

TRAFFIC IMPACT STUDY for WINSTON ENERGY PROJECT

December 19, 2025

**PREPARED FOR:
WINSTON ENERGY**

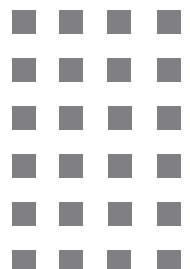


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1. EXECUTIVE SUMMARY

The Winston Energy Project is a major proposed energy project in Lyon County, Nevada. It includes a 400 MW commercial photovoltaic (PV) solar energy facility paired with a 400 MW, four-hour Battery Energy Storage System (BESS). Located east of US 95A and along Sierra Way north of Yerington, the facility will interconnect with the grid via a new 230 kilovolt (kV) gen-tie line less than one-mile in length, connecting to the adjacent Walker River Substation.

The site's sole access is via Sierra Way, starting at US 95A. Because permanent operation of the facility will generate significantly fewer peak-hour vehicle trips than the temporary construction phase, the Traffic Impact Study (TIS) will analyze only construction-related traffic impacts to the adjacent roadway network. The study proposes to evaluate the following two scenarios:

- **Scenario 1:** This scenario analyzes traffic impacts generated solely by construction of the Winston Energy project. The peak-hour construction volume of 250 trips is based on a worker to vehicle trip ratio of 1.4:1 (see supporting documentation in Appendix C). Trip distribution is assumed to be 70% from the north and 30% from the south of the project site. This scenario is considered highly conservative and would only last for approximately 6 months of the project construction with the remainder of the 18-24 months generating fewer trips.
- **Scenario 2:** This scenario analyzes cumulative traffic impacts from the concurrent construction of the Lux Solar project, the Monarch Data Center, and the Winston Energy project. The peak-hour construction volumes are 1,621 trips during the AM peak and 1,768 trips during the PM peak, based on the same worker to vehicle trip ratio of 1.4:1. The trip distribution is assumed to be similar to Scenario 1. This scenario is also considered conservative and speculative since the actual trips and timing of each project is unknown.

The project limits will include the four study intersections listed below and shown in Figure 1:

1. US 50 and Ramsey Weeks Cutoff
2. US 95A and Ramsey Weeks cutoff
3. US 95A and Sierra Way
4. US 95A and SR 339.

Based on the traffic analysis, the following mitigations are required for the intersections to operate at a Level of Service D or better. Taper, acceleration, and deceleration lengths are based on NDOT's Access Management System and Standards (AMSS) guidelines.

For Scenario 1, the mitigation measures required at US 95A and Sierra Way include:

- Installing a 50-foot storage and a 605-foot deceleration for the southbound left-turn lane with a 360-foot approach taper.
- Installing a 605-foot deceleration for the northbound right-turn lane with a 120-foot lane taper.
- Installing a 50-foot storage and a 350-foot deceleration for the westbound right-turn lane with a 120-foot lane taper.

For Scenario 2, the following mitigation measures are required:

- At US 50 at Ramsey Weeks Cutoff

- Installing a 50-foot storage and a 350-foot deceleration for the northbound right-turn lane with a 120-foot lane taper.
- Installing a temporary signal.
- At US 95A at Ramsey Weeks Cutoff
 - Installing a 350-foot deceleration for the eastbound right-turn lane with a 120-foot lane taper.
 - Installing a 1,410-foot acceleration lane for the southbound and a 300-foot lane-drop taper.
 - Extending the existing 250-foot northbound left-turn lane storage to 1,000 feet. *Recognizing that installing a 1,000-foot storage for a temporary condition may cause confusion for the traveling public when the full-built operation begins with much lower traffic volumes, the design team recommends coordinating with NDOT to determine an optimal storage length that accommodates the temporary and permanent condition.*
- At US 95A at Sierra Way
 - Installing a 1,000-foot storage and a 605-foot deceleration for the southbound left-turn lane with a 360-foot approach taper. *Recognizing that installing a 1,000-foot storage for temporary condition may cause confusion for the traveling public when the full-built operation begins with much lower traffic volumes, the design team recommends coordinating with the Nevada Department of Transportation (NDOT) to determine an optimal storage length that accommodates the temporary and permanent condition.*
 - Installing a 605-foot deceleration for the northbound right-turn lane with a 120-foot lane taper.
 - Installing a 350-foot deceleration for the westbound right-turn lane with a 120-foot lane taper.
 - Installing a 605-foot deceleration for the southbound right-turn lane with 120-foot lane taper.
 - Installing a 1,200-foot acceleration lane for the northbound and a 300-foot lane-drop taper.
 - Installing a temporary signal.
- At US 95A at SR 339
 - Installing a 50-foot storage and a 350-foot deceleration for the southbound left-turn lane with a 180-foot approach taper.
 - Installing a temporary signal.

Due to the conservative and speculative nature of the second scenario, ongoing coordination between NDOT, Lyon County, and current and future projects in Lyon County is advised to determine the timing and final design of the mitigation measure.

2. INTRODUCTION

The Winston Energy Project is a major proposed energy project in Lyon County, Nevada. It includes a 400 MW commercial photovoltaic (PV) solar energy facility paired with a 400 MW, four-hour Battery Energy Storage System (BESS). Located east of US 95A and along Sierra Way north of Yerington, the facility will interconnect with the grid via a new 230 kilovolt (kV) gen-tie line less than one-mile in length, connecting to the adjacent Walker River Substation.

The proposed solar farm project is located on the east side of US 95A and on both sides of Sierra Way north of Yerington, in Lyon County, Nevada. The site's sole access is via Sierra Way, starting at US 95A. Because permanent operation of the facility will generate significantly fewer peak-hour vehicle trips than the temporary construction phase, the Traffic Impact Study (TIS) will analyze only construction-related traffic impacts to the adjacent roadway network. Scenario 1 only considers the Winston Energy project, while Scenario 2 considers the cumulative traffic of all three projects (Winston Energy project, Lux Solar project, and the Monarch Data Center).

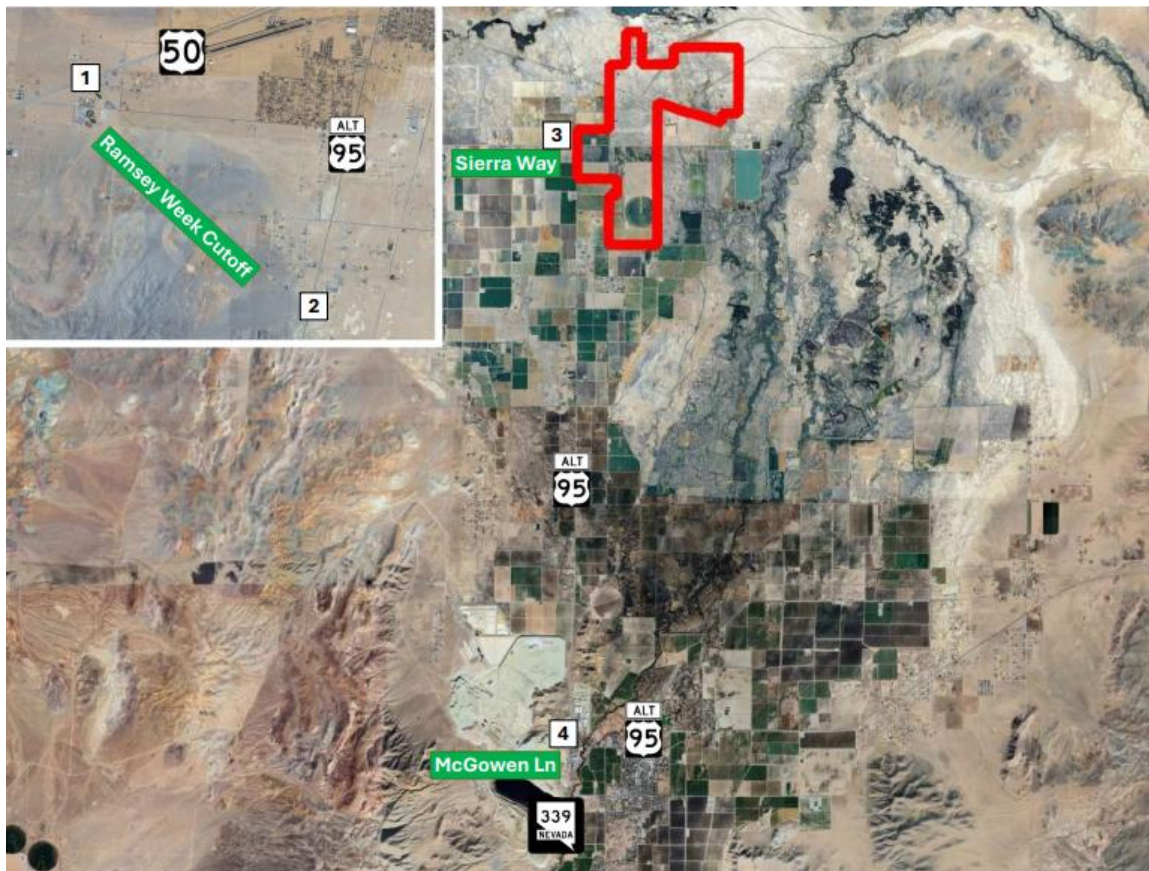


Figure 1: Project Limits for Traffic Analysis

The project limits will include the four study intersections listed below (shown in Figure 1).

1. US 50 and Ramsey Weeks Cutoff
2. US 95A and Ramsey Weeks Cutoff
3. US 95A and Sierra Way
4. US 95A and SR 339

The only access to the Winston Energy project site is from Sierra Way, which has a posted speed limit of 45 miles per hour (mph). The surrounding area is largely open land, with the town of Silver Springs located 20 miles to the north and the town of Yerington 10 miles to the south. On US 95A, the posted speed limit is 65 mph at the Ramsey Weeks Cutoff, reducing to 60 mph near Sierra Way access, and further decreasing to 45 mph near the junction with SR 339, with other cross streets posted at various speeds as shown in Figure 2.

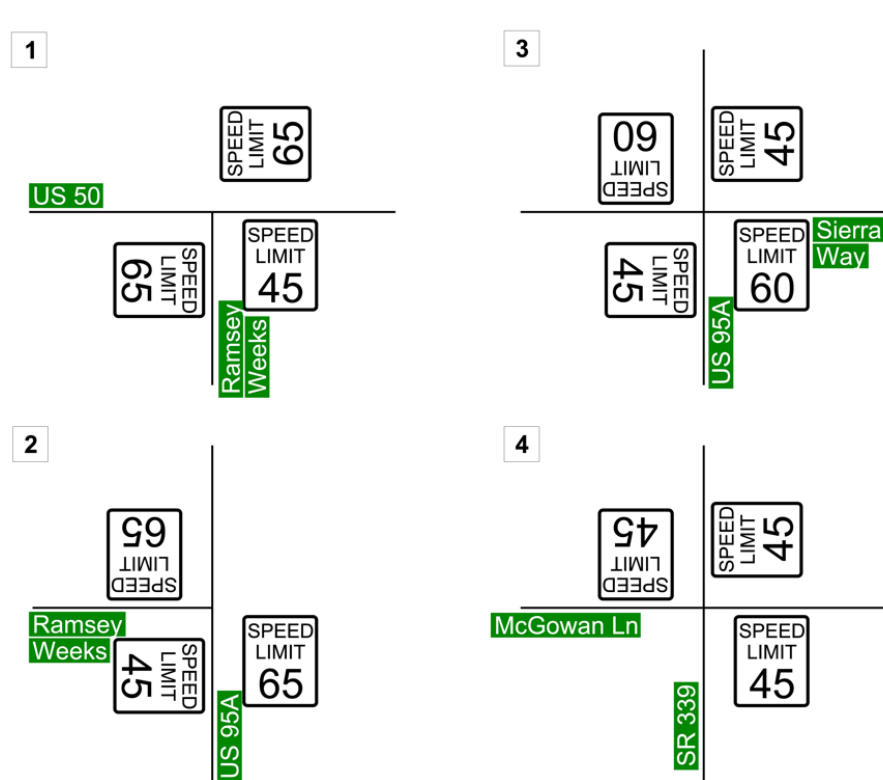


Figure 2: Roadway Posted Speed Limits

3. TECHNICAL GUIDANCE, STANDARDS, AND TOOLS

Traffic operations analyses were performed using SYNCHRO 12 from existing topography/mapping and online resources (such as Google/Bing Maps). The various data included:

- Intersection Geometry (number of right/through/left lanes and turn pocket lengths)
- Peak-Hour Volumes (vehicle/hour)
- Roadway Segment Length
- Percent Trucks
- Peak Hour Factor (PHF)
- Speed Limit

The technical references used for the modeling analysis included:

- CORSIM Modeling Guidelines, NDOT, 2012
- Highway Capacity Manual (HCM) 7th Edition, Transportation Research Board, 2022

Traffic analysis was performed at four intersections. The measures of effectiveness (MOE) used to evaluate operations included intersection delay and level-of-service (LOS) based on the HCM (7th Edition). LOS criteria for the signalized and unsignalized intersections are shown in Tables 1 and 2, respectively. For Two-Way Stop Controlled (TWSC) intersections, LOS criteria apply only to minor street approaches and movements. Intersection LOS is not reported for TWSC intersections; instead, the delay and LOS are reported for the worst-case approach.

Table 1: LOS Criteria for Signalized Intersection (HCM 7th Edition Exhibit 19-8)

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio ^a	
	≤ 1.0	≥ 1.0
≤ 10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

Note: ^a For approach-based and intersection wide assessment, LOS is defined solely by control delay.

Table 2: LOS Criteria for TWSC Intersection (HCM 7th Edition Exhibit 20-2)

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio ^a	
	≤ 1.0	≥ 1.0
≤ 10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

Note: Delays and LOS provided are from the worst-case minor approach.

4. TRAFFIC FORECASTS AND HEAVY VEHICLE

All traffic forecasts were developed following the methodology and guidance provided in the *NDOT Traffic Forecasting Guidelines* (2012). The historical traffic data from NDOT TRINA (see Appendix A) along the corridor were reviewed to determine the annual growth rate.

Table 3 lists the historical AADT from the three NDOT TRINA counters available along US 95A. Over the past 10 years (2015 to 2024), this corridor has experienced significant traffic growth. The average annual growth rates (AAGR) for 2027 were calculated based on these three traffic counters.

Table 3: NDOT TRINA AADT Data

Counter	Location	2015	2024	Annual Growth Rate	AAGR
190048	US 95A, north of Sierra Way	2,600	3,650	3.45%	3.47%
190115	US 95A, between Penrose Lane and Miller Lane	3,700	5,150	3.36%	
190051	US 95A, north of SR 339	5,200	7,400	3.59%	

The 2025 field traffic count data (see Appendix B) included information on the heavy vehicle/truck percentages, as shown in Table 4. These percentages will be applied in the analysis for Existing 2025 conditions, Future 2027 conditions, and Future 2027 with Winston Energy Construction Traffic.

Table 4: Heavy Vehicle/Truck Percentage (Existing Field Count Conditions)

Intersection	Heavy Truck %
US 50 at Ramsey Weeks Cutoff	4%
US 95A at Ramsey Weeks Cutoff	10%
US 95A at Sierra Way	13%
US 95A at SR 339	7%

The truck percentages used for the Future 2027 Plus Construction Traffic conditions are reduced because a substantially higher portion of passenger vehicles will be used for construction trips. The adjusted percentages are provided in Table 5. These values are calculated based on the weighted ratio of truck percentages from the existing field counts and a zero-truck percentage for construction traffic, applied to the total intersection traffic volumes during the AM and PM peaks.

Table 5: Heavy Vehicle/Truck Percentage (Plus Construction Traffic Conditions)

Intersection	Heavy Truck %	
	Winston Energy	Cumulative Projects
US 50 at Ramsey Weeks Cutoff	4%	2%
US 95A at Ramsey Weeks Cutoff	8%	3%
US 95A at Sierra Way	9%	4%
US 95A at SR 339	6%	4%

5. TRIP GENERATION

The peak construction scenario consists of approximately 350 employees for the Winston Energy project and 350 employees for the Lux Solar project. The number of employees for the Monarch Data Center are unreported. Using the 1.4:1 worker to vehicle trip ratio (see supporting documentation in Appendix C), Scenario 1 will be analyzed with 250 trips to and from the Winston Energy project site. All AM trips are inbound, and all PM trips are outbound. Trip distribution is assumed to be 70% from/to the north and 30% from/to the south. This scenario is considered highly conservative and would only last for approximately 6 months of the project construction with the remainder of the 18-24 months generating fewer trips.

Scenario 2 will be analyzed with the cumulative trips of 1,621 in the AM peak and 1,768 in the PM peak. All AM trips are inbound, and all PM trips are outbound. Trip distribution is assumed to be 70% from/to the north and 30% from/to the south. This scenario is also considered conservative and speculative since the actual trips and timing of each project is unknown. See Table 6 for the trip generation estimates for each scenario.

Table 6: Trip Generation Estimates

Description	Peak Head Counts	Construction Traffic Trips	AM Peak Hour		PM Peak Hour	
			In	Out	In	Out
Construction Traffic Trips (Winston Energy)	350	250	100%	0%	0%	100%
			250	0	0	250
Construction Traffic Trips (Cumulative of the three projects)	~ 2,000	1,621 (1,768)	100%	0%	0%	100%
			1,621	0	0	1,728

6. TRAFFIC VOLUMES

The 2025 field traffic count data (see Appendix B) included the peak hour factor (PHF) information. The AM and PM peak PHF ranges mostly between 0.89 to 0.91; therefore, all analyses will use a PHF of 0.90.

The following percentages were used to distribute the construction traffic to and from the site, as shown in Figure 3 for Scenario 1 and Figure 4 for Scenario 2 (for intersection locations, see figure 1).

- Scenario 1 (Winston Energy Project):
 - 70% to and from US 95A north of Sierra Way
 - 30% to and from US 95A south of Sierra Way
 - 15% to and from US 95A east of SR 339
 - 15% to and from SR 339 south of US 95A

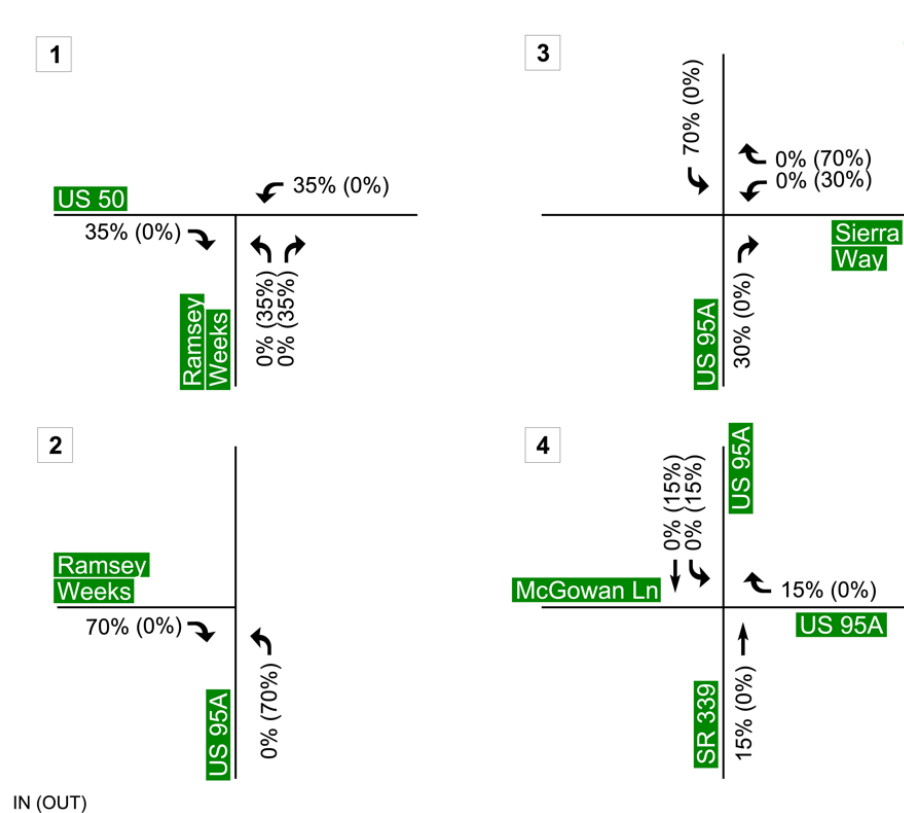


Figure 3: Percentages of Trip Distribution (Winston Energy Project)

- Scenario 2 (Cumulative of Projects):
 - 70% to and from US 95A north of Sierra Way
 - 8% to and from US 95A south of Sierra Way (22% of the cumulative trips are from the Monarch Data Center construction trips that will use Bowman Lane in lieu of Sierra Way)
 - 15% to and from US 95A east of SR 339
 - 15% to and from SR 339 south of US 95A

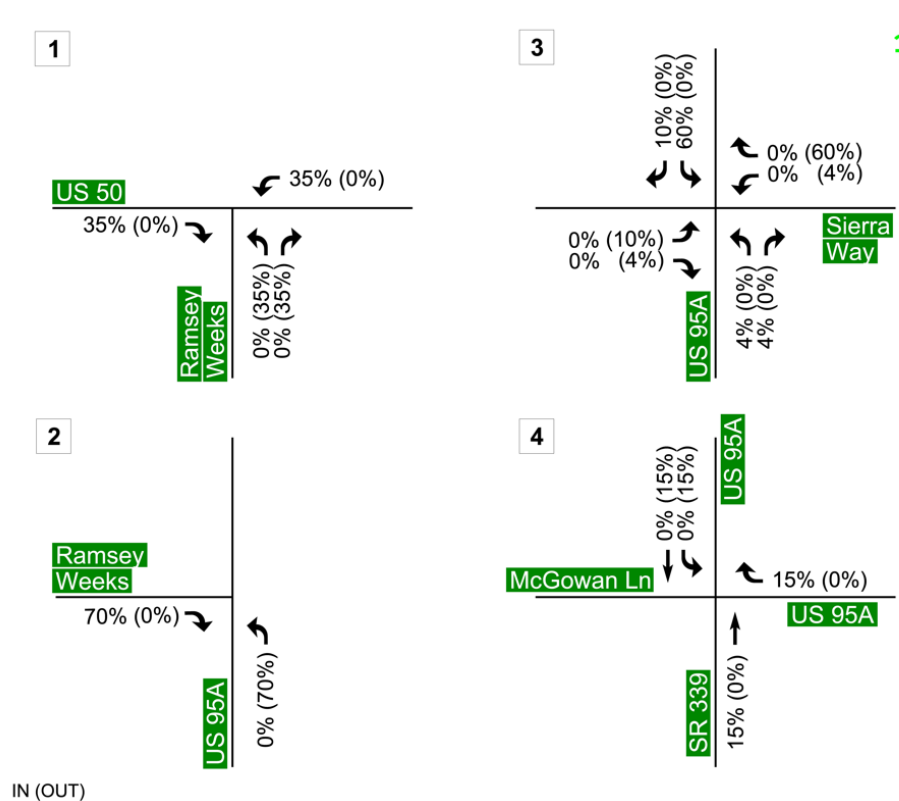


Figure 4: Percentages of Trip Distribution (Cumulative Projects)

The 24-hour field counts for intersections #1 through #3, collected on October 21, 2025, were obtained from Lux Solar TIS report. The 24-hour field counts for intersection #4, collected on March 4, 2025, were obtained from the Monarch Data Center TIS report. Based on the data included in Appendix B, all four intersections exhibit a wide range of AM peak hours, from 5:00 AM to 10:00 AM, and a more consistent PM peak hour, between 4:15 PM and 5:30 PM. To be conservative, the analyses will use these AM and PM peak periods with the construction traffic volumes. Figures 5 through 10 on the following pages show the volumes for each condition:

- Figure 5 – Existing 2025 Traffic Volumes
- Figure 6 – Future 2027 Traffic Volumes
- Figure 7 – Generated Traffic Volumes During Construction (Winston Energy Project)
- Figure 8 – Future 2027 Plus Traffic Volumes During Construction (Winston Energy Project)
- Figure 9 – Generated Traffic Volumes During Construction (Cumulative Projects)
- Figure 10 – Future 2027 Plus Traffic Volumes During Construction (Cumulative Projects)

