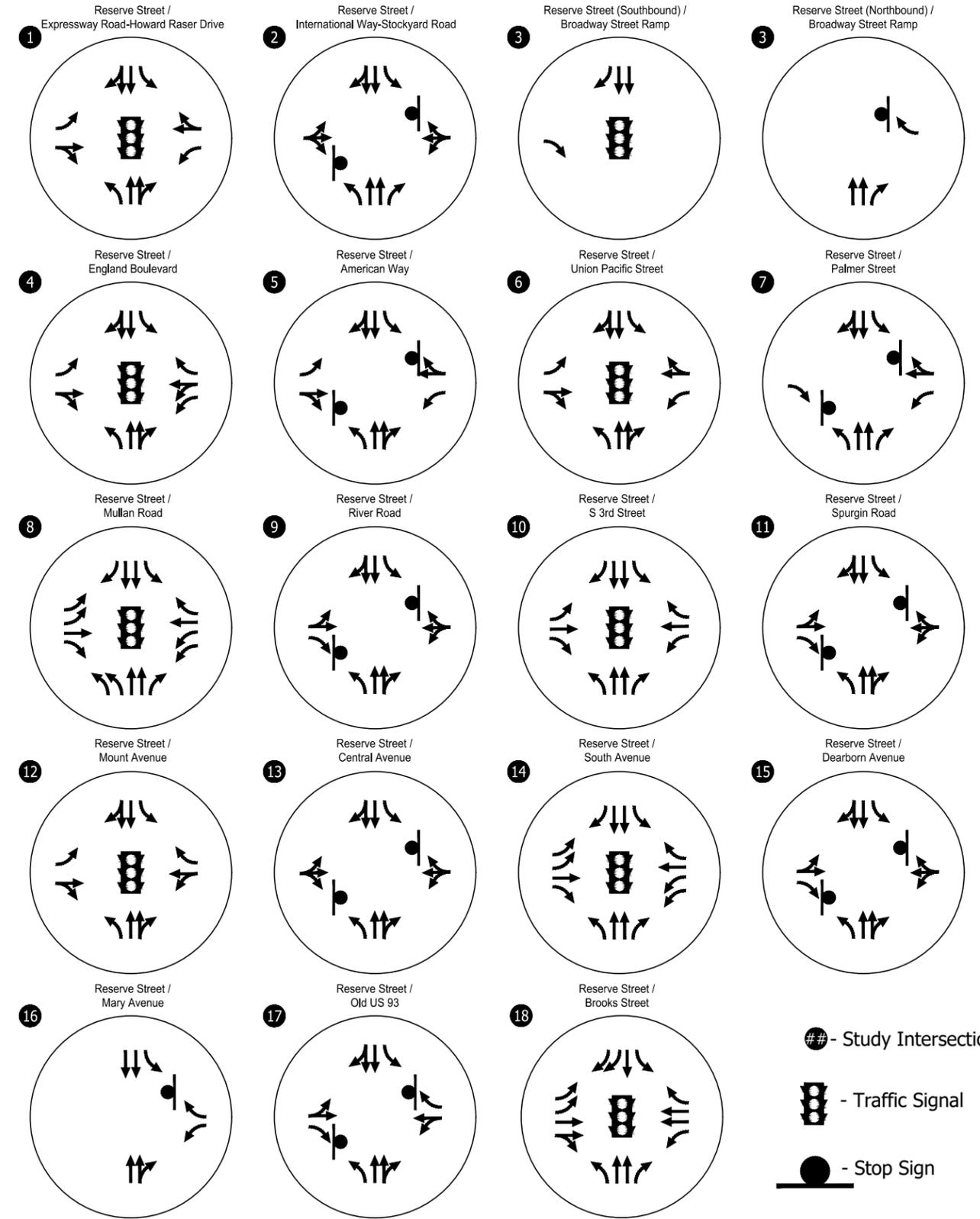
Table A.3 Crashes by Day of Week and Severity

Road Conditions	Crash Severity						Total Crashes (% of Total)
	K	A	B	C	PDO	U	
Sunday	0	4	3	25	84	11	127 (7.6%)
Monday	1	9	11	57	161	17	256 (15.4%)
Tuesday	0	6	9	55	163	11	244 (14.7%)
Wednesday	1	9	11	54	175	18	268 (16.1%)
Thursday	0	12	6	56	188	11	273 (16.4%)
Friday	0	16	15	54	209	26	320 (19.2%)
Saturday	1	7	6	32	119	11	176 (10.6%)
Grand Total	3	63	61	333	1,099	105	1,664

Table A.4 Crashes by Time of Day and Severity

Road Conditions	Crash Severity						Total Crashes (% of Total)
	K	A	B	C	PDO	U	
12 AM	0	2	0	2	4	1	9 (<1%)
1 AM	0	0	0	0	3	1	4 (<1%)
2 AM	0	0	0	0	2	1	3 (<1%)
3 AM	0	0	0	1	1	0	2 (<1%)
4 AM	0	0	1	1	1	0	3 (<1%)
5 AM	0	0	0	1	6	2	9 (<1%)
6 AM	0	2	3	13	40	7	65 (3.9%)
7 AM	0	2	2	7	53	3	67 (4.0%)
8 AM	0	1	0	12	35	4	52 (3.1%)
9 AM	0	3	1	9	42	1	56 (3.4%)
10 AM	0	1	5	12	48	3	69 (4.2%)
11 AM	0	7	6	25	91	3	132 (7.9%)
12 PM	0	5	3	33	104	12	157 (9.4%)
1 PM	0	8	5	26	113	5	157 (9.4%)
2 PM	0	5	5	30	80	8	128 (7.7%)
3 PM	0	10	5	28	98	15	156 (9.4%)
4 PM	0	8	8	37	108	13	174 (10.5%)
5 PM	1	7	5	34	92	9	148 (8.9%)
6 PM	1	2	8	25	68	4	108 (6.5%)
7 PM	1	0	2	16	36	5	60 (3.6%)
8 PM	0	0	1	7	29	3	40 (2.4%)
9 PM	0	0	0	8	24	1	33 (2.0%)
10 PM	0	0	0	2	13	2	17 (1.0%)
11 PM	0	0	1	4	8	2	15 (<1%)
Grand Total	3	63	61	333	1,099	105	1,664

Appendix B
Existing Lane Configurations and Traffic
Controls

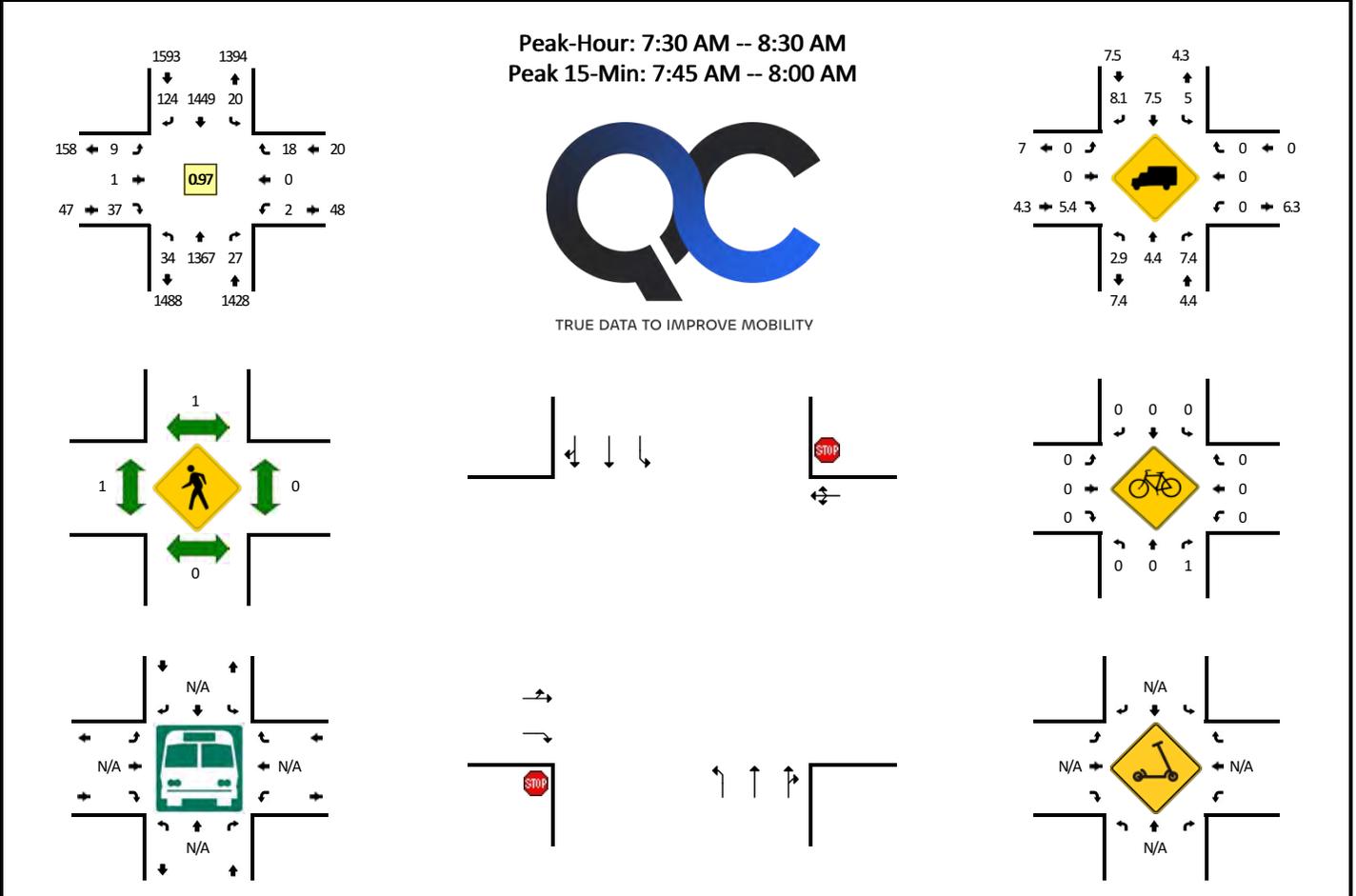


Existing Lane Configurations
 & Traffic Control Devices
 Missoula, Montana

Appendix C
Traffic Count Sheets

LOCATION: S Reserve St (US-93) -- Spurgin Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794723
DATE: Tue, Oct 15 2024

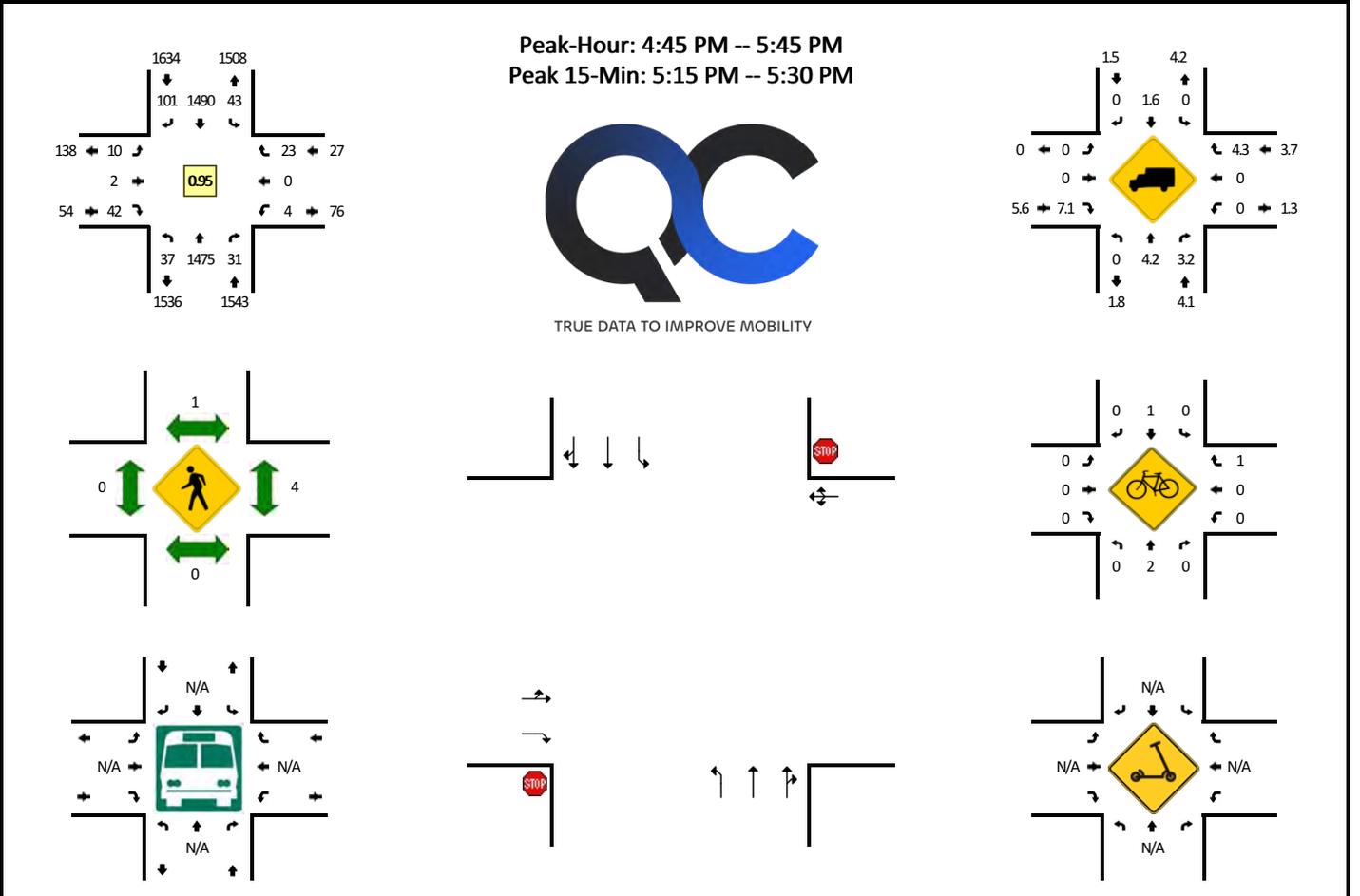


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Spurgin Rd (Eastbound)				Spurgin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	291	1	0	2	211	10	0	1	0	5	0	1	1	5	0	535	
7:15 AM	4	310	2	0	6	282	18	0	2	1	6	0	0	1	2	0	634	
7:30 AM	5	349	3	0	3	347	20	0	3	1	8	0	1	0	4	0	744	
7:45 AM	10	366	10	0	6	363	27	0	1	0	9	0	0	0	7	0	799	2712
8:00 AM	13	324	6	0	8	364	37	0	3	0	9	0	0	0	3	0	767	2944
8:15 AM	6	328	8	0	3	375	40	0	2	0	11	0	1	0	4	0	778	3088
8:30 AM	8	314	5	0	4	345	21	0	4	0	15	0	0	0	3	0	719	3063
8:45 AM	11	335	5	0	5	329	17	0	4	1	15	0	0	0	6	0	728	2992
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	40	1464	40	0	24	1452	108	0	4	0	36	0	0	0	28	0	3196	
Heavy Trucks	0	52	8		0	64	0		0	0	4		0	0	0		128	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- Spurgin Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794724
DATE: Tue, Oct 15 2024

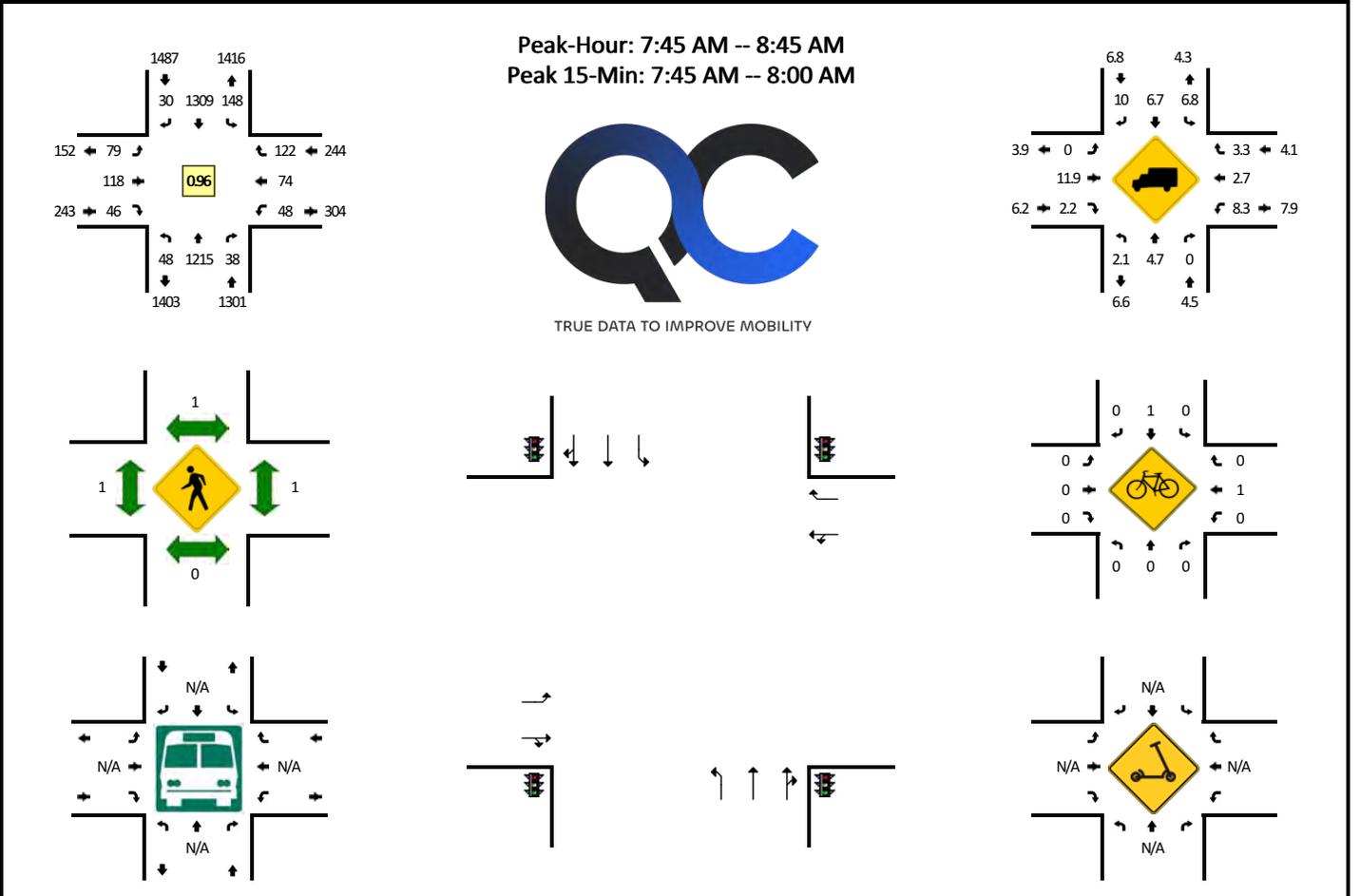


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Spurgin Rd (Eastbound)				Spurgin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	13	361	11	0	6	381	17	0	5	0	19	0	1	0	6	0	820	
4:15 PM	11	386	8	0	11	382	23	0	1	0	10	0	0	0	4	0	836	
4:30 PM	7	368	6	0	7	322	28	0	0	0	14	0	0	0	3	0	755	
4:45 PM	8	333	5	0	14	352	29	0	3	1	13	0	0	0	7	0	765	3176
5:00 PM	13	398	11	0	7	365	25	0	2	0	11	0	1	0	7	0	840	3196
5:15 PM	9	367	7	0	11	413	29	0	3	1	7	0	2	0	4	0	853	3213
5:30 PM	7	377	8	0	11	360	18	0	2	0	11	0	1	0	5	0	800	3258
5:45 PM	13	351	2	0	5	339	13	0	2	0	9	0	0	0	3	0	737	3230
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	36	1468	28	0	44	1652	116	0	12	4	28	0	8	0	16	0	3412	
Heavy Trucks	0	52	4		0	12	0		0	0	0		0	0	4		72	
Buses																		
Pedestrians		0				0				0				0				0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	4		8	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- Mount Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794725
DATE: Tue, Oct 15 2024

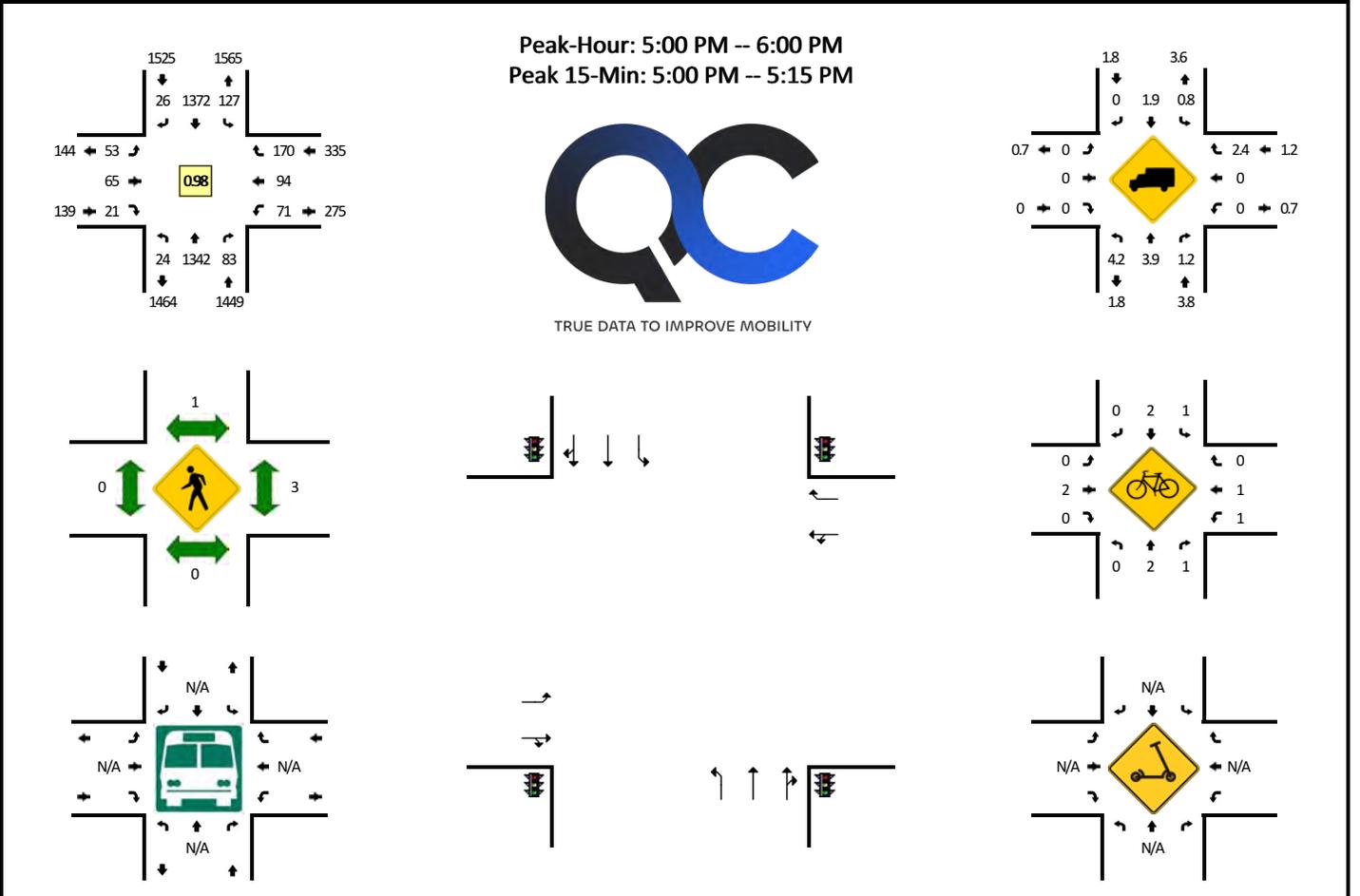


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Mount Ave (Eastbound)				Mount Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	295	8	0	20	183	1	0	8	3	0	0	4	5	13	0	544	
7:15 AM	9	277	8	0	35	250	0	0	13	9	5	0	19	4	19	0	648	
7:30 AM	14	290	10	0	28	303	2	0	29	37	5	0	23	7	22	0	770	
7:45 AM	24	326	16	0	40	313	6	0	20	23	10	0	13	23	39	0	853	2815
8:00 AM	12	298	8	0	33	332	7	0	23	40	22	0	11	19	26	0	831	3102
8:15 AM	4	291	6	0	47	325	11	0	19	29	5	0	17	23	29	0	806	3260
8:30 AM	8	300	8	0	28	339	6	0	17	26	9	0	7	9	28	0	785	3275
8:45 AM	5	300	16	0	38	285	9	0	18	10	2	0	9	7	31	0	730	3152
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	96	1304	64	0	160	1252	24	0	80	92	40	0	52	92	156	0	3412	
Heavy Trucks	0	60	0		4	52	4		0	0	0		4	4	4		132	
Buses																		
Pedestrians		0				0				4				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