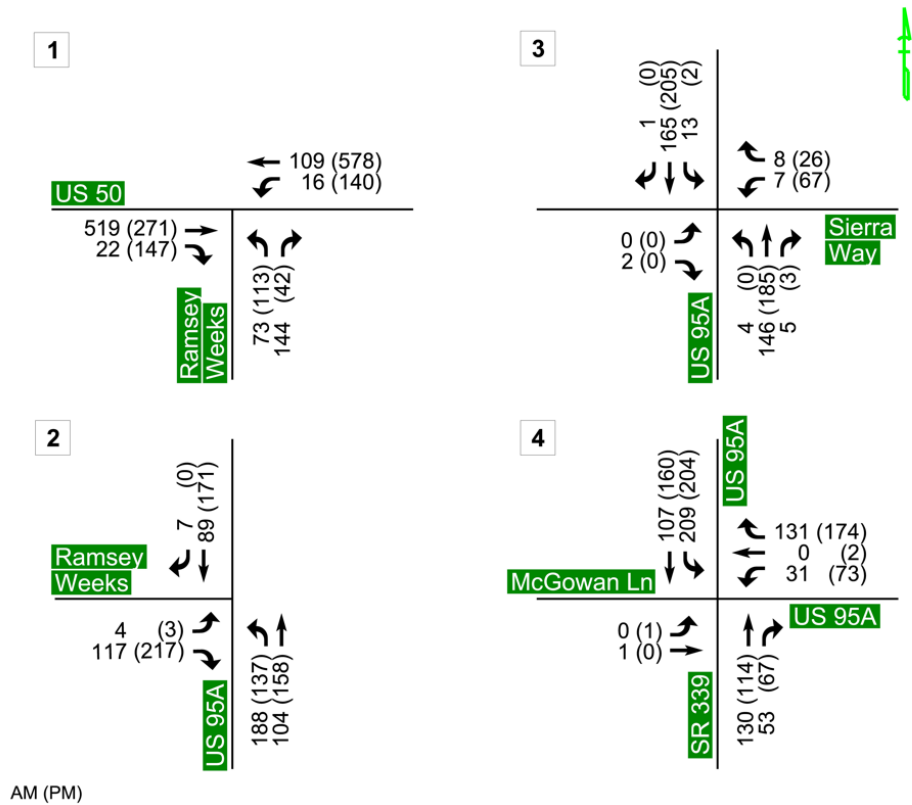


Figure 5: Existing 2025 Traffic Volumes

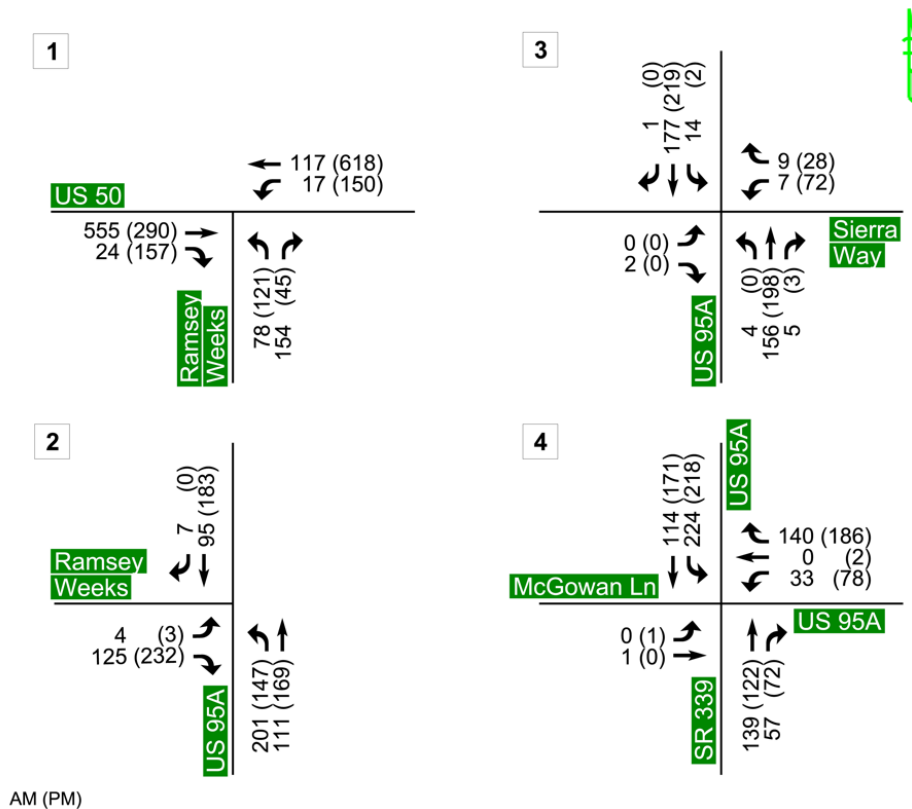


Figure 6: Future 2027 Traffic Volumes

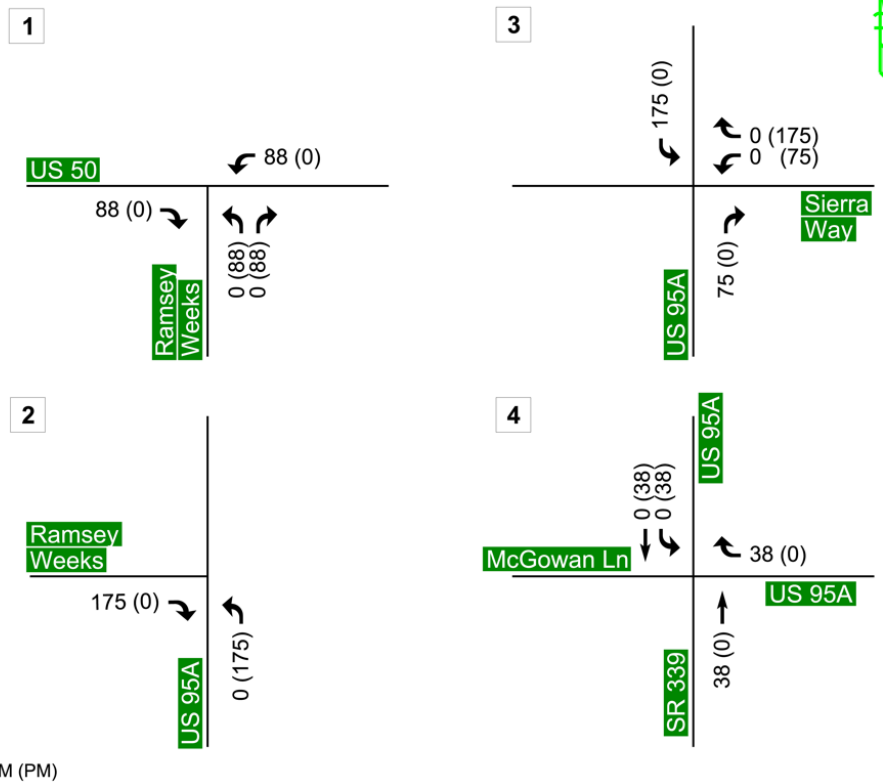


Figure 7: Generated Traffic Volumes during construction (Winston Energy Project)

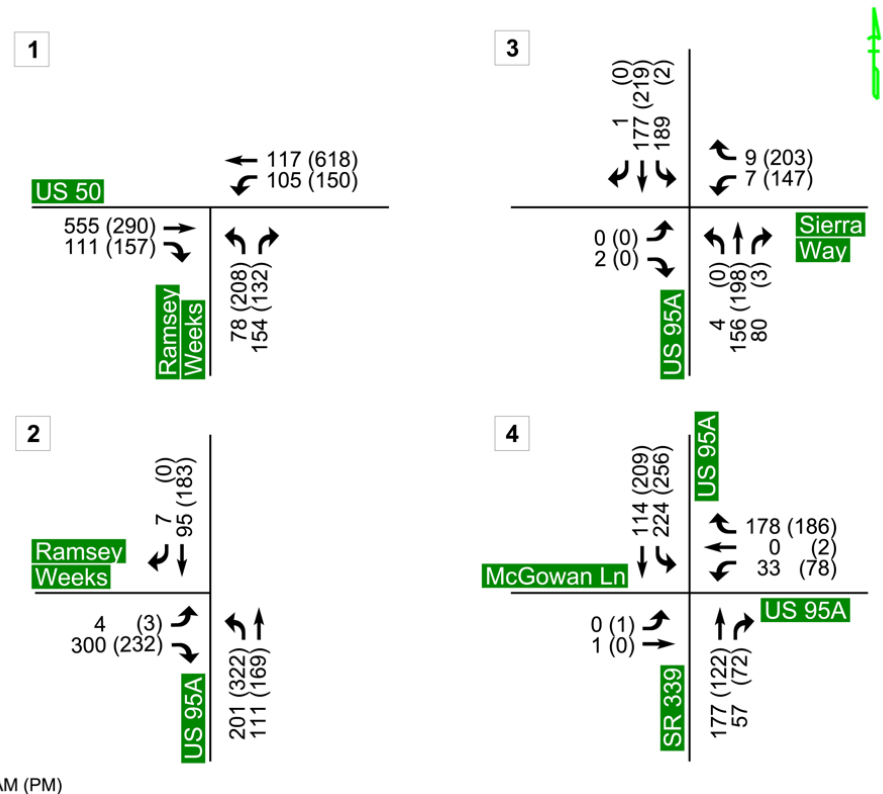


Figure 8: Future 2027 Plus Traffic Volumes During construction (Winston Energy Project)

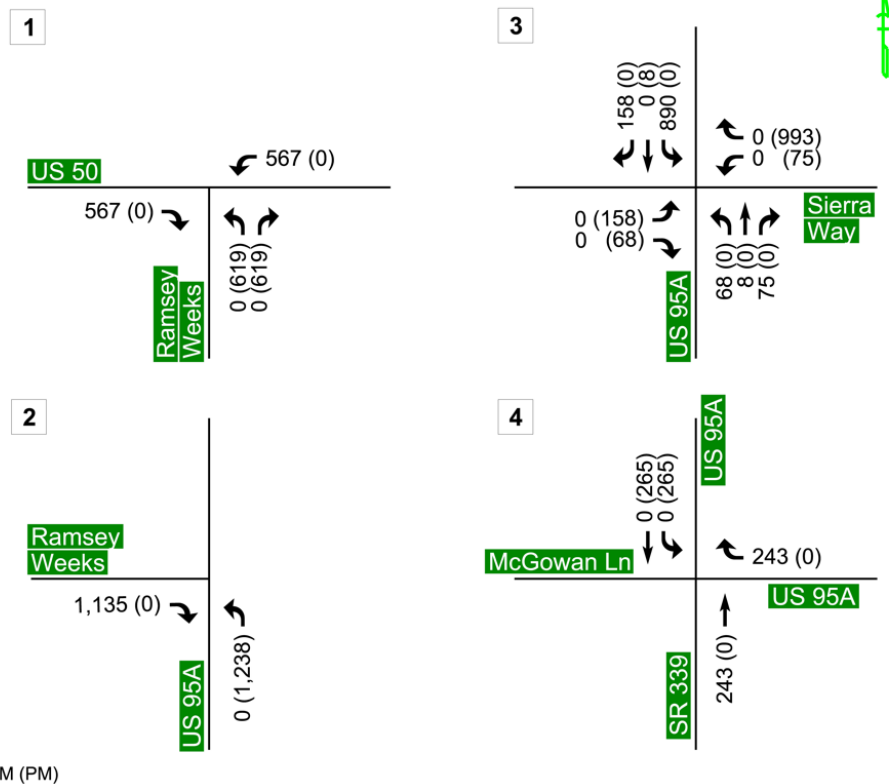


Figure 9: Generated Traffic Volumes during construction (Cumulative of Projects)

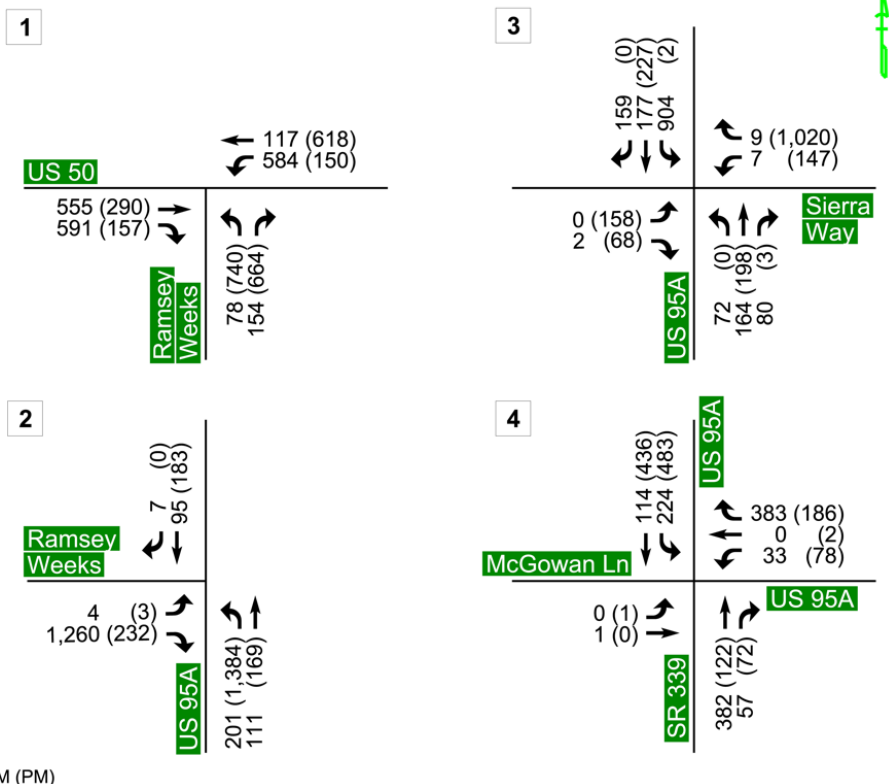


Figure 10: Future 2027 Plus Traffic Volumes During construction (Cumulative of Projects)

7. TRAFFIC ANALYSIS CONDITIONS

The study analyzes both weekday AM and PM peak hours for the eight (8) SYNCHRO analysis conditions:

- Existing 2025 Conditions
- Future 2027 Conditions
- Future 2027 Plus Construction Traffic Conditions (Winston Energy Project)
- Future 2027 Plus Construction Traffic Conditions (Winston Energy Project) with Additional Turn Lanes at Intersection #3
- Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects)
- Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) with Additional Turn Lanes and a Temporary Signal at Intersection #3
- Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) with Additional Turn Lanes at all Four Intersections and Temporary Signals at all analyzed Intersections.
- Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) with Additional Turn Lanes at all Four Intersections; Temporary Signals at Intersections #1, #3, and #4; and Acceleration Lanes at Intersections #2 and #3

The models were developed for the four project intersections to evaluate traffic operations. The traffic analysis results are discussed in the following section.

8. TRAFFIC OPERATIONS ANALYSIS

Table 7 shows the unsignalized minor (side street) approach delays and LOS for the Winston Energy Project construction traffic analysis. All minor approaches under Existing 2025 and Future 2027 conditions operate at LOS D or better. When construction traffic is added to the Future 2027 conditions, all minor approaches continue to operate at LOS D or better, except for the westbound approach at the intersection of US 95A and Sierra Way, which operates at LOS E in the PM peak. Therefore, a westbound dedicated right-turn lane is needed to improve the operations.

For Scenario 2 (the cumulative projects scenario), Table 8 presents the unsignalized minor (side street) approach delays and LOS, as well as the overall intersection delay and LOS for signalized intersections, as noted in the footnotes. All minor approaches under Existing 2025 and Future 2027 conditions operate at LOS D or better. When cumulative construction traffic is added, the Future 2027 Plus Construction Traffic with Mitigation A scenario shows all four intersections operating at LOS F (failing). Mitigation A includes only roadway improvements and a temporary signal at the intersection of US 95A and Sierra Way.

With the additional roadway improvements noted under Mitigation B, all four intersections continue to operate at LOS F. By adding temporary signals at all four intersections, as described in Mitigation C, delays and LOS at Intersection #1 (US 50 at Ramsey Weeks Cutoff) and Intersection #4 (US 95A at SR 339) improved to LOS D and LOS C, respectively. In addition, installing acceleration lanes on southbound US 95A at Ramsey Weeks Cutoff (Intersection #2) and northbound US 95A at Sierra Way Intersection #3), improves operations at intersection #3 to LOS C. Operations at Intersection #2 improve to LOS C only during the AM peak and continue to fail at LOS F during the PM peak. This failure occurs at the northbound left-turn lane, where traffic volumes are estimated to exceed 1,300 vehicles per hour. The recommendation is to extend the existing left-turn lane to 800 feet and not install a temporary signal.

For the Cumulative of Projects scenario, it should be noted that the analysis is conservative and speculative since the actual trips and timing of each project is unknown. Ongoing coordination between NDOT, Lyon County, and current and future projects in Lyon County is advised to determine the timing and final design of the mitigation measure. Additionally, schedule coordination, routing, and other traffic management solutions may also be considered to decrease the impact of combined projects and reduce the need for physical improvement.

Detailed SYNCHRO outputs for each condition are included in Appendices D through K.

Table 7: Intersection/Approach Delay and LOS (Winston Energy Project)

ID	Intersection	¹ Existing 2025 Conditions		¹ Future 2027 Conditions		¹ Future 2027 Plus Construction Traffic Conditions		¹ Future 2027 Plus Construction Traffic with Mitigation	
		AM	PM	AM	PM	AM	PM	AM	PM
1	US 50 at Ramsey Weeks Cutoff	15.4 (C)	11.7 (B)	16.7 (C)	12.2 (B)	16.7 (C)	15.7 (C)	16.7 (C)	15.7 (C)
2	US 95A at Ramsey Weeks Cutoff	9.8 (A)	11.3 (B)	9.9 (A)	11.6 (B)	11.3 (B)	11.9 (B)	11.3 (B)	11.9 (B)
3	US 95A at Sierra Way	10.5 (B)	12.8 (B)	10.6 (B)	13.3 (B)	15.1 (C)	39.8 (E)	14.1 (B)	13.2 (B)
4	US 95A at SR 339	19.0 (C)	23.0 (C)	20.4 (C)	25.4 (D)	21.3 (C)	31.2 (D)	21.3 (C)	31.2 (D)

Note 1: Delays (LOS) provided are from the worst minor approach.

Table 8: Intersection/Approach Delay and LOS (Cumulative of Projects)

ID	Intersection	¹ Existing 2025 Conditions		¹ Future 2027 Conditions		¹ Future 2027 Plus Construction Traffic with Mitigation A		¹ Future 2027 Plus Construction Traffic with Mitigation B		² Future 2027 Plus Construction Traffic with Mitigation C		² Future 2027 Plus Construction Traffic with Mitigation D	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	US 50 at Ramsey Weeks Cutoff	15.4 (C)	11.7 (B)	16.7 (C)	12.2 (B)	16.5 (C)	>300 (F)	13.2 (B)	95.5 (F)	39.0 (D)	31.3 (C)	39.0 (D)	31.3 (C)
2	US 95A at Ramsey Weeks Cutoff	9.8 (A)	11.3 (B)	9.9 (A)	11.6 (B)	245 (F)	74.2 (F)	239 (F)	74.2 (F)	91.1 (F)	121 (F)	15.4 (C)	74.2 (F)
3	US 95A at Sierra Way *	10.5 (B)	12.8 (B)	10.6 (B)	13.3 (B)	34.3 (C)	80.7 (F)	34.3 (C)	80.7 (F)	34.3 (C)	80.7 (F)	34.1 (C)	8.4 (A)
4	US 95A at SR 339	19.0 (C)	23.0 (C)	20.4 (C)	25.4 (D)	28.4 (D)	>300 (F)	27.9 (D)	202 (F)	33.7 (C)	18.4 (C)	33.7 (C)	18.4 (B)

*- A temporary signal will be installed at US 95A and Sierra Way for (all) Mitigations A through D, and the Delays (LOS) provided are from the signalized intersection.

Note 1: Delays (LOS) provided are from the worst minor approach.

Note 2: Delays (LOS) provided are from the signalized intersections.

Mitigation A: Intersection of US 95A and Sierra Way is signalized with added SBL, NBR and WBR lanes.

Mitigation B: Includes Mitigation A in addition to adding NBR at intersection #1, added EBR at intersection #2, and added SBL at intersection #4.

Mitigation C: Includes Mitigation B in addition to adding temporary signals at all analyzed intersections.

Mitigation D: Includes Mitigation C in addition to adding acceleration lanes on US 95A at intersections #2 and #3, and taking out temporary signal at intersection #2.

9. CRASH AND SAFETY ANALYSIS

EXISTING CRASH DATA ANALYSIS

The crash data analysis was conducted using Nevada Department of Transportation (NDOT) crash data for the five-year period from January 1, 2019, to December 31, 2023. The intersections of US 95A/Ramsey Weeks Cutoff and US 50/Ramsey Weeks Cutoff were analyzed to identify crash trends or patterns that could indicate locations where safety enhancements may be warranted. The project limits, including the analyzed intersections, are shown in Figure 1.

Intersection - 1: US 50 and Ramsey Weeks Cutoff

During the five-year analysis period, the intersection US 50 and Ramsey Weeks Cutoff experienced a total of 20 crashes, including 12 angle crashes, four non-collision crashes, two rear-end crashes, one backing crash, and one sideswipe meeting crash. Of these, five were serious injury crashes resulting in ten serious injuries, eight were injury crashes resulting in 13 injuries, and seven were property damage only (PDO) crashes. Table 9 below provides the crash analysis summary for Intersection #1.

Table 9: US 50 and Ramsey Weeks Cutoff Intersection Crash Summary

Overall Crashes	• 20 total crashes ➤ 5 serious injury crashes resulting in 10 serious injuries ○ 8 injury crashes resulting in 13 injuries ➤ 7 PDO crashes
Predominant Crash Types	• 12 angle crashes • 4 non-collision crashes • 2 rear-end crashes • 1 backing crash • 1 sideswipe-meeting crash
Motorcycle Crashes	• No crashes involving motorcycles
Pedestrian Crashes	• No crashes involving pedestrians
Predominant Weather Conditions	• 13 clear • 3 cloudy • 1 fog, smog, smoke, ash • 2 snow • 1 unknown
Predominant Lighting Conditions	• 18 daylight • 1 dawn • 1 dark-spot roadway lighting

Intersection – 2: US 95A and Ramsey Weeks Cutoff

During the five-year analysis period, the intersection of US 95A and Ramsey Weeks Cutoff had a total of 11 crashes, including five rear-end crashes, four non-collision crashes, and two angle crashes. Of these, there was one serious injury crash resulting in two serious injuries, four injury crashes resulting in four injuries, and six PDO crashes. Table 10 below provides the crash analysis summary for intersection 2.

Table 10: US 95A and Ramsey Weeks Cutoff Intersection Crash Summary

Overall Crashes	• 11 total crashes ➤ 1 serious injury crash resulting in 2 serious injuries ○ 4 injury crashes resulting in 4 injuries ➤ 6 PDO crashes
Predominant Crash Types	• 5 rear-end crashes • 4 non-collision crashes • 2 angle crashes
Motorcycle Crashes	• No crashes involving motorcycles
Pedestrian Crashes	• No crashes involving pedestrians
Predominant Weather Conditions	• 6 clear • 4 cloudy • 1 unknown
Predominant Lighting Conditions	• 7 daylight • 2 dark-spot roadway lighting • 1 dusk • 1 unknown

Intersection 3 - US 95A and Sierra Way

In the five-year analysis period, the intersection of US 95A and Sierra Way had a total of two property damage only (PDO) crashes, with one rear-end crash and one angle crash. Table 11 below provides the crash analysis summary for Intersection 3.

Table 11: US 95A and Sierra Way Intersection Crash Summary

Overall Crashes	• 2 total crashes ➤ 2 PDO crashes
Predominant Crash Types	• 1 rear-end crash • 1 Angle crash
Motorcycle Crashes	• no crashes involving motorcycles
Pedestrian Crashes	• no crashes involving pedestrians
Predominant Weather Conditions	• 2 Clear
Predominant Lighting Conditions	• 2 Daylight

Intersection 4 - US 95A and SR 339/West Goldfield Avenue

During the five-year analysis period, the intersection of US 95A and SR 339 had a total of 13 crashes, including five angle crashes, four rear-end crashes, three side swipe same direction (SSSD) crashes, and one head-on crash. Of these, there were two injury crashes resulting in two injuries and 11 PDO crashes. Table 12 below provides the crash analysis summary for Intersection 4.

Table 12: US 95A and SR 339/West Goldfield Avenue Intersection Crash Summary

Overall Crashes	• 13 total crashes ➤ 2 injury crashes with two injuries ➤ 11 PDO crashes
Predominant Crash Types	• 5 Angle crashes • 4 Rear-end crashes • 3 SSSD crashes • 1 Head-on crash
Motorcycle Crashes	• No crashes involving motorcycles
Pedestrian Crashes	• No crashes involving pedestrians
Predominant Weather Conditions	• 10 Clear • 3 Cloudy
Predominant Lighting Conditions	• 9 Daylight • 4 Dark - spot roadway lighting

FINDINGS AND CONCLUSIONS

Based on the five-year crash data analysis, both intersections at Ramsey Weeks Cutoff exhibit crash patterns that indicate opportunities for targeted safety improvements. The intersection of US 50 and Ramsey Weeks Cutoff experienced higher crash frequency and severity, with angle crashes as the predominant type and a notable number of serious injury and injury crashes. The intersection of US 95A and Ramsey Weeks Cutoff had fewer total crashes, primarily rear-end and non-collision crashes.

Crash analyses at Sierra Way and SR 339 indicate low crash frequencies, with most crashes being PDO. Rear-end and angle collisions were the predominant crash types at these two intersections. No pedestrian or motorcycle crashes were recorded at any of the four intersections, and most crashes occurred during clear weather and daylight conditions. This suggests that roadway geometry, traffic operations, or driver behavior (rather than environmental factors) are likely the primary contributors.

10. ACCESS MANAGEMENT

For the Winston Energy project's traffic volumes, the analysis indicates that a southbound left-turn lane and a northbound right-turn lane are not required. However, the NDOT's AMSS guidelines recommend the following improvements:

Southbound Left-Turn Lane Warrant (US 95A at Sierra Way): The left-turn lane warrant analysis was conducted for the southbound approach of US 95A at Sierra Way. Per NDOT AMSS guidelines, the warrant volume thresholds are provided in Table 4-13: *Left-Turn Lane Warrants at Unsignalized Intersections, Two-Lane Roadways in Rural Areas*. The need for a left-turn lane is based on turning movement volume, posted speed limit, and adjacent roadway through volumes. With a posted speed limit of 60 mph on US 95A and left-turn volumes exceeding 15 vehicles per hour, the left-turn lane warrant is met.

The southbound left-turn lane yields only to northbound through traffic; therefore, a 50-foot storage length is adequate. However, a deceleration lane and an approach taper are also required. Given the posted speed limit of 60 mph on US 95A, a minimum deceleration length of 605 feet and an approach taper of 360 feet are required per AMSS Table 4-20 (*Minimum Length of Left-Turn or Right-Turn Deceleration Lanes*) and Table 4-22 (*Approach and Departure Tapers*), respectively. These lengths will be included in the list of mitigation improvements.

Northbound Right-Turn Lane Warrant (US 95A at Sierra Way): The right-turn lane warrant analysis was conducted for the northbound approach of US 95A at Sierra Way. Per the NDOT AMSS, the warrant volume threshold is detailed in Table 4-17: *Right-Turn Lane Warrants at Unsignalized Intersections, Two-Lane Roadways in Rural Areas*. The requirement for a right-turn lane is based on the turning movement volume, speed limit, and the adjacent roadway through volumes. With the US 95A posted speed limit of 60 mph and the right-turn volumes exceed 25 vph, the right-turn lane warrant is met.

The northbound right-turn lane is a free-flow movement; therefore, no storage queue length is required. However, a deceleration lane and lane taper are required. Given the posted speed limit of 60 mph on US 95A, a minimum deceleration length of 605 feet and a taper of 120 feet are required per AMSS Table 4-20 and Table 4-25 (*Auxiliary Lane-Addition Tapers*), respectively. These will be included in the list of mitigation improvements.