Comments:

LOCATION: S Reserve St (US-93) -- Mount Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794726
DATE: Tue, Oct 15 2024



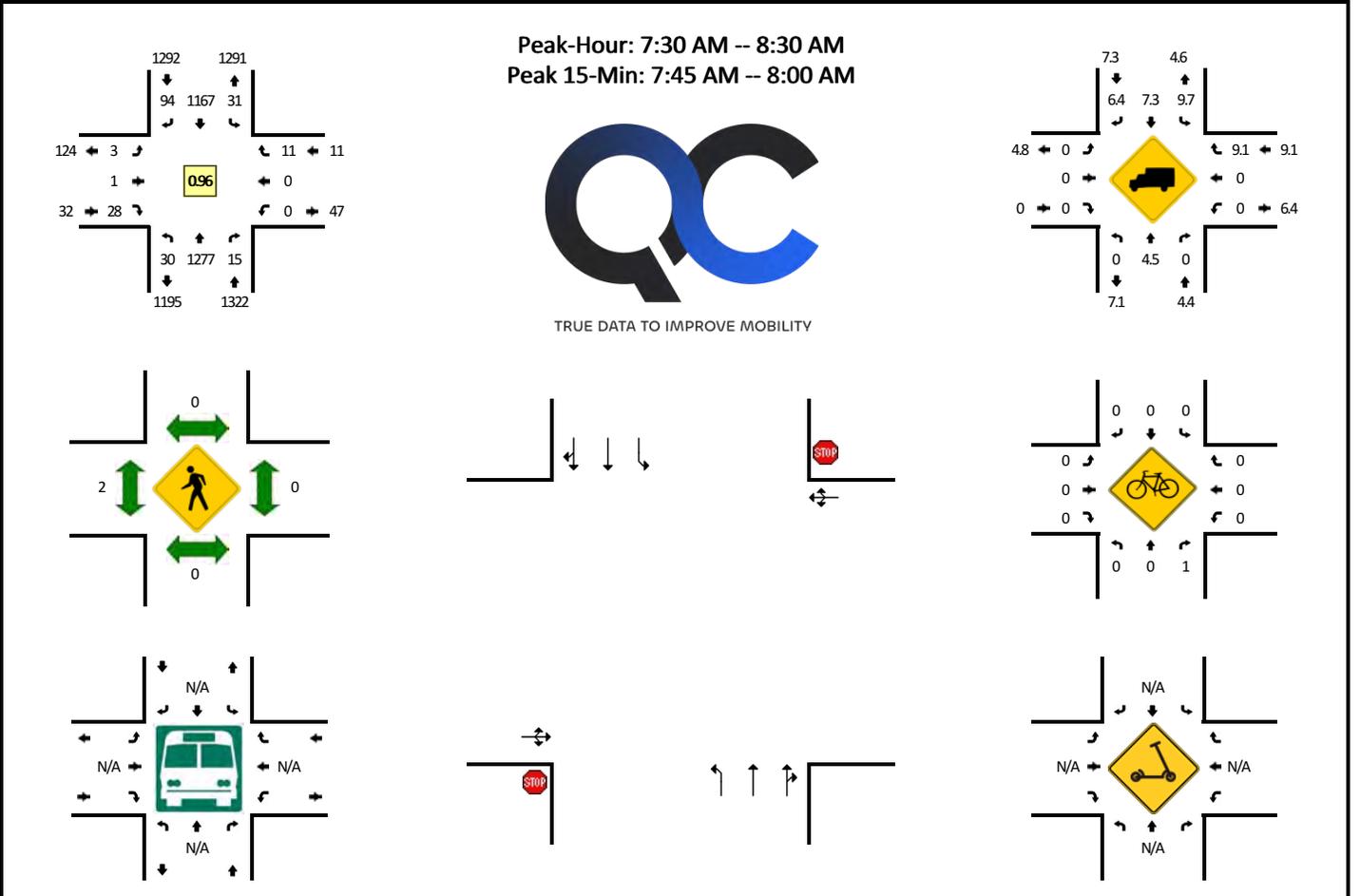
15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Mount Ave (Eastbound)				Mount Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	311	21	0	47	355	8	0	22	36	5	0	8	20	44	0	880	
4:15 PM	5	349	15	0	33	363	5	0	21	16	8	0	14	19	42	0	890	
4:30 PM	10	335	17	0	40	312	3	0	13	26	5	0	6	27	43	0	837	
4:45 PM	11	289	14	0	33	339	6	0	10	18	9	0	12	17	35	0	793	3400
5:00 PM	6	356	23	0	29	329	5	0	20	28	6	0	16	24	41	0	883	3403
5:15 PM	6	310	19	0	34	359	11	0	15	18	6	0	18	32	54	0	882	3395
5:30 PM	5	360	24	0	28	343	7	0	11	12	6	0	15	21	36	0	868	3426
5:45 PM	7	316	17	0	36	341	3	0	7	7	3	0	22	17	39	0	815	3448

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	1424	92	0	116	1316	20	0	80	112	24	0	64	96	164	0	3532
Heavy Trucks	0	48	4		0	28	0		0	0	0		0	0	8		88
Buses																	
Pedestrians		0				4				0				12			16
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scoters																	

Comments:

LOCATION: S Reserve St (US-93) -- W Central Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794729
DATE: Tue, Oct 15 2024

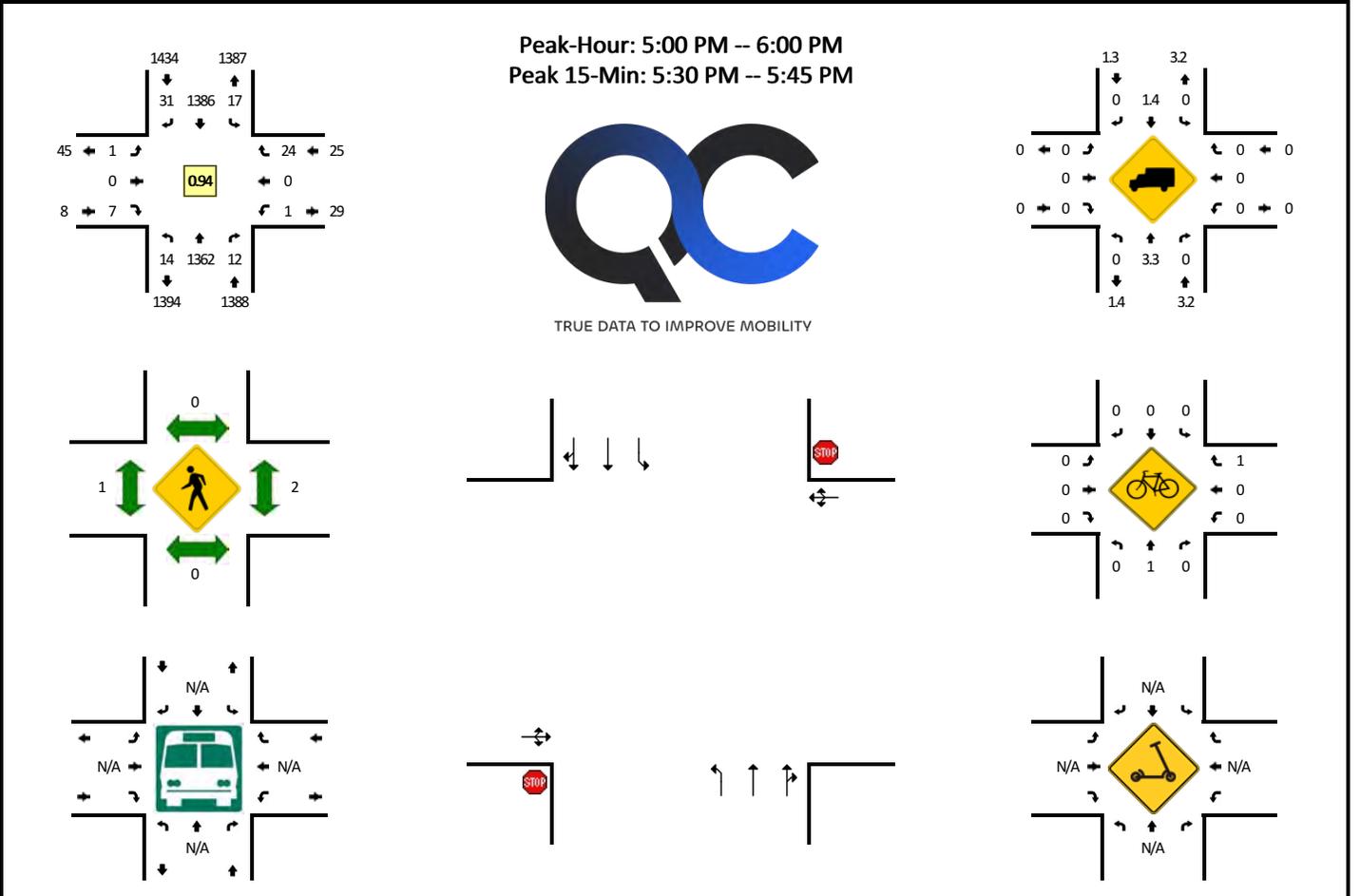


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				W Central Ave (Eastbound)				W Central Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	268	1	0	1	139	7	0	4	1	6	0	0	0	3	0	435	
7:15 AM	11	299	3	0	0	209	22	0	1	0	1	0	0	0	1	0	547	
7:30 AM	16	312	3	0	7	283	37	0	1	0	14	0	0	0	5	0	678	
7:45 AM	5	357	4	0	11	287	20	0	0	0	7	0	0	0	0	0	691	2351
8:00 AM	5	317	2	0	5	312	17	0	0	0	5	0	0	0	3	0	666	2582
8:15 AM	4	291	6	0	8	285	20	0	2	1	2	0	0	0	3	0	622	2657
8:30 AM	1	317	0	0	5	321	12	0	1	0	4	0	1	0	7	0	669	2648
8:45 AM	1	302	4	0	3	276	6	0	0	0	1	0	0	0	5	0	598	2555
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	20	1428	16	0	44	1148	80	0	0	0	28	0	0	0	0	0	2764	
Heavy Trucks	0	56	0		0	48	4		0	0	0		0	0	0		108	
Buses																		
Pedestrians		0				0				4				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- W Central Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794730
DATE: Tue, Oct 15 2024

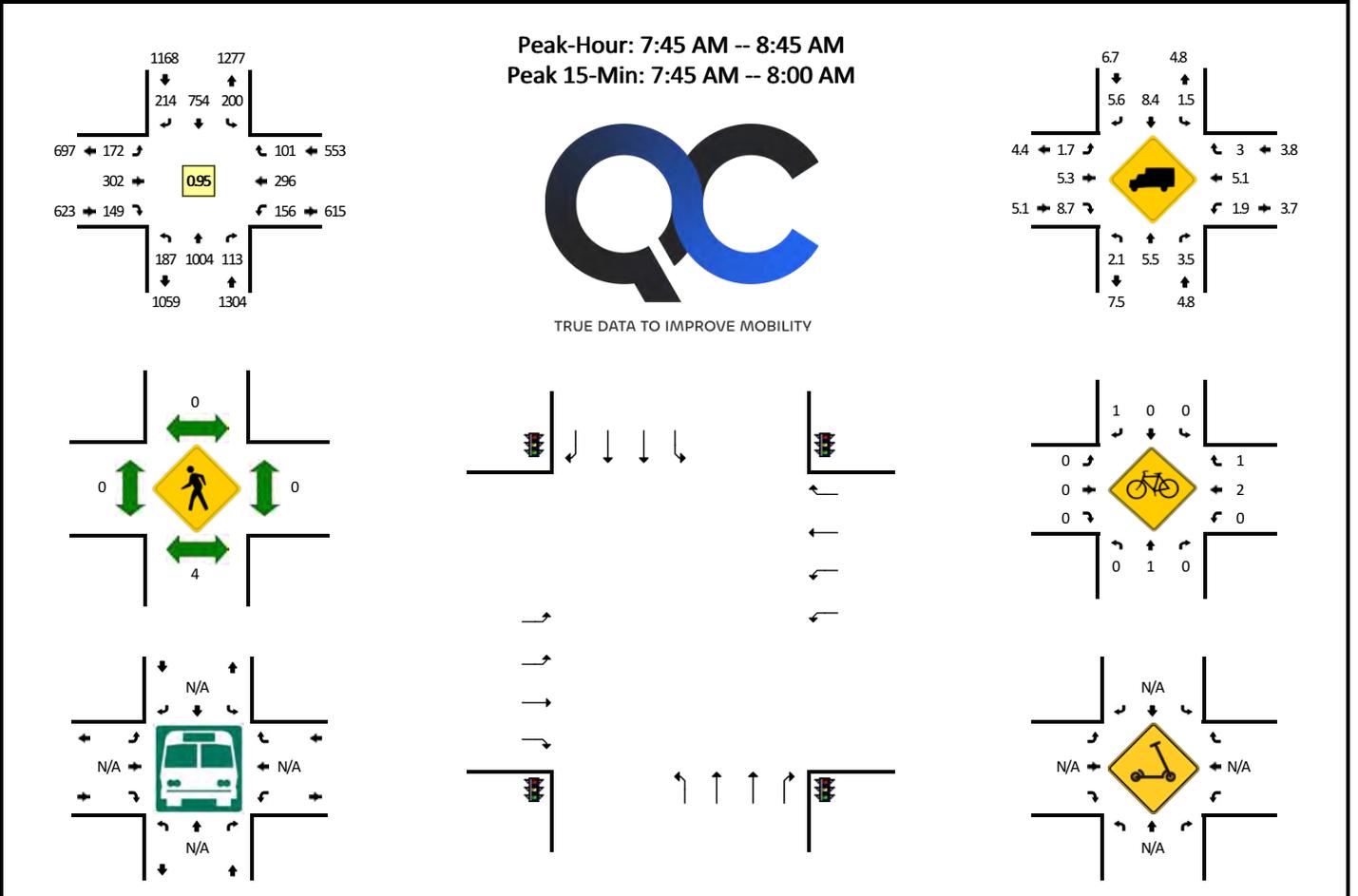


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				W Central Ave (Eastbound)				W Central Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	8	320	7	0	9	321	4	0	0	0	5	0	0	0	14	0	688	
4:15 PM	1	339	4	0	5	364	6	0	0	0	3	0	0	0	8	0	730	
4:30 PM	5	342	4	0	5	292	2	0	1	0	9	0	1	0	6	0	667	
4:45 PM	0	306	8	0	5	351	3	0	0	0	0	0	0	0	11	0	684	2769
5:00 PM	4	346	2	0	7	312	4	0	0	0	2	0	0	0	11	0	688	2769
5:15 PM	1	330	2	0	4	368	5	0	0	0	2	0	0	0	6	0	718	2757
5:30 PM	4	355	5	0	3	376	9	0	0	0	1	0	0	0	4	0	757	2847
5:45 PM	5	331	3	0	3	330	13	0	1	0	2	0	1	0	3	0	692	2855
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	1420	20	0	12	1504	36	0	0	0	4	0	0	0	16	0	3028	
Heavy Trucks	0	28	0	0	0	28	0	0	0	0	0	0	0	0	0	0	56	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- South Ave W
CITY/STATE: Missoula, MT

QC JOB #: 16794731
DATE: Tue, Oct 15 2024

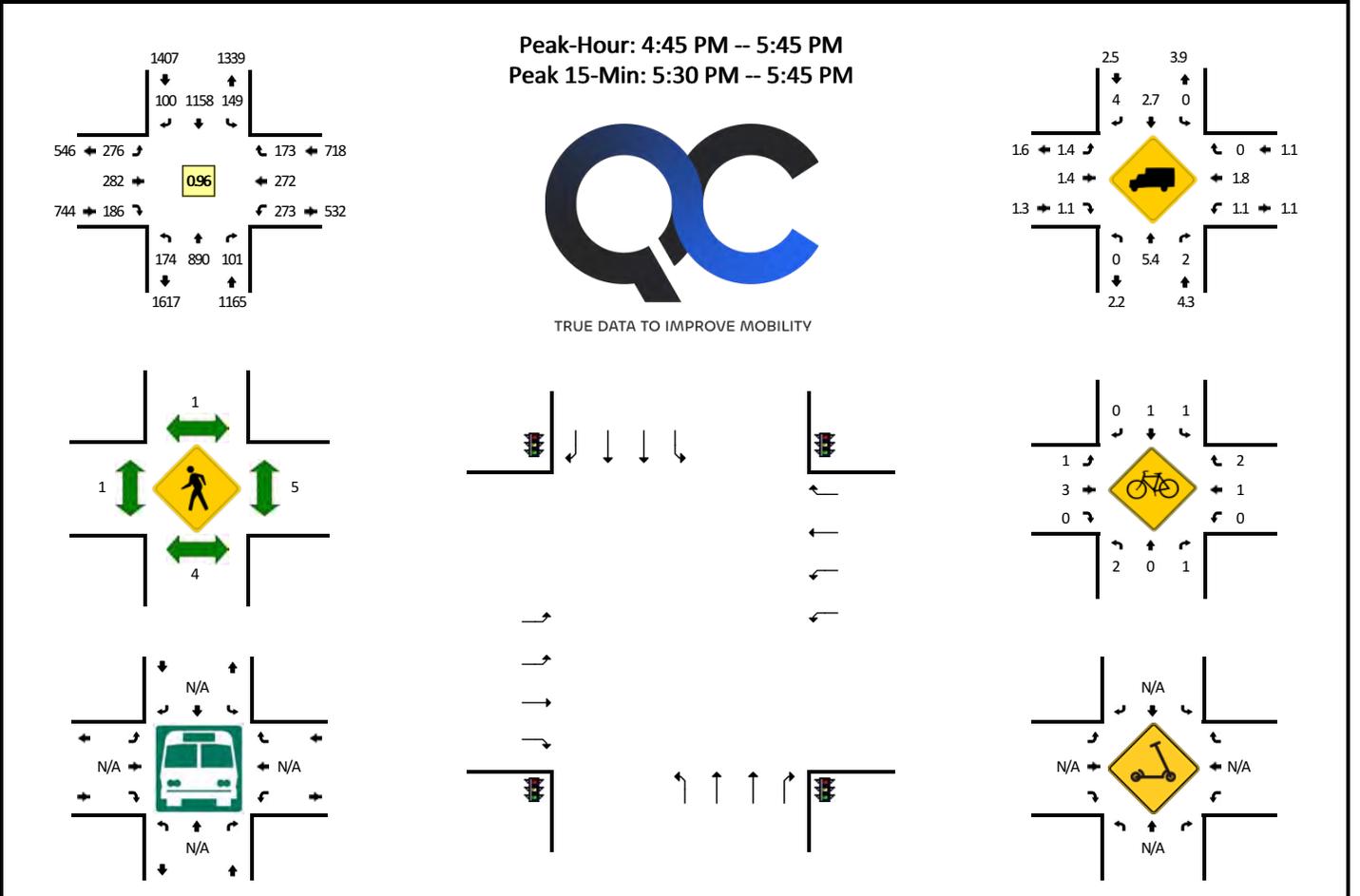


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				South Ave W (Eastbound)				South Ave W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	30	232	13	0	18	116	33	0	20	25	15	0	20	29	18	0	569	
7:15 AM	43	240	14	0	29	138	38	0	36	39	22	0	28	40	18	0	685	
7:30 AM	51	256	22	0	41	175	53	0	37	69	34	0	32	63	28	0	861	
7:45 AM	47	278	31	0	52	186	49	0	50	80	38	0	37	81	26	0	955	3070
8:00 AM	45	244	32	0	50	188	59	0	45	78	40	0	45	71	30	0	927	3428
8:15 AM	55	234	25	0	47	174	45	0	38	73	37	0	31	81	22	0	862	3605
8:30 AM	40	248	25	0	51	206	61	0	39	71	34	0	43	63	23	0	904	3648
8:45 AM	32	228	27	0	51	161	56	0	37	56	27	0	49	48	30	0	802	3495
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	188	1112	124	0	208	744	196	0	200	320	152	0	148	324	104	0	3820	
Heavy Trucks	4	48	8		0	44	4		0	20	12		0	4	0		144	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	4		0	0	0		0	4	4		12	
Scooters																		

Comments:

LOCATION: S Reserve St (US-93) -- South Ave W
CITY/STATE: Missoula, MT

QC JOB #: 16794732
DATE: Tue, Oct 15 2024

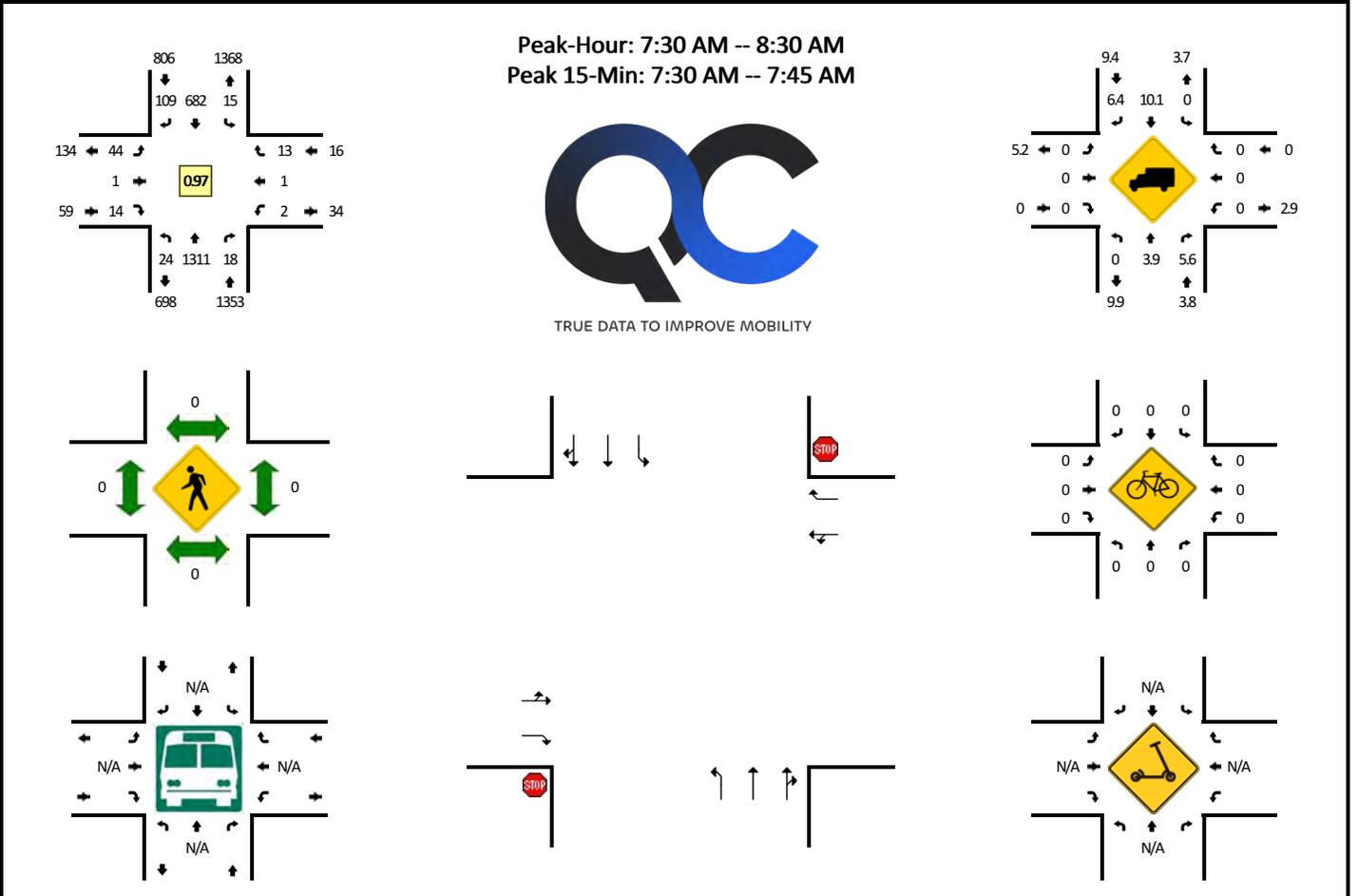


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				South Ave W (Eastbound)				South Ave W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	39	210	36	0	29	269	24	0	76	81	64	0	61	69	45	0	1003	
4:15 PM	51	217	22	0	57	265	24	0	90	66	59	0	60	74	36	0	1021	
4:30 PM	49	208	26	0	27	254	20	0	80	80	53	0	74	82	48	0	1001	
4:45 PM	45	196	24	0	28	300	23	0	68	74	39	0	74	67	37	0	975	4000
5:00 PM	50	224	19	0	33	261	20	0	74	79	50	0	76	62	51	0	999	3996
5:15 PM	41	239	30	0	42	291	29	0	61	65	53	0	53	70	36	0	1010	3985
5:30 PM	38	231	28	0	46	306	28	0	73	64	44	0	70	73	49	0	1050	4034
5:45 PM	47	229	20	0	33	268	41	0	58	58	37	0	37	71	38	0	937	3996
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	152	924	112	0	184	1224	112	0	292	256	176	0	280	292	196	0	4200	
Heavy Trucks	0	36	0		0	28	4		0	0	0		0	4	0		72	
Buses																		
Pedestrians		8				0				4				0			12	
Bicycles	0	0	4		0	0	0		0	8	0		0	0	0		12	
Scooters																		

Comments:

LOCATION: S Reserve St (US-93) -- Old US Hwy 93
CITY/STATE: Missoula, MT

QC JOB #: 16794733
DATE: Tue, Oct 15 2024

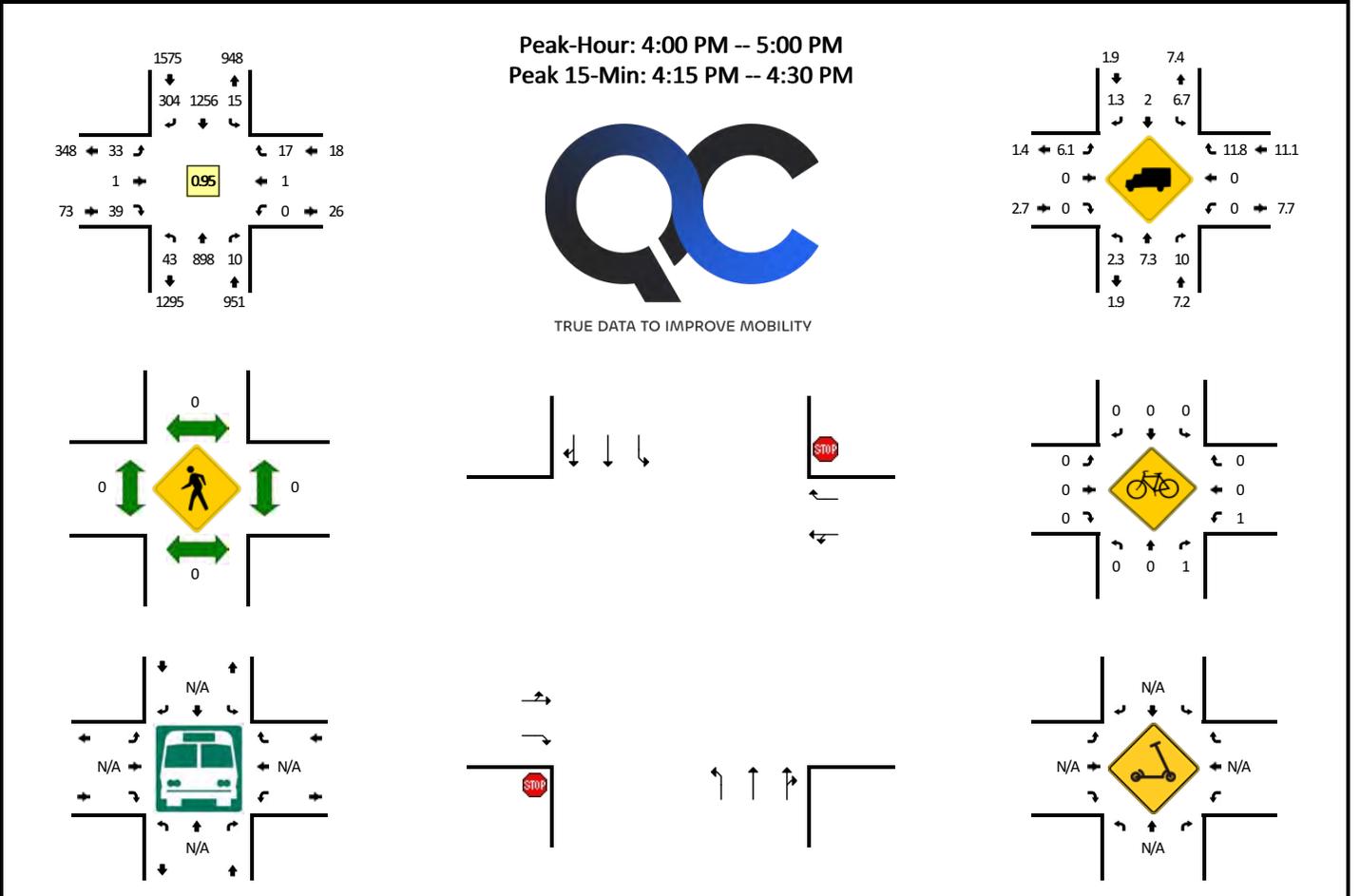


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Old US Hwy 93 (Eastbound)				Old US Hwy 93 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	285	1	0	2	106	15	0	7	0	2	0	2	0	0	0	424	
7:15 AM	4	312	7	0	5	141	18	0	10	1	0	0	0	0	4	0	502	
7:30 AM	4	359	6	0	2	161	32	0	6	0	1	0	1	0	3	0	575	
7:45 AM	7	331	4	0	7	157	26	0	19	1	2	0	0	1	4	0	559	2060
8:00 AM	7	321	5	0	2	196	24	0	11	0	6	0	1	0	2	0	575	2211
8:15 AM	6	300	3	0	4	168	27	0	8	0	5	0	0	0	4	0	525	2234
8:30 AM	9	290	9	0	5	182	32	0	3	0	7	0	1	0	3	0	541	2200
8:45 AM	4	271	6	0	3	161	24	0	11	0	4	0	2	1	6	0	493	2134
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	1436	24	0	8	644	128	0	24	0	4	0	4	0	12	0	2300	
Heavy Trucks	0	56	4		0	56	20		0	0	0		0	0	0		136	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- Old US Hwy 93
CITY/STATE: Missoula, MT

QC JOB #: 16794734
DATE: Tue, Oct 15 2024

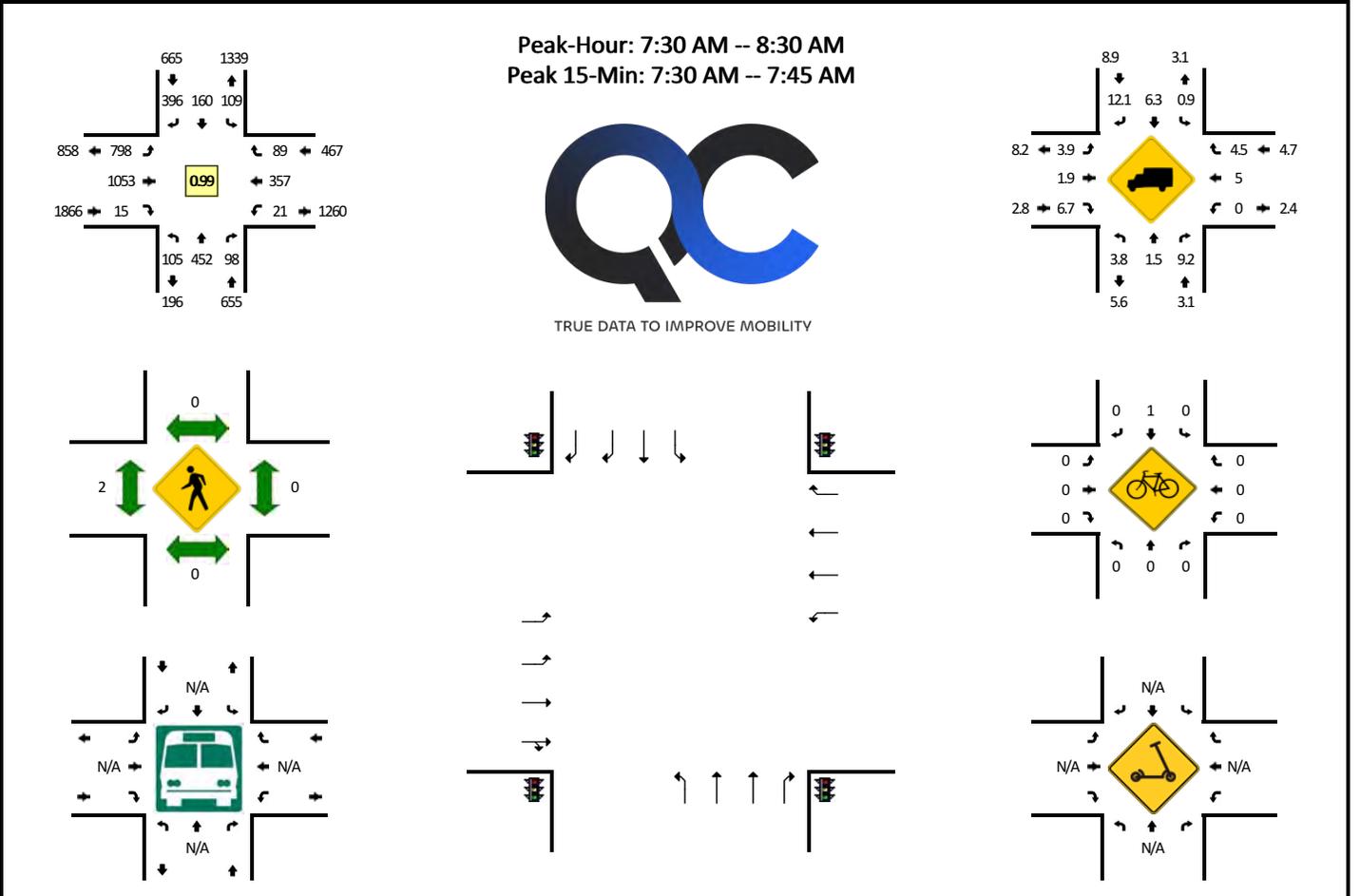


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Old US Hwy 93 (Eastbound)				Old US Hwy 93 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	16	227	3	0	4	304	76	0	7	0	14	0	0	0	5	0	656	
4:15 PM	10	257	2	0	4	327	66	0	7	1	12	0	0	0	4	0	690	
4:30 PM	6	215	3	0	3	302	87	0	6	0	7	0	0	1	5	0	635	
4:45 PM	11	199	2	0	4	323	75	0	13	0	6	0	0	0	3	0	636	2617
5:00 PM	10	215	2	0	0	328	58	0	7	1	13	0	0	0	2	0	636	2597
5:15 PM	6	223	4	0	1	312	78	0	12	1	10	0	0	2	4	0	653	2560
5:30 PM	10	214	1	0	2	334	62	0	8	0	7	0	1	1	1	0	641	2566
5:45 PM	13	247	1	0	2	313	42	0	9	0	10	0	1	0	4	0	642	2572
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	40	1028	8	0	16	1308	264	0	28	4	48	0	0	0	16	0	2760	
Heavy Trucks	0	68	0		0	28	4		0	0	0		0	0	0		100	
Buses																		
Pedestrians		0				0					0				0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- Brooks St
CITY/STATE: Missoula, MT

QC JOB #: 16794735
DATE: Tue, Oct 15 2024

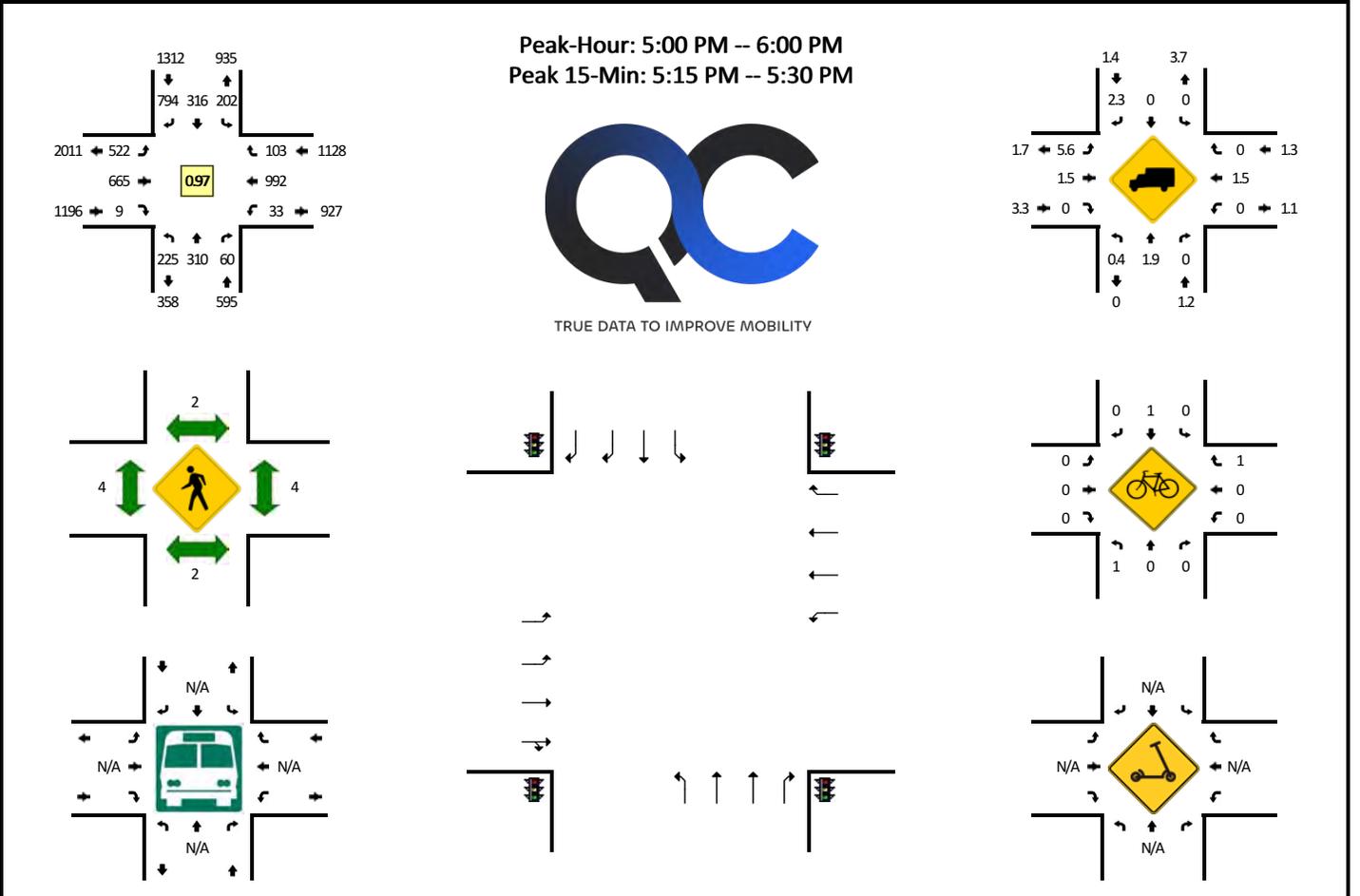


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Brooks St (Eastbound)				Brooks St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	11	69	11	0	9	16	73	0	200	165	1	0	3	56	21	0	635	
7:15 AM	18	105	11	0	12	44	76	0	190	217	0	0	5	55	25	0	758	
7:30 AM	27	132	24	0	18	40	96	0	210	274	2	0	2	74	25	0	924	
7:45 AM	34	122	26	0	25	41	88	0	195	267	2	0	7	92	20	0	919	3236
8:00 AM	21	105	24	0	34	38	105	0	199	235	2	0	3	105	25	0	896	3497
8:15 AM	23	93	24	0	32	41	107	0	194	277	9	0	9	86	19	0	914	3653
8:30 AM	24	81	14	0	42	48	92	0	178	219	1	0	6	85	35	0	825	3554
8:45 AM	23	94	22	0	18	51	105	0	153	219	2	0	7	81	25	0	800	3435
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	108	528	96	0	72	160	384	0	840	1096	8	0	8	296	100	0	3696	
Heavy Trucks	12	16	0		0	12	56		24	4	0		0	24	12		160	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																	0	

Comments:

LOCATION: S Reserve St (US-93) -- Brooks St
CITY/STATE: Missoula, MT

QC JOB #: 16794736
DATE: Tue, Oct 15 2024

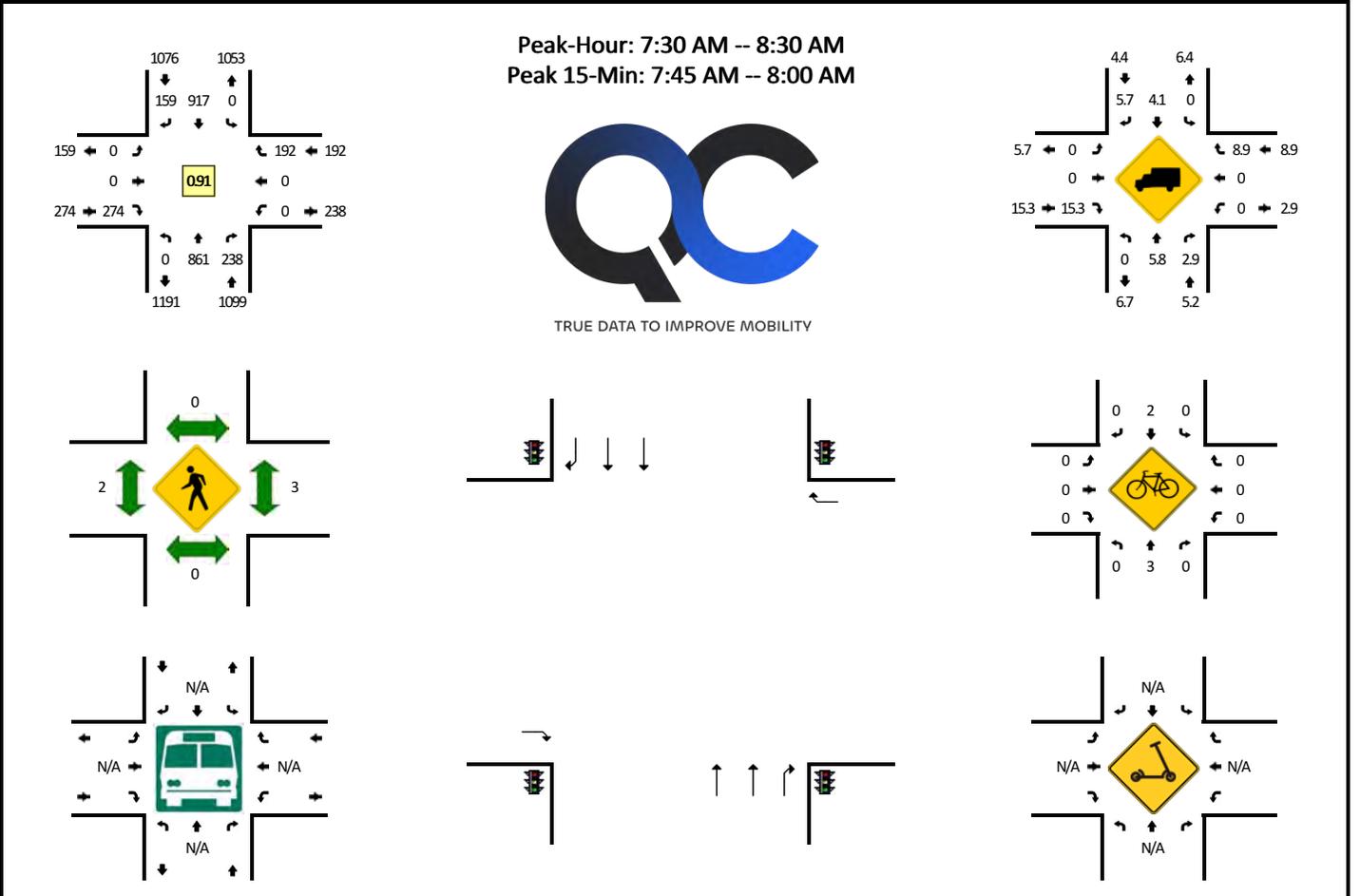


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Brooks St (Eastbound)				Brooks St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	44	77	19	0	57	84	181	0	122	144	4	0	12	250	36	0	1030	
4:15 PM	52	101	7	0	50	80	192	0	133	120	3	0	8	254	29	0	1029	
4:30 PM	59	71	11	0	43	74	196	0	118	137	4	0	7	274	32	0	1026	
4:45 PM	53	68	8	0	47	73	205	0	122	144	5	0	7	259	18	0	1009	4094
5:00 PM	55	69	12	0	60	76	196	0	121	139	3	0	7	266	32	0	1036	4100
5:15 PM	58	77	16	0	50	80	197	0	143	195	2	0	8	256	13	0	1095	4166
5:30 PM	56	72	17	0	44	80	205	0	132	173	1	0	10	252	18	0	1060	4200
5:45 PM	56	92	15	0	48	80	196	0	126	158	3	0	8	218	40	0	1040	4231
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	232	308	64	0	200	320	788	0	572	780	8	0	32	1024	52	0	4380	
Heavy Trucks	0	0	0	0	0	0	16	0	28	20	0	0	0	24	0	0	88	
Buses																		
Pedestrians		0				8				16				4			28	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- Broadway Ramps
CITY/STATE: Missoula, MT

QC JOB #: 16794737
DATE: Tue, Oct 15 2024

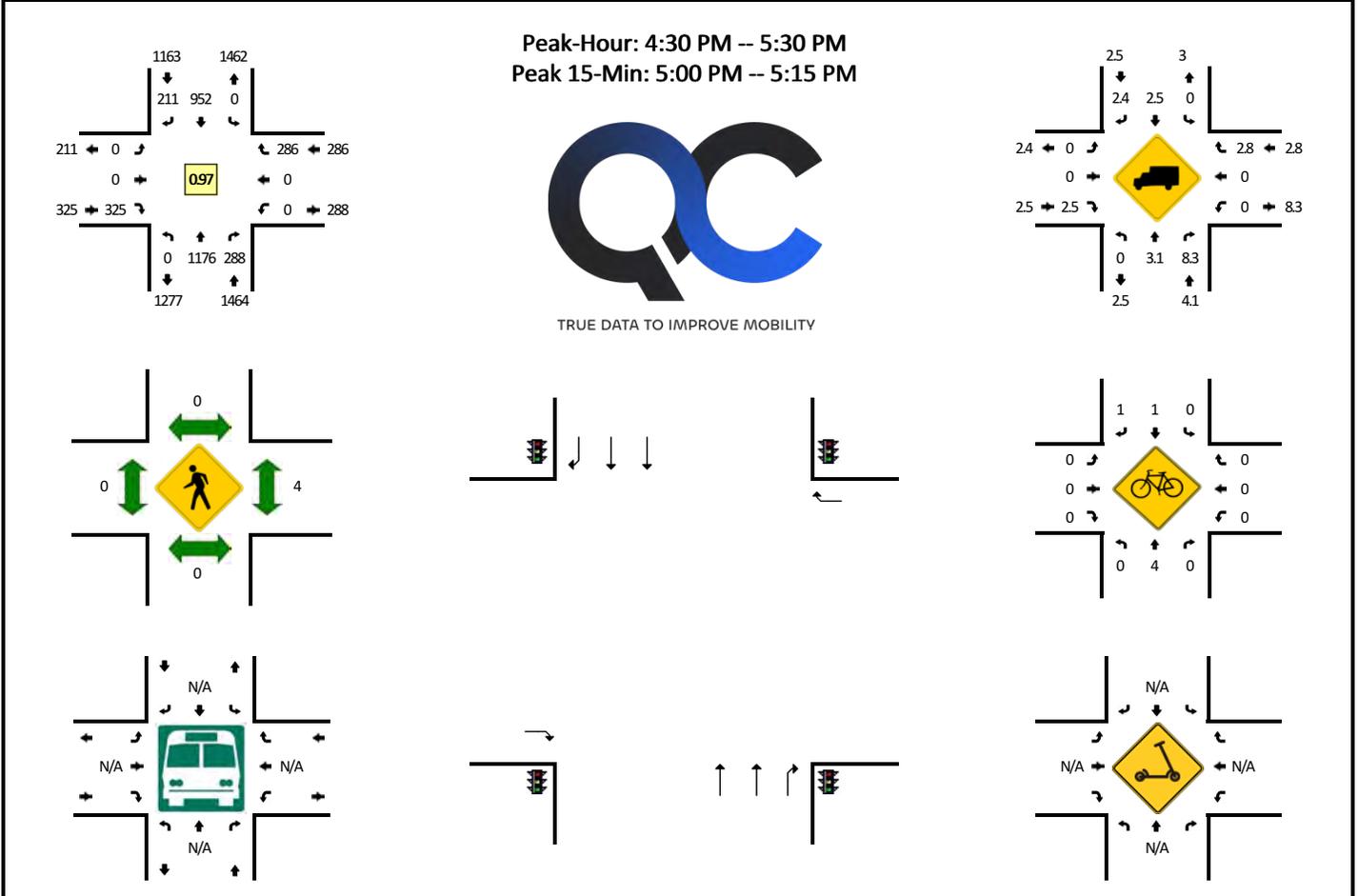


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Broadway Ramps (Eastbound)				Broadway Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	149	53	0	0	133	32	0	0	0	38	0	0	0	18	0	423	
7:15 AM	0	182	62	0	0	179	29	0	0	0	66	0	0	0	25	0	543	
7:30 AM	0	212	71	0	0	190	39	0	0	0	53	0	0	0	30	0	595	
7:45 AM	0	232	66	0	0	249	48	0	0	0	69	0	0	0	65	0	729	2290
8:00 AM	0	201	44	0	0	258	34	0	0	0	82	0	0	0	43	0	662	2529
8:15 AM	0	216	57	0	0	220	38	0	0	0	70	0	0	0	54	0	655	2641
8:30 AM	0	199	38	0	0	189	39	0	0	0	80	0	0	0	47	0	592	2638
8:45 AM	0	184	59	0	0	179	40	0	0	0	68	0	0	0	52	0	582	2491
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	928	264	0	0	996	192	0	0	0	276	0	0	0	260	0	2916	
Heavy Trucks	0	36	0		0	28	12		0	0	36		0	0	20		132	
Buses																		
Pedestrians		0				0				4				0			4	
Bicycles	0	4	0		0	4	0		0	0	0		0	0	0		8	
Scoters																		

Comments: Northbound is not signalized and westbound is stop controlled.