11. LIST OF APPENDICES

Appendix A – NDOT TRINA Historical Counts

Appendix B – 2025 Field Data Collection

Appendix C – Supporting Documentation for Trip Generation of 1.4:1 (workers:vehicle trips)

Appendix D – Existing 2025 Conditions SYNCHRO Output

Appendix E – Future 2027 Conditions SYNCHRO Output

Appendix F – Future 2027 Plus Construction Traffic Conditions (Winston Energy Project) SYNCHRO Output

Appendix G – Future 2027 Plus Construction Traffic Conditions (Winston Energy Project) with Additional Turn Lanes at Intersection #3 SYNCHRO Output

Appendix H – Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) SYNCHRO Output

Appendix I – Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) with Additional Turn Lanes and a Temporary Signal at Intersection #3 SYNCHRO Output

Appendix J – Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) with Additional Turn Lanes at all four intersections and Temporary Signals at all analyzed intersections SYNCHRO Output

Appendix K – Future 2027 Plus Construction Traffic Conditions (Cumulative of Projects) with Additional Turn Lanes at all four intersections, Temporary Signals at Intersections #1, #3, and #4, and Acceleration Lanes at intersections #2 and #3

Appendix L – Crash Data

Appendix A

NDOT TRINA Historical Counts

Station 0190048 Location Information

Station Name	0190048
Route ID	
Route Name	US95A
Station Type	ShortTerm
STREET_FRO	Sierra Wy.
STREET_TO	Weeks cutoff Rd.
LATITUDE	4334021.5339
LONGITUDE	311483.6071

Station 0190048 AADT

AADT 2024	3,650
AADT 2023	4,150
AADT 2022	4,500
AADT 2021	4,300
AADT 2020	4,000
AADT 2019	4,150
AADT 2018	2,600
AADT 2017	2,900
AADT 2016	2,700
AADT 2015	2,600
AADT 2014	2,600

Report:

[Hourly](#)

Average Daily Factored Class Distribution:

[2020](#) | [2021](#) | [2022](#) | [2023](#)
[2024](#) |

Station 0190115 Location Information

Station Name	0190115
Route ID	
Route Name	US95A
Station Type	ShortTerm
STREET_FRO	Miller Ln.
STREET_TO	Sierra Way
LATITUDE	4325366.0822
LONGITUDE	311251.1126

Station 0190115 AADT

AADT 2024	5,150
AADT 2023	5,550
AADT 2022	4,700
AADT 2021	5,700
AADT 2020	5,050
AADT 2019	5,250
AADT 2018	4,800
AADT 2017	3,900
AADT 2016	4,400
AADT 2015	3,700
AADT 2014	3,500

Report:

Hourly

Average Daily Factored Class Distribution:

2020 | 2021 | 2022 | 2023
2024 |

Station 0190051 Location Information

Station Name	0190051
Route ID	
Route Name	US95A
Station Type	ShortTerm
STREET_FRO	SR339 (Nurdyke Rd)
STREET_TO	Burch Dr
LATITUDE	4318477.0148
LONGITUDE	311049.0733

Station 0190051 AADT

AADT 2024	7,400
AADT 2023	8,700
AADT 2022	7,100
AADT 2021	8,150
AADT 2020	6,350
AADT 2019	7,300
AADT 2018	6,900
AADT 2017	6,700
AADT 2016	6,500
AADT 2015	5,200
AADT 2014	5,100

Report:

Hourly

Average Daily Factored Class Distribution:

2020 | 2021 | 2022 | 2023
2024 |

Appendix B

Lux Solar and Monarch Data Center: Kimley-
Horn and Associates, Inc. 2025 Field Data
Collection

US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

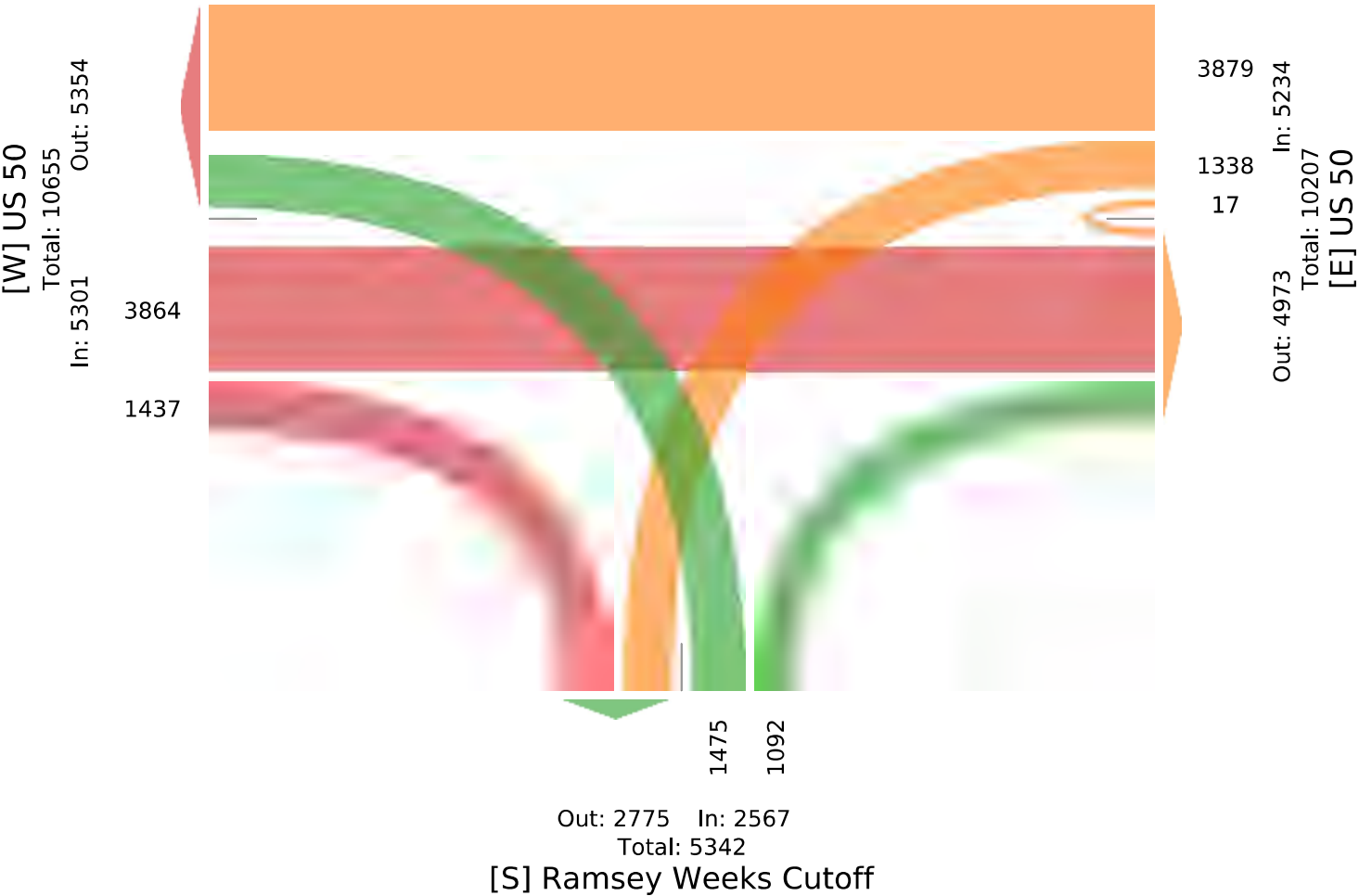
Leg Direction	Ramsey Weeks Cutoff Northbound				US 50 Eastbound				US 50 Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2025-10-21 12:00AM	5	12	0	17	5	4	0	9	10	10	0	20	46
1:00AM	6	3	0	9	10	4	0	14	8	8	0	16	39
2:00AM	3	13	0	16	15	4	0	19	8	14	0	22	57
3:00AM	7	19	0	26	38	5	0	43	6	20	0	26	95
4:00AM	23	70	0	93	239	8	0	247	7	38	1	46	386
5:00AM	73	144	0	217	519	22	0	541	16	109	0	125	883
6:00AM	118	97	0	215	311	51	0	362	63	225	1	289	866
7:00AM	122	78	0	200	278	77	0	355	78	194	0	272	827
8:00AM	110	51	0	161	230	91	0	321	70	149	1	220	702
9:00AM	88	75	0	163	216	87	0	303	91	177	2	270	736
10:00AM	83	65	0	148	165	50	0	215	54	172	0	226	589
11:00AM	84	42	0	126	180	55	0	235	63	182	4	249	610
12:00PM	87	49	0	136	173	82	0	255	47	188	1	236	627
1:00PM	77	66	0	143	179	94	0	273	94	256	2	352	768
2:00PM	91	54	0	145	199	106	0	305	79	263	2	344	794
3:00PM	130	58	0	188	248	138	0	386	117	382	1	500	1074
4:00PM	110	38	0	148	252	143	0	395	136	542	0	678	1221
5:00PM	109	38	0	147	264	160	0	424	128	398	0	526	1097
6:00PM	64	40	0	104	174	105	0	279	112	291	2	405	788
7:00PM	40	19	0	59	60	57	0	117	42	107	0	149	325
8:00PM	25	27	0	52	58	44	0	102	41	62	0	103	257
9:00PM	7	23	0	30	24	20	0	44	37	43	0	80	154
10:00PM	8	8	0	16	16	11	0	27	13	28	0	41	84
11:00PM	5	3	0	8	11	19	0	30	18	21	0	39	77
Total	1475	1092	0	2567	3864	1437	0	5301	1338	3879	17	5234	13102
% Approach	57.5%	42.5%	0%	-	72.9%	27.1%	0%	-	25.6%	74.1%	0.3%	-	-
% Total	11.3%	8.3%	0%	19.6%	29.5%	11.0%	0%	40.5%	10.2%	29.6%	0.1%	39.9%	-
Lights	1443	1058	0	2501	3507	1408	0	4915	1290	3473	14	4777	12193
% Lights	97.8%	96.9%	0%	97.4%	90.8%	98.0%	0%	92.7%	96.4%	89.5%	82.4%	91.3%	93.1%
Articulated Trucks	2	8	0	10	248	3	0	251	17	290	2	309	570
% Articulated Trucks	0.1%	0.7%	0%	0.4%	6.4%	0.2%	0%	4.7%	1.3%	7.5%	11.8%	5.9%	4.4%
Buses and Single-Unit Trucks	30	26	0	56	109	26	0	135	31	116	1	148	339
% Buses and Single-Unit Trucks	2.0%	2.4%	0%	2.2%	2.8%	1.8%	0%	2.5%	2.3%	3.0%	5.9%	2.8%	2.6%

*L: Left, R: Right, T: Thru, U: U-Turn

US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025
Full Length (12 AM-12 AM (+1))
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

AM Peak (5 AM - 6 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

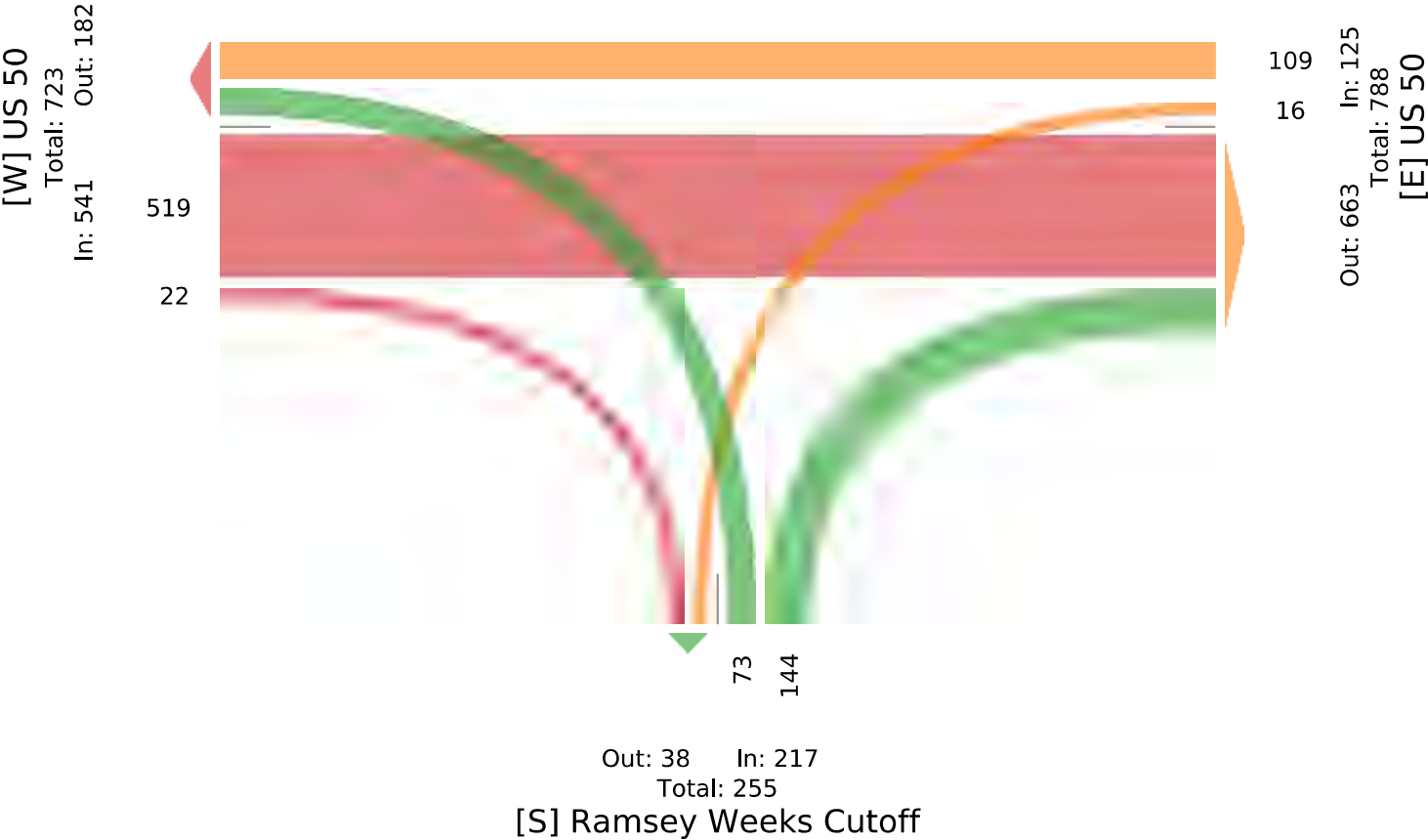
Leg Direction	Ramsey Weeks Cutoff Northbound				US 50 Eastbound				US 50 Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2025-10-21 5:00AM	13	35	0	48	149	4	0	153	1	24	0	25	226
5:15AM	19	48	0	67	146	4	0	150	3	27	0	30	247
5:30AM	16	33	0	49	138	4	0	142	5	27	0	32	223
5:45AM	25	28	0	53	86	10	0	96	7	31	0	38	187
Total	73	144	0	217	519	22	0	541	16	109	0	125	883
% Approach	33.6%	66.4%	0%	-	95.9%	4.1%	0%	-	12.8%	87.2%	0%	-	-
% Total	8.3%	16.3%	0%	24.6%	58.8%	2.5%	0%	61.3%	1.8%	12.3%	0%	14.2%	-
PHF	0.730	0.750	-	0.810	0.871	0.550	-	0.884	0.571	0.879	-	0.822	0.894
Lights	73	143	0	216	505	22	0	527	16	101	0	117	860
% Lights	100%	99.3%	0%	99.5%	97.3%	100%	0%	97.4%	100%	92.7%	0%	93.6%	97.4%
Articulated Trucks	0	0	0	0	8	0	0	8	0	7	0	7	15
% Articulated Trucks	0%	0%	0%	0%	1.5%	0%	0%	1.5%	0%	6.4%	0%	5.6%	1.7%
Buses and Single-Unit Trucks	0	1	0	1	6	0	0	6	0	1	0	1	8
% Buses and Single-Unit Trucks	0%	0.7%	0%	0.5%	1.2%	0%	0%	1.1%	0%	0.9%	0%	0.8%	0.9%

* L: Left, R: Right, T: Thru, U: U-Turn

US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025
AM Peak (5 AM - 6 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

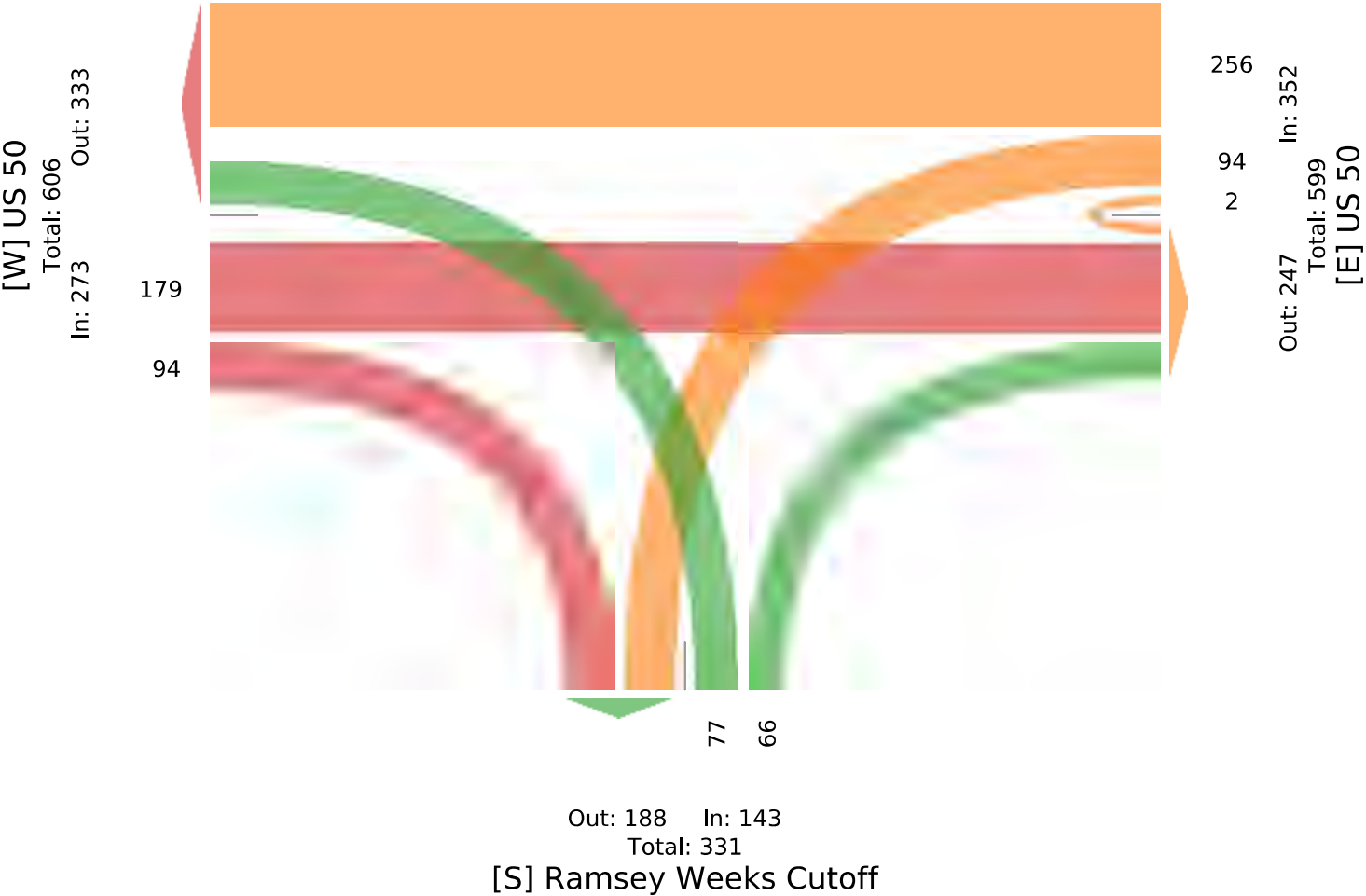
Leg Direction	Ramsey Weeks Cutoff Northbound				US 50 Eastbound				US 50 Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2025-10-21 1:00PM	19	22	0	41	34	26	0	60	21	67	0	88	189
1:15PM	24	13	0	37	50	17	0	67	34	50	2	86	190
1:30PM	19	15	0	34	40	27	0	67	15	57	0	72	173
1:45PM	15	16	0	31	55	24	0	79	24	82	0	106	216
Total	77	66	0	143	179	94	0	273	94	256	2	352	768
% Approach	53.8%	46.2%	0%	-	65.6%	34.4%	0%	-	26.7%	72.7%	0.6%	-	-
% Total	10.0%	8.6%	0%	18.6%	23.3%	12.2%	0%	35.5%	12.2%	33.3%	0.3%	45.8%	-
PHF	0.802	0.750	-	0.872	0.814	0.870	-	0.864	0.691	0.780	0.250	0.830	0.889
Lights	76	60	0	136	156	89	0	245	89	222	2	313	694
% Lights	98.7%	90.9%	0%	95.1%	87.2%	94.7%	0%	89.7%	94.7%	86.7%	100%	88.9%	90.4%
Articulated Trucks	0	1	0	1	19	1	0	20	0	21	0	21	42
% Articulated Trucks	0%	1.5%	0%	0.7%	10.6%	1.1%	0%	7.3%	0%	8.2%	0%	6.0%	5.5%
Buses and Single-Unit Trucks	1	5	0	6	4	4	0	8	5	13	0	18	32
% Buses and Single-Unit Trucks	1.3%	7.6%	0%	4.2%	2.2%	4.3%	0%	2.9%	5.3%	5.1%	0%	5.1%	4.2%

* L: Left, R: Right, T: Thru, U: U-Turn

US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025
Midday Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	Ramsey Weeks Cutoff Northbound				US 50 Eastbound				US 50 Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2025-10-21 4:15PM	30	14	0	44	59	44	0	103	35	145	0	180	327
4:30PM	21	7	0	28	75	28	0	103	31	148	0	179	310
4:45PM	34	11	0	45	70	32	0	102	37	161	0	198	345
5:00PM	28	10	0	38	67	43	0	110	37	124	0	161	309
Total	113	42	0	155	271	147	0	418	140	578	0	718	1291
% Approach	72.9%	27.1%	0%	-	64.8%	35.2%	0%	-	19.5%	80.5%	0%	-	-
% Total	8.8%	3.3%	0%	12.0%	21.0%	11.4%	0%	32.4%	10.8%	44.8%	0%	55.6%	-
PHF	0.831	0.750	-	0.861	0.903	0.835	-	0.950	0.946	0.898	-	0.907	0.936
Lights	108	42	0	150	252	146	0	398	136	567	0	703	1251
% Lights	95.6%	100%	0%	96.8%	93.0%	99.3%	0%	95.2%	97.1%	98.1%	0%	97.9%	96.9%
Articulated Trucks	1	0	0	1	12	0	0	12	2	5	0	7	20
% Articulated Trucks	0.9%	0%	0%	0.6%	4.4%	0%	0%	2.9%	1.4%	0.9%	0%	1.0%	1.5%
Buses and Single-Unit Trucks	4	0	0	4	7	1	0	8	2	6	0	8	20
% Buses and Single-Unit Trucks	3.5%	0%	0%	2.6%	2.6%	0.7%	0%	1.9%	1.4%	1.0%	0%	1.1%	1.5%

* L: Left, R: Right, T: Thru, U: U-Turn

US 50 and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

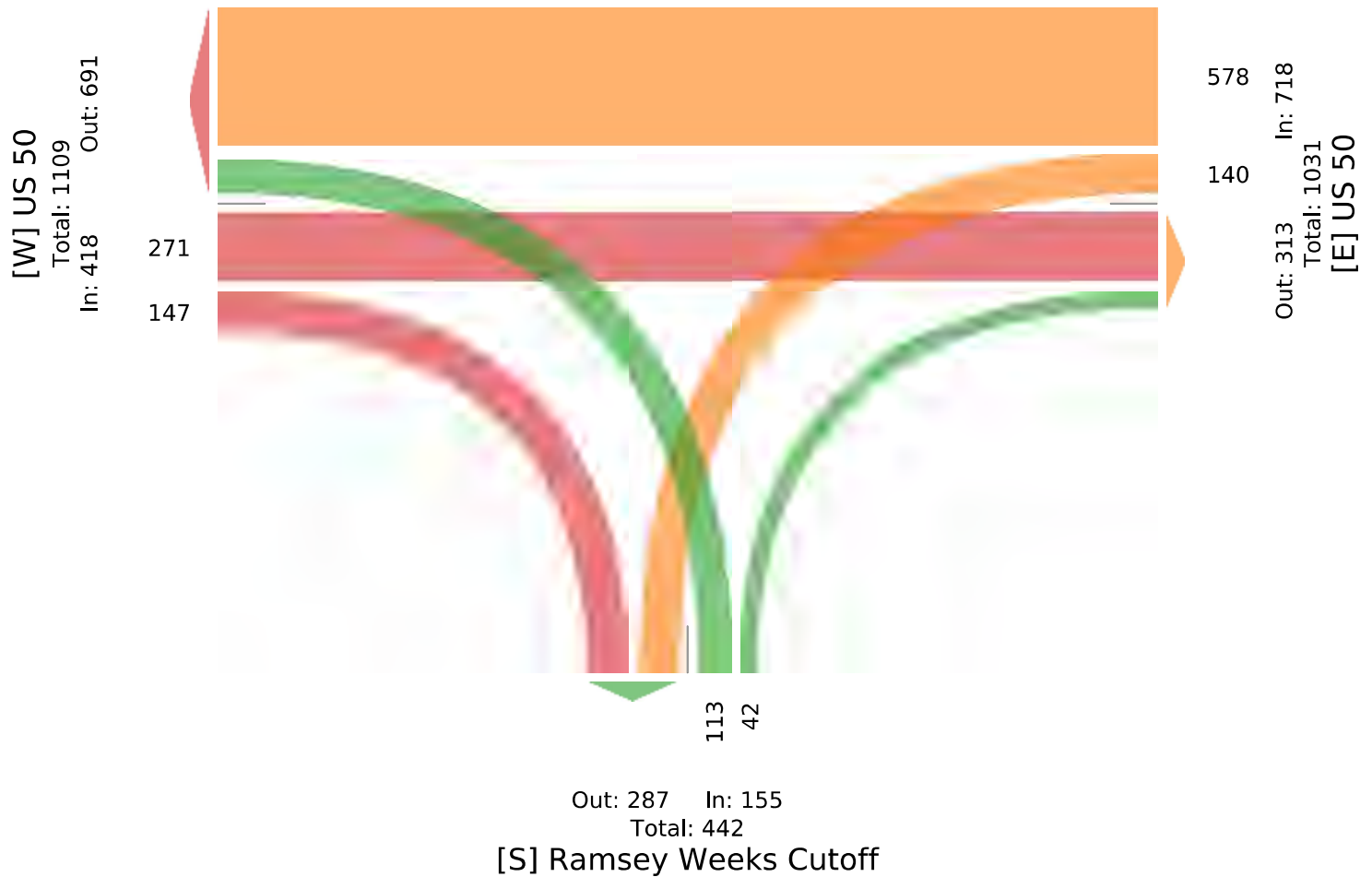
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348897, Location: 39.394495, -119.284524