LOCATION: N Reserve St (US-93) -- Broadway Ramps
CITY/STATE: Missoula, MT

QC JOB #: 16794738
DATE: Tue, Oct 15 2024

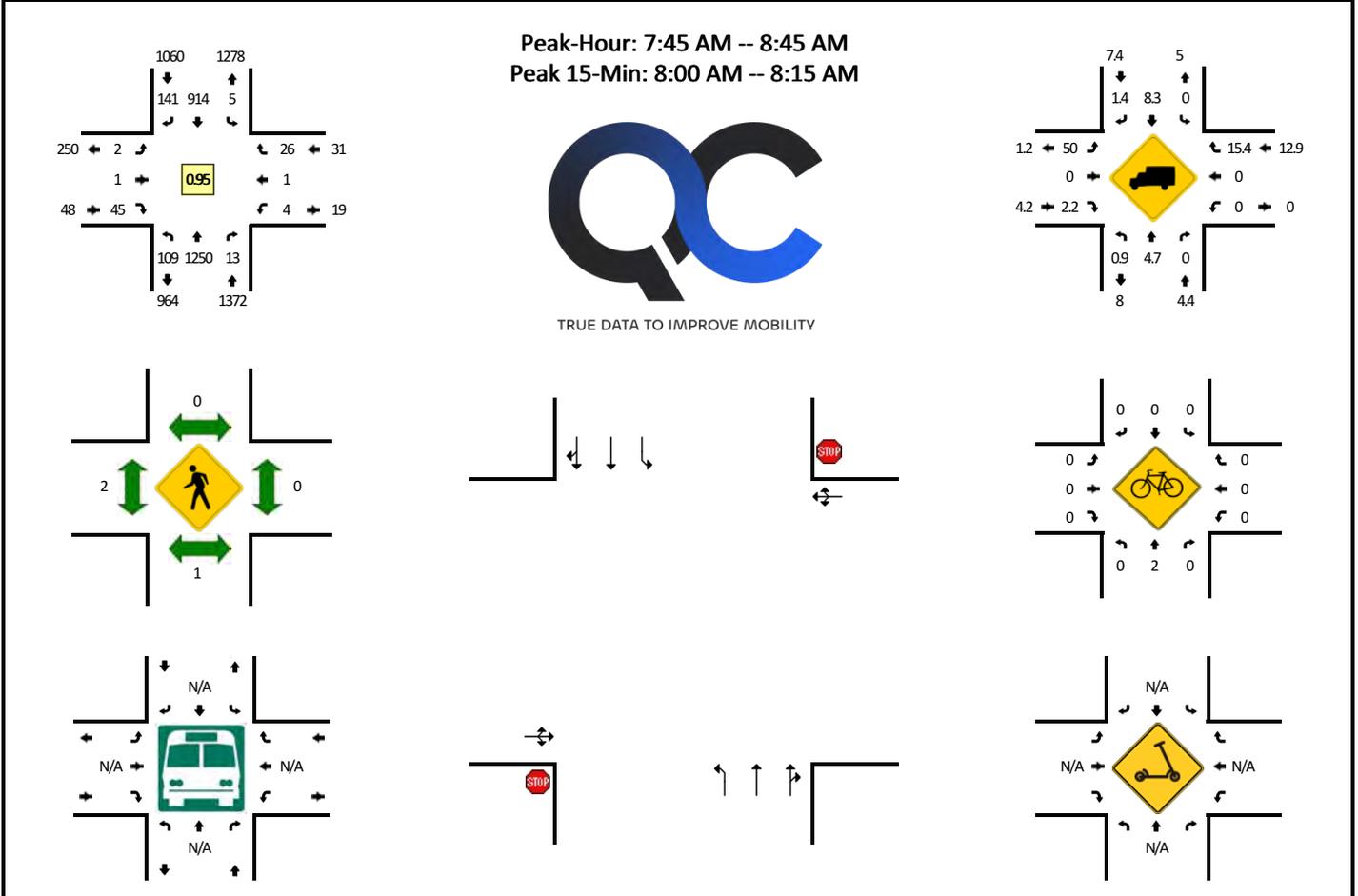


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Broadway Ramps (Eastbound)				Broadway Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	287	83	0	0	270	39	0	0	0	71	0	0	0	59	0	809	
4:15 PM	0	303	58	0	0	265	54	0	0	0	78	0	0	0	47	0	805	
4:30 PM	0	260	94	0	0	254	48	0	0	0	68	0	0	0	60	0	784	
4:45 PM	0	307	65	0	0	226	49	0	0	0	76	0	0	0	72	0	795	3193
5:00 PM	0	296	63	0	0	219	63	0	0	0	105	0	0	0	86	0	832	3216
5:15 PM	0	313	66	0	0	253	51	0	0	0	76	0	0	0	68	0	827	3238
5:30 PM	0	291	75	0	0	218	40	0	0	0	84	0	0	0	53	0	761	3215
5:45 PM	0	254	65	0	0	213	47	0	0	0	76	0	0	0	55	0	710	3130
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	1184	252	0	0	876	252	0	0	0	420	0	0	0	344	0	3328	
Heavy Trucks	0	36	32		0	16	4		0	0	16		0	0	8		112	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	8	0		0	4	4		0	0	0		0	0	0		16	
Scooters																		

Comments: Northbound is not signaled and westbound is stop controlled.

LOCATION: S Reserve St (US-93) -- Dearborn Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794739
DATE: Tue, Oct 15 2024

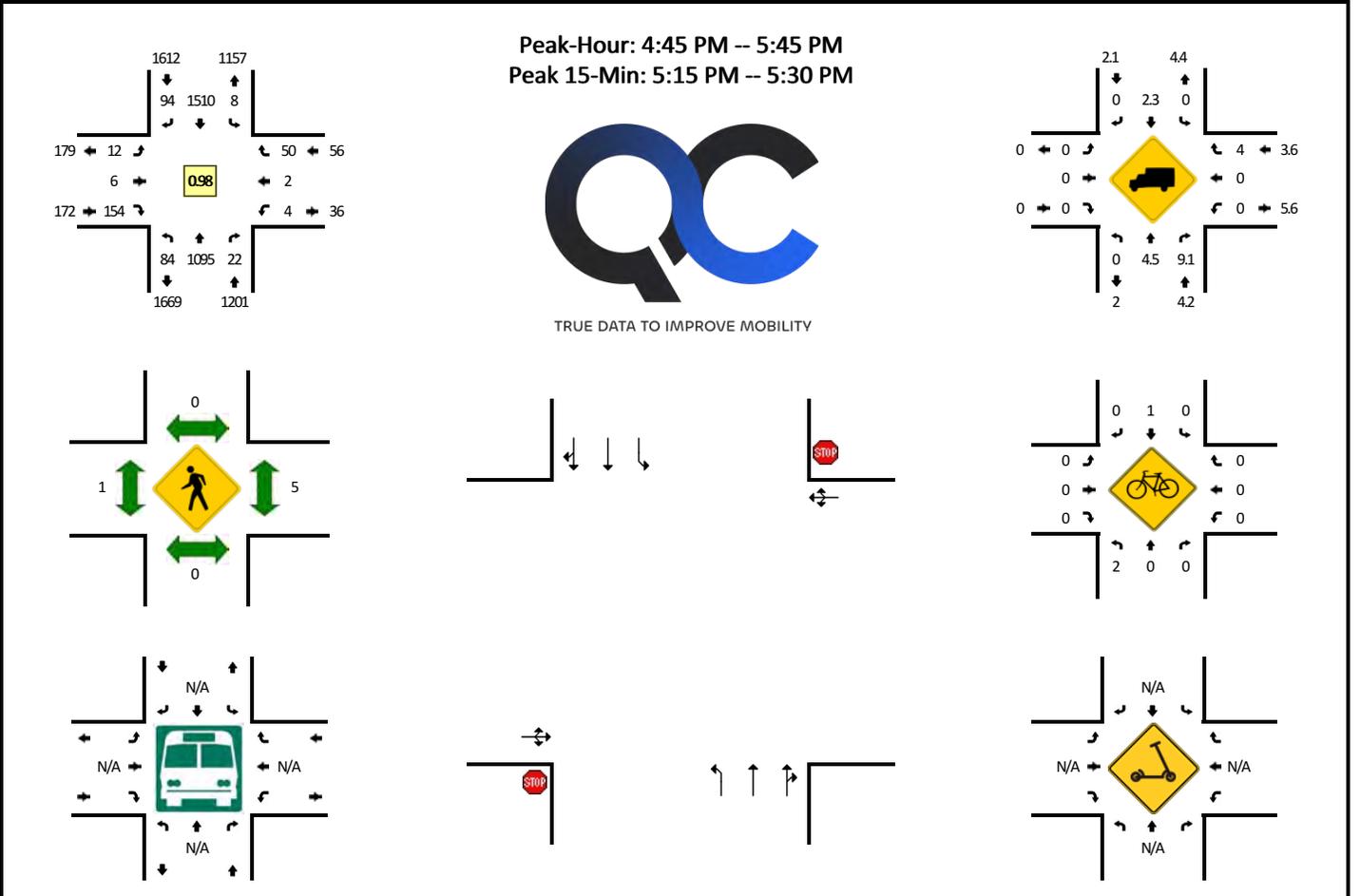


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Dearborn Ave (Eastbound)				Dearborn Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	290	1	0	1	124	17	0	0	1	1	0	0	0	1	0	443	
7:15 AM	15	301	2	0	3	168	21	0	0	0	6	0	0	0	2	0	518	
7:30 AM	17	340	3	0	4	205	29	0	1	0	8	0	0	0	6	0	613	
7:45 AM	31	329	4	0	0	209	42	0	0	0	8	0	0	0	9	0	632	2206
8:00 AM	28	329	5	1	4	237	36	0	0	1	13	0	1	0	6	0	661	2424
8:15 AM	31	293	2	0	1	214	30	0	1	0	16	0	2	0	6	0	596	2502
8:30 AM	18	299	2	0	0	254	33	0	1	0	8	0	1	1	5	0	622	2511
8:45 AM	22	272	8	0	2	200	37	0	1	1	11	0	1	0	3	0	558	2437
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	112	1316	20	4	16	948	144	0	0	4	52	0	4	0	24	0	2644	
Heavy Trucks	0	56	0		0	72	8		0	0	4		0	0	4		144	
Buses																		
Pedestrians		0				0				4				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- Dearborn Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794740
DATE: Tue, Oct 15 2024

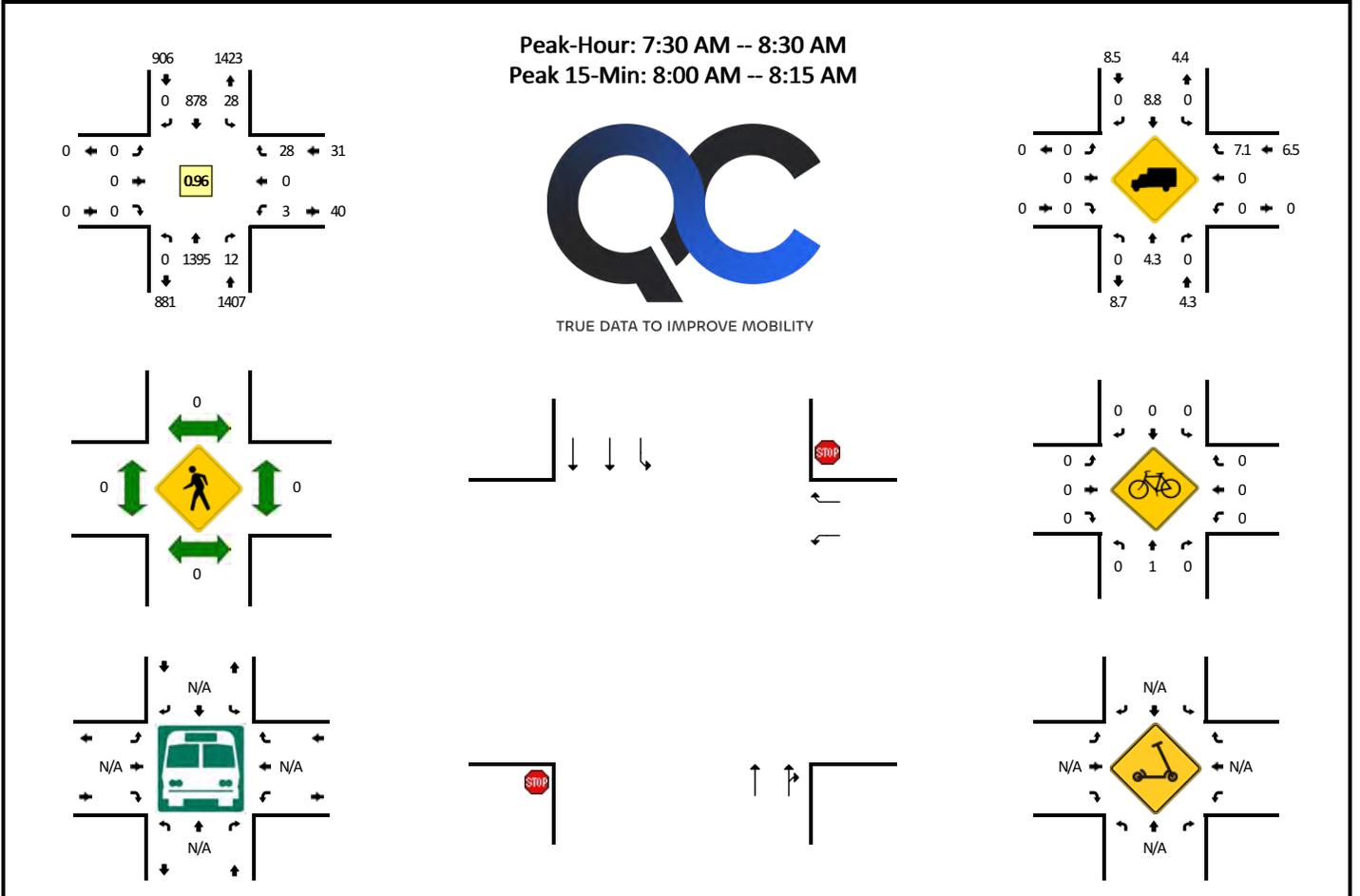


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Dearborn Ave (Eastbound)				Dearborn Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	15	260	11	0	3	361	24	0	4	2	69	0	2	0	22	0	773	
4:15 PM	19	276	2	0	3	355	27	0	7	2	41	0	1	0	6	0	739	
4:30 PM	19	265	10	0	3	355	29	0	3	1	45	0	2	0	10	0	742	
4:45 PM	14	252	6	0	1	382	24	0	2	1	45	0	2	1	10	0	740	2994
5:00 PM	24	282	7	0	0	367	23	0	1	0	42	0	0	0	10	0	756	2977
5:15 PM	24	301	6	1	3	369	20	0	7	1	32	0	1	0	13	0	778	3016
5:30 PM	21	260	3	0	4	392	27	0	2	4	35	0	1	1	17	0	767	3041
5:45 PM	11	275	5	0	3	322	19	0	6	0	30	0	0	1	6	0	678	2979
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	96	1204	24	4	12	1476	80	0	28	4	128	0	4	0	52	0	3112	
Heavy Trucks	0	44	0		0	20	0		0	0	0		0	0	4		68	
Buses																		
Pedestrians		0				0				4				8			12	
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4	
Scoters																		

Comments:

LOCATION: S Reserve St (US-93) -- Mary Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794741
DATE: Tue, Oct 15 2024

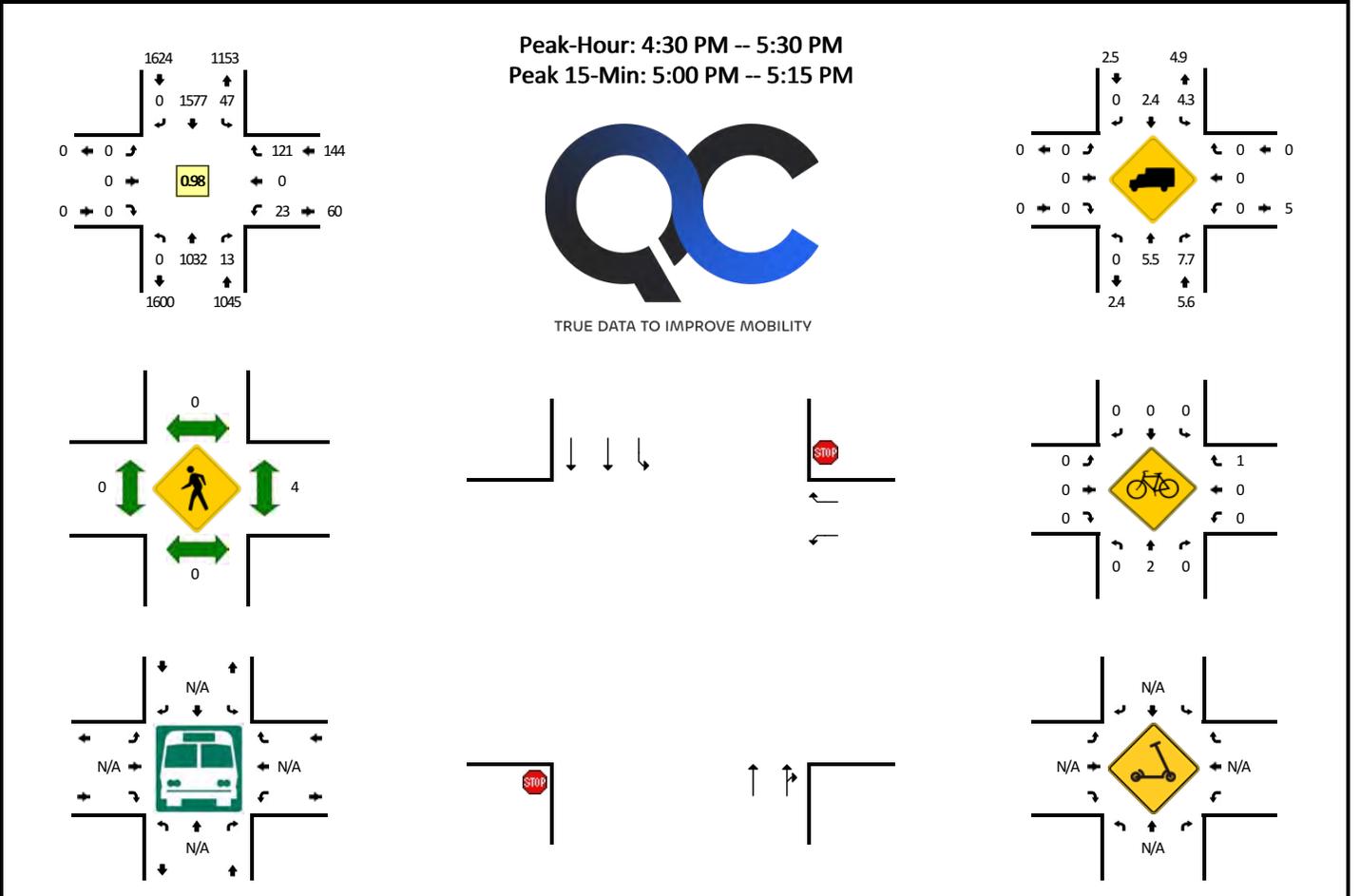


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Mary Ave (Eastbound)				Mary Ave (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
7:00 AM	0	304	0	0	5	121	0	0	0	0	0	0	0	2	0	5	0	437	
7:15 AM	0	307	1	0	8	161	0	0	0	0	0	0	0	3	0	2	0	482	
7:30 AM	0	373	2	0	2	215	0	0	0	0	0	0	0	0	0	7	0	599	
7:45 AM	0	356	5	0	10	203	0	0	0	0	0	0	0	1	0	3	0	578	2096
8:00 AM	0	349	3	0	9	242	0	0	0	0	0	0	0	1	0	6	0	610	2269
8:15 AM	0	317	2	0	7	218	0	0	0	0	0	0	0	1	0	12	0	557	2344
8:30 AM	0	313	3	0	10	245	0	0	0	0	0	0	0	1	0	12	0	584	2329
8:45 AM	0	297	2	0	15	194	0	0	0	0	0	0	0	1	0	7	0	516	2267
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
All Vehicles	0	1396	12	0	36	968	0	0	0	0	0	0	4	0	24	0	2440		
Heavy Trucks	0	44	0		0	84	0		0	0	0		0	0	4		132		
Buses																			
Pedestrians		0				0					0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0			0	
Scoters																			

Comments:

LOCATION: S Reserve St (US-93) -- Mary Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794742
DATE: Tue, Oct 15 2024



15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				Mary Ave (Eastbound)				Mary Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	258	4	0	24	403	0	1	0	0	0	0	1	0	24	0	715	
4:15 PM	0	278	2	0	8	387	0	1	0	0	0	0	3	0	18	0	697	
4:30 PM	0	254	4	0	12	393	0	0	0	0	0	0	6	0	22	0	691	
4:45 PM	0	238	5	0	16	403	0	0	0	0	0	0	6	0	25	0	693	2796
5:00 PM	0	263	3	0	11	394	0	0	0	0	0	0	5	0	39	0	715	2796
5:15 PM	0	277	1	0	8	387	0	0	0	0	0	0	6	0	35	0	714	2813
5:30 PM	0	245	3	0	12	411	0	0	0	0	0	0	5	0	13	0	689	2811
5:45 PM	0	274	6	0	18	335	0	0	0	0	0	0	2	0	19	0	654	2772
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	1052	12	0	44	1576	0	0	0	0	0	0	20	0	156	0	2860	
Heavy Trucks	0	44	0		0	36	0		0	0	0		0	0	0		80	
Buses																		
Pedestrians		0				0				0				8			8	
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4	
Scoters																		

Comments:

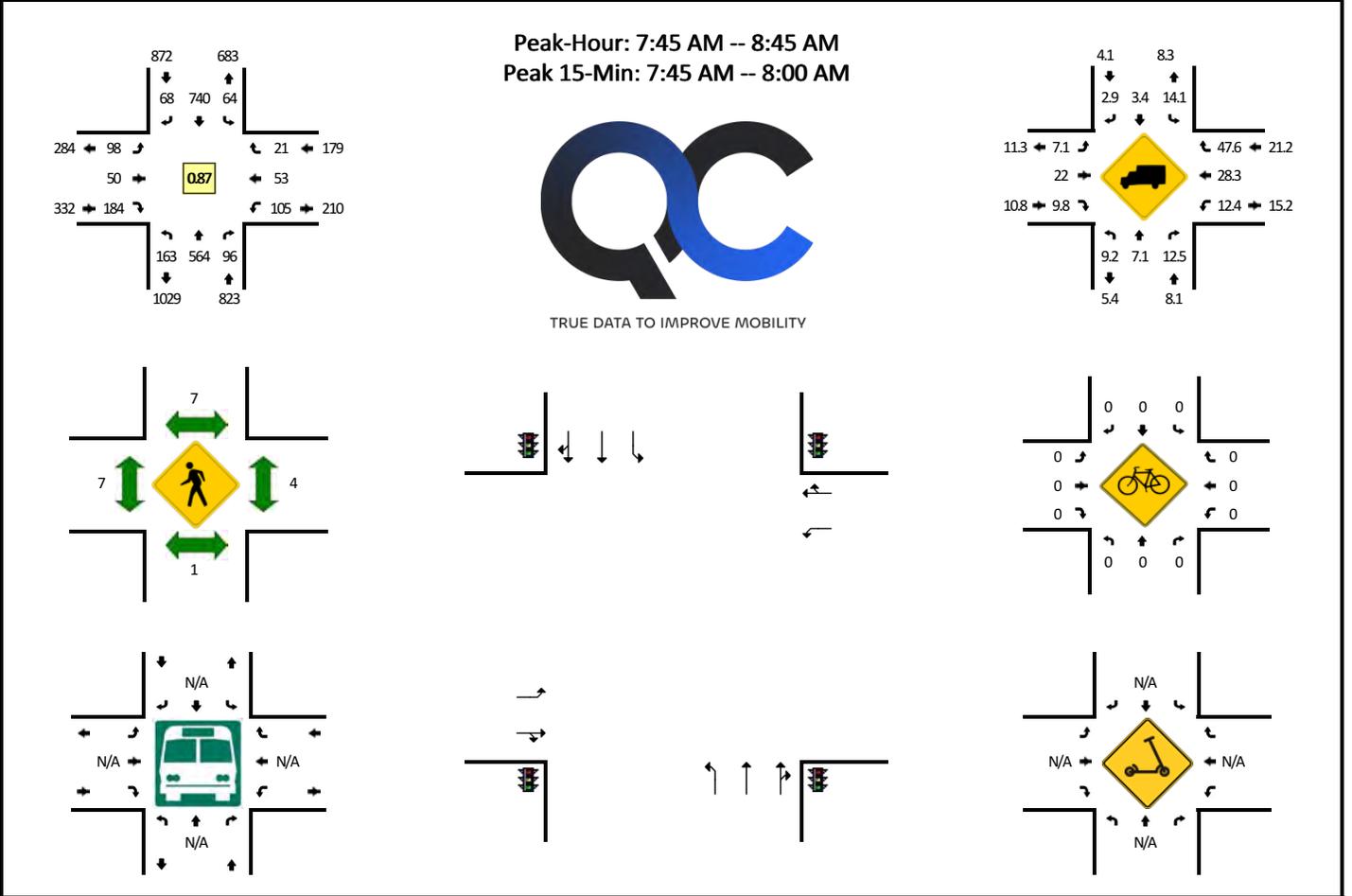
Adjustment Factors By Day and Month for 1/1/2023 - 12/31/2023

Seasonal Factors								
Group	Month	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
UPA	Jan	1.709	1.14	1.022	0.99	0.98	0.979	1.34
	Feb	1.563	1.048	1.03	1.036	0.997	0.945	1.204
	Mar	1.547	1.03	0.977	0.97	0.962	0.944	1.197
	Apr	1.391	0.964	0.925	0.918	0.901	0.867	1.106
	May	1.298	0.912	0.878	0.87	0.863	0.835	1.083
	Jun	1.247	0.903	0.863	0.853	0.842	0.828	1.066
	Jul	1.233	0.871	0.842	0.837	0.832	0.822	1.056
	Aug	1.269	0.906	0.873	0.862	0.852	0.845	1.071
	Sep	1.334	0.916	0.88	0.875	0.87	0.835	1.092
	Oct	1.413	0.952	0.912	0.939	0.931	0.889	1.137
	Nov	1.498	0.966	0.933	0.934	0.925	0.957	1.225
	Dec	1.548	0.996	1	0.958	0.952	0.922	1.219

Axle Factors								
Group	Month	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
NI_URB	Jan	0.998	0.989	0.987	0.986	0.984	0.987	0.995
	Feb	0.997	0.987	0.988	0.989	0.987	0.988	0.996
	Mar	0.997	0.988	0.987	0.984	0.986	0.987	0.997
	Apr	0.997	0.973	0.969	0.971	0.975	0.984	0.997
	May	0.997	0.977	0.976	0.974	0.98	0.985	0.996
	Jun	0.996	0.974	0.968	0.971	0.976	0.98	0.994
	Jul	0.996	0.974	0.979	0.974	0.973	0.976	0.992
	Aug	0.995	0.974	0.975	0.973	0.974	0.978	0.995
	Sep	0.995	0.968	0.968	0.973	0.966	0.977	0.993
	Oct	0.993	0.978	0.975	0.971	0.976	0.979	0.991
	Nov	0.994	0.973	0.976	0.978	0.975	0.981	0.994
	Dec	0.993	0.973	0.978	0.975	0.975	0.983	0.994

LOCATION: N Reserve St (US-93) -- Express Way Rd/Howard Raser Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794703
DATE: Tue, Oct 15 2024

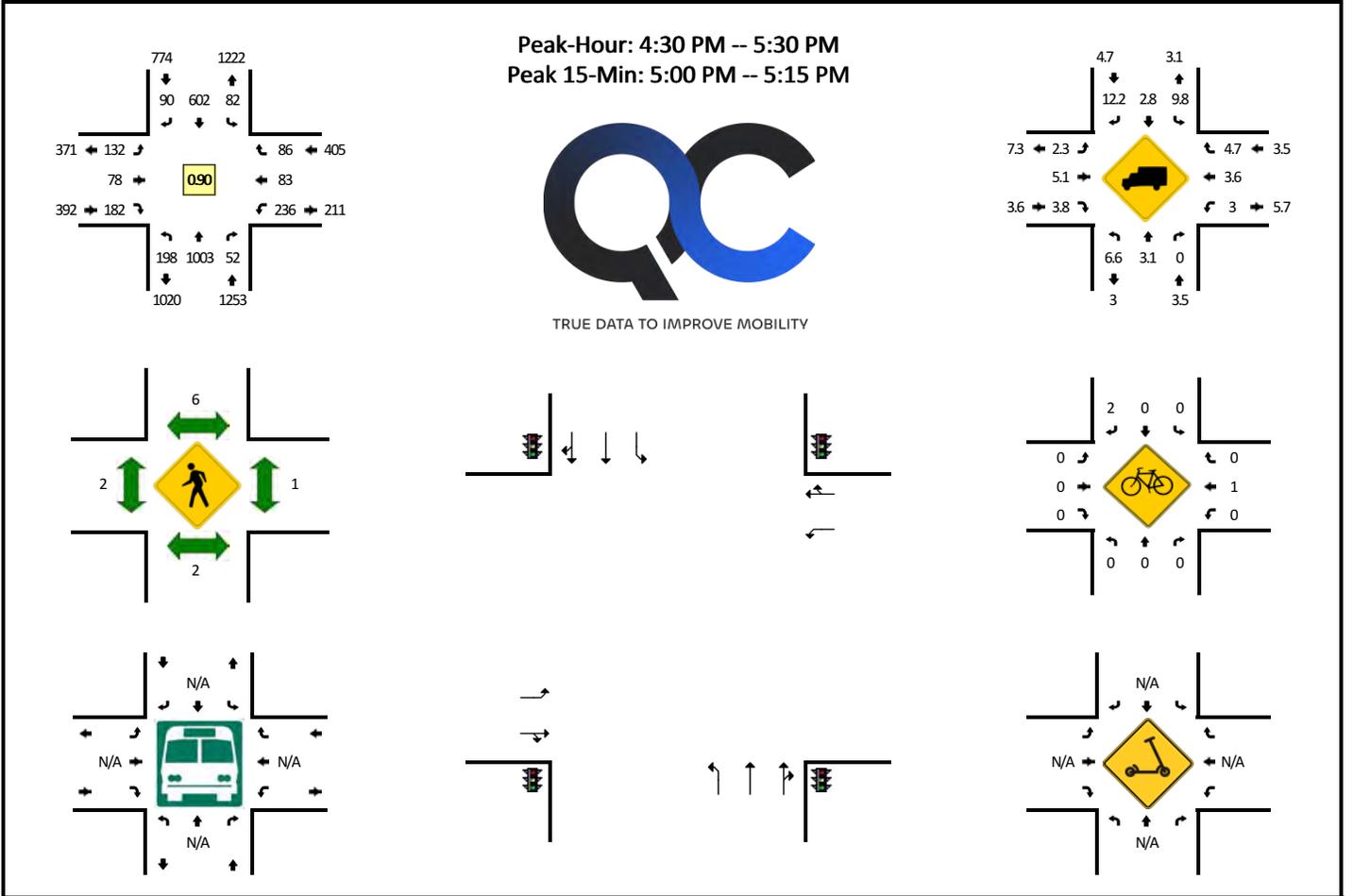


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Express Way Rd/Howard Raser Ave (Eastbound)				Express Way Rd/Howard Raser Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	36	84	13	0	11	113	16	0	14	5	36	0	12	9	8	0	357	
7:15 AM	53	95	14	0	20	141	11	0	18	11	43	0	13	12	1	0	432	
7:30 AM	46	126	13	0	13	172	20	0	36	18	38	0	16	12	8	0	518	
7:45 AM	42	143	34	0	21	245	24	0	18	18	50	0	21	14	5	0	635	1942
8:00 AM	35	130	27	0	15	174	13	0	31	11	52	0	30	14	6	0	538	2123
8:15 AM	42	143	18	0	12	159	14	0	23	10	43	0	25	12	2	0	503	2194
8:30 AM	44	148	17	0	16	162	17	0	26	11	39	0	29	13	8	0	530	2206
8:45 AM	39	119	11	0	20	129	15	0	23	16	47	0	34	19	9	0	481	2052
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	168	572	136	0	84	980	96	0	72	72	200	0	84	56	20	0	2540	
Heavy Trucks	16	40	0		8	28	4		4	16	28		16	20	12		192	
Buses																		
Pedestrians		0				0				4				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- Express Way Rd/Howard Raser Ave
CITY/STATE: Missoula, MT

QC JOB #: 16794704
DATE: Tue, Oct 15 2024

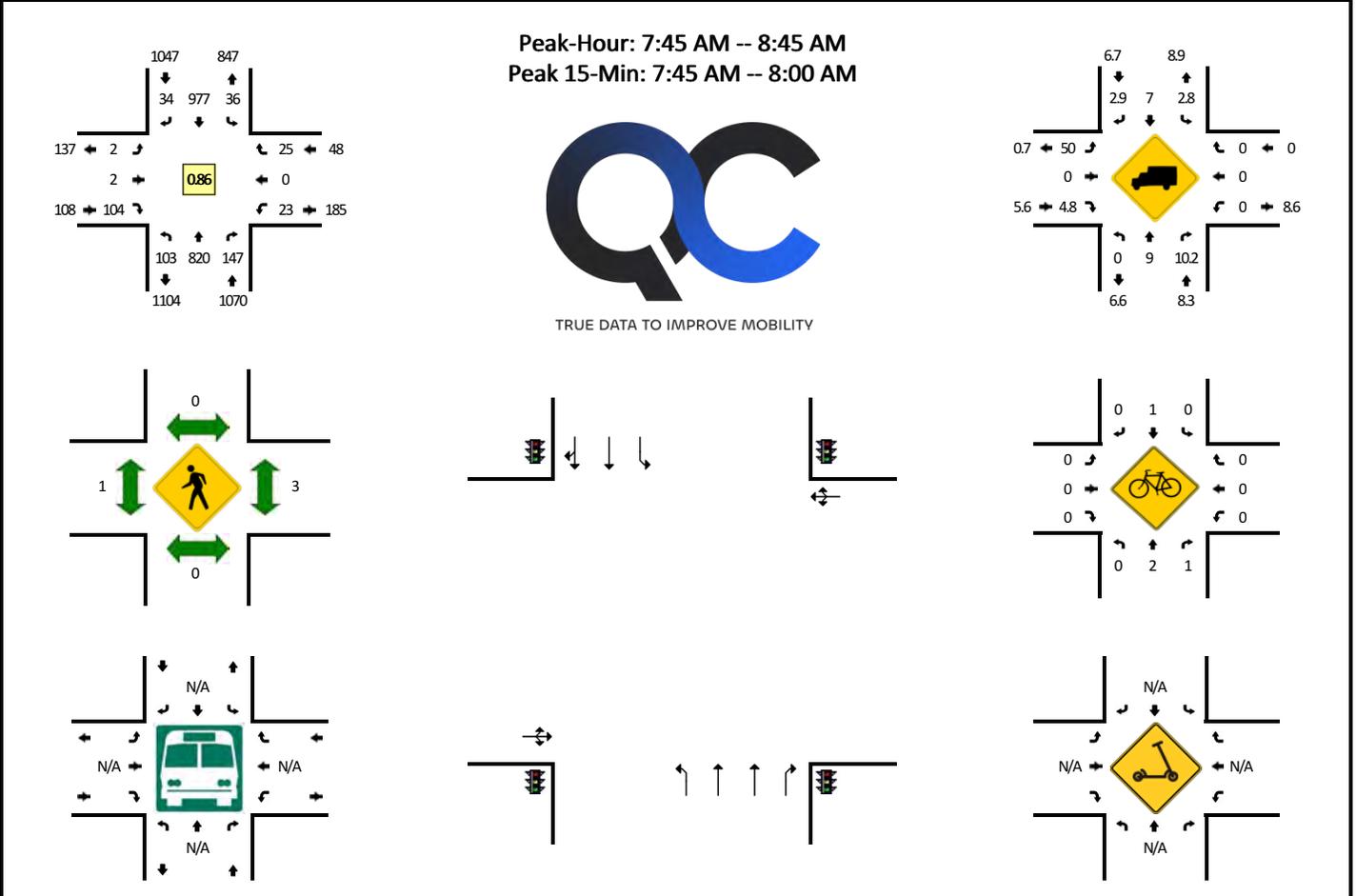


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Express Way Rd/Howard Raser Ave (Eastbound)				Express Way Rd/Howard Raser Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	50	216	20	0	15	137	13	0	19	26	61	0	74	22	13	0	666	
4:15 PM	46	232	11	0	17	186	26	0	27	12	60	0	53	13	13	0	696	
4:30 PM	51	221	10	0	23	152	21	0	27	25	50	0	62	19	20	0	681	
4:45 PM	49	236	14	0	22	143	25	1	29	12	38	0	51	22	13	0	655	2698
5:00 PM	48	277	13	0	14	154	24	0	45	21	55	0	80	25	30	0	786	2818
5:15 PM	50	269	15	0	22	153	20	0	31	20	39	0	43	17	23	0	702	2824
5:30 PM	50	229	12	0	17	179	25	0	28	11	47	0	26	13	14	0	651	2794
5:45 PM	36	234	14	0	20	166	17	0	23	8	35	0	49	13	16	0	631	2770
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	192	1108	52	0	56	616	96	0	180	84	220	0	320	100	120	0	3144	
Heavy Trucks	16	32	0		12	12	8		4	0	4		4	4	0		96	
Buses																		
Pedestrians		0				12				0				0			12	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- International Dr/Stockyard Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794705
DATE: Tue, Oct 15 2024

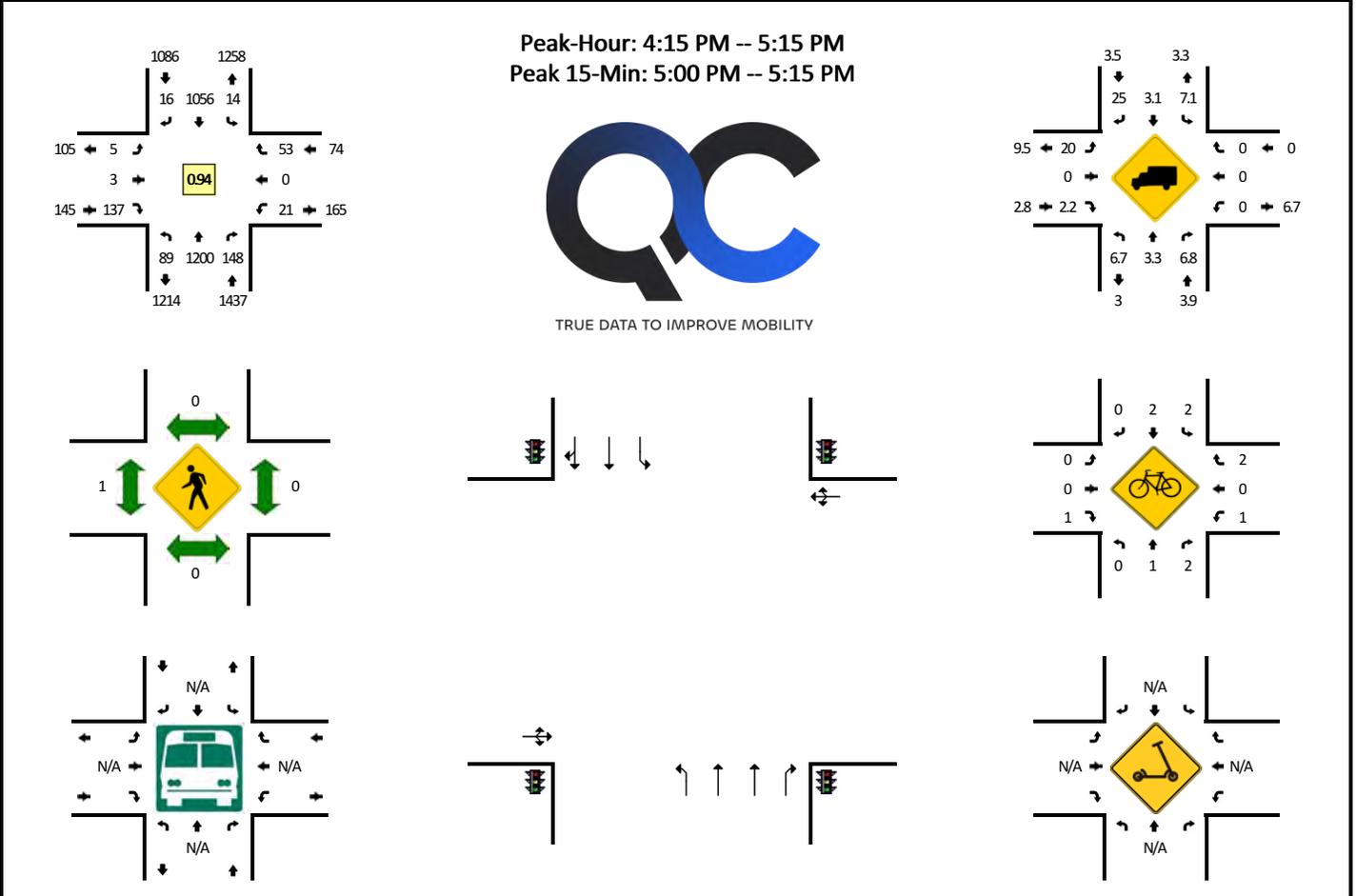


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				International Dr/Stockyard Rd (Eastbound)				International Dr/Stockyard Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	27	133	16	0	4	153	3	0	0	0	10	0	9	0	4	0	359	
7:15 AM	18	168	30	0	6	175	11	0	0	1	20	0	4	0	3	0	436	
7:30 AM	28	190	29	0	5	206	11	0	0	0	20	0	3	0	3	0	495	
7:45 AM	34	214	43	0	14	296	14	0	0	1	36	0	4	0	8	0	664	1954
8:00 AM	28	189	36	0	5	246	5	0	2	1	25	0	5	0	7	0	549	2144
8:15 AM	27	208	42	0	10	216	10	0	0	0	25	0	8	0	5	0	551	2259
8:30 AM	14	209	26	0	7	219	5	0	0	0	18	0	6	0	5	0	509	2273
8:45 AM	22	185	37	0	8	201	6	0	1	0	21	0	3	0	6	0	490	2099
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	136	856	172	0	56	1184	56	0	0	4	144	0	16	0	32	0	2656	
Heavy Trucks	0	48	12		4	84	4		0	0	8		0	0	0		160	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- International Dr/Stockyard Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794706
DATE: Tue, Oct 15 2024

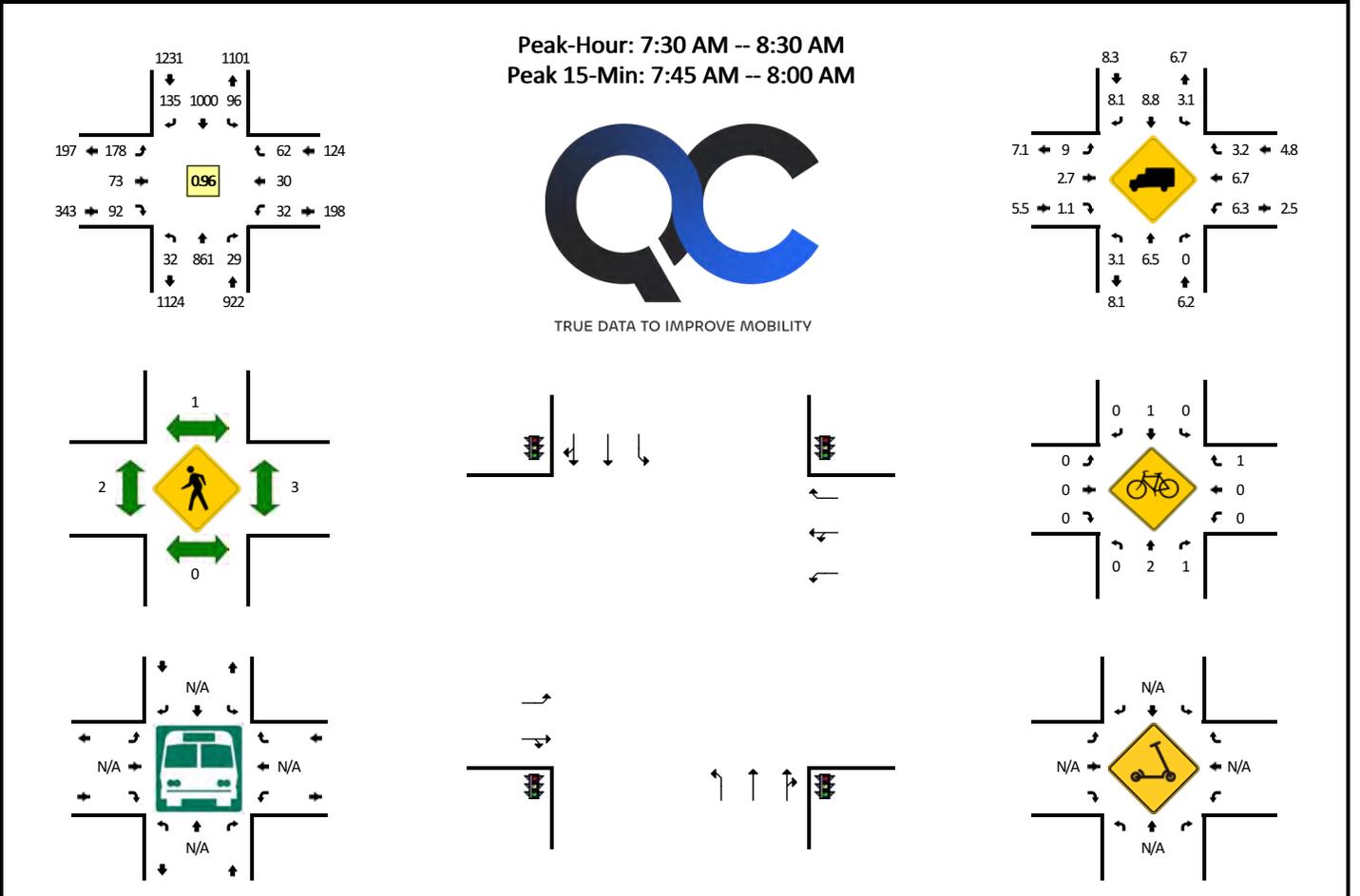


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				International Dr/Stockyard Rd (Eastbound)				International Dr/Stockyard Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	22	294	33	0	5	270	2	0	0	0	50	0	10	0	9	0	695	
4:15 PM	18	303	43	0	5	287	9	0	2	1	30	0	3	0	12	0	713	
4:30 PM	16	273	24	0	1	253	6	0	1	1	30	0	7	0	8	0	620	
4:45 PM	26	311	40	0	3	229	1	0	1	1	43	0	5	0	20	0	680	2708
5:00 PM	29	313	41	0	5	287	0	0	1	0	34	0	6	0	13	0	729	2742
5:15 PM	20	334	41	0	8	227	2	0	2	0	21	0	7	0	15	0	677	2706
5:30 PM	18	304	27	0	10	230	6	0	0	0	17	0	7	0	5	0	624	2710
5:45 PM	10	270	25	0	13	243	1	0	3	0	25	0	8	1	9	0	608	2638
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	116	1252	164	0	20	1148	0	0	4	0	136	0	24	0	52	0	2916	
Heavy Trucks	12	40	4		4	20	0		0	0	0		0	0	0		80	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- England Blvd
CITY/STATE: Missoula, MT