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

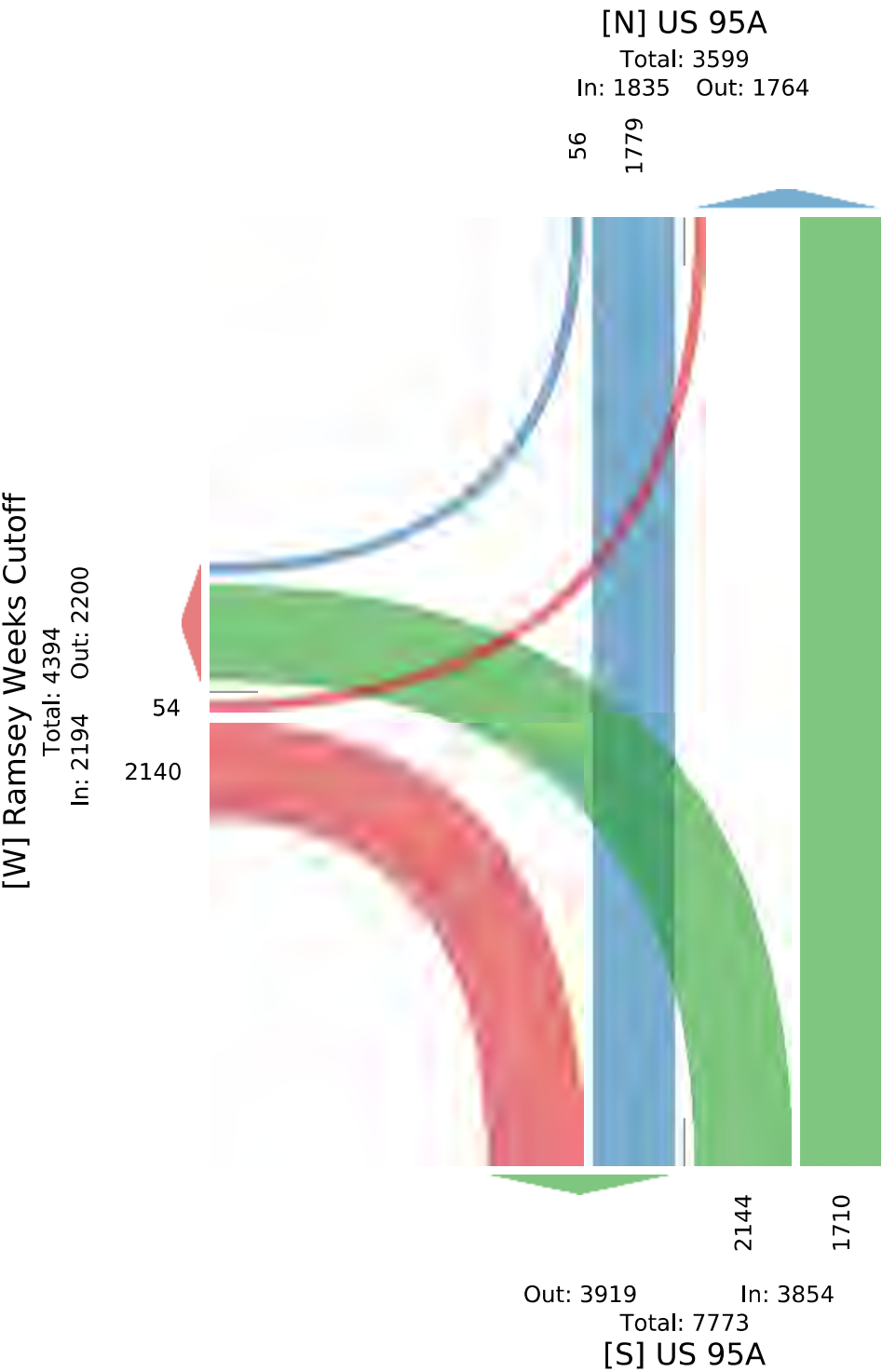
All Movements

ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	US 95A Northbound				US 95A Southbound				Ramsey Weeks Cutoff Eastbound				
Time	L	T	U	App	T	R	U	App	L	R	U	App	Int
2025-10-21 12:00AM	12	16	0	28	12	0	0	12	0	8	0	8	48
1:00AM	6	15	0	21	11	0	0	11	0	8	0	8	40
2:00AM	14	19	0	33	8	0	0	8	0	8	0	8	49
3:00AM	30	16	0	46	7	0	0	7	0	13	0	13	66
4:00AM	84	40	0	124	16	0	0	16	0	8	0	8	148
5:00AM	183	78	0	261	36	0	0	36	0	26	0	26	323
6:00AM	167	78	0	245	59	3	0	62	0	82	0	82	389
7:00AM	188	104	0	292	89	7	0	96	4	117	0	121	509
8:00AM	148	99	0	247	87	8	0	95	3	112	0	115	457
9:00AM	128	98	0	226	76	7	0	83	7	151	0	158	467
10:00AM	112	109	0	221	89	3	0	92	7	99	0	106	419
11:00AM	110	127	0	237	105	7	0	112	7	106	0	113	462
12:00PM	110	102	0	212	141	5	0	146	8	112	0	120	478
1:00PM	118	101	0	219	125	5	0	130	1	142	0	143	492
2:00PM	115	128	0	243	137	0	0	137	2	155	0	157	537
3:00PM	152	107	0	259	163	0	0	163	3	189	0	192	614
4:00PM	137	135	0	272	173	1	0	174	3	212	0	215	661
5:00PM	121	122	0	243	132	5	0	137	4	199	0	203	583
6:00PM	82	83	0	165	113	2	0	115	4	161	0	165	445
7:00PM	36	45	0	81	82	1	0	83	1	68	0	69	233
8:00PM	41	33	0	74	45	1	0	46	0	68	0	68	188
9:00PM	30	30	0	60	33	0	0	33	0	47	0	47	140
10:00PM	12	16	0	28	26	0	0	26	0	25	0	25	79
11:00PM	8	9	0	17	14	1	0	15	0	24	0	24	56
Total	2144	1710	0	3854	1779	56	0	1835	54	2140	0	2194	7883
% Approach	55.6%	44.4%	0%	-	96.9%	3.1%	0%	-	2.5%	97.5%	0%	-	-
% Total	27.2%	21.7%	0%	48.9%	22.6%	0.7%	0%	23.3%	0.7%	27.1%	0%	27.8%	-
Lights	2072	1300	0	3372	1349	34	0	1383	31	2052	0	2083	6838
% Lights	96.6%	76.0%	0%	87.5%	75.8%	60.7%	0%	75.4%	57.4%	95.9%	0%	94.9%	86.7%
Articulated Trucks	13	338	0	351	363	17	0	380	14	27	0	41	772
% Articulated Trucks	0.6%	19.8%	0%	9.1%	20.4%	30.4%	0%	20.7%	25.9%	1.3%	0%	1.9%	9.8%
Buses and Single-Unit Trucks	59	72	0	131	67	5	0	72	9	61	0	70	273
% Buses and Single-Unit Trucks	2.8%	4.2%	0%	3.4%	3.8%	8.9%	0%	3.9%	16.7%	2.9%	0%	3.2%	3.5%

*L: Left, R: Right, T: Thru, U: U-Turn



US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	US 95A Northbound				US 95A Southbound				Ramsey Weeks Cutoff Eastbound				
Time	L	T	U	App	T	R	U	App	L	R	U	App	Int
2025-10-21 7:00AM	41	27	0	68	22	4	0	26	0	19	0	19	113
7:15AM	67	25	0	92	21	2	0	23	1	27	0	28	143
7:30AM	52	27	0	79	30	1	0	31	3	38	0	41	151
7:45AM	28	25	0	53	16	0	0	16	0	33	0	33	102
Total	188	104	0	292	89	7	0	96	4	117	0	121	509
% Approach	64.4%	35.6%	0%	-	92.7%	7.3%	0%	-	3.3%	96.7%	0%	-	-
% Total	36.9%	20.4%	0%	57.4%	17.5%	1.4%	0%	18.9%	0.8%	23.0%	0%	23.8%	-
PHF	0.701	0.963	-	0.793	0.742	0.438	-	0.774	0.333	0.770	-	0.738	0.843
Lights	183	80	0	263	70	3	0	73	0	110	0	110	446
% Lights	97.3%	76.9%	0%	90.1%	78.7%	42.9%	0%	76.0%	0%	94.0%	0%	90.9%	87.6%
Articulated Trucks	0	19	0	19	12	3	0	15	3	3	0	6	40
% Articulated Trucks	0%	18.3%	0%	6.5%	13.5%	42.9%	0%	15.6%	75.0%	2.6%	0%	5.0%	7.9%
Buses and Single-Unit Trucks	5	5	0	10	7	1	0	8	1	4	0	5	23
% Buses and Single-Unit Trucks	2.7%	4.8%	0%	3.4%	7.9%	14.3%	0%	8.3%	25.0%	3.4%	0%	4.1%	4.5%

* L: Left, R: Right, T: Thru, U: U-Turn

US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025
AM Peak (7 AM - 8 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

[N] US 95A

Total: 204
In: 96 Out: 108

7 89

[W] Ramsey Weeks Cutoff

Total: 316
In: 121 Out: 195

4
117



188

104

Out: 206 In: 292
Total: 498
[S] US 95A

US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

Midday Peak (12:15 PM - 1:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

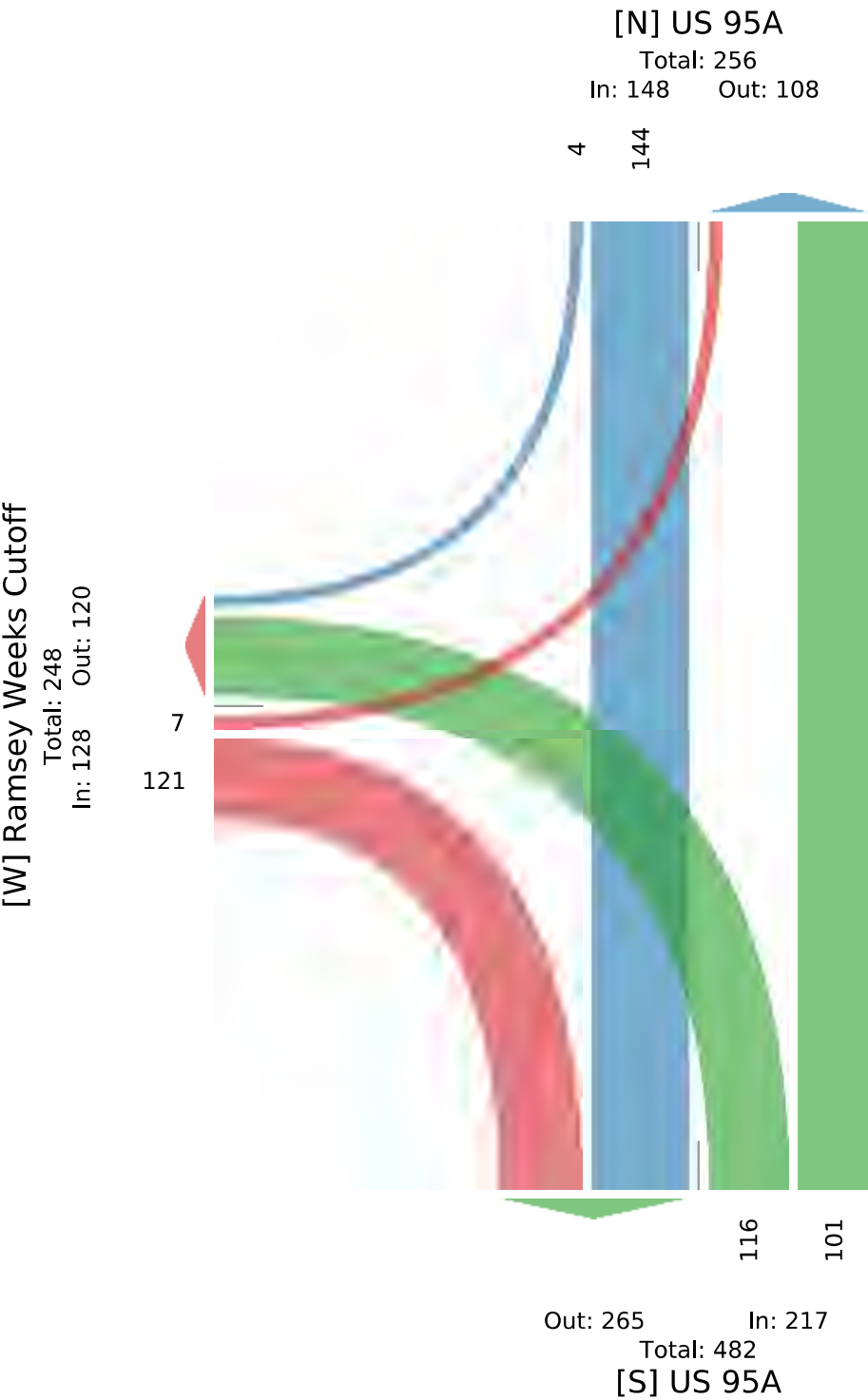
Leg Direction	US 95A Northbound				US 95A Southbound				Ramsey Weeks Cutoff Eastbound				
Time	L	T	U	App	T	R	U	App	L	R	U	App	Int
2025-10-21 12:15PM	27	24	0	51	36	1	0	37	3	31	0	34	122
12:30PM	29	29	0	58	31	0	0	31	3	26	0	29	118
12:45PM	25	21	0	46	38	1	0	39	1	31	0	32	117
1:00PM	35	27	0	62	39	2	0	41	0	33	0	33	136
Total	116	101	0	217	144	4	0	148	7	121	0	128	493
% Approach	53.5%	46.5%	0%	-	97.3%	2.7%	0%	-	5.5%	94.5%	0%	-	-
% Total	23.5%	20.5%	0%	44.0%	29.2%	0.8%	0%	30.0%	1.4%	24.5%	0%	26.0%	-
PHF	0.829	0.871	-	0.875	0.923	0.500	-	0.902	0.583	0.917	-	0.941	0.906
Lights	110	80	0	190	111	1	0	112	3	118	0	121	423
% Lights	94.8%	79.2%	0%	87.6%	77.1%	25.0%	0%	75.7%	42.9%	97.5%	0%	94.5%	85.8%
Articulated Trucks	2	15	0	17	32	2	0	34	3	2	0	5	56
% Articulated Trucks	1.7%	14.9%	0%	7.8%	22.2%	50.0%	0%	23.0%	42.9%	1.7%	0%	3.9%	11.4%
Buses and Single-Unit Trucks	4	6	0	10	1	1	0	2	1	1	0	2	14
% Buses and Single-Unit Trucks	3.4%	5.9%	0%	4.6%	0.7%	25.0%	0%	1.4%	14.3%	0.8%	0%	1.6%	2.8%

* L: Left, R: Right, T: Thru, U: U-Turn

US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025
Midday Peak (12:15 PM - 1:15 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

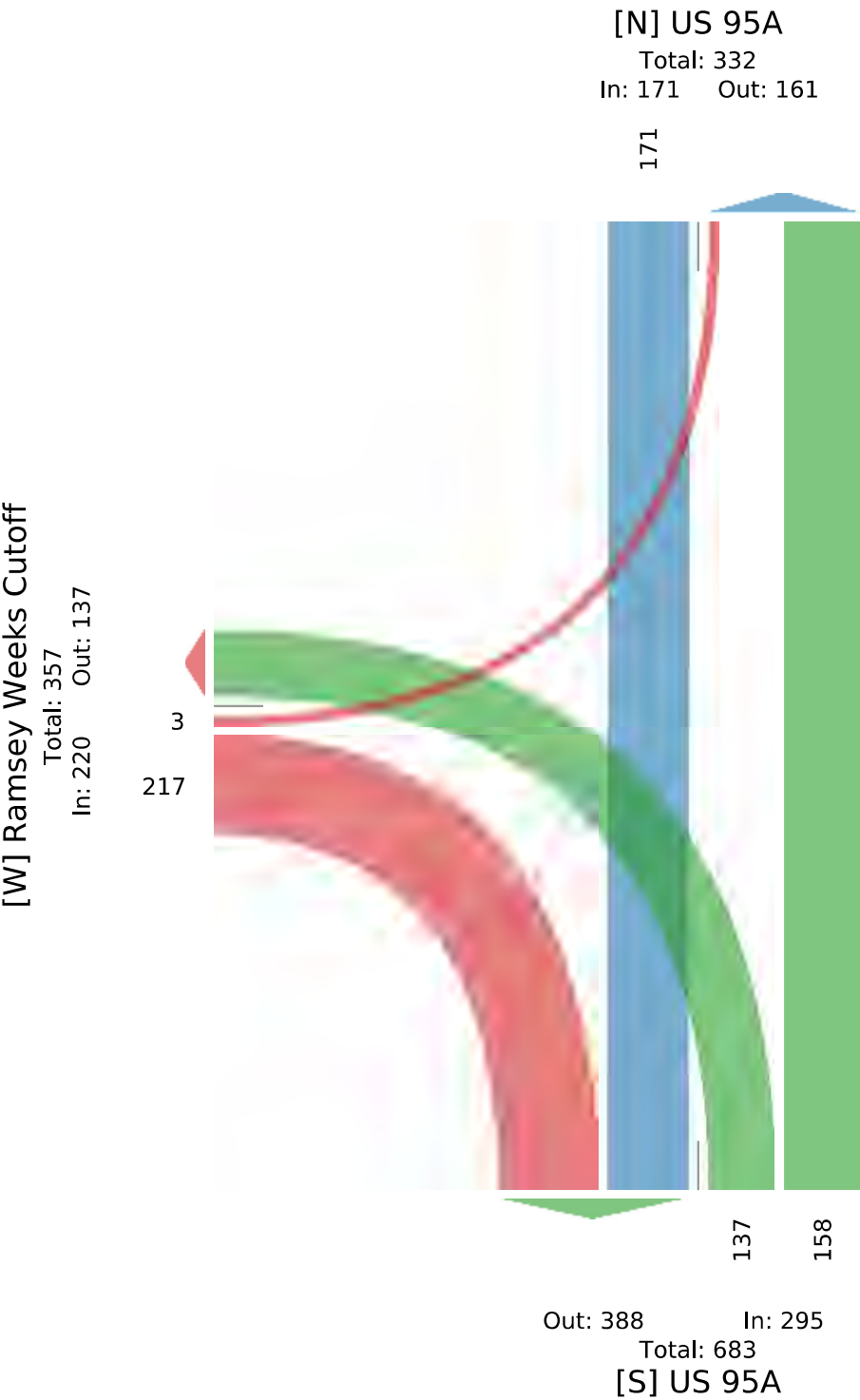
Leg Direction	US 95A Northbound				US 95A Southbound				Ramsey Weeks Cutoff Eastbound				
Time	L	T	U	App	T	R	U	App	L	R	U	App	Int
2025-10-21 4:30PM	24	34	0	58	56	0	0	56	0	57	0	57	171
4:45PM	50	42	0	92	47	0	0	47	1	48	0	49	188
5:00PM	29	41	0	70	33	0	0	33	2	50	0	52	155
5:15PM	34	41	0	75	35	0	0	35	0	62	0	62	172
Total	137	158	0	295	171	0	0	171	3	217	0	220	686
% Approach	46.4%	53.6%	0%	-	100%	0%	0%	-	1.4%	98.6%	0%	-	-
% Total	20.0%	23.0%	0%	43.0%	24.9%	0%	0%	24.9%	0.4%	31.6%	0%	32.1%	-
PHF	0.685	0.940	-	0.802	0.763	-	-	0.763	0.375	0.875	-	0.887	0.912
Lights	135	134	0	269	140	0	0	140	3	213	0	216	625
% Lights	98.5%	84.8%	0%	91.2%	81.9%	0%	0%	81.9%	100%	98.2%	0%	98.2%	91.1%
Articulated Trucks	0	18	0	18	27	0	0	27	0	2	0	2	47
% Articulated Trucks	0%	11.4%	0%	6.1%	15.8%	0%	0%	15.8%	0%	0.9%	0%	0.9%	6.9%
Buses and Single-Unit Trucks	2	6	0	8	4	0	0	4	0	2	0	2	14
% Buses and Single-Unit Trucks	1.5%	3.8%	0%	2.7%	2.3%	0%	0%	2.3%	0%	0.9%	0%	0.9%	2.0%

* L: Left, R: Right, T: Thru, U: U-Turn

US 95A and Ramsey Weeks Cutoff TMC - TMC

Tue Oct 21, 2025
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348896, Location: 39.361043, -119.236687

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

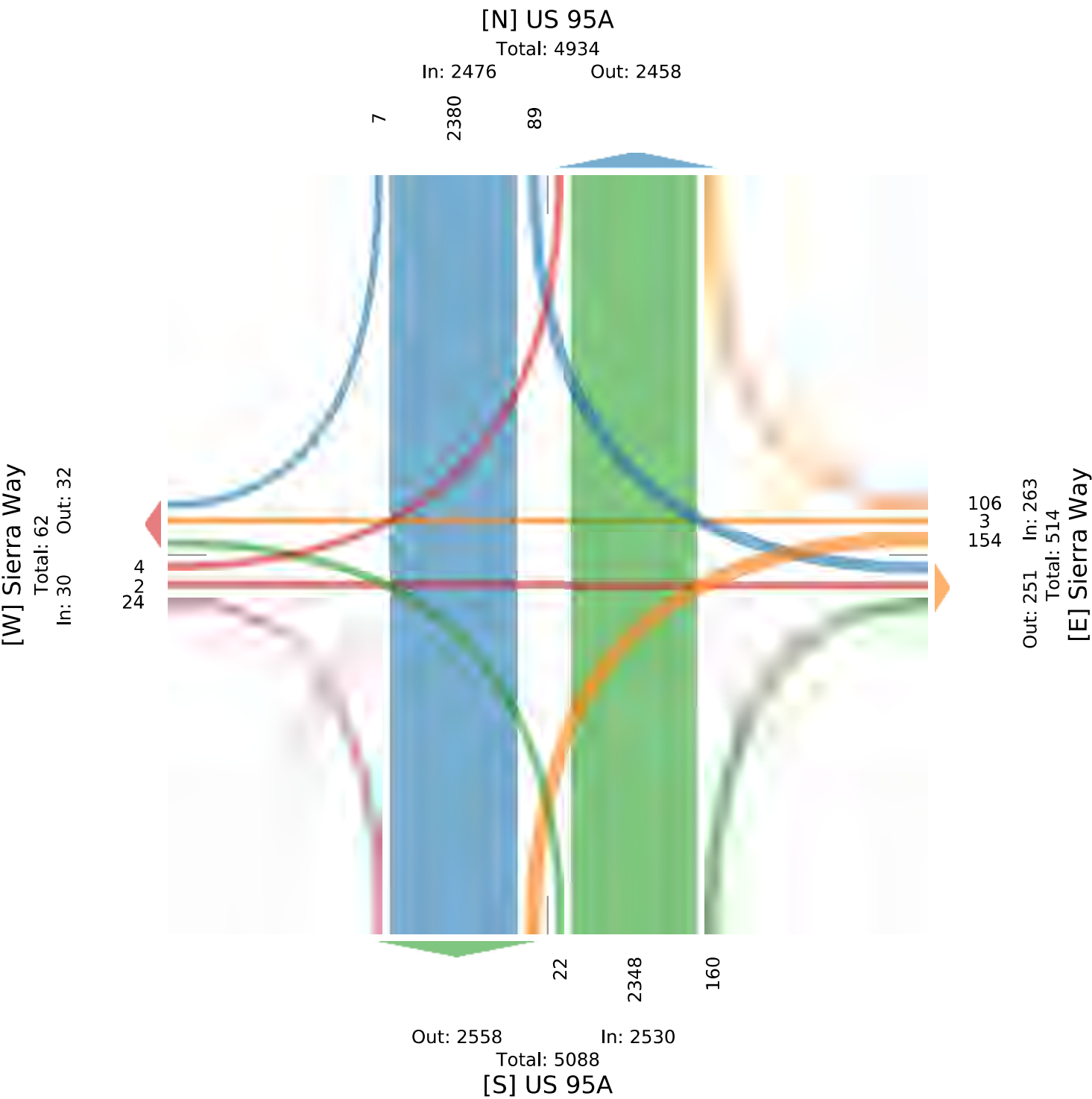
Leg Direction	US 95A Northbound					US 95A Southbound					Sierra Way Eastbound					Sierra Way Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-10-21 12:00AM	0	22	1	0	23	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	31
1:00AM	0	15	0	0	15	0	14	0	0	14	0	0	0	0	0	1	0	0	0	1	30
2:00AM	0	28	0	0	28	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	35
3:00AM	0	39	2	0	41	3	12	0	0	15	0	0	0	0	0	3	1	1	0	5	61
4:00AM	0	81	0	0	81	0	19	0	0	19	0	0	1	0	1	0	0	0	0	0	101
5:00AM	0	154	23	0	177	4	46	0	0	50	1	1	0	0	2	0	0	0	0	0	229
6:00AM	2	112	61	0	175	12	77	0	0	89	0	0	1	0	1	0	0	0	0	0	265
7:00AM	1	152	11	0	164	13	126	0	0	139	0	0	0	0	0	8	0	4	0	12	315
8:00AM	1	129	5	0	135	13	152	1	0	166	2	0	1	0	3	8	0	7	0	15	319
9:00AM	4	138	7	0	149	12	158	1	0	171	0	0	2	0	2	5	1	8	0	14	336
10:00AM	1	135	10	0	146	6	150	2	0	158	0	1	3	0	4	6	0	6	0	12	320
11:00AM	2	149	4	0	155	0	137	0	0	137	0	0	3	0	3	9	1	3	0	13	308
12:00PM	2	133	10	0	145	5	139	1	0	145	0	0	3	0	3	10	0	8	0	18	311
1:00PM	4	141	7	0	152	6	174	0	0	180	0	0	2	0	2	4	0	6	0	10	344
2:00PM	0	140	5	0	145	5	181	1	0	187	0	0	3	0	3	11	0	16	0	27	362
3:00PM	3	188	6	0	197	5	190	0	0	195	0	0	4	0	4	9	0	14	0	23	419
4:00PM	1	176	3	0	180	5	219	1	0	225	0	0	0	0	0	23	0	24	0	47	452
5:00PM	0	132	2	0	134	0	203	0	0	203	0	0	0	0	0	50	0	8	0	58	395
6:00PM	1	98	1	0	100	0	137	0	0	137	1	0	1	0	2	2	0	1	0	3	242
7:00PM	0	61	1	0	62	0	83	0	0	83	0	0	0	0	0	5	0	0	0	5	150
8:00PM	0	45	0	0	45	0	51	0	0	51	0	0	0	0	0	0	0	0	0	0	96
9:00PM	0	45	0	0	45	0	49	0	0	49	0	0	0	0	0	0	0	0	0	0	94
10:00PM	0	15	0	0	15	0	27	0	0	27	0	0	0	0	0	0	0	0	0	0	42
11:00PM	0	20	1	0	21	0	21	0	0	21	0	0	0	0	0	0	0	0	0	0	42
Total	22	2348	160	0	2530	89	2380	7	0	2476	4	2	24	0	30	154	3	106	0	263	5299
% Approach	0.9%	92.8%	6.3%	0%	-	3.6%	96.1%	0.3%	0%	-	13.3%	6.7%	80.0%	0%	-	58.6%	1.1%	40.3%	0%	-	-
% Total	0.4%	44.3%	3.0%	0%	47.7%	1.7%	44.9%	0.1%	0%	46.7%	0.1%	0%	0.5%	0%	0.6%	2.9%	0.1%	2.0%	0%	5.0%	-
Lights	8	1930	146	0	2084	50	1946	5	0	2001	3	0	8	0	11	138	2	60	0	200	4296
% Lights	36.4%	82.2%	91.3%	0%	82.4%	56.2%	81.8%	71.4%	0%	80.8%	75.0%	0%	33.3%	0%	36.7%	89.6%	66.7%	56.6%	0%	76.0%	81.1%
Articulated Trucks	11	318	10	0	339	9	335	0	0	344	0	0	13	0	13	11	0	5	0	16	712
% Articulated Trucks	50.0%	13.5%	6.3%	0%	13.4%	10.1%	14.1%	0%	0%	13.9%	0%	0%	54.2%	0%	43.3%	7.1%	0%	4.7%	0%	6.1%	13.4%
Buses and Single-Unit Trucks	3	100	4	0	107	30	99	2	0	131	1	2	3	0	6	5	1	41	0	47	291
% Buses and Single-Unit Trucks	13.6%	4.3%	2.5%	0%	4.2%	33.7%	4.2%	28.6%	0%	5.3%	25.0%	100%	12.5%	0%	20.0%	3.2%	33.3%	38.7%	0%	17.9%	5.5%

*L: Left, R: Right, T: Thru, U: U-Turn

US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025
Full Length (12 AM-12 AM (+1))
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025