QC JOB #: 16794707
DATE: Tue, Oct 15 2024

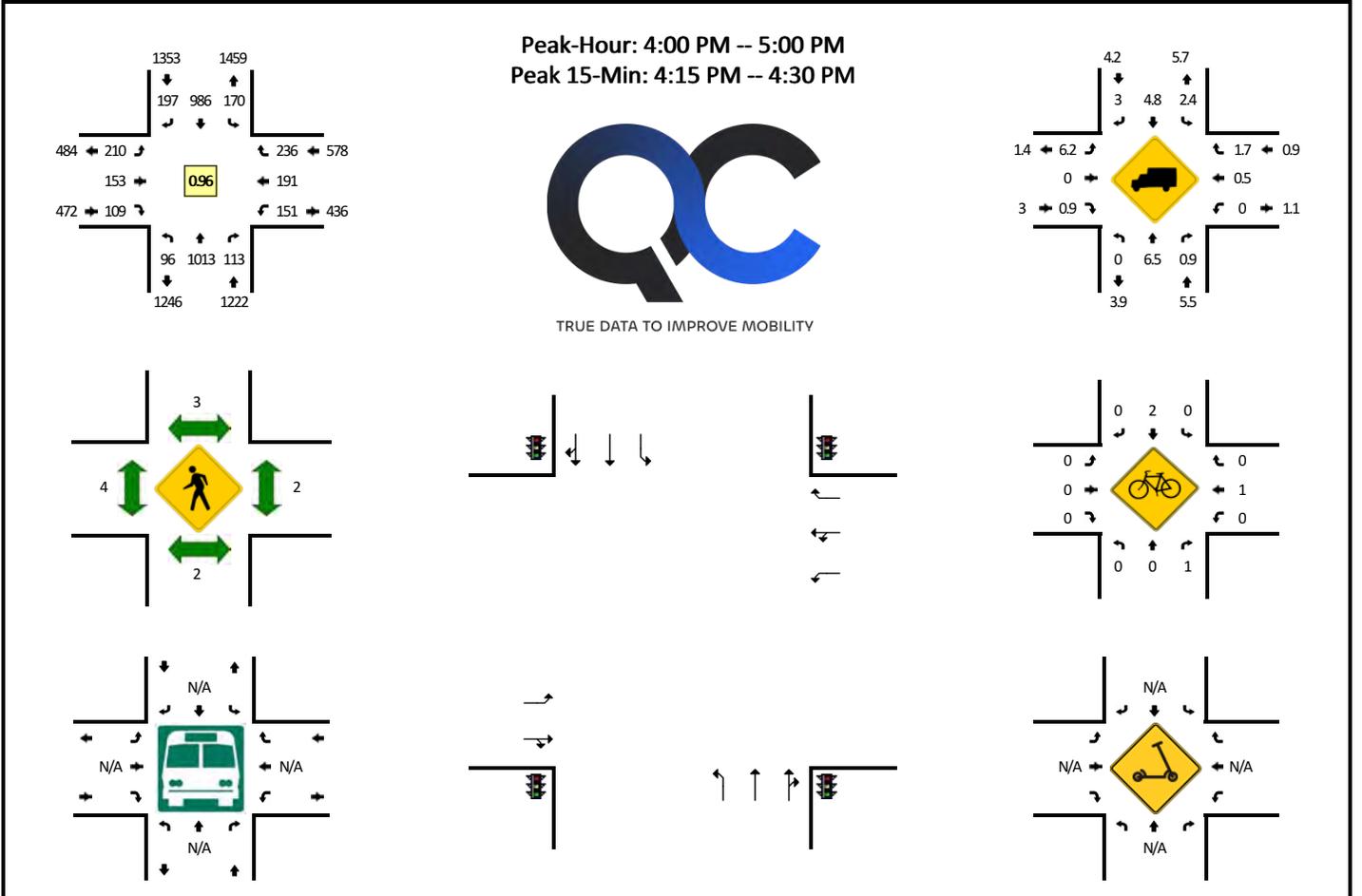


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				England Blvd (Eastbound)				England Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	181	8	0	8	155	14	0	18	3	12	0	3	1	4	0	415	
7:15 AM	4	201	2	0	13	209	25	0	26	8	10	0	2	3	18	0	521	
7:30 AM	5	226	11	0	16	210	25	0	45	14	18	0	5	10	16	0	601	
7:45 AM	9	238	6	0	24	257	35	0	38	19	23	0	8	10	18	0	685	2222
8:00 AM	10	195	3	0	34	276	50	0	40	20	31	0	7	6	12	0	684	2491
8:15 AM	8	202	9	0	22	257	25	0	55	20	20	0	12	4	16	0	650	2620
8:30 AM	8	189	7	0	25	233	26	0	26	22	14	0	9	12	21	0	592	2611
8:45 AM	15	192	13	0	23	222	15	0	37	14	10	0	12	8	17	0	578	2504
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	36	952	24	0	96	1028	140	0	152	76	92	0	32	40	72	0	2740	
Heavy Trucks	0	48	0		8	72	8		0	8	0		0	4	0		148	
Buses																		
Pedestrians		0				4				0				12			16	
Bicycles	0	4	0		0	4	0		0	0	0		0	0	0		8	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- England Blvd
CITY/STATE: Missoula, MT

QC JOB #: 16794708
DATE: Tue, Oct 15 2024

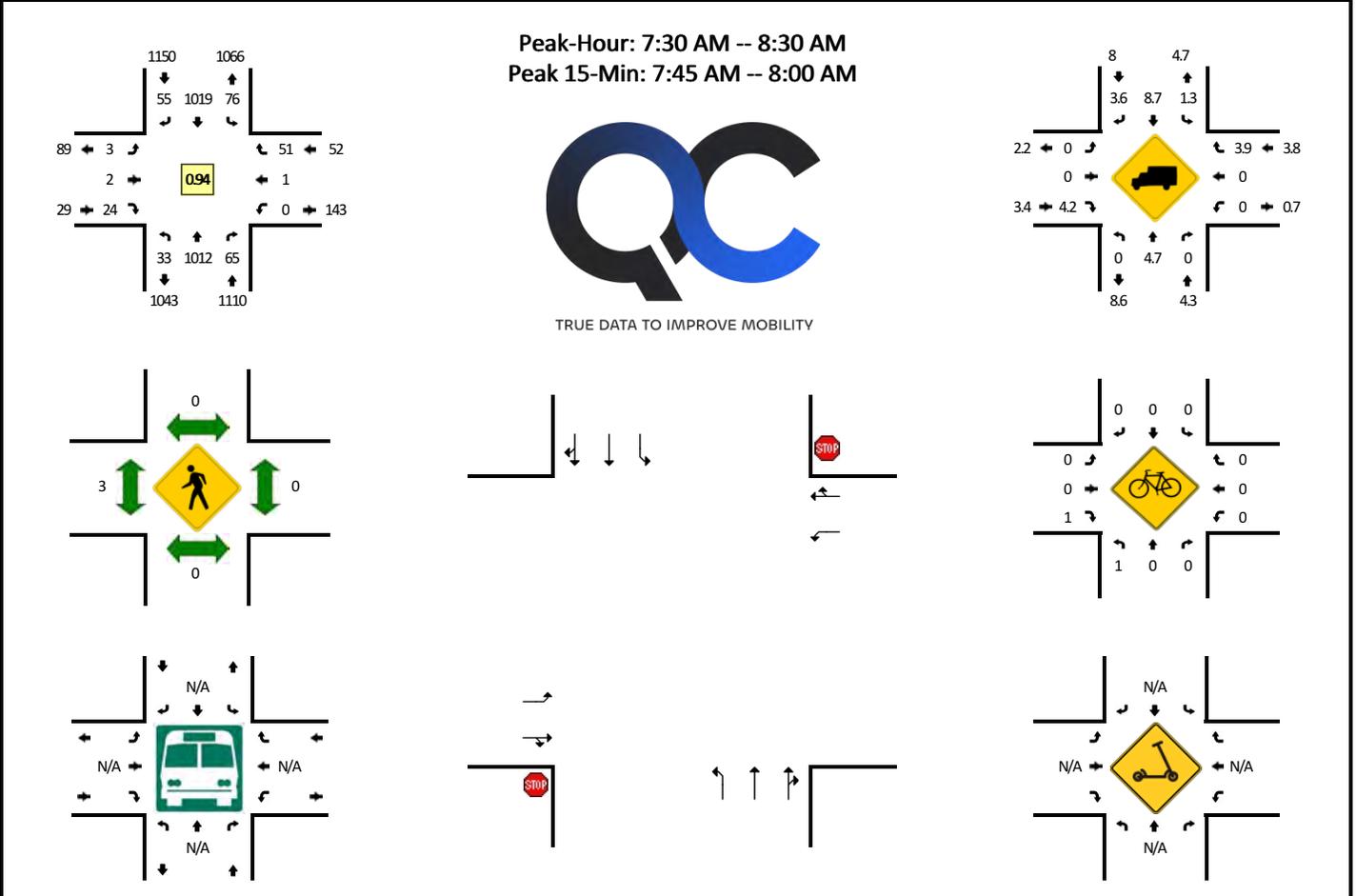


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				England Blvd (Eastbound)				England Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	23	253	27	0	44	239	53	0	55	46	21	0	42	46	61	0	910	
4:15 PM	23	260	35	0	46	261	57	0	52	43	23	0	42	44	54	0	940	
4:30 PM	26	257	26	0	42	248	38	0	42	32	42	0	30	54	60	0	897	
4:45 PM	24	243	25	0	38	238	49	0	61	32	23	0	37	47	61	0	878	3625
5:00 PM	31	234	21	0	25	231	50	0	63	25	33	0	46	48	66	0	873	3588
5:15 PM	34	257	16	0	41	238	63	0	49	31	29	0	40	40	76	0	914	3562
5:30 PM	35	259	28	0	27	221	55	0	45	27	27	0	40	38	63	0	865	3530
5:45 PM	28	236	30	0	33	217	61	0	33	29	32	0	28	27	47	0	801	3453
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	92	1040	140	0	184	1044	228	0	208	172	92	0	168	176	216	0	3760	
Heavy Trucks	0	76	0	0	8	44	8	0	4	0	0	0	0	0	0	0	140	
Buses																		
Pedestrians		0				4				12				0			16	
Bicycles	0	0	4		0	4	0		0	0	0		0	0	0		8	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- American Way
CITY/STATE: Missoula, MT

QC JOB #: 16794709
DATE: Tue, Oct 15 2024

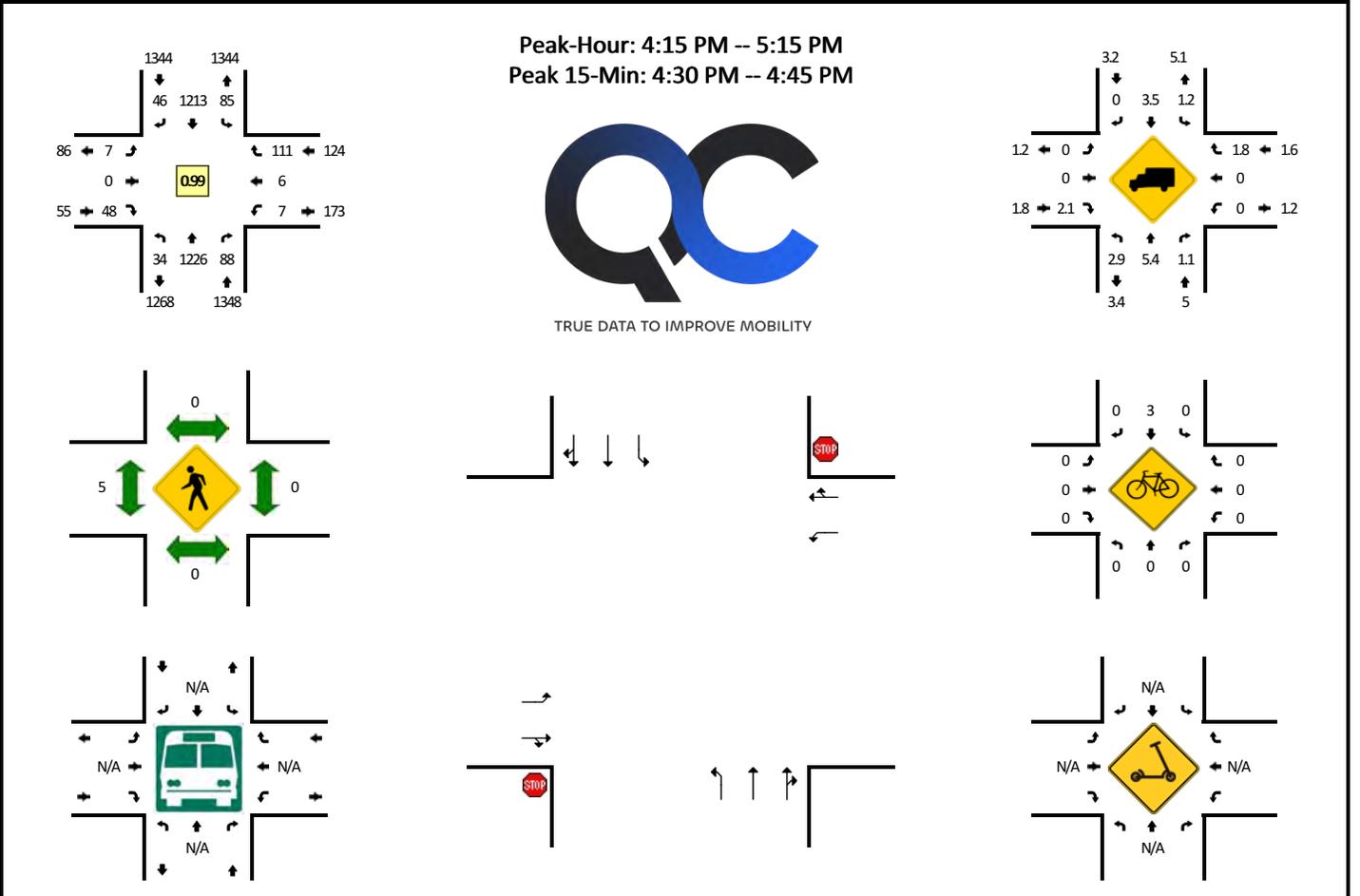


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				American Way (Eastbound)				American Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	207	20	0	13	159	3	0	2	1	2	0	4	2	7	0	427	
7:15 AM	12	224	17	0	8	210	17	0	0	0	5	0	0	3	4	0	500	
7:30 AM	15	268	12	0	12	213	13	0	0	2	6	0	0	0	8	0	549	
7:45 AM	8	268	21	0	27	258	15	0	1	0	10	0	0	0	17	0	625	2101
8:00 AM	2	216	9	0	19	278	17	0	0	0	2	0	0	0	20	0	563	2237
8:15 AM	8	260	23	0	18	270	10	0	2	0	6	0	0	1	6	0	604	2341
8:30 AM	5	224	13	0	24	235	17	0	1	0	5	0	1	1	20	0	546	2338
8:45 AM	7	240	18	0	18	219	22	0	1	1	7	0	2	0	11	0	546	2259
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	32	1072	84	0	108	1032	60	0	4	0	40	0	0	0	68	0	2500	
Heavy Trucks	0	32	0		4	72	0		0	0	0		0	0	0		108	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	4		0	0	0		4	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- American Way
CITY/STATE: Missoula, MT

QC JOB #: 16794710
DATE: Tue, Oct 15 2024

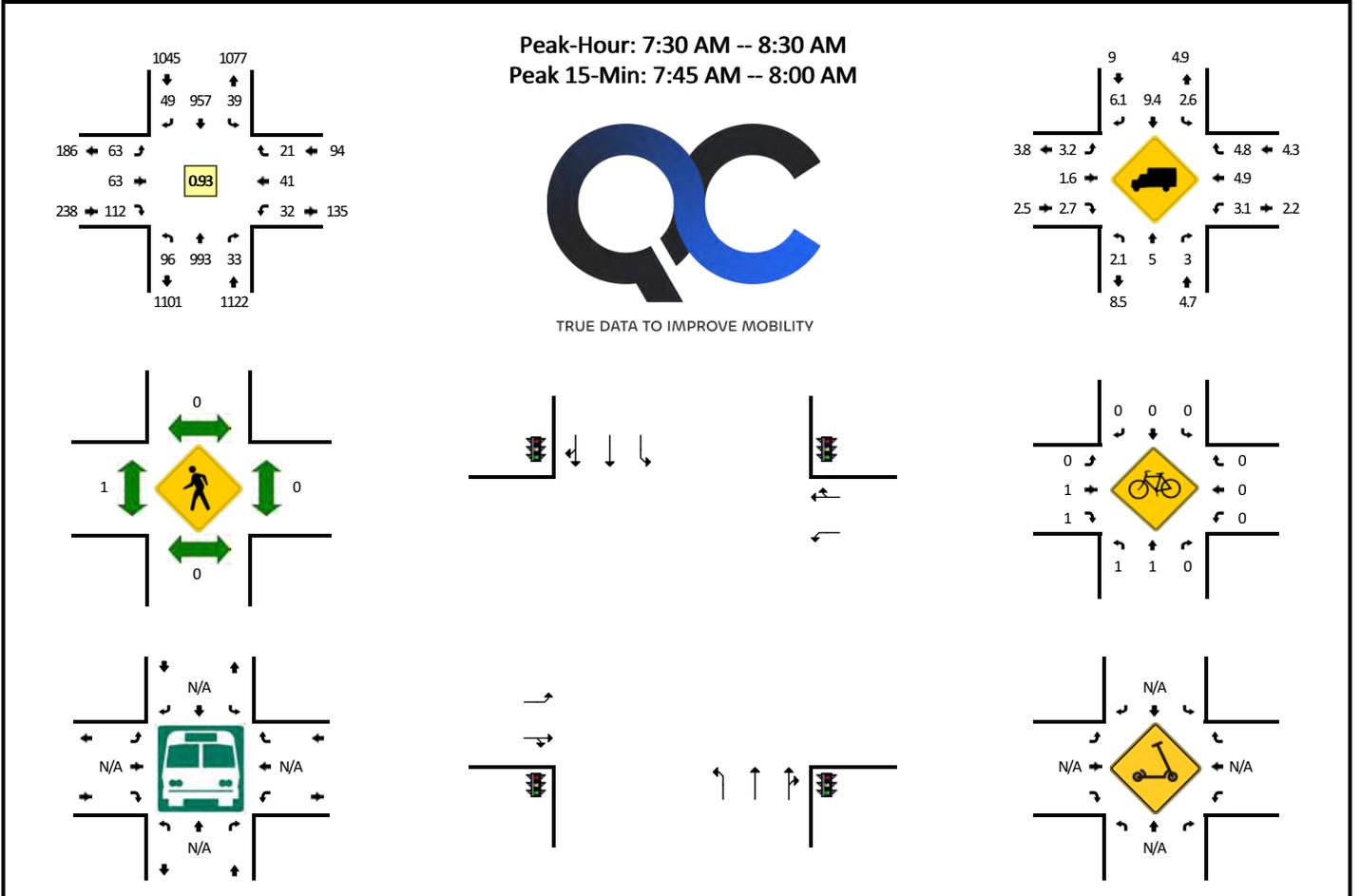


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				American Way (Eastbound)				American Way (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
4:00 PM	4	315	20	0	25	278	18	0	2	1	12	0	3	3	24	0	705		
4:15 PM	6	306	24	0	21	309	16	0	0	0	17	0	1	4	22	0	726		
4:30 PM	5	315	26	0	28	302	12	0	2	0	8	0	2	0	28	0	728		
4:45 PM	10	311	22	0	14	288	8	0	2	0	9	0	1	1	24	0	690	2849	
5:00 PM	13	294	16	0	22	314	10	0	3	0	14	0	3	1	37	0	727	2871	
5:15 PM	5	319	26	0	27	288	14	0	1	1	9	0	2	3	24	0	719	2864	
5:30 PM	6	326	23	0	26	267	15	0	3	0	15	0	2	0	27	0	710	2846	
5:45 PM	9	298	26	0	23	259	20	0	1	0	9	0	4	2	27	0	678	2834	
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
All Vehicles	20	1260	104	0	112	1208	48	0	8	0	32	0	8	0	112	0	2912		
Heavy Trucks	0	56	0		0	68	0		0	0	4	0	0	0	0		128		
Buses																			
Pedestrians		0				0				8				0			8		
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4		
Scoters																			

Comments:

LOCATION: N Reserve St (US-93) -- Union Pacific
CITY/STATE: Missoula, MT

QC JOB #: 16794711
DATE: Tue, Oct 15 2024

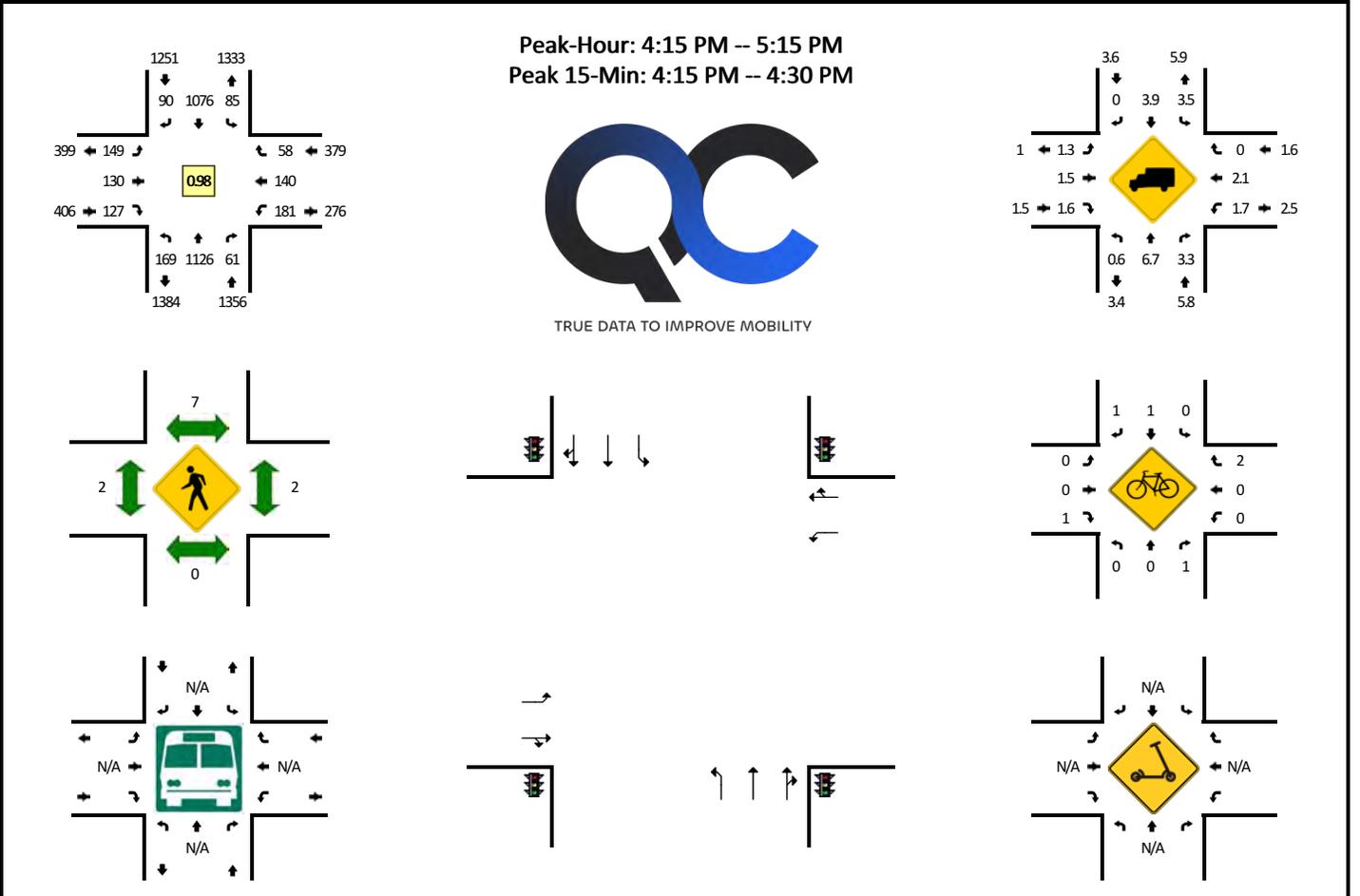


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Union Pacific (Eastbound)				Union Pacific (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	226	8	0	0	158	7	0	10	3	16	0	7	2	3	0	443	
7:15 AM	18	233	4	0	9	200	12	0	13	11	22	0	8	5	2	0	537	
7:30 AM	13	279	4	0	6	209	9	0	9	11	26	0	5	9	4	0	584	
7:45 AM	34	267	12	0	10	241	13	0	14	13	34	0	14	11	6	0	669	2233
8:00 AM	22	202	9	0	12	242	13	0	16	20	24	0	8	10	6	0	584	2374
8:15 AM	27	245	8	0	11	265	14	0	24	19	28	0	5	11	5	0	662	2499
8:30 AM	27	204	9	1	10	223	5	0	16	19	16	0	12	13	9	0	564	2479
8:45 AM	39	233	15	0	19	181	16	0	20	11	23	0	6	12	7	0	582	2392
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	136	1068	48	0	40	964	52	0	56	52	136	0	56	44	24	0	2676	
Heavy Trucks	0	32	4		0	92	4		0	0	0		0	4	0		136	
Buses																		
Pedestrians		0				0				0				0				0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0			4
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- Union Pacific
CITY/STATE: Missoula, MT