AM Peak (9:15 AM - 10:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

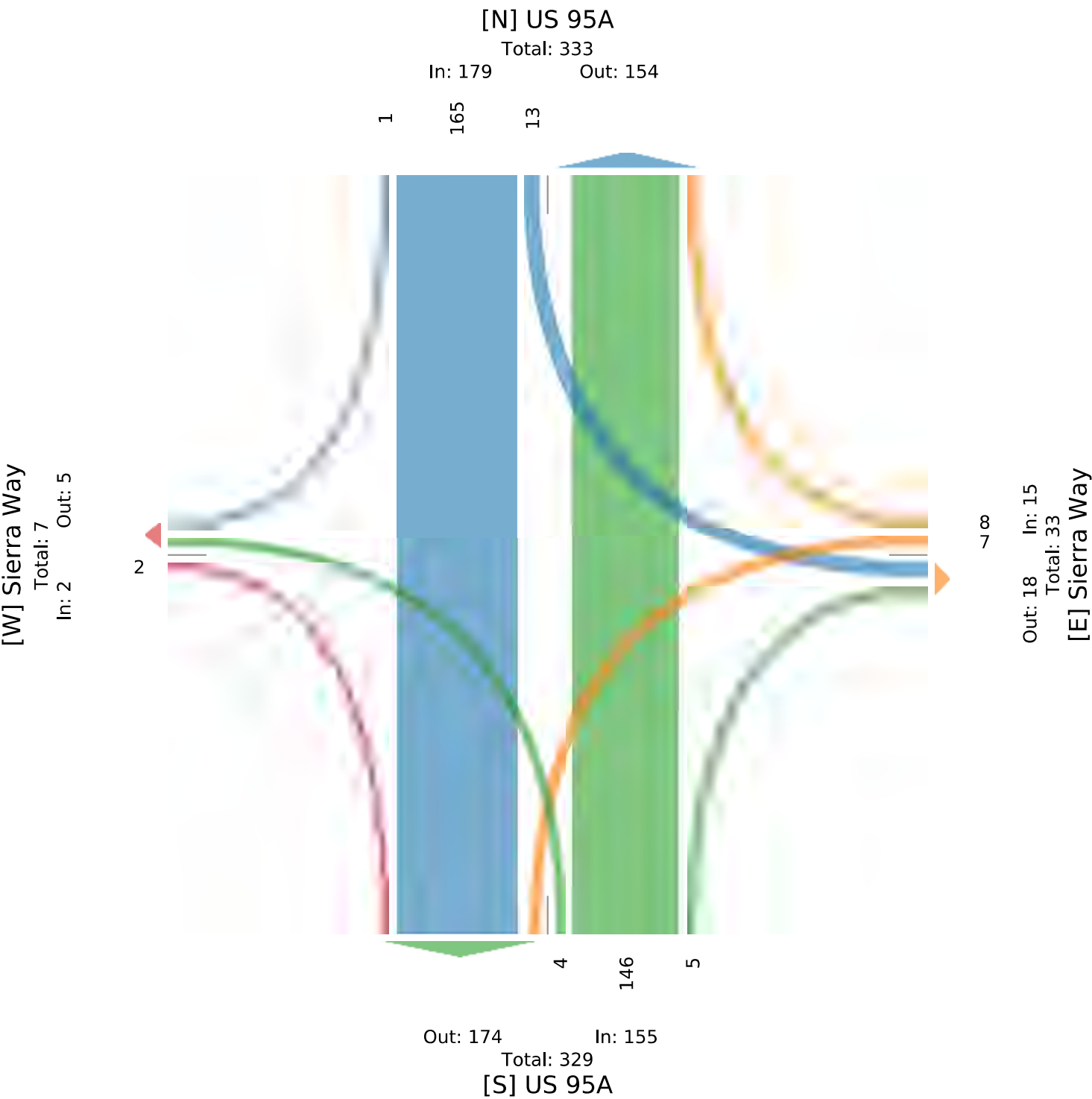
Leg Direction	US 95A Northbound					US 95A Southbound					Sierra Way Eastbound					Sierra Way Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-10-21 9:15AM	1	31	2	0	34	5	35	0	0	40	0	0	2	0	2	2	0	4	0	6	82
9:30AM	0	38	2	0	40	3	30	1	0	34	0	0	0	0	0	2	0	0	0	2	76
9:45AM	3	35	0	0	38	1	54	0	0	55	0	0	0	0	0	1	0	3	0	4	97
10:00AM	0	42	1	0	43	4	46	0	0	50	0	0	0	0	0	2	0	1	0	3	96
Total	4	146	5	0	155	13	165	1	0	179	0	0	2	0	2	7	0	8	0	15	351
% Approach	2.6%	94.2%	3.2%	0%	-	7.3%	92.2%	0.6%	0%	-	0%	0%	100%	0%	-	46.7%	0%	53.3%	0%	-	-
% Total	1.1%	41.6%	1.4%	0%	44.2%	3.7%	47.0%	0.3%	0%	51.0%	0%	0%	0.6%	0%	0.6%	2.0%	0%	2.3%	0%	4.3%	-
PHF	0.333	0.869	0.625	-	0.901	0.650	0.764	0.250	-	0.814	-	-	0.250	-	0.250	0.875	-	0.500	-	0.625	0.905
Lights	1	117	3	0	121	7	136	1	0	144	0	0	1	0	1	5	0	4	0	9	275
% Lights	25.0%	80.1%	60.0%	0%	78.1%	53.8%	82.4%	100%	0%	80.4%	0%	0%	50.0%	0%	50.0%	71.4%	0%	50.0%	0%	60.0%	78.3%
Articulated Trucks	3	20	1	0	24	1	21	0	0	22	0	0	1	0	1	1	0	0	0	1	48
% Articulated Trucks	75.0%	13.7%	20.0%	0%	15.5%	7.7%	12.7%	0%	0%	12.3%	0%	0%	50.0%	0%	50.0%	14.3%	0%	0%	0%	6.7%	13.7%
Buses and Single-Unit Trucks	0	9	1	0	10	5	8	0	0	13	0	0	0	0	0	1	0	4	0	5	28
% Buses and Single-Unit Trucks	0%	6.2%	20.0%	0%	6.5%	38.5%	4.8%	0%	0%	7.3%	0%	0%	0%	0%	0%	14.3%	0%	50.0%	0%	33.3%	8.0%

*L: Left, R: Right, T: Thru, U: U-Turn

US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025
AM Peak (9:15 AM - 10:15 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

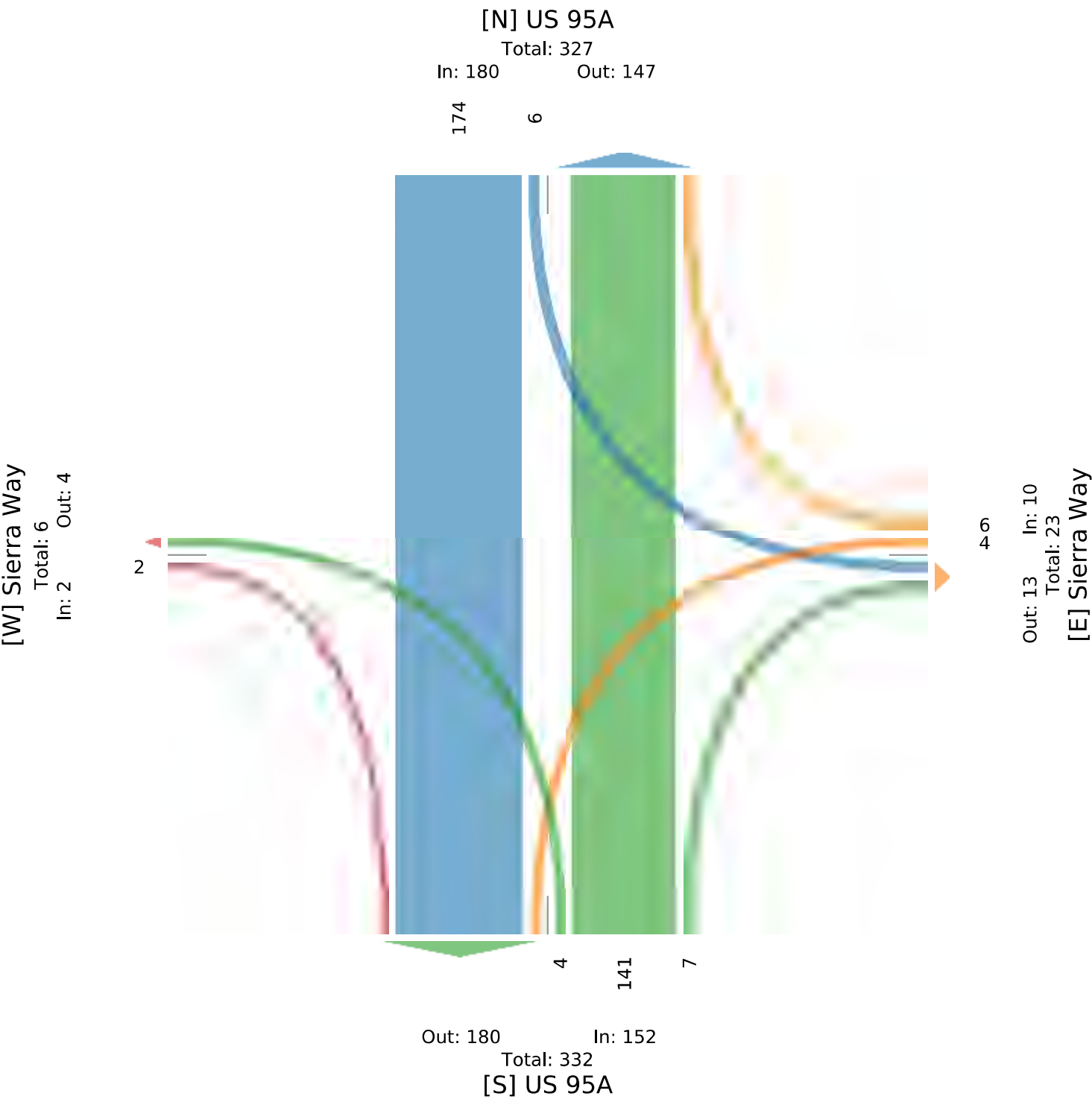
Leg Direction	US 95A Northbound					US 95A Southbound					Sierra Way Eastbound					Sierra Way Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-10-21 1:00PM	0	28	2	0	30	1	40	0	0	41	0	0	0	0	0	2	0	2	0	4	75
1:15PM	2	43	0	0	45	3	33	0	0	36	0	0	1	0	1	1	0	1	0	2	84
1:30PM	1	28	4	0	33	2	53	0	0	55	0	0	0	0	0	0	0	0	0	0	88
1:45PM	1	42	1	0	44	0	48	0	0	48	0	0	1	0	1	1	0	3	0	4	97
Total	4	141	7	0	152	6	174	0	0	180	0	0	2	0	2	4	0	6	0	10	344
% Approach	2.6%	92.8%	4.6%	0%	-	3.3%	96.7%	0%	0%	-	0%	0%	100%	0%	-	40.0%	0%	60.0%	0%	-	-
% Total	1.2%	41.0%	2.0%	0%	44.2%	1.7%	50.6%	0%	0%	52.3%	0%	0%	0.6%	0%	0.6%	1.2%	0%	1.7%	0%	2.9%	-
PHF	0.500	0.820	0.438	-	0.844	0.500	0.821	-	-	0.818	-	-	0.500	-	0.500	0.500	-	0.500	-	0.625	0.887
Lights	0	109	5	0	114	3	130	0	0	133	0	0	1	0	1	4	0	1	0	5	253
% Lights	0%	77.3%	71.4%	0%	75.0%	50.0%	74.7%	0%	0%	73.9%	0%	0%	50.0%	0%	50.0%	100%	0%	16.7%	0%	50.0%	73.5%
Articulated Trucks	3	22	1	0	26	0	37	0	0	37	0	0	1	0	1	0	0	1	0	1	65
% Articulated Trucks	75.0%	15.6%	14.3%	0%	17.1%	0%	21.3%	0%	0%	20.6%	0%	0%	50.0%	0%	50.0%	0%	0%	16.7%	0%	10.0%	18.9%
Buses and Single-Unit Trucks	1	10	1	0	12	3	7	0	0	10	0	0	0	0	0	0	0	4	0	4	26
% Buses and Single-Unit Trucks	25.0%	7.1%	14.3%	0%	7.9%	50.0%	4.0%	0%	0%	5.6%	0%	0%	0%	0%	0%	0%	0%	66.7%	0%	40.0%	7.6%

* L: Left, R: Right, T: Thru, U: U-Turn

US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025
Midday Peak (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

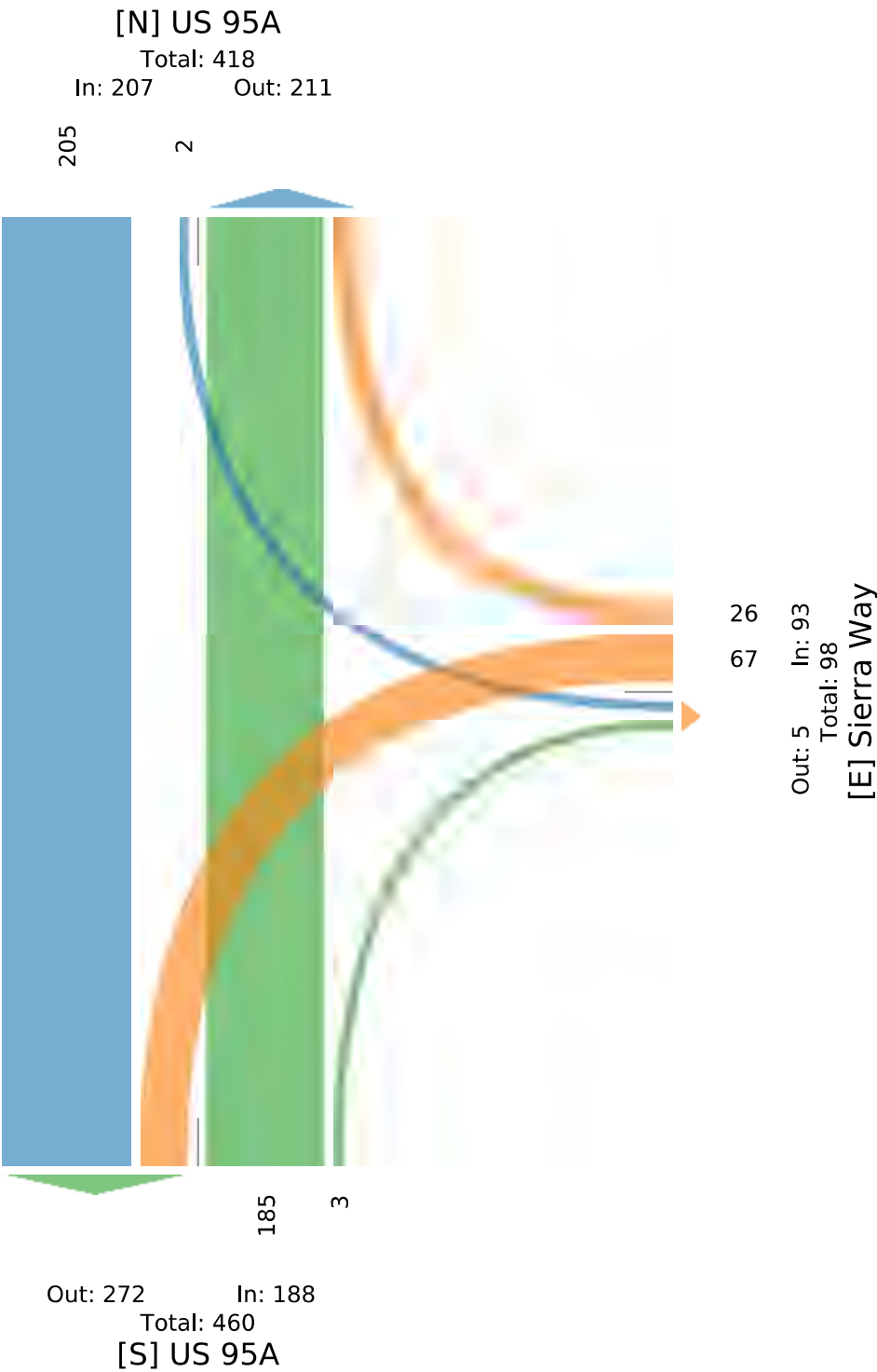
Leg Direction	US 95A Northbound					US 95A Southbound					Sierra Way Eastbound					Sierra Way Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-10-21 4:30PM	0	59	3	0	62	0	41	0	0	41	0	0	0	0	0	10	0	9	0	19	122
4:45PM	0	48	0	0	48	2	61	0	0	63	0	0	0	0	0	8	0	10	0	18	129
5:00PM	0	31	0	0	31	0	52	0	0	52	0	0	0	0	0	47	0	7	0	54	137
5:15PM	0	47	0	0	47	0	51	0	0	51	0	0	0	0	0	2	0	0	0	2	100
Total	0	185	3	0	188	2	205	0	0	207	0	0	0	0	0	67	0	26	0	93	488
% Approach	0%	98.4%	1.6%	0%	-	1.0%	99.0%	0%	0%	-	0%	0%	0%	0%	-	72.0%	0%	28.0%	0%	-	-
% Total	0%	37.9%	0.6%	0%	38.5%	0.4%	42.0%	0%	0%	42.4%	0%	0%	0%	0%	0%	13.7%	0%	5.3%	0%	19.1%	-
PHF	-	0.784	0.250	-	0.758	0.250	0.840	-	-	0.821	-	-	-	-	-	0.356	-	0.650	-	0.431	0.891
Lights	0	163	3	0	166	2	179	0	0	181	0	0	0	0	0	66	0	22	0	88	435
% Lights	0%	88.1%	100%	0%	88.3%	100%	87.3%	0%	0%	87.4%	0%	0%	0%	0%	-	98.5%	0%	84.6%	0%	94.6%	89.1%
Articulated Trucks	0	15	0	0	15	0	23	0	0	23	0	0	0	0	0	0	0	1	0	1	39
% Articulated Trucks	0%	8.1%	0%	0%	8.0%	0%	11.2%	0%	0%	11.1%	0%	0%	0%	0%	-	0%	0%	3.8%	0%	1.1%	8.0%
Buses and Single-Unit Trucks	0	7	0	0	7	0	3	0	0	3	0	0	0	0	0	1	0	3	0	4	14
% Buses and Single-Unit Trucks	0%	3.8%	0%	0%	3.7%	0%	1.5%	0%	0%	1.4%	0%	0%	0%	0%	-	1.5%	0%	11.5%	0%	4.3%	2.9%

* L: Left, R: Right, T: Thru, U: U-Turn

US+95A+and+Sierra+Way TMC - TMC

Tue Oct 21, 2025
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1348895, Location: 39.128385, -119.181012

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 95A and SR 339 - TMC

Wed May 14, 2025

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	SR 339 Northbound					US 95A Southbound					McGowon Ln Eastbound					US 95A Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-05-14 12:00AM	0	0	0	0	0	3	6	0	0	9	0	0	0	0	0	1	0	3	0	4	13
12:15AM	0	1	0	0	1	2	3	0	0	5	0	0	0	0	0	0	0	5	0	5	11
12:30AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	4
12:45AM	0	2	1	0	3	2	3	0	0	5	0	0	0	0	0	1	0	2	0	3	11
Hourly Total	0	4	1	0	5	8	12	0	0	20	0	0	0	0	0	2	0	12	0	14	39
1:00AM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	1	1	3	0	5	8
1:15AM	0	5	0	0	5	3	2	0	0	5	0	0	0	0	0	1	0	2	0	3	13
1:30AM	0	3	0	0	3	2	1	0	0	3	0	0	0	0	0	0	0	1	0	1	7
1:45AM	0	6	1	0	7	3	7	0	0	10	0	0	0	0	0	0	0	3	0	3	20
Hourly Total	0	16	2	0	18	8	10	0	0	18	0	0	0	0	0	2	1	9	0	12	48
2:00AM	0	1	1	0	2	2	6	0	0	8	0	0	0	0	0	0	0	4	0	4	14
2:15AM	0	3	0	0	3	3	4	0	0	7	0	0	0	0	0	0	0	1	0	1	11
2:30AM	0	5	0	0	5	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	10
2:45AM	0	1	0	0	1	3	4	0	0	7	0	0	0	0	0	0	0	3	0	3	11
Hourly Total	0	10	1	0	11	8	16	0	0	24	0	0	0	0	0	0	0	11	0	11	46
3:00AM	0	7	2	0	9	1	1	0	0	2	0	0	0	0	0	1	0	4	0	5	16
3:15AM	0	6	2	0	8	3	2	0	0	5	0	0	0	0	0	0	0	3	0	3	16
3:30AM	0	8	0	0	8	2	6	0	0	8	0	0	0	0	0	1	0	3	0	4	20
3:45AM	0	9	2	0	11	5	2	0	0	7	0	0	0	0	0	0	0	3	0	3	21
Hourly Total	0	30	6	0	36	11	11	0	0	22	0	0	0	0	0	2	0	13	0	15	73
4:00AM	0	3	4	0	7	3	4	0	0	7	0	0	0	0	0	0	0	5	0	5	19
4:15AM	0	10	3	0	13	5	4	0	0	9	0	0	0	0	0	0	0	13	0	13	35
4:30AM	0	16	2	0	18	4	4	0	0	8	0	0	0	0	0	0	0	11	0	11	37
4:45AM	0	18	4	0	22	8	5	0	0	13	0	0	0	0	0	2	0	13	0	15	50
Hourly Total	0	47	13	0	60	20	17	0	0	37	0	0	0	0	0	2	0	42	0	44	141
5:00AM	0	33	4	0	37	10	12	0	0	22	0	0	0	0	0	3	0	11	0	14	73
5:15AM	0	14	10	0	24	12	8	0	0	20	0	0	0	0	0	6	0	14	0	20	64
5:30AM	0	43	5	0	48	13	10	0	0	23	0	0	0	0	0	4	0	29	0	33	104
5:45AM	0	33	4	0	37	17	14	0	0	31	0	0	0	0	0	2	0	25	0	27	95
Hourly Total	0	123	23	0	146	52	44	0	0	96	0	0	0	0	0	15	0	79	0	94	336
6:00AM	0	29	7	0	36	2	11	0	0	13	0	0	0	0	0	6	0	28	0	34	83
6:15AM	0	18	6	0	24	5	13	0	0	18	0	0	0	0	0	6	0	27	0	33	75
6:30AM	0	34	3	0	37	26	20	0	0	46	0	0	1	0	1	6	0	17	0	23	107
6:45AM	0	33	10	0	43	26	27	0	0	53	0	0	0	0	0	11	0	26	0	37	133
Hourly Total	0	114	26	0	140	59	71	0	0	130	0	0	1	0	1	29	0	98	0	127	398
7:00AM	0	28	10	0	38	29	18	0	0	47	0	0	0	0	0	5	0	25	0	30	115
7:15AM	0	26	17	0	43	36	21	0	0	57	0	0	0	0	0	6	0	36	0	42	142
7:30AM	0	28	12	0	40	57	22	0	0	79	0	0	0	0	0	10	0	20	0	30	149
7:45AM	0	36	21	0	57	70	38	0	1	109	0	0	0	0	0	6	0	43	0	49	215
Hourly Total	0	118	60	0	178	192	99	0	1	292	0	0	0	0	0	27	0	124	0	151	621
8:00AM	0	30	5	0	35	35	26	0	0	61	0	0	0	0	0	5	0	35	0	40	136
8:15AM	0	36	15	0	51	46	21	0	0	67	0	1	0	0	1	10	0	33	0	43	162
8:30AM	0	33	16	0	49	37	26	0	0	63	0	0	0	0	0	7	1	18	0	26	138
8:45AM	0	27	12	0	39	49	21	0	0	70	0	0	0	0	0	10	0	25	0	35	144
Hourly Total	0	126	48	0	174	167	94	0	0	261	0	1	0	0	1	32	1	111	0	144	580
9:00AM	0	28	20	0	48	44	19	0	0	63	0	0	0	0	0	16	0	24	0	40	151
9:15AM	0	24	17	0	41	46	26	0	0	72	0	0	0	0	0	2	0	32	0	34	147
9:30AM	0	37	11	0	48	37	17	0	0	54	0	0	0	0	0	8	0	24	0	32	134
9:45AM	0	24	9	0	33	52	25	0	0	77	0	0	0	0	0	11	0	30	0	41	151
Hourly Total	0	113	57	0	170	179	87	0	0	266	0	0	0	0	0	37	0	110	0	147	583
10:00AM	0	25	10	0	35	43	24	0	0	67	0	0	0	0	0	11	0	29	0	40	142
10:15AM	1	29	16	0	46	47	26	0	0	73	0	0	0	0	0	5	0	46	0	51	170
10:30AM	0	27	10	0	37	37	33	0	0	70	0	0	0	0	0	7	0	35	0	42	149
10:45AM	0	29	19	0	48	50	27	0	0	77	0	0	0	0	0	15	0	38	0	53	178

Leg Direction	SR 339 Northbound					US 95A Southbound					McGowon Ln Eastbound					US 95A Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
Hourly Total	1	110	55	0	166	177	110	0	0	287	0	0	0	0	0	38	0	148	0	186	639
11:00AM	0	37	16	0	53	38	28	0	0	66	0	0	0	0	0	14	0	33	0	47	166
11:15AM	0	18	10	0	28	58	27	1	0	86	0	0	0	0	0	10	0	44	0	54	168
11:30AM	0	29	9	0	38	67	27	1	0	95	1	0	0	0	1	12	0	25	0	37	171
11:45AM	0	32	23	0	55	63	27	0	0	90	0	0	0	0	0	10	0	41	0	51	196
Hourly Total	0	116	58	0	174	226	109	2	0	337	1	0	0	0	1	46	0	143	0	189	701
12:00PM	0	48	12	0	60	58	32	0	0	90	0	0	0	0	0	9	0	53	0	62	212
12:15PM	0	23	16	0	39	55	27	0	0	82	0	0	0	0	0	21	0	52	0	73	194
12:30PM	0	24	19	0	43	44	21	0	0	65	0	0	0	0	0	15	0	67	0	82	190
12:45PM	0	37	6	0	43	44	27	0	0	71	0	0	0	0	0	10	1	38	0	49	163
Hourly Total	0	132	53	0	185	201	107	0	0	308	0	0	0	0	0	55	1	210	0	266	759
1:00PM	0	34	13	0	47	54	33	0	0	87	0	0	0	0	0	14	0	38	0	52	186
1:15PM	0	23	15	0	38	55	23	0	0	78	0	0	0	0	0	18	0	36	0	54	170
1:30PM	0	34	15	0	49	40	34	0	0	74	0	0	0	0	0	10	0	52	0	62	185
1:45PM	0	30	15	0	45	56	27	0	0	83	0	0	1	0	1	10	0	50	0	60	189
Hourly Total	0	121	58	0	179	205	117	0	0	322	0	0	1	0	1	52	0	176	0	228	730
2:00PM	0	20	17	0	37	64	25	0	0	89	0	0	0	0	0	10	0	44	0	54	180
2:15PM	0	18	24	0	42	55	26	0	0	81	0	0	0	0	0	19	0	53	0	72	195
2:30PM	0	34	12	0	46	53	22	0	0	75	0	0	0	0	0	18	0	62	0	80	201
2:45PM	0	23	15	0	38	38	27	0	0	65	0	0	0	0	0	20	0	76	0	96	199
Hourly Total	0	95	68	0	163	210	100	0	0	310	0	0	0	0	0	67	0	235	0	302	775
3:00PM	0	24	12	0	36	37	35	0	0	72	0	0	0	0	0	26	0	52	0	78	186
3:15PM	0	34	16	0	50	46	44	0	0	90	0	0	0	0	0	9	0	40	0	49	189
3:30PM	1	23	20	0	44	44	37	0	0	81	0	0	0	0	0	14	0	43	0	57	182
3:45PM	0	21	17	0	38	52	20	0	0	72	0	0	0	0	0	18	0	48	0	66	176
Hourly Total	1	102	65	0	168	179	136	0	0	315	0	0	0	0	0	67	0	183	0	250	733
4:00PM	0	21	14	0	35	46	34	0	0	80	0	0	0	0	0	18	0	62	0	80	195
4:15PM	0	26	9	0	35	52	37	0	0	89	0	0	0	0	0	6	0	49	0	55	179
4:30PM	0	30	16	0	46	48	43	0	0	91	1	0	0	0	1	16	0	42	0	58	196
4:45PM	0	31	18	0	49	49	31	0	0	80	0	0	0	0	0	15	1	33	0	49	178
Hourly Total	0	108	57	0	165	195	145	0	0	340	1	0	0	0	1	55	1	186	0	242	748
5:00PM	0	36	15	0	51	54	39	0	0	93	0	0	0	0	0	20	1	46	0	67	211
5:15PM	0	17	18	0	35	53	47	0	0	100	0	0	0	0	0	22	0	53	0	75	210
5:30PM	0	21	14	0	35	37	38	0	0	75	0	0	0	0	0	16	0	39	0	55	165
5:45PM	0	19	14	0	33	47	25	0	0	72	0	0	0	0	0	18	0	36	0	54	159
Hourly Total	0	93	61	0	154	191	149	0	0	340	0	0	0	0	0	76	1	174	0	251	745
6:00PM	0	13	10	0	23	39	29	0	0	68	0	0	0	0	0	16	0	31	0	47	138
6:15PM	0	18	7	0	25	47	46	0	0	93	0	0	0	0	0	17	0	29	0	46	164
6:30PM	0	12	9	0	21	36	17	0	0	53	0	0	0	0	0	13	0	23	0	36	110
6:45PM	0	23	16	0	39	36	18	0	0	54	0	0	0	0	0	8	0	27	0	35	128
Hourly Total	0	66	42	0	108	158	110	0	0	268	0	0	0	0	0	54	0	110	0	164	540
7:00PM	0	12	7	0	19	21	11	0	0	32	0	0	0	0	0	12	0	36	0	48	99
7:15PM	0	10	8	0	18	26	12	0	0	38	0	0	0	0	0	3	0	27	0	30	86
7:30PM	0	13	8	0	21	23	11	0	0	34	0	0	0	0	0	11	1	28	0	40	95
7:45PM	0	8	6	0	14	13	15	0	0	28	0	0	0	0	0	9	0	21	0	30	72
Hourly Total	0	43	29	0	72	83	49	0	0	132	0	0	0	0	0	35	1	112	0	148	352
8:00PM	0	16	8	0	24	14	14	0	0	28	0	0	0	0	0	9	0	20	0	29	81
8:15PM	0	1	4	0	5	12	12	0	0	24	0	0	0	0	0	7	0	16	0	23	52
8:30PM	0	9	4	0	13	15	17	0	0	32	0	0	0	0	0	6	0	18	0	24	69
8:45PM	0	8	8	0	16	18	12	0	0	30	0	0	0	0	0	6	0	11	0	17	63
Hourly Total	0	34	24	0	58	59	55	0	0	114	0	0	0	0	0	28	0	65	0	93	265
9:00PM	0	4	5	0	9	13	10	0	0	23	0	0	0	0	0	3	0	27	0	30	62
9:15PM	0	4	3	0	7	18	7	0	0	25	0	0	0	0	0	7	0	28	0	35	67
9:30PM	0	8	4	0	12	15	7	0	0	22	0	0	0	0	0	1	0	15	0	16	50
9:45PM	0	3	7	0	10	9	6	0	0	15	0	1	0	0	1	3	0	13	0	16	42
Hourly Total	0	19	19	0	38	55	30	0	0	85	0	1	0	0	1	14	0	83	0	97	221
10:00PM	0	7	2	0	9	8	7	0	0	15	0	0	0	0	0	3	0	7	0	10	34
10:15PM	0	7	2	0	9	6	5	0	0	11	0	0	0	0	0	1	0	7	0	8	28
10:30PM	0	2	4	0	6	6	5	0	0	11	0	0	0	0	0	4	0	9	0	13	30
10:45PM	0	1	1	0	2	5	2	0	0	7	0	0	0	0	0	0	0	12	0	12	21

Leg Direction	SR 339 Northbound					US 95A Southbound					McGowon Ln Eastbound					US 95A Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
Hourly Total	0	17	9	0	26	25	19	0	0	44	0	0	0	0	0	8	0	35	0	43	113
11:00PM	0	3	2	0	5	5	5	0	0	10	0	0	0	0	0	4	0	4	0	8	23
11:15PM	0	6	0	0	6	8	3	0	0	11	0	0	0	0	0	2	0	8	0	10	27
11:30PM	0	2	0	0	2	4	4	0	0	8	0	0	0	0	0	0	0	1	0	1	11
11:45PM	0	1	0	0	1	5	1	0	0	6	0	0	0	0	0	2	0	1	0	3	10
Hourly Total	0	12	2	0	14	22	13	0	0	35	0	0	0	0	0	8	0	14	0	22	71
Total	2	1769	837	0	2608	2690	1710	2	1	4403	2	2	2	0	6	751	6	2483	0	3240	10257
% Approach	0.1%	67.8%	32.1%	0%	-	61.1%	38.8%	0%	0%	-	33.3%	33.3%	33.3%	0%	-	23.2%	0.2%	76.6%	0%	-	-
% Total	0%	17.2%	8.2%	0%	25.4%	26.2%	16.7%	0%	0%	42.9%	0%	0%	0%	0%	0.1%	7.3%	0.1%	24.2%	0%	31.6%	-
Lights	1	1472	772	0	2245	2391	1456	2	1	3850	2	2	2	0	6	704	6	2186	0	2896	8997
% Lights	50.0%	83.2%	92.2%	0%	86.1%	88.9%	85.1%	100%	100%	87.4%	100%	100%	100%	0%	100%	93.7%	100%	88.0%	0%	89.4%	87.7%
Articulated Trucks	0	153	15	0	168	178	118	0	0	296	0	0	0	0	0	16	0	195	0	211	675
% Articulated Trucks	0%	8.6%	1.8%	0%	6.4%	6.6%	6.9%	0%	0%	6.7%	0%	0%	0%	0%	0%	2.1%	0%	7.9%	0%	6.5%	6.6%
Buses and Single-Unit Trucks	1	144	50	0	195	121	136	0	0	257	0	0	0	0	0	31	0	102	0	133	585
% Buses and Single-Unit Trucks	50.0%	8.1%	6.0%	0%	7.5%	4.5%	8.0%	0%	0%	5.8%	0%	0%	0%	0%	0%	4.1%	0%	4.1%	0%	4.1%	5.7%

*L: Left, R: Right, T: Thru, U: U-Turn

US 95A and SR 339 - TMC

Wed May 14, 2025

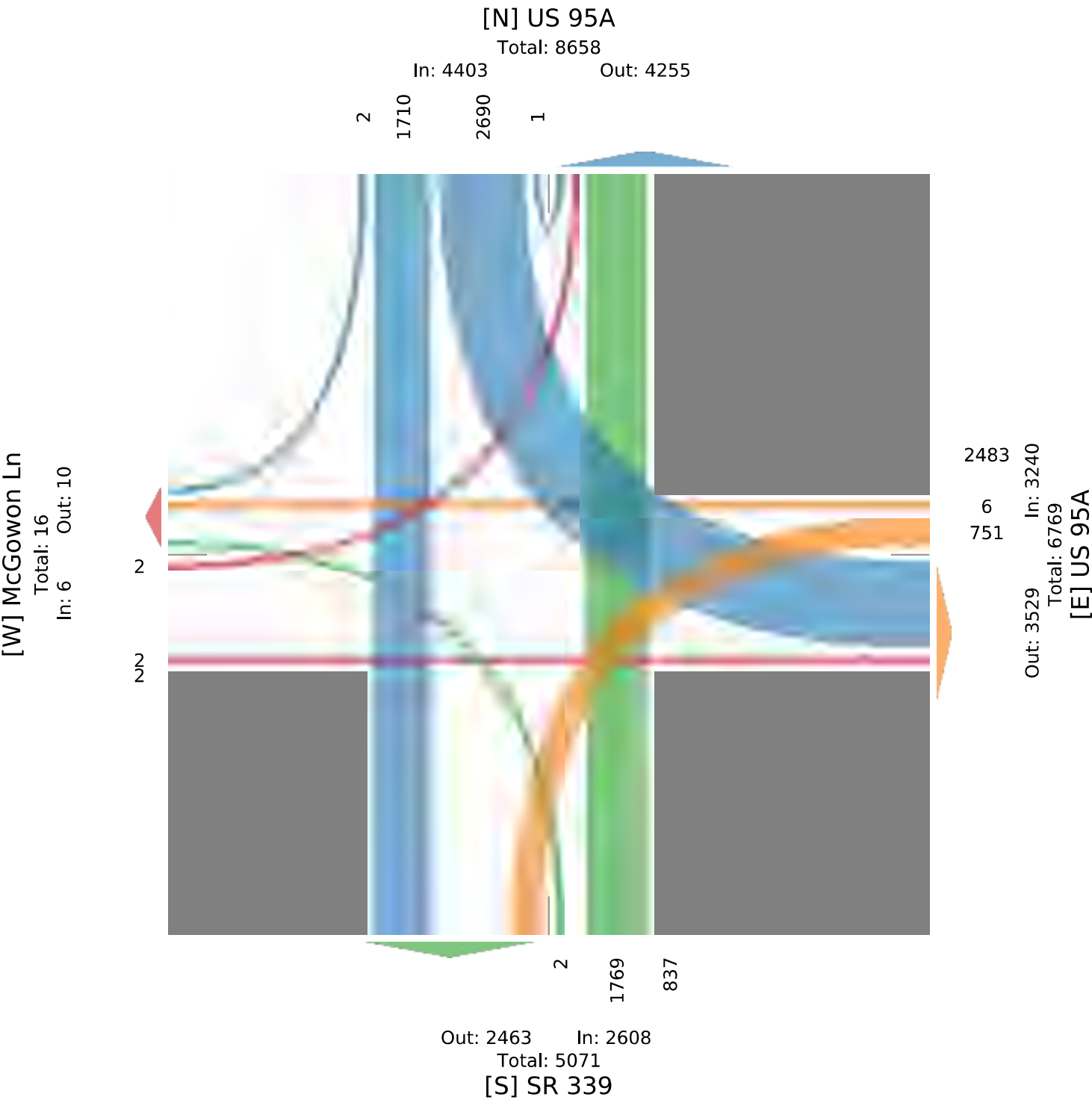
Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 95A and SR 339 - TMC

Wed May 14, 2025

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

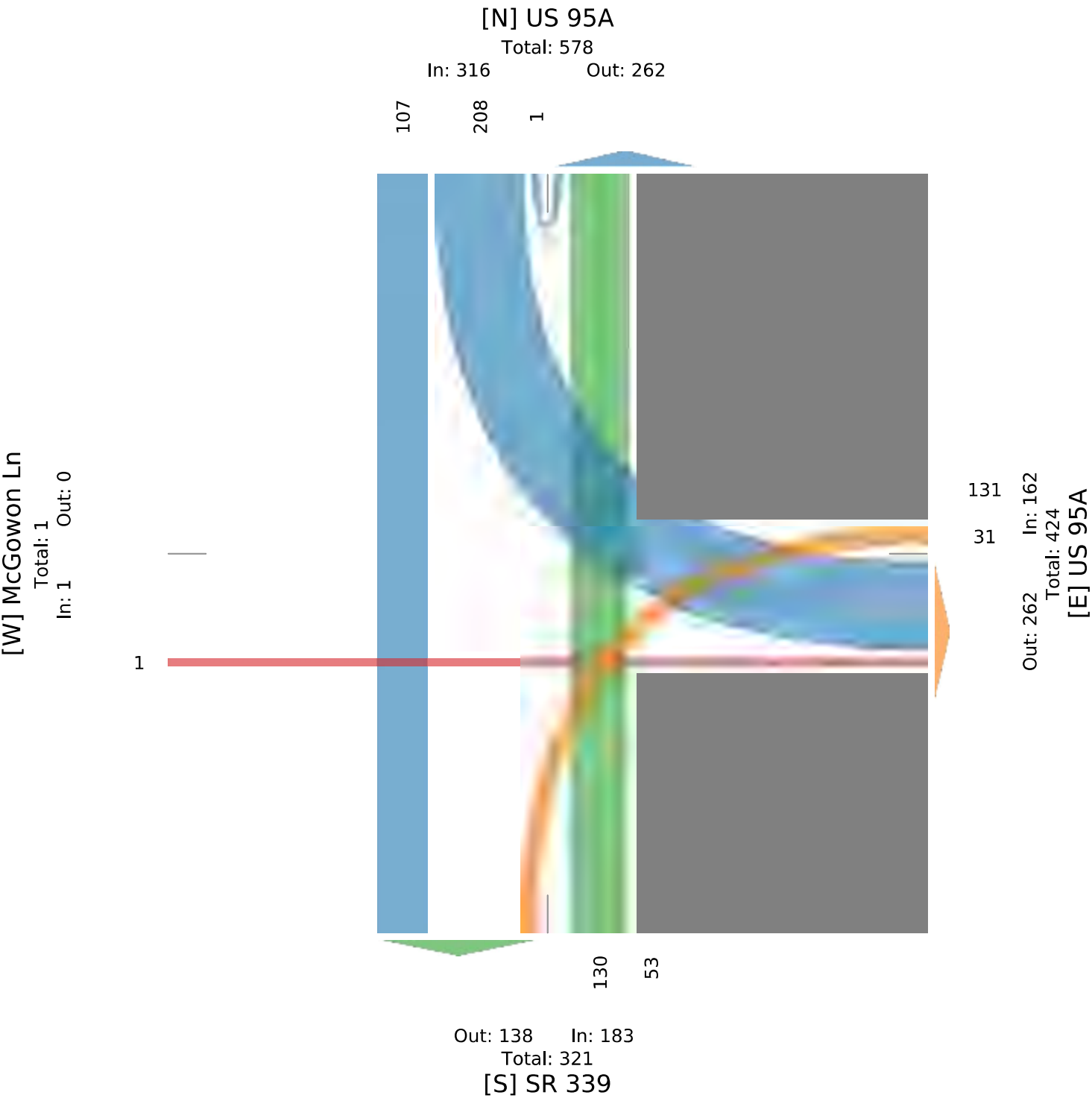
Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	SR 339 Northbound					US 95A Southbound					McGowon Ln Eastbound					US 95A Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-05-14 7:30AM	0	28	12	0	40	57	22	0	0	79	0	0	0	0	0	10	0	20	0	30	149
7:45AM	0	36	21	0	57	70	38	0	1	109	0	0	0	0	0	6	0	43	0	49	215
8:00AM	0	30	5	0	35	35	26	0	0	61	0	0	0	0	0	5	0	35	0	40	136
8:15AM	0	36	15	0	51	46	21	0	0	67	0	1	0	0	1	10	0	33	0	43	162
Total	0	130	53	0	183	208	107	0	1	316	0	1	0	0	1	31	0	131	0	162	662
% Approach	0%	71.0%	29.0%	0%	-	65.8%	33.9%	0%	0.3%	-	0%	100%	0%	0%	-	19.1%	0%	80.9%	0%	-	-
% Total	0%	19.6%	8.0%	0%	27.6%	31.4%	16.2%	0%	0.2%	47.7%	0%	0.2%	0%	0%	0.2%	4.7%	0%	19.8%	0%	24.5%	-
PHF	-	0.903	0.631	-	0.803	0.743	0.704	-	0.250	0.725	-	0.250	-	-	0.250	0.775	-	0.762	-	0.827	0.770
Lights	0	107	48	0	155	197	96	0	1	294	0	1	0	0	1	30	0	116	0	146	596
% Lights	0%	82.3%	90.6%	0%	84.7%	94.7%	89.7%	0%	100%	93.0%	0%	100%	0%	0%	100%	96.8%	0%	88.5%	0%	90.1%	90.0%
Articulated Trucks	0	11	0	0	11	5	4	0	0	9	0	0	0	0	0	1	0	8	0	9	29
% Articulated Trucks	0%	8.5%	0%	0%	6.0%	2.4%	3.7%	0%	0%	2.8%	0%	0%	0%	0%	0%	3.2%	0%	6.1%	0%	5.6%	4.4%
Buses and Single-Unit Trucks	0	12	5	0	17	6	7	0	0	13	0	0	0	0	0	0	0	7	0	7	37
% Buses and Single-Unit Trucks	0%	9.2%	9.4%	0%	9.3%	2.9%	6.5%	0%	0%	4.1%	0%	0%	0%	0%	0%	0%	0%	5.3%	0%	4.3%	5.6%

*L: Left, R: Right, T: Thru, U: U-Turn

US 95A and SR 339 - TMC
Wed May 14, 2025
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 95A and SR 339 - TMC

Wed May 14, 2025

Midday Peak (11:45 AM - 12:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	SR 339 Northbound					US 95A Southbound					McGowon Ln Eastbound					US 95A Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-05-14 11:45AM	0	32	23	0	55	63	27	0	0	90	0	0	0	0	0	10	0	41	0	51	196
12:00PM	0	48	12	0	60	58	32	0	0	90	0	0	0	0	0	9	0	53	0	62	212
12:15PM	0	23	16	0	39	55	27	0	0	82	0	0	0	0	0	21	0	52	0	73	194
12:30PM	0	24	19	0	43	44	21	0	0	65	0	0	0	0	0	15	0	67	0	82	190
Total	0	127	70	0	197	220	107	0	0	327	0	0	0	0	0	55	0	213	0	268	792
% Approach	0%	64.5%	35.5%	0%	-	67.3%	32.7%	0%	0%	-	0%	0%	0%	0%	-	20.5%	0%	79.5%	0%	-	-
% Total	0%	16.0%	8.8%	0%	24.9%	27.8%	13.5%	0%	0%	41.3%	0%	0%	0%	0%	0%	6.9%	0%	26.9%	0%	33.8%	-
PHF	-	0.661	0.761	-	0.821	0.873	0.836	-	-	0.908	-	-	-	-	-	0.655	-	0.795	-	0.817	0.934
Lights	0	109	67	0	176	202	97	0	0	299	0	0	0	0	0	49	0	187	0	236	711
% Lights	0%	85.8%	95.7%	0%	89.3%	91.8%	90.7%	0%	0%	91.4%	0%	0%	0%	0%	-	89.1%	0%	87.8%	0%	88.1%	89.8%
Articulated Trucks	0	7	1	0	8	15	8	0	0	23	0	0	0	0	0	1	0	16	0	17	48
% Articulated Trucks	0%	5.5%	1.4%	0%	4.1%	6.8%	7.5%	0%	0%	7.0%	0%	0%	0%	0%	-	1.8%	0%	7.5%	0%	6.3%	6.1%
Buses and Single-Unit Trucks	0	11	2	0	13	3	2	0	0	5	0	0	0	0	0	5	0	10	0	15	33
% Buses and Single-Unit Trucks	0%	8.7%	2.9%	0%	6.6%	1.4%	1.9%	0%	0%	1.5%	0%	0%	0%	0%	-	9.1%	0%	4.7%	0%	5.6%	4.2%

* L: Left, R: Right, T: Thru, U: U-Turn

US 95A and SR 339 - TMC

Wed May 14, 2025

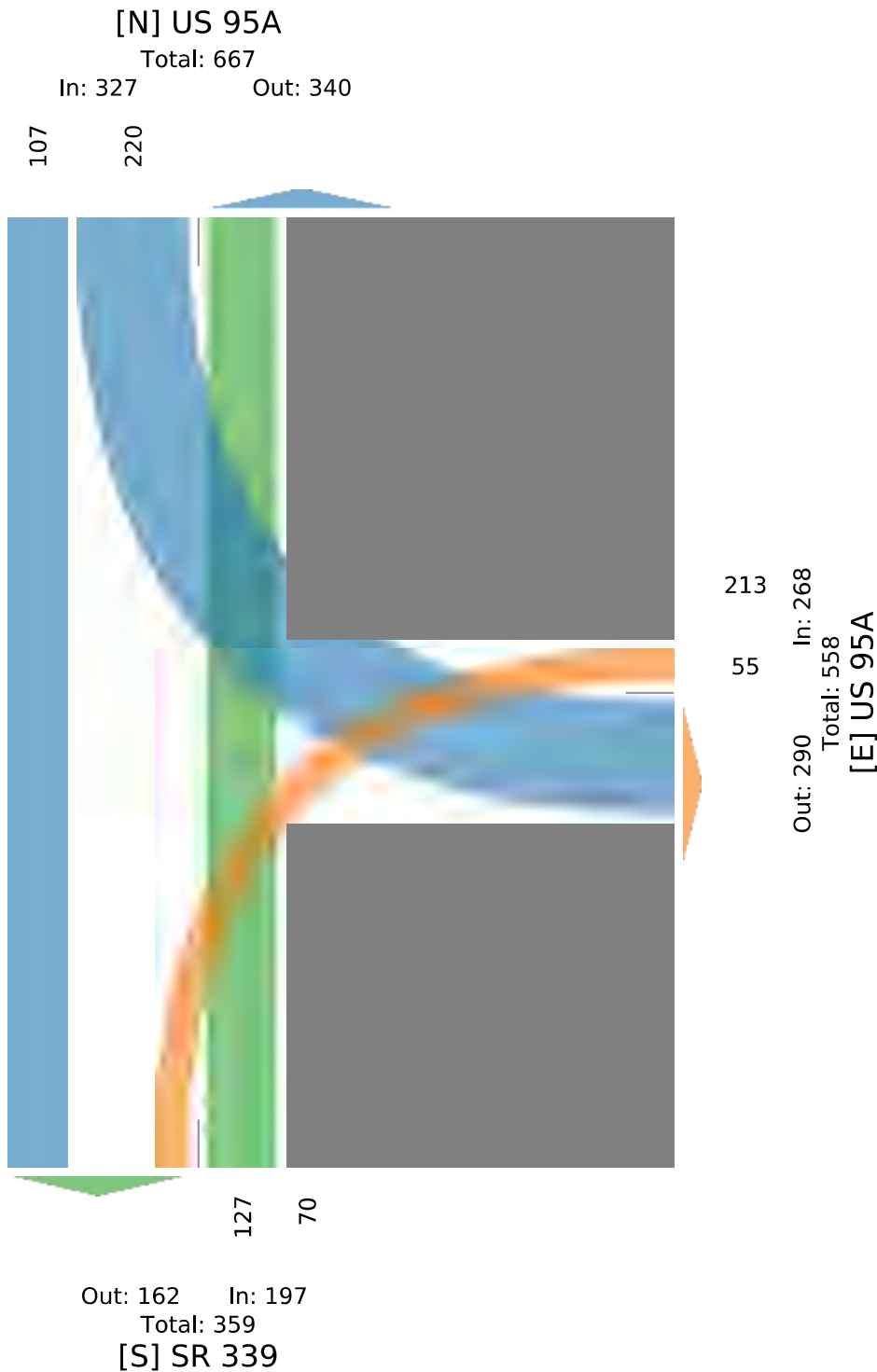
Midday Peak (11:45 AM - 12:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



US 95A and SR 339 - TMC

Wed May 14, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US

Leg Direction	SR 339 Northbound					US 95A Southbound					McGowon Ln Eastbound					US 95A Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-05-14 4:30PM	0	30	16	0	46	48	43	0	0	91	1	0	0	0	1	16	0	42	0	58	196
4:45PM	0	31	18	0	49	49	31	0	0	80	0	0	0	0	0	15	1	33	0	49	178
5:00PM	0	36	15	0	51	54	39	0	0	93	0	0	0	0	0	20	1	46	0	67	211
5:15PM	0	17	18	0	35	53	47	0	0	100	0	0	0	0	0	22	0	53	0	75	210
Total	0	114	67	0	181	204	160	0	0	364	1	0	0	0	1	73	2	174	0	249	795
% Approach	0%	63.0%	37.0%	0%	-	56.0%	44.0%	0%	0%	-	100%	0%	0%	0%	-	29.3%	0.8%	69.9%	0%	-	-
% Total	0%	14.3%	8.4%	0%	22.8%	25.7%	20.1%	0%	0%	45.8%	0.1%	0%	0%	0%	0.1%	9.2%	0.3%	21.9%	0%	31.3%	-
PHF	-	0.792	0.931	-	0.887	0.944	0.851	-	-	0.910	0.250	-	-	-	0.250	0.830	0.500	0.821	-	0.830	0.942
Lights	0	102	66	0	168	194	146	0	0	340	1	0	0	0	1	69	2	164	0	235	744
% Lights	0%	89.5%	98.5%	0%	92.8%	95.1%	91.3%	0%	0%	93.4%	100%	0%	0%	0%	100%	94.5%	100%	94.3%	0%	94.4%	93.6%
Articulated Trucks	0	6	0	0	6	9	4	0	0	13	0	0	0	0	0	1	0	7	0	8	27
% Articulated Trucks	0%	5.3%	0%	0%	3.3%	4.4%	2.5%	0%	0%	3.6%	0%	0%	0%	0%	0%	1.4%	0%	4.0%	0%	3.2%	3.4%
Buses and Single-Unit Trucks	0	6	1	0	7	1	10	0	0	11	0	0	0	0	0	3	0	3	0	6	24
% Buses and Single-Unit Trucks	0%	5.3%	1.5%	0%	3.9%	0.5%	6.3%	0%	0%	3.0%	0%	0%	0%	0%	0%	4.1%	0%	1.7%	0%	2.4%	3.0%

*L: Left, R: Right, T: Thru, U: U-Turn

US 95A and SR 339 - TMC

Wed May 14, 2025

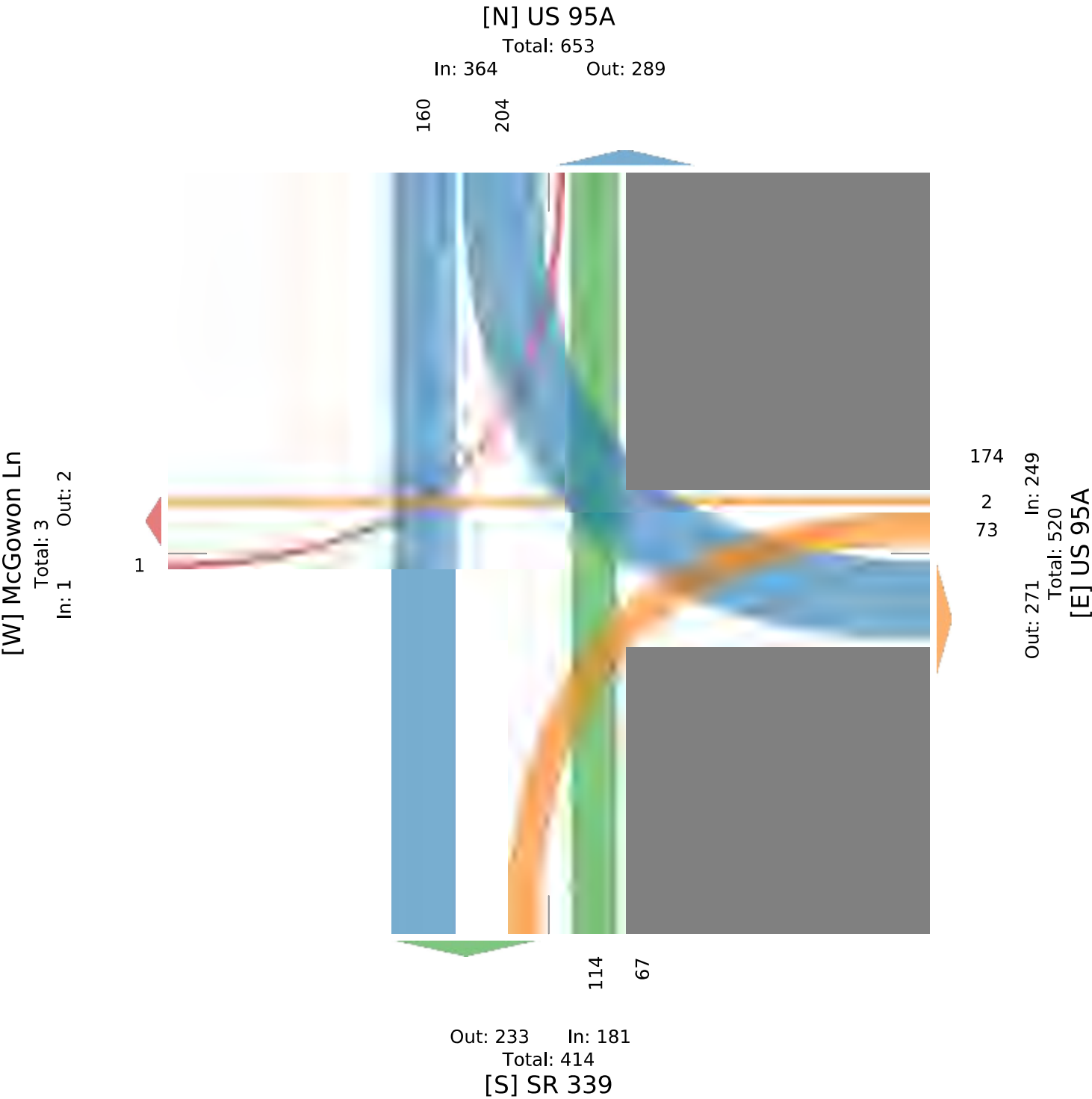
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1301159, Location: 38.993972, -119.181888

Provided by: Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100, Saint Paul, MN, 55114, US



Appendix C

Supporting Documentation for Trip
Generation of 1.4:1 (workers : vehicle trips)



EDF power solutions North America
15445 Innovation Drive
San Diego, CA 92128
www.edf-re.com

TO WHOM IT MAY CONCERN

Re: Ridesharing/Carpooling Program Data for the Milagro Solar and Storage Project.