QC JOB #: 16794712
DATE: Tue, Oct 15 2024

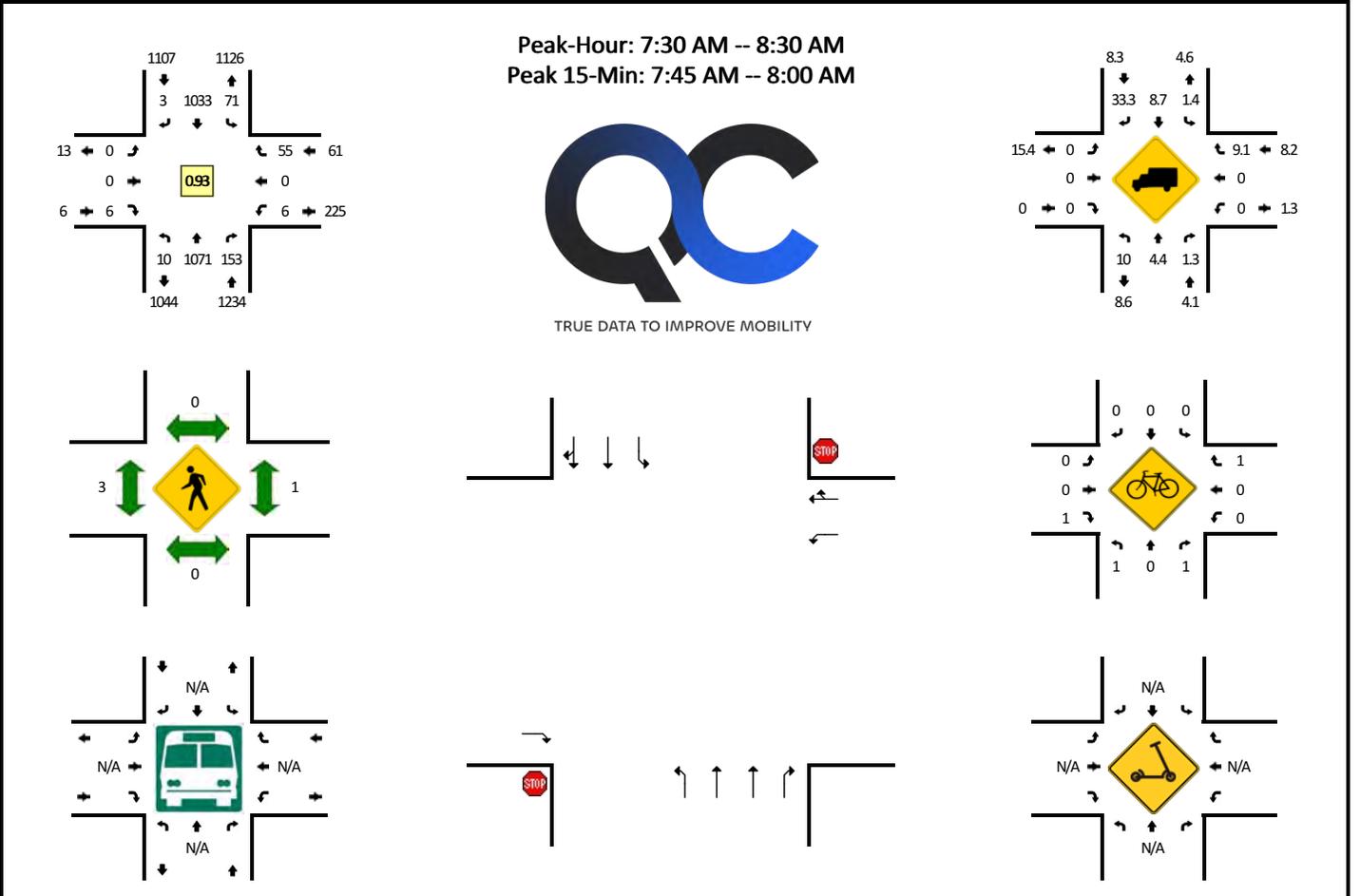


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Union Pacific (Eastbound)				Union Pacific (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	45	288	19	0	25	264	19	0	29	27	28	0	32	34	20	0	830	
4:15 PM	43	279	15	0	25	275	27	0	42	29	26	0	47	42	12	0	862	
4:30 PM	37	284	20	0	23	262	24	0	32	42	32	0	42	33	19	0	850	
4:45 PM	48	286	14	0	18	263	20	0	44	31	40	0	39	31	13	0	847	3389
5:00 PM	41	277	12	0	19	276	19	0	31	28	29	0	53	34	14	0	833	3392
5:15 PM	44	293	15	0	24	256	24	0	30	22	29	0	39	37	18	0	831	3361
5:30 PM	47	295	11	0	15	259	18	0	43	28	24	0	38	37	14	0	829	3340
5:45 PM	46	291	14	0	20	226	20	0	32	18	26	0	30	28	10	0	761	3254
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	172	1116	60	0	100	1100	108	0	168	116	104	0	188	168	48	0	3448	
Heavy Trucks	0	72	4		8	32	0		0	8	0		0	4	0		128	
Buses																		
Pedestrians		0				8				0				0				8
Bicycles	0	0	0		0	4	4		0	0	0		0	0	0			8
Scooters																		

Comments:

LOCATION: N Reserve St (US-93) -- Palmer St
CITY/STATE: Missoula, MT

QC JOB #: 16794713
DATE: Tue, Oct 15 2024

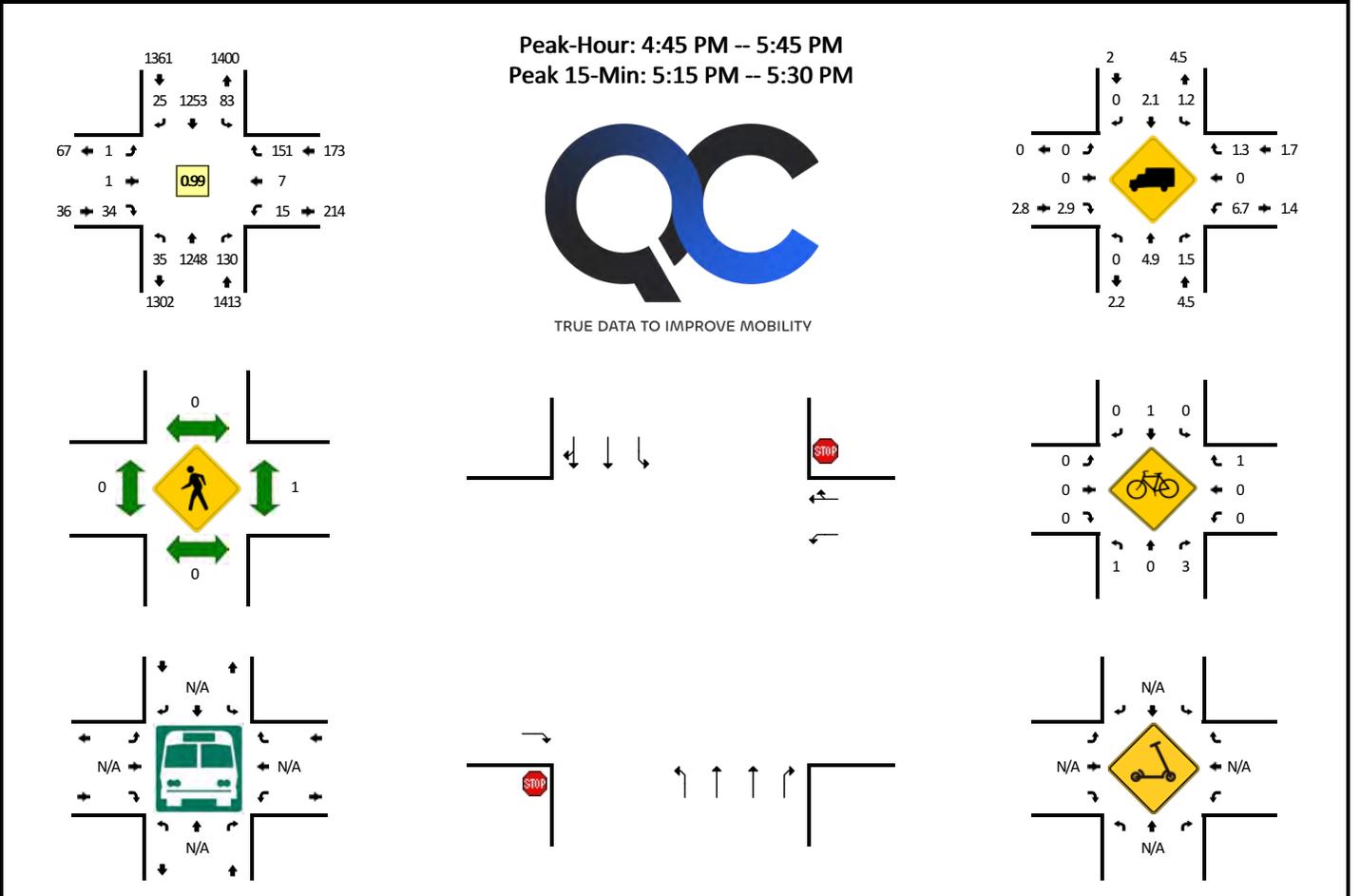


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Palmer St (Eastbound)				Palmer St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	234	25	0	13	165	1	0	0	1	0	0	1	0	7	0	448	
7:15 AM	0	235	21	0	15	208	1	0	0	0	1	0	1	0	8	0	490	
7:30 AM	4	277	37	0	18	214	1	0	0	0	4	0	0	0	12	1	568	
7:45 AM	2	299	35	0	22	268	0	0	0	0	1	0	2	0	17	0	646	2152
8:00 AM	2	222	42	0	12	259	0	0	0	0	0	0	1	0	13	0	551	2255
8:15 AM	2	273	39	0	19	292	2	0	0	0	1	0	2	0	13	0	643	2408
8:30 AM	4	237	29	0	11	228	2	0	0	0	6	0	3	0	14	0	534	2374
8:45 AM	4	272	32	0	15	201	1	0	0	0	2	0	0	0	19	0	546	2274
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	1196	140	0	88	1072	0	0	0	0	4	0	8	0	68	0	2584	
Heavy Trucks	0	24	0		0	76	0		0	0	0		0	0	8		108	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	4		0	0	4		8	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- Palmer St
CITY/STATE: Missoula, MT

QC JOB #: 16794714
DATE: Tue, Oct 15 2024



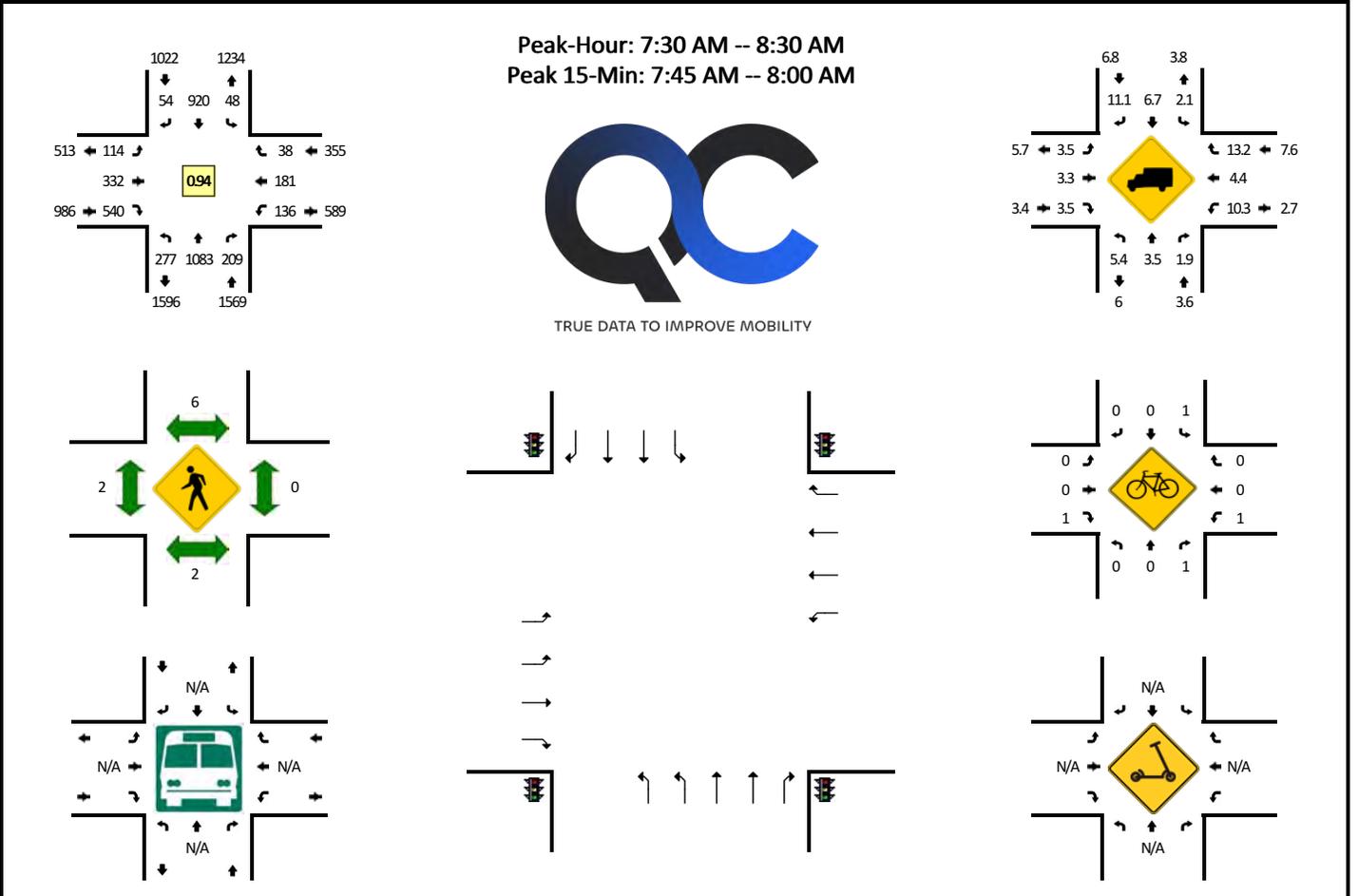
15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Palmer St (Eastbound)				Palmer St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	8	337	23	0	18	294	4	0	0	0	15	0	1	1	40	0	741	
4:15 PM	6	305	37	0	10	331	8	0	0	0	4	0	2	0	34	0	737	
4:30 PM	2	299	37	0	21	317	8	0	0	0	5	0	3	2	36	0	730	
4:45 PM	9	309	35	0	17	320	3	0	0	0	7	0	2	0	41	0	743	2951
5:00 PM	4	303	37	0	26	326	4	0	0	0	7	0	2	2	37	0	748	2958
5:15 PM	11	317	24	0	20	310	10	0	0	1	9	0	6	2	41	0	751	2972
5:30 PM	11	319	34	0	20	297	8	0	1	0	11	0	5	3	32	0	741	2983
5:45 PM	8	318	32	0	18	278	7	0	1	0	5	0	1	0	28	0	696	2936

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	1268	96	0	80	1240	40	0	0	4	36	0	24	8	164	0	3004
Heavy Trucks	0	56	8		0	8	0		0	0	0		4	0	0		76
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	4		0	0	0		0	0	0		0	0	4		8
Scooters																	

Comments:

LOCATION: N Reserve St (US-93) -- Mullan Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794715
DATE: Tue, Oct 15 2024

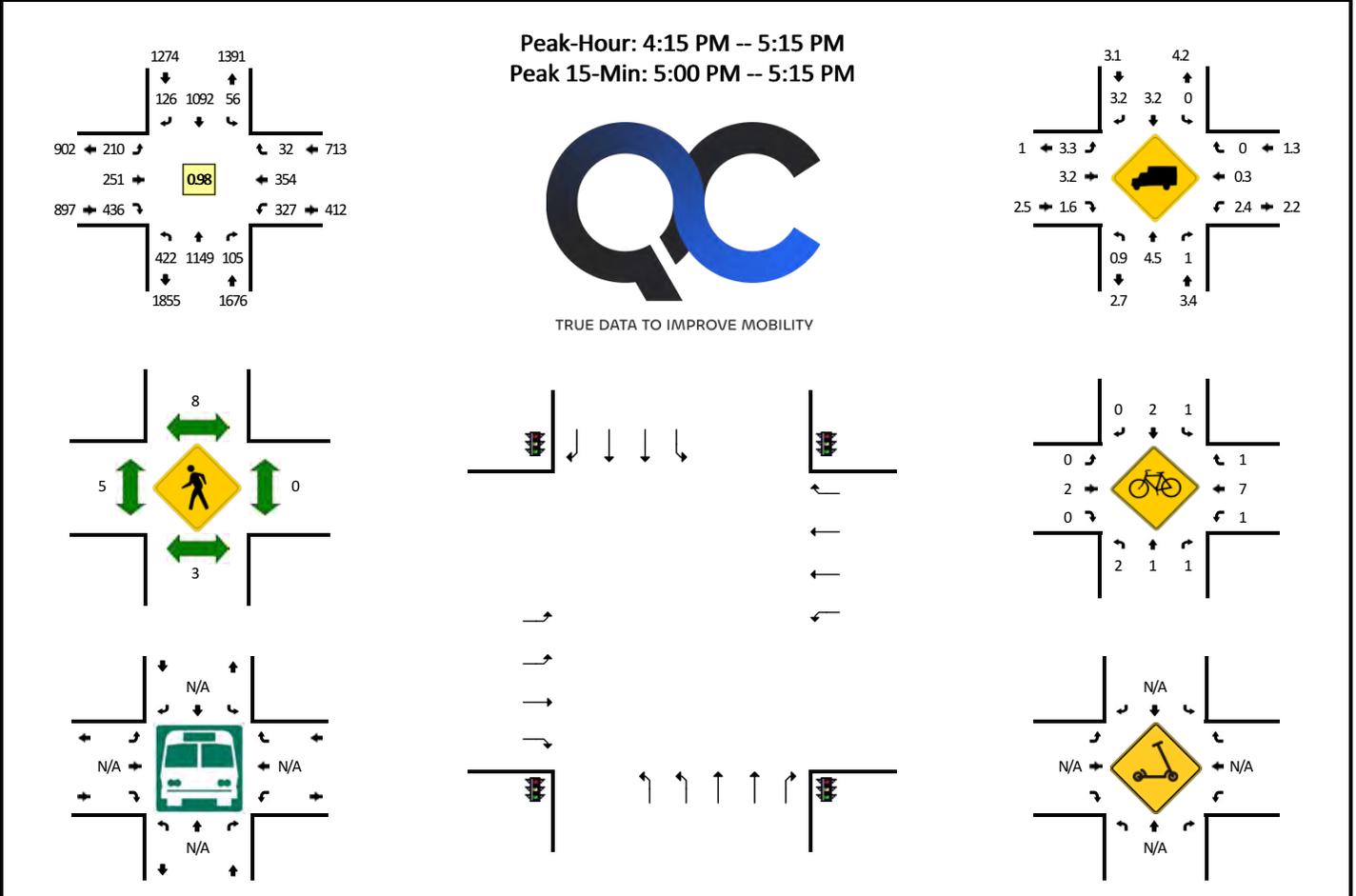


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Mullan Rd (Eastbound)				Mullan Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	60	247	35	0	8	124	11	0	32	54	85	0	21	24	2	0	703	
7:15 AM	53	240	46	0	10	172	13	0	28	81	117	0	22	34	6	0	822	
7:30 AM	69	294	32	0	14	200	8	0	29	78	128	0	27	39	10	0	928	
7:45 AM	74	298	60	0	10	237	17	0	23	96	148	0	27	48	12	0	1050	3503
8:00 AM	65	229	62	0	10	233	15	0	33	80	142	1	40	52	5	0	967	3767
8:15 AM	69	262	55	0	14	250	14	0	28	78	122	0	42	42	11	0	987	3932
8:30 AM	60	228	70	0	17	214	14	0	31	80	111	0	41	45	7	0	918	3922
8:45 AM	56	259	44	0	19	171	14	0	43	78	103	0	35	53	10	0	885	3757
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	296	1192	240	0	40	948	68	0	92	384	592	0	108	192	48	0	4200	
Heavy Trucks	20	52	0		0	52	8		4	16	8		8	0	0		168	
Buses																		
Pedestrians		0				16				0				0			16	
Bicycles	0	0	4		4	0	0		0	0	4		0	0	0		12	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- Mullan Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794716
DATE: Tue, Oct 15 2024

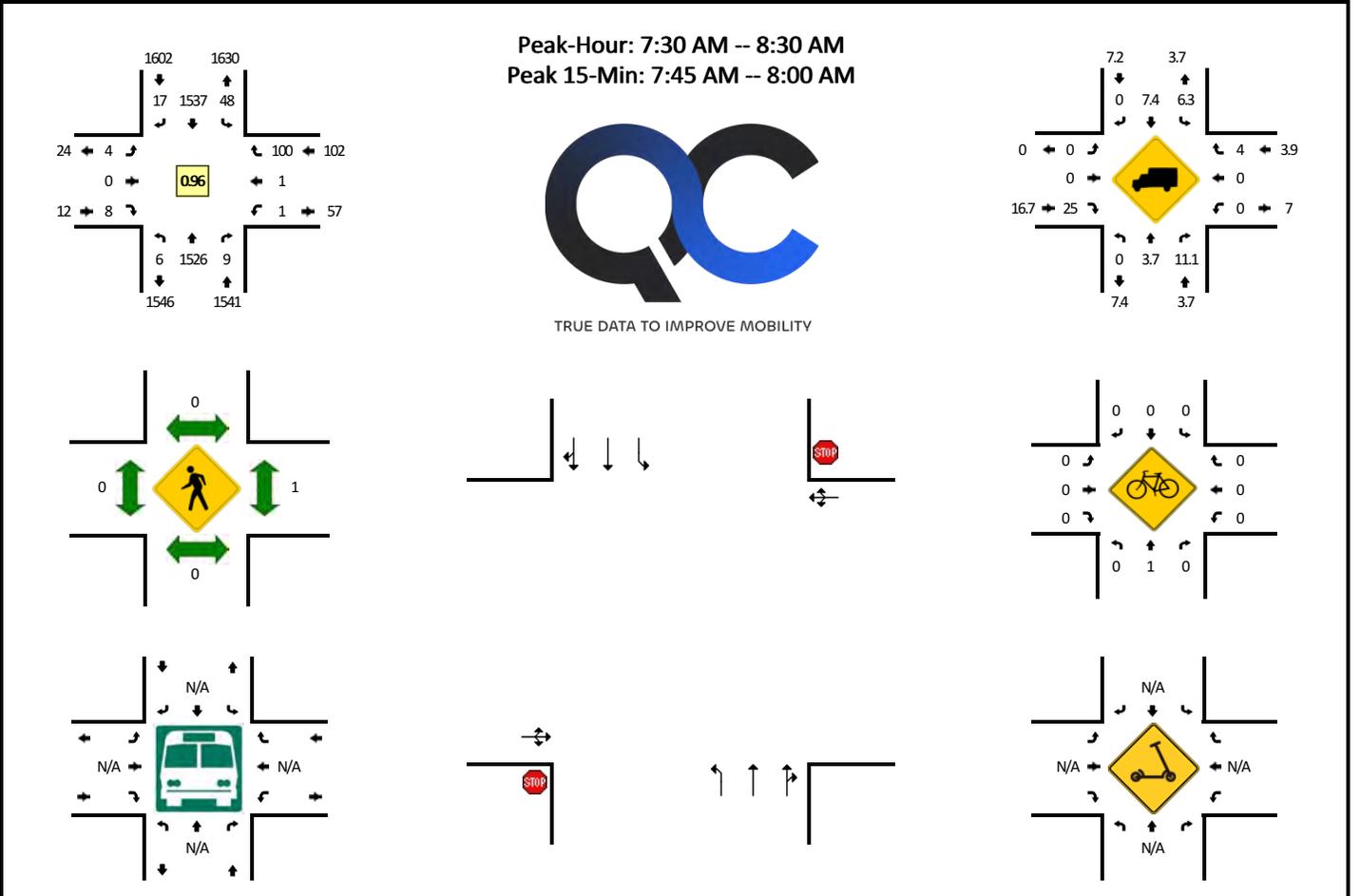


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				Mullan Rd (Eastbound)				Mullan Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	109	289	20	0	21	236	33	0	62	58	102	0	94	85	17	0	1126	
4:15 PM	103	282	29	0	15	269	33	0	56	62	128	0	70	86	11	0	1144	
4:30 PM	104	287	32	0	13	272	31	0	54	70	105	0	73	78	7	0	1126	
4:45 PM	107	292	27	0	14	270	33	0	45	57	98	0	79	98	8	0	1128	4524
5:00 PM	108	288	17	0	14	281	29	0	55	62	105	0	105	92	6	0	1162	4560
5:15 PM	102	286	20	0	13	276	28	0	51	68	105	0	78	97	9	0	1133	4549
5:30 PM	70	281	19	0	9	268	39	1	51	45	81	0	92	101	13	0	1070	4493
5:45 PM	104	278	17	0	17	235	26	0	67	65	64	0	50	88	14	0	1025	4390
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	432	1152	68	0	56	1124	116	0	220	248	420	0	420	368	24	0	4648	
Heavy Trucks	4	64	0		0	28	4		12	0	0		0	0	0		112	
Buses																		
Pedestrians		0				8				0				0			8	
Bicycles	8	0	0		0	4	0		0	0	0		0	4	0		16	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- River Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794717
DATE: Tue, Oct 15 2024