This letter provides data on the ridesharing and carpooling utilization observed among employees during the construction of the Milagro Project located in Doña Ana County, NM. I currently hold the position of Associate Director of Construction for EDF power solutions, and I was the project director in charge of the implementation of the project. Over my 7 years of career I have overseen approximately 7 projects for a total of 1,000 MW deployed.

The project involved the construction of a 150 MW solar power facility and 75 MW of battery storage. The workforce reached a maximum of 231 employees during the panel installation phase, sustained over 5 months. The preceding site preparation required approximately 36% of the peak count. Following the peak, the workforce was tapered down to about 25% of the peak count over the final months of construction.

Although overall arrival numbers were influenced by the subcontractor schedules, the majority of employees arrived at the site within the same one-hour timeframe.

We observed high utilization of carpooling, which is a typical pattern for remote construction sites of this nature. The key factors influencing this behavior were:

- The nearest major town capable of housing the entire workforce, El Paso TX, was approximately 30 minutes from the project site.
- Most of the laborers don't have a company car, hence they usually coordinate to economize the usage of vehicles and gas.

Based on the patterns observed during construction we can determine that the employees utilized a rideshare/carpooling ratio of 1.5:1 to 1.7:1 (Employees: Vehicles).

I trust this information is useful.

Please let me know if you have any follow-up questions.

Erit Duarte

Sincerely,

Erit Duarte

Associate Director of Construction- EPC

EDF power solutions.



EDF power solutions North America
15445 Innovation Drive
San Diego, CA 92128
www.edf-re.com

TO WHOM IT MAY CONCERN

Subject: Data on Ridesharing and Carpooling for the Winston Solar Project

This letter serves to convey insights regarding the usage of ridesharing and carpooling among employees during the construction of the Arrow Canyon Solar Project situated in Clark County, NV. In my role as the Associate Director of Construction at EDF Power Solutions and as the project director responsible for execution, I have led approximately 20+ projects over my 10+ years of experience, contributing to a total generation capacity of 3+ GW.

The project involved the construction of a 200 MW solar power plant accompanied by 300 MWh of battery storage. During the peak panel installation period, the project employed up to 350 individuals, a number that was sustained for 4 months. The initial site preparation engaged about 25% of that peak workforce count. As construction activities drew to a close, the workforce size was reduced to around 15% of its maximum.

Although subcontractor schedules influenced the general patterns of arrival, it was observed that most employees tended to gather at the project site within a similar one-hour timeframe.

Data revealed a notable trend in carpooling, typical for remote construction environments, largely due to the distance from Las Vegas, NV about 35 minutes from the site, as well as the fact that many workers do not have access to company vehicles, which leads them to arrange rides collaboratively to conserve both vehicles and fuel.

Based on the observations from the construction phase, we estimate that the rideshare/carpooling ratio for employees fell between 1.7:1 and 1.9:1 (Employees: Vehicles).

I hope this information proves to be valuable. If you have any additional questions or require further clarification, do not hesitate to reach out.

Sincerely,

Ryan Tran

A handwritten signature in black ink, appearing to read "Ryan Tran", written over a horizontal line.

Associate Director of EPC
EDF power solutions North America



EDF power solutions North America
15445 Innovation Drive
San Diego, CA 92128
www.edf-re.com

As the Vice-President of Construction at EDF Power Solutions, I oversee all current projects nationwide. With approximately 15 years of experience in the industry, including my recent role on multiple high-profile projects, I have managed about 30+ projects that have collectively achieved 10+ GW in deployment. This correspondence aims to share insights into the ridesharing and carpooling practices observed among employees during the construction of various solar and storage projects throughout the country.

The typical phases of construction encompass site preparation, foundation piles, DC/AC collections, racking and modules installation, followed by commissioning and testing, with peak workforce levels generally occurring during the module installation phase. Both the site preparation and commissioning phases typically engage around 15-25% of the maximum workforce.

While multiple factors, including subcontractor schedules, can influence overall arrival patterns, it is common for most of our workforce to arrive at the site within a concentrated hour window. The choice to carpool is often driven by several additional motivations, such as significant cost savings on fuel and shared expenses, carpooling becomes a practical solution for employees to reduce their spending and reduce their individual driving time.

Historically, we have seen a significant trend towards carpooling, particularly for projects located in remote areas. This behavior is largely influenced by two key factors: the absence of housing options in remote locations—often resulting in travel times of between 30 minutes to one hour—and the reality that many laborers do not have access to company vehicles or company paid transportation, which leads them to coordinate rideshare efforts to optimize costs related to fuel and personal vehicle usage.

Based on my experiences supervising various projects, I have observed that the ridesharing and carpooling ratios among employees typically range from 1.5:1 to 2:1 (Employees : Vehicles).

I trust you will find this information helpful. Please feel free to reach out if you have any questions or need further clarification.

Sincerely,

John Bastarous

John Bastarous

Digitally signed by John Bastarous
DN: E=John.Bastarous@edf-re.com, CN=John
Bastarous
Date: 2025.12.18 16:05:08-08'00'

Vice President of Pre-Construction and Construction
EDF power solutions North America

Appendix D

Existing 2025 Conditions SYNCHRO Output

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection

Int Delay, s/veh 4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	519	22	16	0	73	144
Future Vol, veh/h	519	22	16	0	73	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	577	24	18	0	81	160

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Ctrl Dly, s/v	0	15.35
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	587	-	-
HCM Lane V/C Ratio	0.411	-	-
HCM Ctrl Dly (s/v)	15.4	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	2	-	-

2025 AM EXISTING CONDITION

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	117	188	104	89	7
Future Vol, veh/h	4	117	188	104	89	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	4	130	209	116	99	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	636	103	107	0	-	0
Stage 1	103	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	429	931	1436	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	367	931	1436	-	-	-
Mov Cap-2 Maneuver	367	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.79	5.11		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1436	-	886	-	-	
HCM Lane V/C Ratio	0.145	-	0.152	-	-	
HCM Ctrl Dly (s/v)	7.9	-	9.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.5	-	0.5	-	-	

2025 AM EXISTING CONDITION

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	2	7	0	8	4	146	5	13	165	1
Future Vol, veh/h	0	0	2	7	0	8	4	146	5	13	165	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	0	0	2	8	0	9	4	162	6	14	183	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	384	389	184	386	387	165	184	0	0	168	0	0
Stage 1	213	213	-	174	174	-	-	-	-	-	-	-
Stage 2	171	177	-	212	213	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	555	529	831	553	530	852	1327	-	-	1346	-	-
Stage 1	765	706	-	803	735	-	-	-	-	-	-	-
Stage 2	806	733	-	765	706	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	541	521	831	543	522	852	1327	-	-	1346	-	-
Mov Cap-2 Maneuver	541	521	-	543	522	-	-	-	-	-	-	-
Stage 1	756	698	-	800	732	-	-	-	-	-	-	-
Stage 2	794	730	-	754	697	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.34		10.49		0.2		0.56					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	46	-	-	831	673	131	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.003	0.025	0.011	-	-				
HCM Ctrl Dly (s/v)	7.7	0	-	9.3	10.5	7.7	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

2025 AM EXISTING CONDITION

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	
Traffic Vol, veh/h	0	1	0	31	0	131	0	130	53	209	107	0
Future Vol, veh/h	0	1	0	31	0	131	0	130	53	209	107	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	1	0	34	0	146	0	144	59	232	119	0
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	728	787	119	728	728	144	119	0	0	203	0	0
Stage 1	583	583	-	144	144	-	-	-	-	-	-	-
Stage 2	144	203	-	584	583	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.17	6.57	6.27	4.17	-	-	4.17	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.563	4.063	3.363	2.263	-	-	2.263	-	-
Pot Cap-1 Maneuver	333	318	919	332	344	890	1439	-	-	1339	-	-
Stage 1	489	490	-	847	768	-	-	-	-	-	-	-
Stage 2	847	724	-	489	490	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	259	919	270	280	890	1439	-	-	1339	-	-
Mov Cap-2 Maneuver	227	259	-	270	280	-	-	-	-	-	-	-
Stage 1	399	399	-	847	768	-	-	-	-	-	-	-
Stage 2	708	724	-	397	399	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	18.96			11.84			0			5.46		
HCM LOS	C			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1439	-	-	259	270	890	1191	-	-			
HCM Lane V/C Ratio	-	-	-	0.004	0.128	0.164	0.173	-	-			
HCM Ctrl Dly (s/v)	0	-	-	19	20.3	9.8	8.3	0	-			
HCM Lane LOS	A	-	-	C	C	A	A	A	-			
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.6	0.6	-	-			

2025 AM EXISTING CONDITION

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection

Int Delay, s/veh 3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	271	147	140	0	113	42
Future Vol, veh/h	271	147	140	0	113	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	301	163	156	0	126	47

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	301	151
Stage 1	-	-	301	-
Stage 2	-	-	0	-
Critical Hdwy	-	-	6.88	6.98
Critical Hdwy Stg 1	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	3.54	3.34
Pot Cap-1 Maneuver	-	-	661	863
Stage 1	-	-	718	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	661	863
Mov Cap-2 Maneuver	-	-	661	-
Stage 1	-	-	718	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Ctrl Dly, s/v	0	11.74
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	706	-	-
HCM Lane V/C Ratio	0.244	-	-
HCM Ctrl Dly (s/v)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	1	-	-

2025 PM EXISTING CONDITION

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	217	137	158	171	0
Future Vol, veh/h	3	217	137	158	171	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	3	241	152	176	190	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	670	190	190	0	-	0
Stage 1	190	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	410	832	1337	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	363	832	1337	-	-	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.27	3.73		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1337	-	817	-	-	
HCM Lane V/C Ratio	0.114	-	0.299	-	-	
HCM Ctrl Dly (s/v)	8	-	11.3	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.4	-	1.3	-	-	

2025 PM EXISTING CONDITION

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	67	0	26	0	185	3	2	205	0
Future Vol, veh/h	0	0	0	67	0	26	0	185	3	2	205	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	0	0	0	74	0	29	0	206	3	2	228	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	438	441	228	439	439	207	228	0	0	209	0	0
Stage 1	232	232	-	207	207	-	-	-	-	-	-	-
Stage 2	206	209	-	232	232	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	511	494	785	509	495	806	1278	-	-	1299	-	-
Stage 1	747	692	-	770	710	-	-	-	-	-	-	-
Stage 2	772	709	-	747	692	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	491	493	785	508	494	806	1278	-	-	1299	-	-
Mov Cap-2 Maneuver	491	493	-	508	494	-	-	-	-	-	-	-
Stage 1	745	691	-	770	710	-	-	-	-	-	-	-
Stage 2	744	709	-	745	691	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		12.76		0		0.08					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1278	-	-	-	567	17	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.182	0.002	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	12.8	7.8	0	-				
HCM Lane LOS	A	-	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0	-	-				

2025 PM EXISTING CONDITION

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection

Int Delay, s/veh 6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	73	2	174	0	114	67	204	160	0
Future Vol, veh/h	1	0	0	73	2	174	0	114	67	204	160	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	1	0	0	81	2	193	0	127	74	227	178	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	759	832	178	758	758	127	178	0	0	201	0	0
Stage 1	631	631	-	127	127	-	-	-	-	-	-	-
Stage 2	128	201	-	631	631	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.17	6.57	6.27	4.17	-	-	4.17	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.563	4.063	3.363	2.263	-	-	2.263	-	-
Pot Cap-1 Maneuver	317	299	852	318	331	910	1368	-	-	1342	-	-
Stage 1	461	467	-	865	782	-	-	-	-	-	-	-
Stage 2	864	726	-	461	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	201	243	852	258	269	910	1368	-	-	1342	-	-
Mov Cap-2 Maneuver	201	243	-	258	269	-	-	-	-	-	-	-
Stage 1	374	379	-	865	782	-	-	-	-	-	-	-
Stage 2	679	726	-	374	379	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	22.97			14.61			0			4.61		
HCM LOS	C			B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1368	-	-	201 258 886	1009	-	-
HCM Lane V/C Ratio	-	-	-	0.006 0.314 0.221	0.169	-	-
HCM Ctrl Dly (s/v)	0	-	-	23 25.2 10.2	8.2	0	-
HCM Lane LOS	A	-	-	C D B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 1.3 0.8	0.6	-	-

2025 PM EXISTING CONDITION

Appendix E

Future 2027 Conditions SYNCHRO Output

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50

Intersection

Int Delay, s/veh 4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	555	24	17	0	78	154
Future Vol, veh/h	555	24	17	0	78	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	617	27	19	0	87	171

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	617	308
Stage 1	-	-	617	-
Stage 2	-	-	0	-
Critical Hdwy	-	-	6.88	6.98
Critical Hdwy Stg 1	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	3.54	3.34
Pot Cap-1 Maneuver	-	-	417	682
Stage 1	-	-	495	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	417	682
Mov Cap-2 Maneuver	-	-	417	-
Stage 1	-	-	495	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Ctrl Dly, s/v	0	16.72
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	562	-	-
HCM Lane V/C Ratio	0.459	-	-
HCM Ctrl Dly (s/v)	16.7	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	2.4	-	-

2027 AM FUTURE CONDITION

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	125	201	111	95	7
Future Vol, veh/h	4	125	201	111	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	4	139	223	123	106	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	679	109	113	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.5	6.3	4.2	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	2.29	-	-	-
Pot Cap-1 Maneuver	405	923	1428	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	342	923	1428	-	-	-
Mov Cap-2 Maneuver	342	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.91	5.15		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1428	-	877	-	-	
HCM Lane V/C Ratio	0.156	-	0.164	-	-	
HCM Ctrl Dly (s/v)	8	-	9.9	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.6	-	0.6	-	-	

2027 AM FUTURE CONDITION

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	2	7	0	9	4	156	5	14	177	1
Future Vol, veh/h	0	0	2	7	0	9	4	156	5	14	177	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	0	0	2	8	0	10	4	173	6	16	197	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	411	416	197	413	414	176	198	0	0	179	0	0
Stage 1	228	228	-	185	185	-	-	-	-	-	-	-
Stage 2	182	188	-	228	229	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	533	511	817	531	512	839	1312	-	-	1333	-	-
Stage 1	750	695	-	792	726	-	-	-	-	-	-	-
Stage 2	795	724	-	751	695	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	517	502	817	520	504	839	1312	-	-	1333	-	-
Mov Cap-2 Maneuver	517	502	-	520	504	-	-	-	-	-	-	-
Stage 1	740	686	-	789	724	-	-	-	-	-	-	-
Stage 2	782	722	-	739	686	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.42		10.59		0.19		0.56					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	43	-	-	817	662	131	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.003	0.027	0.012	-	-				
HCM Ctrl Dly (s/v)	7.8	0	-	9.4	10.6	7.7	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

2027 AM FUTURE CONDITION

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection

Int Delay, s/veh 5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	
Traffic Vol, veh/h	0	1	0	33	0	140	0	139	57	224	114	0
Future Vol, veh/h	0	1	0	33	0	140	0	139	57	224	114	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	1	0	37	0	156	0	154	63	249	127	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	779	842	127	779	779	154	127	0	0	218	0	0
Stage 1	624	624	-	154	154	-	-	-	-	-	-	-
Stage 2	154	218	-	625	624	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.17	6.57	6.27	4.17	-	-	4.17	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.563	4.063	3.363	2.263	-	-	2.263	-	-
Pot Cap-1 Maneuver	307	295	910	307	321	878	1429	-	-	1323	-	-
Stage 1	465	470	-	836	760	-	-	-	-	-	-	-
Stage 2	836	714	-	464	470	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	202	235	910	244	256	878	1429	-	-	1323	-	-
Mov Cap-2 Maneuver	202	235	-	244	256	-	-	-	-	-	-	-
Stage 1	370	375	-	836	760	-	-	-	-	-	-	-
Stage 2	688	714	-	369	375	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	20.36		12.34		0		5.53	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1429	-	-	235 244 878 1193	-	-	-
HCM Lane V/C Ratio	-	-	-	0.005 0.15 0.177 0.188	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	20.4 22.4 10 8.4	0	-	-
HCM Lane LOS	A	-	-	C C A A A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0.5 0.6 0.7	-	-	-

2027 AM FUTURE CONDITION

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection

Int Delay, s/veh 3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑	↑	↑		↑	
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Traffic Vol, veh/h	290	157	150	0	121	45
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Future Vol, veh/h	290	157	150	0	121	45
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	450	0	-	0	-
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Veh in Median Storage, #	0	-	-	0	0	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	90	90	90	90	90	90
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Heavy Vehicles, %	4	4	4	4	4	4
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Mvmt Flow	322	174	167	0	134	50
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Major/Minor	Major1	Minor1
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Conflicting Flow All	0	0	322	161
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Stage 1	-	-	322	-
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Stage 2	-	-	0	-
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Critical Hdwy	-	-	6.88	6.98
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Critical Hdwy Stg 1	-	-	5.88	-
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Critical Hdwy Stg 2	-	-	-	-
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Follow-up Hdwy	-	-	3.54	3.34
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Pot Cap-1 Maneuver	-	-	641	849
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Stage 1	-	-	701	-
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Stage 2	-	-	-	-
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Platoon blocked, %	-	-		
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Mov Cap-1 Maneuver	-	-	641	849
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Mov Cap-2 Maneuver	-	-	641	-
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Stage 1	-	-	701	-
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Stage 2	-	-	-	-
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Approach	EB	NB
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HCM Ctrl Dly, s/v	0	12.16
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HCM LOS		B
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR
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Capacity (veh/h)	687	-	-
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HCM Lane V/C Ratio	0.269	-	-
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HCM Ctrl Dly (s/v)	12.2	-	-
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HCM Lane LOS	B	-	-
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HCM 95th %tile Q(veh)	1.1	-	-
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2027 PM FUTURE CONDITION

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection

Int Delay, s/veh 5.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	232	147	169	183	0
Future Vol, veh/h	3	232	147	169	183	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	3	258	163	188	203	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	718	203	203
Stage 1	203	-	-
Stage 2	514	-	-
Critical Hdwy	6.5	6.3	4.2
Critical Hdwy Stg 1	5.5	-	-
Critical Hdwy Stg 2	5.5	-	-
Follow-up Hdwy	3.59	3.39	2.29
Pot Cap-1 Maneuver	384	817	1322
Stage 1	812	-	-
Stage 2	584	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	337	817	1322
Mov Cap-2 Maneuver	337	-	-
Stage 1	712	-	-
Stage 2	584	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.63	3.77	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1322	-	803	-	-
HCM Lane V/C Ratio	0.124	-	0.325	-	-
HCM Ctrl Dly (s/v)	8.1	-	11.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	-	-

2027 PM FUTURE CONDITION

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	72	0	28	0	198	3	2	219	0
Future Vol, veh/h	0	0	0	72	0	28	0	198	3	2	219	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	0	0	0	80	0	31	0	220	3	2	243	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	468	471	243	469	469	222	243	0	0	223	0	0
Stage 1	248	248	-	222	222	-	-	-	-	-	-	-
Stage 2	220	223	-	248	248	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	488	475	769	486	476	791	1261	-	-	1283	-	-
Stage 1	732	682	-	757	700	-	-	-	-	-	-	-
Stage 2	758	699	-	732	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	467	474	769	485	475	791	1261	-	-	1283	-	-
Mov Cap-2 Maneuver	467	474	-	485	475	-	-	-	-	-	-	-
Stage 1	731	680	-	757	700	-	-	-	-	-	-	-
Stage 2	728	699	-	731	680	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Ctrl Dly, s/v	0		13.3			0			0.07			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1261	-	-	-	544	16	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.204	0.002	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	13.3	7.8	0	-				
HCM Lane LOS	A	-	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.8	0	-	-				

2027 PM FUTURE CONDITION

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	78	2	186	0	122	72	218	171	0
Future Vol, veh/h	1	0	0	78	2	186	0	122	72	218	171	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	1	0	0	87	2	207	0	136	80	242	190	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	811	890	190	810	810	136	190	0	0	216	0	0
Stage 1	674	674	-	136	136	-	-	-	-	-	-	-
Stage 2	137	216	-	674	674	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.17	6.57	6.27	4.17	-	-	4.17	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.563	4.063	3.363	2.263	-	-	2.263	-	-
Pot Cap-1 Maneuver	292	277	839	293	308	900	1354	-	-	1325	-	-
Stage 1	436	446	-	856	775	-	-	-	-	-	-	-
Stage 2	855	715	-	436	446	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	178	220	839	233	245	900	1354	-	-	1325	-	-
Mov Cap-2 Maneuver	178	220	-	233	245	-	-	-	-	-	-	-
Stage 1	347	355	-	856	775	-	-	-	-	-	-	-
Stage 2	657	715	-	347	355	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Ctrl Dly, s/v	25.38		15.95			0			4.66			
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1354	-	-	178 233 875	1009	-	-					
HCM Lane V/C Ratio	-	-	-	0.006 0.372 0.239	0.183	-	-					
HCM Ctrl Dly (s/v)	0	-	-	25.4 29.3 10.4	8.3	0	-					
HCM Lane LOS	A	-	-	D D B	A A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0 1.6 0.9	0.7	-	-					

2027 PM FUTURE CONDITION

Appendix F

Future 2027 Plus Winston Energy Project Construction Traffic Conditions SYNCHRO Output

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50

Intersection						
Int Delay, s/veh	4.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	555	111	105	0	78	154
Future Vol, veh/h	555	111	105	0	78	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	617	123	117	0	87	171
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			617	308
Stage 1	-	-			617	-
Stage 2	-	-			0	-
Critical Hdwy	-	-			6.88	6.98
Critical Hdwy Stg 1	-	-			5.88	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			3.54	3.34
Pot Cap-1 Maneuver	-	-			417	682
Stage 1	-	-			495	-
Stage 2	-	-			-	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			417	682
Mov Cap-2 Maneuver	-	-			417	-
Stage 1	-	-			495	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Ctrl Dly, s/v	0		16.72			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	562	-	-			
HCM Lane V/C Ratio	0.459	-	-			
HCM Ctrl Dly (s/v)	16.7	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	2.4	-	-			

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	300	201	111	95	7
Future Vol, veh/h	4	300	201	111	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	4	333	223	123	106	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	679	109	113	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.48	6.28	4.18	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	2.272	-	-	-
Pot Cap-1 Maneuver	408	928	1439	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	345	928	1439	-	-	-
Mov Cap-2 Maneuver	345	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.3	5.13		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1439	-	908	-	-	
HCM Lane V/C Ratio	0.155	-	0.372	-	-	
HCM Ctrl Dly (s/v)	8	-	11.3	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.5	-	1.7	-	-	

2027 AM FUTURE WINSTON CONST

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	7	0	9	4	156	80	189	177	1
Future Vol, veh/h	0	0	2	7	0	9	4	156	80	189	177	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	2	8	0	10	4	173	89	210	197	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	799	888	197	843	844	218	198	0	0	262	0	0
Stage 1	617	617	-	227	227	-	-	-	-	-	-	-
Stage 2	182	271	-	617	618	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	295	275	826	276	292	805	1334	-	-	1262	-	-
Stage 1	465	470	-	760	704	-	-	-	-	-	-	-
Stage 2	804	673	-	466	470	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	236	223	826	223	237	805	1334	-	-	1262	-	-
Mov Cap-2 Maneuver	236	223	-	223	237	-	-	-	-	-	-	-
Stage 1	378	382	-	757	701	-	-	-	-	-	-	-
Stage 2	790	670	-	378	382	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.37		15.07		0.13		4.34					
HCM LOS	A		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	28	-	-	826	375	926	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.003	0.047	0.166	-	-				
HCM Ctrl Dly (s/v)	7.7	0	-	9.4	15.1	8.4	0	-				
HCM Lane LOS	A	A	-	A	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.6	-	-				

2027 AM FUTURE WINSTON CONST

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	0	33	0	178	0	177	57	224	114	0
Future Vol, veh/h	0	1	0	33	0	178	0	177	57	224	114	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	1	0	37	0	198	0	197	63	249	127	0
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	821	884	127	822	821	197	127	0	0	260	0	0
Stage 1	624	624	-	197	197	-	-	-	-	-	-	-
Stage 2	197	260	-	625	624	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	289	280	913	289	305	834	1435	-	-	1282	-	-
Stage 1	466	471	-	796	731	-	-	-	-	-	-	-
Stage 2	796	686	-	466	471	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	174	221	913	227	241	834	1435	-	-	1282	-	-
Mov Cap-2 Maneuver	174	221	-	227	241	-	-	-	-	-	-	-
Stage 1	369	373	-	796	731	-	-	-	-	-	-	-
Stage 2	607	686	-	367	373	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Ctrl Dly, s/v	21.34		12.71		0				5.62			
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1435	-	-	221 227 834 1191	-	-	-					
HCM Lane V/C Ratio	-	-	-	0.005 0.161 0.237 0.194	-	-	-					
HCM Ctrl Dly (s/v)	0	-	-	21.3 23.9 10.6 8.5	0	-	-					
HCM Lane LOS	A	-	-	C C B A	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0 0.6 0.9 0.7	-	-	-					