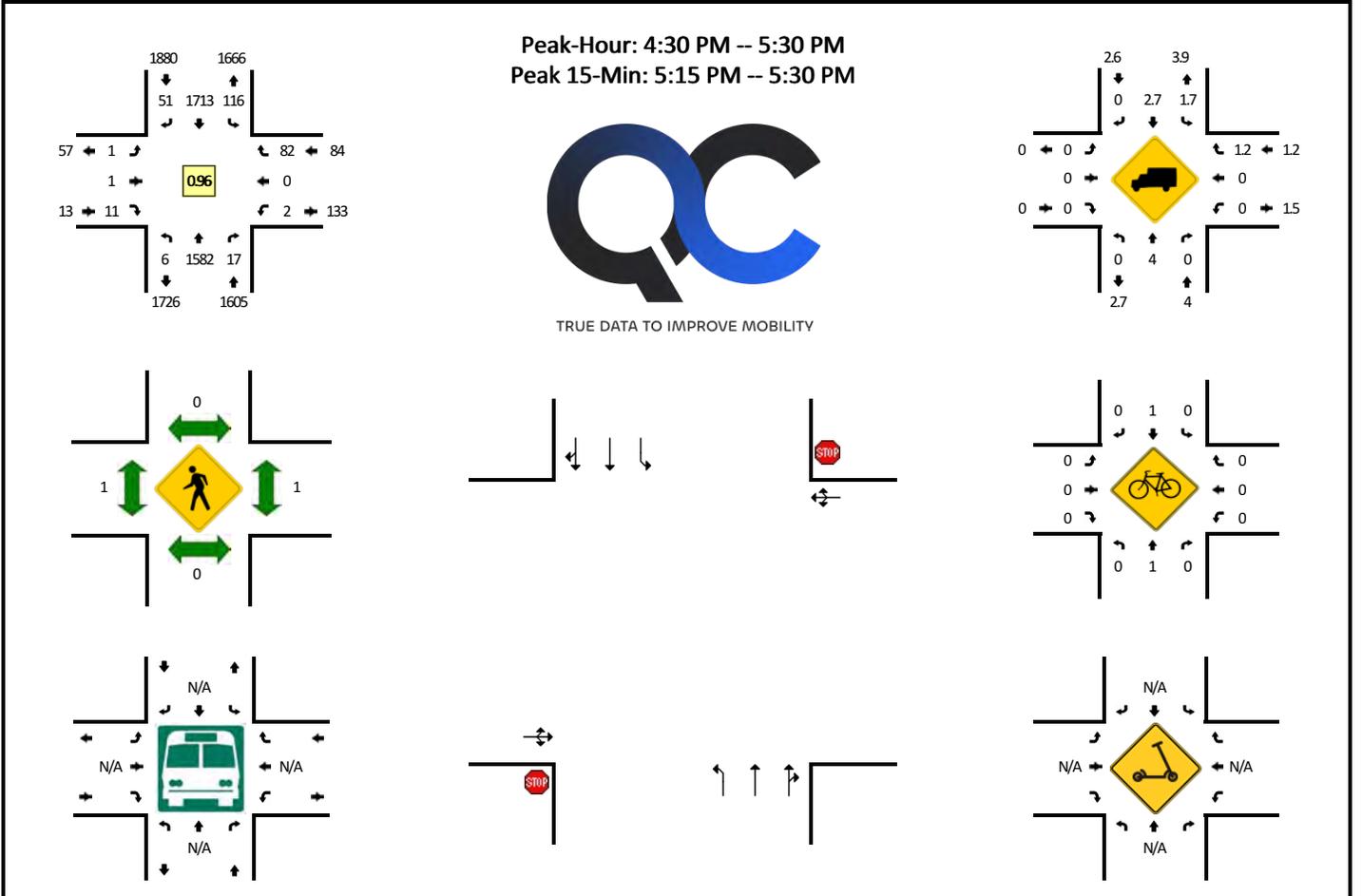


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				River Rd (Eastbound)				River Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	291	2	0	7	221	3	0	3	1	0	0	2	1	18	0	550	
7:15 AM	0	342	1	0	17	287	3	0	0	0	1	0	0	0	13	0	664	
7:30 AM	0	409	2	0	9	333	2	0	1	0	3	0	0	0	28	0	787	
7:45 AM	3	409	1	0	11	395	7	0	0	0	3	0	1	1	20	0	851	2852
8:00 AM	3	349	2	0	20	406	1	0	1	0	0	0	0	0	24	0	806	3108
8:15 AM	0	359	4	0	8	403	7	0	2	0	2	0	0	0	28	0	813	3257
8:30 AM	1	354	4	0	13	355	4	0	2	0	2	0	2	0	14	0	751	3221
8:45 AM	1	353	3	0	15	296	2	0	0	0	1	0	0	1	19	0	691	3061
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	1636	4	0	44	1580	28	0	0	0	12	0	4	4	80	0	3404	
Heavy Trucks	0	44	0		4	76	0		0	0	4		0	0	8		136	
Buses																		
Pedestrians		0				0					0				0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: N Reserve St (US-93) -- River Rd
CITY/STATE: Missoula, MT

QC JOB #: 16794718
DATE: Tue, Oct 15 2024

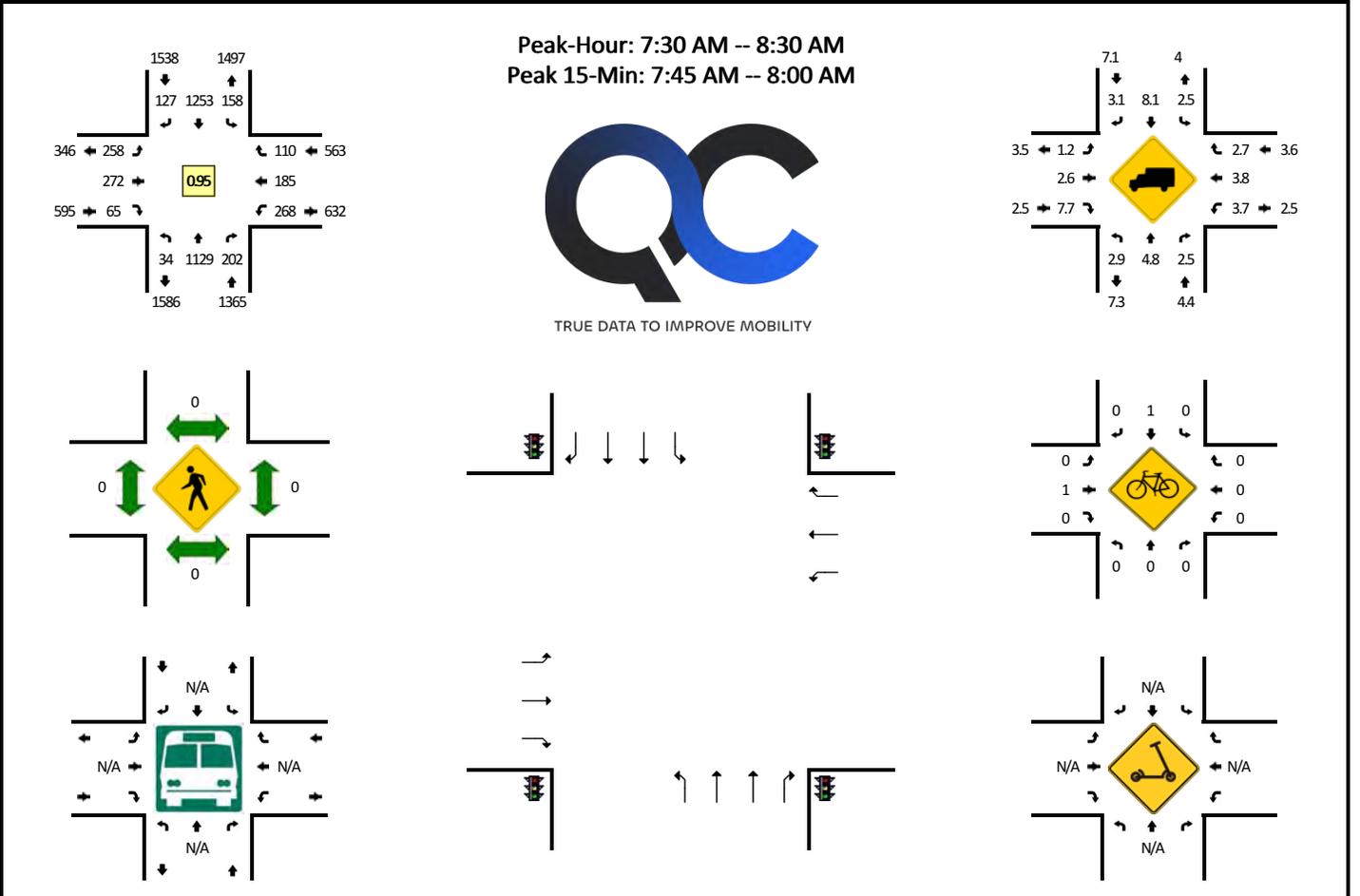


15-Min Count Period Beginning At	N Reserve St (US-93) (Northbound)				N Reserve St (US-93) (Southbound)				River Rd (Eastbound)				River Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	438	9	0	23	428	12	0	0	0	6	0	0	0	22	0	941	
4:15 PM	4	390	6	0	14	452	9	1	0	0	1	0	0	0	17	0	894	
4:30 PM	1	404	5	0	26	423	10	0	1	0	1	0	0	0	17	0	888	
4:45 PM	1	383	6	0	35	402	7	1	0	0	3	0	0	0	19	0	857	3580
5:00 PM	1	382	3	0	26	450	16	0	0	1	4	0	1	0	23	0	907	3546
5:15 PM	3	413	3	0	28	438	18	0	0	0	3	0	1	0	23	0	930	3582
5:30 PM	1	378	6	0	28	407	13	0	0	0	2	0	0	0	21	0	856	3550
5:45 PM	0	329	3	0	24	326	11	0	1	0	2	0	0	0	12	0	708	3401
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	1652	12	0	112	1752	72	0	0	0	12	0	4	0	92	0	3720	
Heavy Trucks	0	56	0		0	24	0		0	0	0		0	0	0		80	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4	
Scooters																		

Comments:

LOCATION: S Reserve St (US-93) -- S 3rd St W
CITY/STATE: Missoula, MT

QC JOB #: 16794719
DATE: Tue, Oct 15 2024

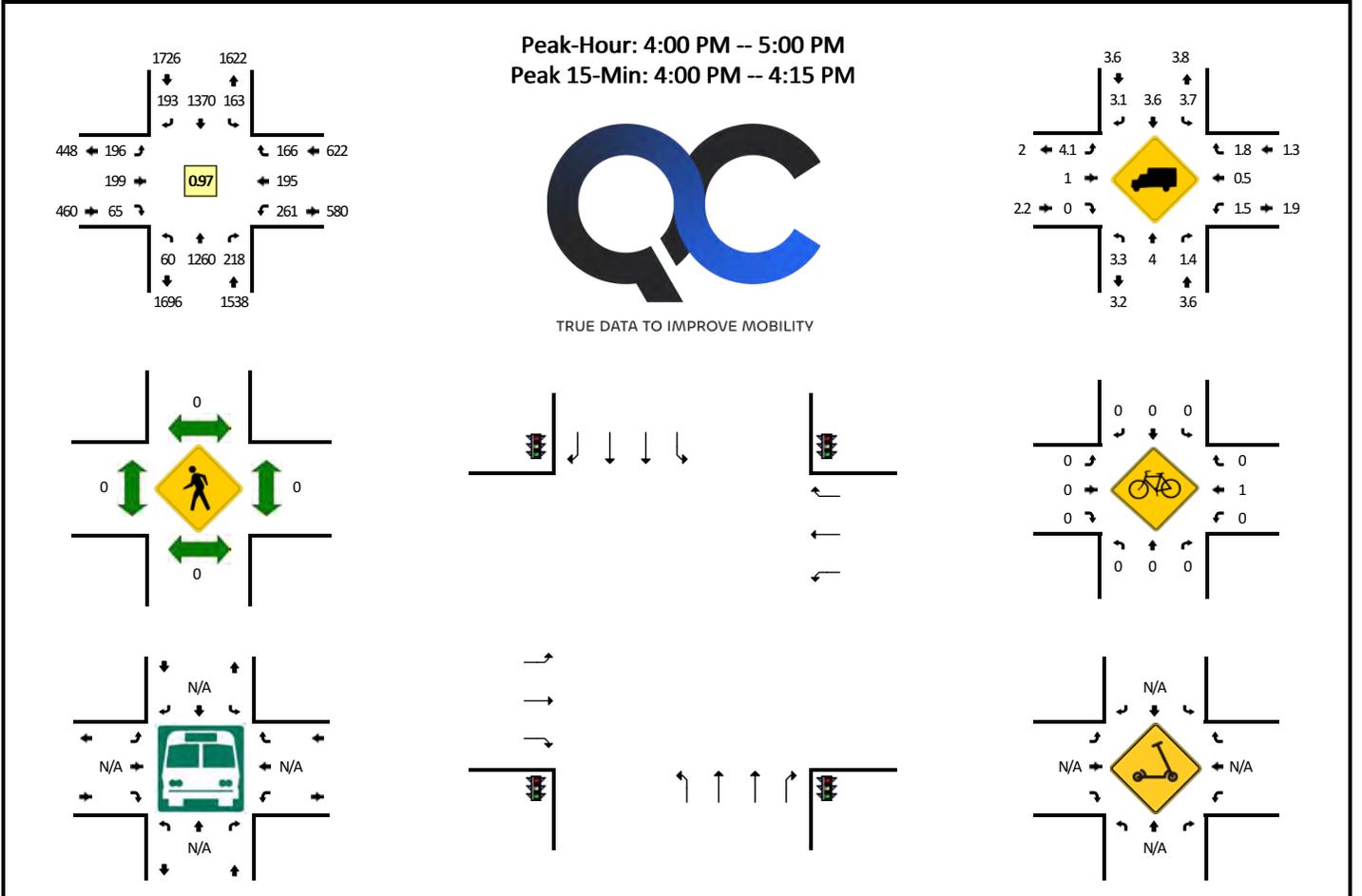


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				S 3rd St W (Eastbound)				S 3rd St W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	260	37	0	15	196	14	0	30	26	9	0	36	16	22	0	667	
7:15 AM	2	267	37	0	24	244	19	0	42	36	12	0	57	16	22	0	778	
7:30 AM	7	300	38	0	41	276	24	0	66	58	14	0	73	32	30	0	959	
7:45 AM	10	314	61	0	37	316	25	0	58	70	19	0	67	56	32	0	1065	3469
8:00 AM	5	246	47	0	36	323	42	0	71	76	15	0	68	61	23	0	1013	3815
8:15 AM	12	269	56	0	44	338	36	0	63	68	17	0	60	36	25	0	1024	4061
8:30 AM	9	254	55	0	27	298	35	0	56	58	22	0	54	32	35	0	935	4037
8:45 AM	6	275	63	0	34	253	27	0	37	54	20	0	54	35	37	0	895	3867
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	40	1256	244	0	148	1264	100	0	232	280	76	0	268	224	128	0	4260	
Heavy Trucks	0	52	4		4	60	4		4	0	4		4	12	8		156	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

Comments:

LOCATION: S Reserve St (US-93) -- S 3rd St W
CITY/STATE: Missoula, MT

QC JOB #: 16794720
DATE: Tue, Oct 15 2024

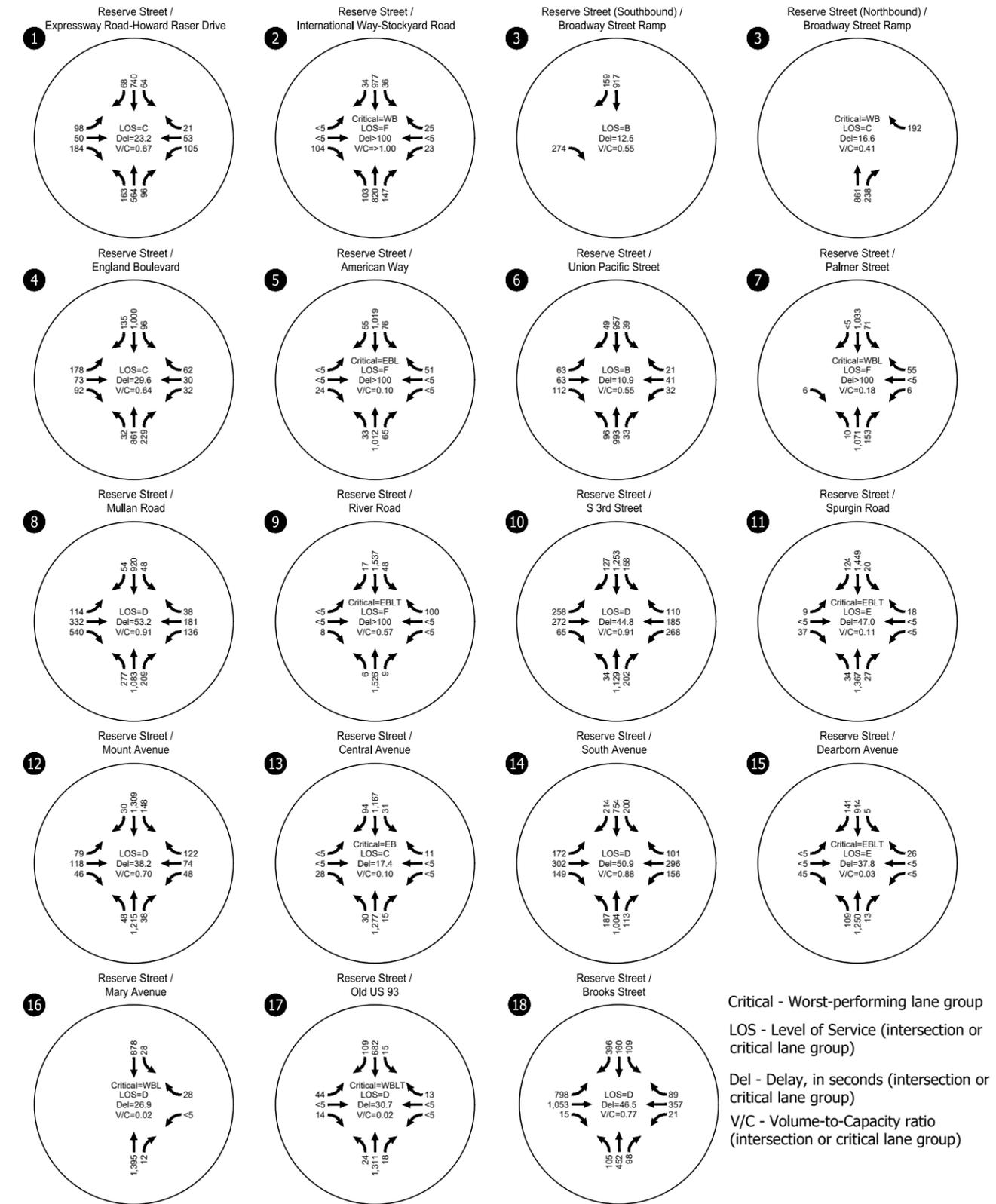


15-Min Count Period Beginning At	S Reserve St (US-93) (Northbound)				S Reserve St (US-93) (Southbound)				S 3rd St W (Eastbound)				S 3rd St W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	13	324	45	0	40	341	40	0	74	67	20	0	61	53	39	0	1117	
4:15 PM	18	325	51	0	37	361	40	0	38	40	18	0	66	50	41	0	1085	
4:30 PM	11	309	58	0	41	335	57	0	44	49	13	0	71	42	39	0	1069	
4:45 PM	18	302	64	0	45	333	56	0	40	43	14	0	63	50	47	0	1075	4346
5:00 PM	22	307	56	0	33	324	64	0	26	50	13	0	70	61	45	0	1071	4300
5:15 PM	14	309	64	0	33	377	67	0	40	54	16	0	50	55	52	0	1131	4346
5:30 PM	18	307	63	0	34	325	40	0	41	56	18	0	56	59	37	0	1054	4331
5:45 PM	29	253	59	0	38	290	28	0	34	46	16	0	67	53	42	0	955	4211

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	52	1296	180	0	160	1364	160	0	296	268	80	0	244	212	156	0	4468	
Heavy Trucks	0	48	4		4	44	0		0	8	0		4	0	4		116	
Buses																		
Pedestrians		0				0				0				0				0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

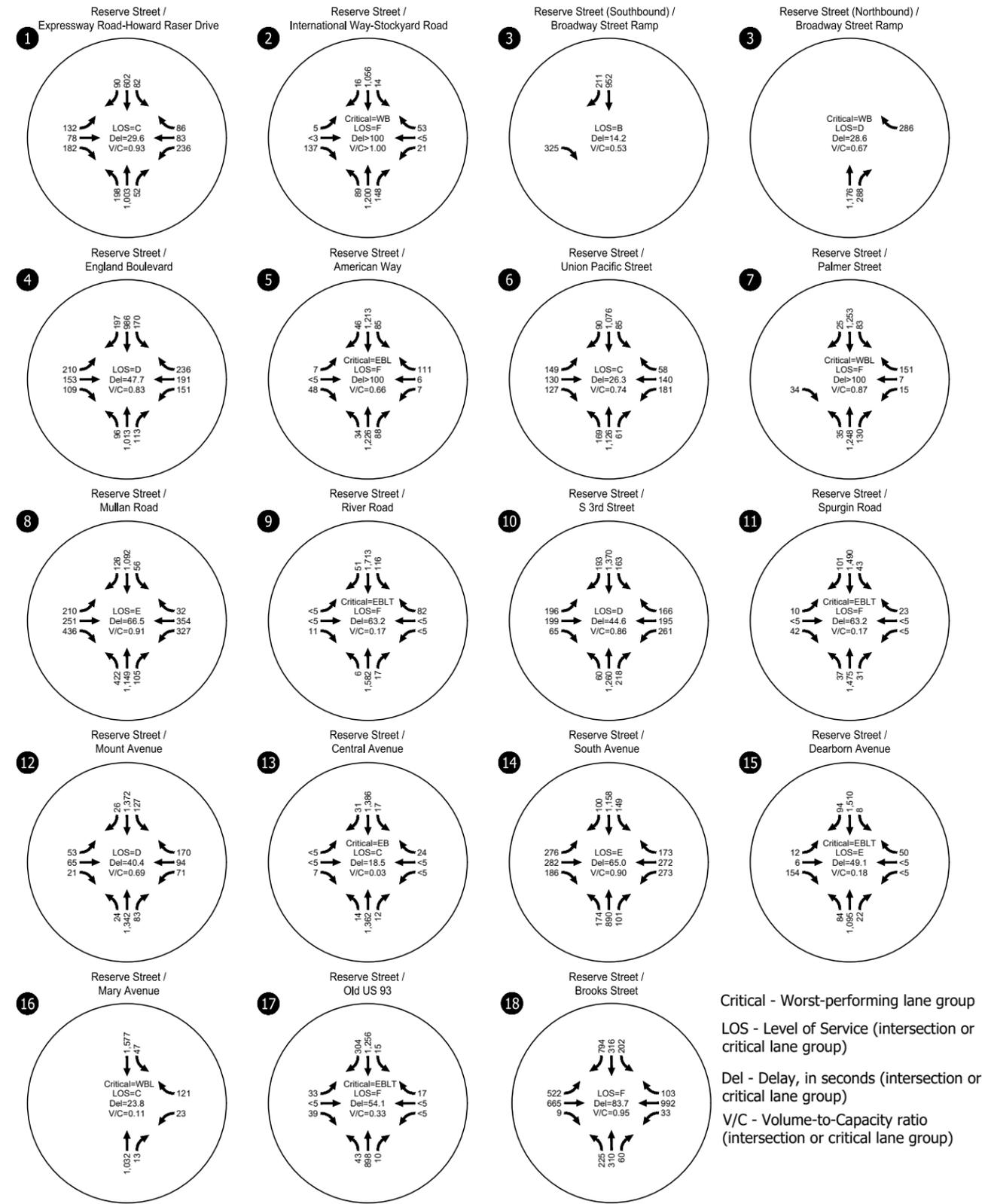
Comments:

Appendix D
Existing Peak Hour Volumes, V/C Ratios,
Delays, and LOS



Existing Traffic Volumes
AM Peak Hour
Missoula, Montana

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Existing Traffic Volumes
PM Peak Hour
Missoula, Montana