2027 AM FUTURE WINSTON CONST

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50

Intersection						
Int Delay, s/veh	6.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	290	157	150	0	208	132
Future Vol, veh/h	290	157	150	0	208	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	322	174	167	0	231	147
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			322	161
Stage 1	-	-			322	-
Stage 2	-	-			0	-
Critical Hdwy	-	-			6.88	6.98
Critical Hdwy Stg 1	-	-			5.88	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			3.54	3.34
Pot Cap-1 Maneuver	-	-			641	849
Stage 1	-	-			701	-
Stage 2	-	-			-	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			641	849
Mov Cap-2 Maneuver	-	-			641	-
Stage 1	-	-			701	-
Stage 2	-	-			-	-
Approach	EB		NB			
HCM Ctrl Dly, s/v	0				15.74	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	708	-	-			
HCM Lane V/C Ratio	0.533	-	-			
HCM Ctrl Dly (s/v)	15.7	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	3.2	-	-			

2027 PM FUTURE WINSTON CONST

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	6.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	232	322	169	183	0
Future Vol, veh/h	3	232	322	169	183	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	3	258	358	188	203	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1107	203	203	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Critical Hdwy	6.48	6.28	4.18	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	2.272	-	-	-
Pot Cap-1 Maneuver	227	822	1333	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	166	822	1333	-	-	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.88	5.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1333	-	783	-	-	
HCM Lane V/C Ratio	0.268	-	0.334	-	-	
HCM Ctrl Dly (s/v)	8.7	-	11.9	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	1.1	-	1.5	-	-	

2027 PM FUTURE WINSTON CONST

HCM 7th TWSC 3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	13.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	78	2	186	0	122	72	256	209	0
Future Vol, veh/h	0	0	0	78	2	186	0	122	72	256	209	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	87	2	207	0	136	80	284	232	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	938	1017	232	977	977	176	232	0	0	216	0	0
Stage 1	801	801	-	176	176	-	-	-	-	-	-	-
Stage 2	137	216	-	801	801	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	238	231	790	223	244	850	1295	-	-	1314	-	-
Stage 1	368	387	-	810	741	-	-	-	-	-	-	-
Stage 2	850	711	-	368	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	134	174	790	168	183	850	1295	-	-	1314	-	-
Mov Cap-2 Maneuver	134	174	-	168	183	-	-	-	-	-	-	-
Stage 1	276	291	-	810	741	-	-	-	-	-	-	-
Stage 2	641	711	-	276	291	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		39.83		0		4.68					
HCM LOS	A		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1295	-	-	-	383	991	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.771	0.216	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	39.8	8.5	0	-				
HCM Lane LOS	A	-	-	A	E	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	6.4	0.8	-	-				

2027 PM FUTURE WINSTON CONST

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	
Traffic Vol, veh/h	1	0	0	78	2	186	0	122	72	256	209	0
Future Vol, veh/h	1	0	0	78	2	186	0	122	72	256	209	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	1	0	0	87	2	207	0	136	80	284	232	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	938	1017	232	937	937	136	232	0	0	216	0	0
Stage 1	801	801	-	136	136	-	-	-	-	-	-	-
Stage 2	137	216	-	801	801	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	241	234	797	241	261	903	1312	-	-	1331	-	-
Stage 1	372	391	-	858	777	-	-	-	-	-	-	-
Stage 2	857	717	-	372	391	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	176	797	182	197	903	1312	-	-	1331	-	-
Mov Cap-2 Maneuver	139	176	-	182	197	-	-	-	-	-	-	-
Stage 1	281	295	-	858	777	-	-	-	-	-	-	-
Stage 2	659	717	-	281	295	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	31.15		19.59		0		4.65	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1312	-	-	139 182 869	991	-	-
HCM Lane V/C Ratio	-	-	-	0.008 0.477 0.24	0.214	-	-
HCM Ctrl Dly (s/v)	0	-	-	31.2 41.6 10.4	8.4	0	-
HCM Lane LOS	A	-	-	D E B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 2.3 0.9	0.8	-	-

2027 PM FUTURE WINSTON CONST

Appendix G

Future 2027 Plus Winston Energy Project
Construction Traffic Conditions with
Mitigation Measure SYNCHRO Output

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection						
Int Delay, s/veh	4.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	555	111	105	0	78	154
Future Vol, veh/h	555	111	105	0	78	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	617	123	117	0	87	171
Major/Minor	Major1		Minor1			
Conflicting Flow All	0	0			617	308
Stage 1	-	-			617	-
Stage 2	-	-			0	-
Critical Hdwy	-	-			6.88	6.98
Critical Hdwy Stg 1	-	-			5.88	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	-	-			3.54	3.34
Pot Cap-1 Maneuver	-	-			417	682
Stage 1	-	-			495	-
Stage 2	-	-			-	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-			417	682
Mov Cap-2 Maneuver	-	-			417	-
Stage 1	-	-			495	-
Stage 2	-	-			-	-
Approach	EB			NB		
HCM Ctrl Dly, s/v	0			16.72		
HCM LOS				C		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR			
Capacity (veh/h)	562	-	-			
HCM Lane V/C Ratio	0.459	-	-			
HCM Ctrl Dly (s/v)	16.7	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	2.4	-	-			

2027 AM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection

Int Delay, s/veh 7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	300	201	111	95	7
Future Vol, veh/h	4	300	201	111	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	4	333	223	123	106	8

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	679	109	113
Stage 1	109	-	-
Stage 2	570	-	-
Critical Hdwy	6.48	6.28	4.18
Critical Hdwy Stg 1	5.48	-	-
Critical Hdwy Stg 2	5.48	-	-
Follow-up Hdwy	3.572	3.372	2.272
Pot Cap-1 Maneuver	408	928	1439
Stage 1	900	-	-
Stage 2	554	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	345	928	1439
Mov Cap-2 Maneuver	345	-	-
Stage 1	761	-	-
Stage 2	554	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.3	5.13	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1439	-	908	-	-
HCM Lane V/C Ratio	0.155	-	0.372	-	-
HCM Ctrl Dly (s/v)	8	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.7	-	-

2027 AM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	2	7	0	9	4	156	80	189	177	1
Future Vol, veh/h	0	0	2	7	0	9	4	156	80	189	177	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	300	-	-	-	-	300	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	2	8	0	10	4	173	89	210	197	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	799	888	197	799	800	173	198	0	0	262	0	0
Stage 1	617	617	-	182	182	-	-	-	-	-	-	-
Stage 2	182	271	-	617	618	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	295	275	826	295	310	852	1334	-	-	1262	-	-
Stage 1	465	470	-	804	736	-	-	-	-	-	-	-
Stage 2	804	673	-	466	470	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	242	229	826	245	258	852	1334	-	-	1262	-	-
Mov Cap-2 Maneuver	242	229	-	245	258	-	-	-	-	-	-	-
Stage 1	388	392	-	800	733	-	-	-	-	-	-	-
Stage 2	791	670	-	387	392	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Ctrl Dly, s/v	9.37		14.05			0.13			4.34			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	45	-	-	826	245	852	1262	-	-			
HCM Lane V/C Ratio	0.003	-	-	0.003	0.032	0.012	0.166	-	-			
HCM Ctrl Dly (s/v)	7.7	0	-	9.4	20.2	9.3	8.4	-	-			
HCM Lane LOS	A	A	-	A	C	A	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	0.6	-	-			

2027 AM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	
Traffic Vol, veh/h	0	1	0	33	0	178	0	177	57	224	114	0
Future Vol, veh/h	0	1	0	33	0	178	0	177	57	224	114	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	1	0	37	0	198	0	197	63	249	127	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	821	884	127	822	821	197	127	0	0	260	0	0
Stage 1	624	624	-	197	197	-	-	-	-	-	-	-
Stage 2	197	260	-	625	624	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	289	280	913	289	305	834	1435	-	-	1282	-	-
Stage 1	466	471	-	796	731	-	-	-	-	-	-	-
Stage 2	796	686	-	466	471	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	174	221	913	227	241	834	1435	-	-	1282	-	-
Mov Cap-2 Maneuver	174	221	-	227	241	-	-	-	-	-	-	-
Stage 1	369	373	-	796	731	-	-	-	-	-	-	-
Stage 2	607	686	-	367	373	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	21.34		12.71		0		5.62	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1435	-	-	221	227	834	1191	-
HCM Lane V/C Ratio	-	-	-	0.005	0.161	0.237	0.194	-
HCM Ctrl Dly (s/v)	0	-	-	21.3	23.9	10.6	8.5	0
HCM Lane LOS	A	-	-	C	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0.9	0.7	-

2027 AM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection

Int Delay, s/veh 6.8

Movement

	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	290	157	150	0	208	132
Future Vol, veh/h	290	157	150	0	208	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	322	174	167	0	231	147

Major/Minor

	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach

	EB	NB
HCM Ctrl Dly, s/v	0	15.74
HCM LOS		C

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR
Capacity (veh/h)	708	-	-
HCM Lane V/C Ratio	0.533	-	-
HCM Ctrl Dly (s/v)	15.7	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	3.2	-	-

2027 PM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	6.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	232	322	169	183	0
Future Vol, veh/h	3	232	322	169	183	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	3	258	358	188	203	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1107	203	203	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Critical Hdwy	6.48	6.28	4.18	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	2.272	-	-	-
Pot Cap-1 Maneuver	227	822	1333	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	166	822	1333	-	-	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.88	5.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1333	-	783	-	-	
HCM Lane V/C Ratio	0.268	-	0.334	-	-	
HCM Ctrl Dly (s/v)	8.7	-	11.9	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	1.1	-	1.5	-	-	

2027 PM FUTURE + WINSTON+ CONSTRUCTION+ IMROVEMENTS

HCM 7th TWSC

3: US 95 & Sierra Way

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	147	0	203	0	198	3	2	219	0
Future Vol, veh/h	0	0	0	147	0	203	0	198	3	2	219	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	300	-	-	-	-	300	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	163	0	226	0	220	3	2	243	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	468	471	243	468	468	220	243	0	0	223	0	0
Stage 1	248	248	-	220	220	-	-	-	-	-	-	-
Stage 2	220	223	-	248	248	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	494	481	779	494	483	802	1283	-	-	1305	-	-
Stage 1	741	689	-	767	708	-	-	-	-	-	-	-
Stage 2	767	706	-	741	689	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	355	480	779	493	482	802	1283	-	-	1305	-	-
Mov Cap-2 Maneuver	355	480	-	493	482	-	-	-	-	-	-	-
Stage 1	740	687	-	767	708	-	-	-	-	-	-	-
Stage 2	551	706	-	740	687	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		13.18		0		0.07					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1283	-	-	-	493	802	1305	-	-			
HCM Lane V/C Ratio	-	-	-	-	0.331	0.281	0.002	-	-			
HCM Ctrl Dly (s/v)	0	-	-	0	15.9	11.2	7.8	-	-			
HCM Lane LOS	A	-	-	A	C	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	-	1.4	1.2	0	-	-			

2027 PM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection

Int Delay, s/veh 8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	1	0	0	78	2	186	0	122	72	256	209	0
Future Vol, veh/h	1	0	0	78	2	186	0	122	72	256	209	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	1	0	0	87	2	207	0	136	80	284	232	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	938	1017	232	937	937	136	232	0	0	216	0	0
Stage 1	801	801	-	136	136	-	-	-	-	-	-	-
Stage 2	137	216	-	801	801	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	241	234	797	241	261	903	1312	-	-	1331	-	-
Stage 1	372	391	-	858	777	-	-	-	-	-	-	-
Stage 2	857	717	-	372	391	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	176	797	182	197	903	1312	-	-	1331	-	-
Mov Cap-2 Maneuver	139	176	-	182	197	-	-	-	-	-	-	-
Stage 1	281	295	-	858	777	-	-	-	-	-	-	-
Stage 2	659	717	-	281	295	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	31.15		19.59		0		4.65	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1312	-	-	139 182 869	991	-	-
HCM Lane V/C Ratio	-	-	-	0.008 0.477 0.24	0.214	-	-
HCM Ctrl Dly (s/v)	0	-	-	31.2 41.6 10.4	8.4	0	-
HCM Lane LOS	A	-	-	D E B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 2.3 0.9	0.8	-	-

2027 PM FUTURE + WINSTON+ CONSTRUCTION+ IMPROVEMENTS

Appendix H

Future 2027 Plus Cumulative of Projects
Construction Traffic Conditions with
Mitigation A SYNCHRO Output

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	555	591	584	0	78	154
Future Vol, veh/h	555	591	584	0	78	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	617	657	649	0	87	171
Major/Minor						
	Major1			Minor1		
Conflicting Flow All	0	0		617	308	
Stage 1	-	-		617	-	
Stage 2	-	-		0	-	
Critical Hdwy	-	-		6.84	6.94	
Critical Hdwy Stg 1	-	-		5.84	-	
Critical Hdwy Stg 2	-	-		-	-	
Follow-up Hdwy	-	-		3.52	3.32	
Pot Cap-1 Maneuver	-	-		422	688	
Stage 1	-	-		501	-	
Stage 2	-	-		-	-	
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-		422	688	
Mov Cap-2 Maneuver	-	-		422	-	
Stage 1	-	-		501	-	
Stage 2	-	-		-	-	
Approach						
	EB			NB		
HCM Ctrl Dly, s/v	0			16.52		
HCM LOS				C		
Minor Lane/Major Mvmt						
	NBLn1	EBT	EBR			
Capacity (veh/h)	567	-	-			
HCM Lane V/C Ratio	0.454	-	-			
HCM Ctrl Dly (s/v)	16.5	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	2.4	-	-			

2027 AM FUTURE CUMULATIVE CONST

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	185.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1260	201	111	95	7
Future Vol, veh/h	4	1260	201	111	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	1400	223	123	106	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	679	109	113	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	415	~ 941	1470	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	352	~ 941	1470	-	-	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	244.74	5.08		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1470	-	936	-	-	
HCM Lane V/C Ratio	0.152	-	1.5	-	-	
HCM Ctrl Dly (s/v)	7.9	-	244.7	-	-	
HCM Lane LOS	A	-	F	-	-	
HCM 95th %tile Q(veh)	0.5	-	66.4	-	-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				

2027 AM FUTURE CUMULATIVE CONST

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Future Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.85		1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1553		1736	1553		1736	1827	1553	1736	1827	1553
Flt Permitted		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1553		1736	1553		1736	1827	1553	1736	1827	1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	2	8	0	10	80	182	89	1004	197	177
RTOR Reduction (vph)	0	2	0	0	9	0	0	0	76	0	0	107
Lane Group Flow (vph)	0	0	0	8	1	0	80	182	13	1004	197	70
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)		0.9		1.2	7.1		39.6	16.5	16.5	66.5	43.4	43.4
Effective Green, g (s)		0.9		1.2	7.1		39.6	16.5	16.5	66.5	43.4	43.4
Actuated g/C Ratio		0.01		0.01	0.07		0.36	0.15	0.15	0.61	0.40	0.40
Clearance Time (s)		5.0		5.0	5.0		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		12		19	101		630	276	234	1058	726	617
v/s Ratio Prot		0.00		c0.00	c0.00		0.05	c0.10		c0.58	0.11	
v/s Ratio Perm									0.01			0.05
v/c Ratio		0.00		0.42	0.01		0.13	0.66	0.06	0.95	0.27	0.11
Uniform Delay, d1		53.7		53.6	47.7		23.2	43.7	39.6	19.7	22.2	20.7
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0		14.4	0.0		0.1	5.6	0.1	16.6	0.2	0.1
Delay (s)		53.7		68.0	47.7		23.3	49.3	39.7	36.3	22.4	20.8
Level of Service		D		E	D		C	D	D	D	C	C
Approach Delay (s/veh)		53.7			56.7			40.9			32.3	
Approach LOS		D			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			34.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			109.1			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			80.4%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

2027 AM FUTURE CUMULATIVE CONST

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	9.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	0	33	0	383	0	382	57	224	114	0
Future Vol, veh/h	0	1	0	33	0	383	0	382	57	224	114	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	1	0	37	0	426	0	424	63	249	127	0
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	1049	1112	127	1049	1049	424	127	0	0	488	0	0
Stage 1	624	624	-	424	424	-	-	-	-	-	-	-
Stage 2	424	488	-	625	624	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	204	207	918	204	226	625	1447	-	-	1065	-	-
Stage 1	470	474	-	604	583	-	-	-	-	-	-	-
Stage 2	604	547	-	469	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	49	155	918	152	169	625	1447	-	-	1065	-	-
Mov Cap-2 Maneuver	49	155	-	152	169	-	-	-	-	-	-	-
Stage 1	351	355	-	604	583	-	-	-	-	-	-	-
Stage 2	193	547	-	350	355	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Ctrl Dly, s/v	28.41		23.23		0				6.24			
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1447	-	-	155 152 625	990	-	-					
HCM Lane V/C Ratio	-	-	-	0.007 0.242 0.68	0.234	-	-					
HCM Ctrl Dly (s/v)	0	-	-	28.4 36.2 22.1	9.4	0	-					
HCM Lane LOS	A	-	-	D E C	A A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0 0.9 5.3	0.9	-	-					

2027 AM FUTURE CUMULATIVE CONST

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50

Intersection

Int Delay, s/veh 401.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	
Traffic Vol, veh/h	290	157	150	0	740	664
Future Vol, veh/h	290	157	150	0	740	664
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	322	174	167	0	822	738

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Ctrl Dly, s/v	0	\$ 529.59
HCM LOS		F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	731	-	-
HCM Lane V/C Ratio	2.135	-	-
HCM Ctrl Dly (s/v)	\$ 529.6	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	109	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s
 +: Computation Not Defined *: All major volume in platoon

2027 PM FUTURE CUMULATIVE CONST

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	58.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	232	1384	169	183	0
Future Vol, veh/h	3	232	1384	169	183	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	258	1538	188	203	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	3467	203	203	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	3263	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	7	835 ~ 1362		-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	835 ~ 1362		-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	25	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v		74.24	0
HCM LOS	-		

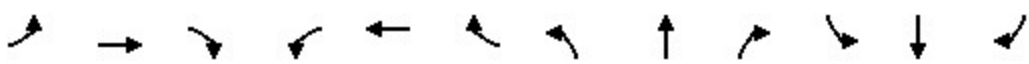
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	~ 1362	-	-	-	-
HCM Lane V/C Ratio	1.129	-	-	-	-
HCM Ctrl Dly (s/v)	83.3	-	-	-	-
HCM Lane LOS	F	-	-	-	-
HCM 95th %tile Q(veh)	37.4	-	-	-	-

Notes	
~: Volume exceeds capacity	\$. Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

2027 PM FUTURE CUMULATIVE CONST

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Future Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	1553		1736	1553			1827	1553	1736	1827	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1736	1553		1736	1553			1827	1553	1736	1827	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	176	0	76	163	0	1133	0	220	3	2	252	0
RTOR Reduction (vph)	0	50	0	0	324	0	0	0	3	0	0	0
Lane Group Flow (vph)	176	26	0	163	809	0	0	220	0	2	252	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	10.1	31.2		20.5	41.6			15.3	15.3	1.0	23.3	
Effective Green, g (s)	10.1	31.2		20.5	41.6			15.3	15.3	1.0	23.3	
Actuated g/C Ratio	0.11	0.34		0.22	0.45			0.17	0.17	0.01	0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	190	526		386	702			303	258	18	462	
v/s Ratio Prot	c0.10	0.02		0.09	c0.52			c0.12		0.00	c0.14	
v/s Ratio Perm									0.00			
v/c Ratio	0.93	0.05		0.42	1.15			0.73	0.00	0.11	0.55	
Uniform Delay, d1	40.6	20.4		30.7	25.2			36.4	32.0	45.1	29.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	44.4	0.0		0.7	84.2			8.4	0.0	2.7	1.3	
Delay (s)	85.0	20.5		31.4	109.4			44.7	32.0	47.8	31.1	
Level of Service	F	C		C	F			D	C	D	C	
Approach Delay (s/veh)		65.5			99.6			44.6			31.2	
Approach LOS		E			F			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			80.7			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.05									
Actuated Cycle Length (s)			92.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			98.0%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

2027 PM FUTURE CUMULATIVE CONST

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	61.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	
Traffic Vol, veh/h	1	0	0	78	2	186	0	122	72	483	436	0
Future Vol, veh/h	1	0	0	78	2	186	0	122	72	483	436	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	1	0	0	87	2	207	0	136	80	537	484	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1694	1773	484	1693	1693	136	484	0	0	216	0	0
Stage 1	1558	1558	-	136	136	-	-	-	-	-	-	-
Stage 2	137	216	-	1558	1558	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	73	82	578	~ 73	92	908	1068	-	-	1343	-	-
Stage 1	140	172	-	863	780	-	-	-	-	-	-	-
Stage 2	862	721	-	140	172	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	25	37	578	~ 33	42	908	1068	-	-	1343	-	-
Mov Cap-2 Maneuver	25	37	-	~ 33	42	-	-	-	-	-	-	-
Stage 1	63	78	-	863	780	-	-	-	-	-	-	-
Stage 2	664	721	-	~ 63	78	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	157.15	\$ 300.22	0	4.97
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1068	-	-	25 33 743	946	-	-
HCM Lane V/C Ratio	-	-	-	0.045 2.632 0.281	0.4	-	-
HCM Ctrl Dly (s/v)	0	-	-	157.1\$ 995.6 11.7	9.5	0	-
HCM Lane LOS	A	-	-	F F B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 10 1.2	2	-	-

Notes	
~: Volume exceeds capacity	\$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

2027 PM FUTURE CUMULATIVE CONST

Appendix I

Future 2027 Plus Cumulative of Projects Construction Traffic Conditions with Mitigation B SYNCHRO Output

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	↑
Traffic Vol, veh/h	555	591	584	0	78	154
Future Vol, veh/h	555	591	584	0	78	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	300
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	617	657	649	0	87	171

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	617	308
Stage 1	-	-	617	-
Stage 2	-	-	0	-
Critical Hdwy	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	422	688
Stage 1	-	-	501	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	422	688
Mov Cap-2 Maneuver	-	-	422	-
Stage 1	-	-	501	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Ctrl Dly, s/v	0	13.23
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR
Capacity (veh/h)	422	688	-	-
HCM Lane V/C Ratio	0.205	0.249	-	-
HCM Ctrl Dly (s/v)	15.7	12	-	-
HCM Lane LOS	C	B	-	-
HCM 95th %tile Q(veh)	0.8	1	-	-

2027 AM FUTURE CUMULATIVE

HCM 7th TWSC

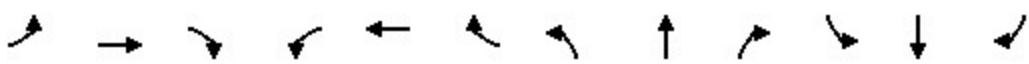
2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	180.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1260	201	111	95	7
Future Vol, veh/h	4	1260	201	111	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	1400	223	123	106	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	679	109	113	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	415	~ 941	1470	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	352	~ 941	1470	-	-	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	238.45	5.08		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1470	-	352	941	-	-
HCM Lane V/C Ratio	0.152	-	0.013	1.487	-	-
HCM Ctrl Dly (s/v)	7.9	-	15.4	239.2	-	-
HCM Lane LOS	A	-	C	F	-	-
HCM 95th %tile Q(veh)	0.5	-	0	65.4	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				

2027 AM FUTURE CUMULATIVE

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Future Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.85		1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1553		1736	1553		1736	1827	1553	1736	1827	1553
Flt Permitted		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1553		1736	1553		1736	1827	1553	1736	1827	1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	2	8	0	10	80	182	89	1004	197	177
RTOR Reduction (vph)	0	2	0	0	9	0	0	0	76	0	0	107
Lane Group Flow (vph)	0	0	0	8	1	0	80	182	13	1004	197	70
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)		0.9		1.2	7.1		39.6	16.5	16.5	66.5	43.4	43.4
Effective Green, g (s)		0.9		1.2	7.1		39.6	16.5	16.5	66.5	43.4	43.4
Actuated g/C Ratio		0.01		0.01	0.07		0.36	0.15	0.15	0.61	0.40	0.40
Clearance Time (s)		5.0		5.0	5.0		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		12		19	101		630	276	234	1058	726	617
v/s Ratio Prot		0.00		c0.00	c0.00		0.05	c0.10		c0.58	0.11	
v/s Ratio Perm									0.01			0.05
v/c Ratio		0.00		0.42	0.01		0.13	0.66	0.06	0.95	0.27	0.11
Uniform Delay, d1		53.7		53.6	47.7		23.2	43.7	39.6	19.7	22.2	20.7
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0		14.4	0.0		0.1	5.6	0.1	16.6	0.2	0.1
Delay (s)		53.7		68.0	47.7		23.3	49.3	39.7	36.3	22.4	20.8
Level of Service		D		E	D		C	D	D	D	C	C
Approach Delay (s/veh)		53.7			56.7			40.9			32.3	
Approach LOS		D			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			34.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			109.1			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			80.4%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

2027 AM FUTURE CUMULATIVE

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection												
Int Delay, s/veh	9.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	0	33	0	383	0	382	57	224	114	0
Future Vol, veh/h	0	1	0	33	0	383	0	382	57	224	114	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	1	0	37	0	426	0	424	63	249	127	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1049	1112	127	1049	1049	424	127	0	0	488	0	0
Stage 1	624	624	-	424	424	-	-	-	-	-	-	-
Stage 2	424	488	-	625	624	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	204	207	918	204	226	625	1447	-	-	1065	-	-
Stage 1	470	474	-	604	583	-	-	-	-	-	-	-
Stage 2	604	547	-	469	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	50	159	918	155	173	625	1447	-	-	1065	-	-
Mov Cap-2 Maneuver	50	159	-	155	173	-	-	-	-	-	-	-
Stage 1	360	364	-	604	583	-	-	-	-	-	-	-
Stage 2	193	547	-	358	364	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Ctrl Dly, s/v	27.86		23.16		0			6.24				
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1447	-	-	159 155 625	1065	-	-					
HCM Lane V/C Ratio	-	-	-	0.007 0.236 0.68	0.234	-	-					
HCM Ctrl Dly (s/v)	0	-	-	27.9 35.2 22.1	9.4	-	-					
HCM Lane LOS	A	-	-	D E C	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0 0.9 5.3	0.9	-	-					

2027 AM FUTURE CUMULATIVE

HCM 7th TWSC

1: Ramsey Weeks Cutoff & US 50 EB

Intersection

Int Delay, s/veh 72.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑		↑	↑
Traffic Vol, veh/h	290	157	150	0	740	664
Future Vol, veh/h	290	157	150	0	740	664
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	450	0	-	0	300
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	322	174	167	0	822	738

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	322	161
Stage 1	-	-	322	-
Stage 2	-	-	0	-
Critical Hdwy	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	~ 646	855
Stage 1	-	-	~ 707	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	~ 646	855
Mov Cap-2 Maneuver	-	-	~ 646	-
Stage 1	-	-	~ 707	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Ctrl Dly, s/v	0	95.52
HCM LOS		F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR
Capacity (veh/h)	646	855	-	-
HCM Lane V/C Ratio	1.272	0.863	-	-
HCM Ctrl Dly (s/v)	155	29.2	-	-
HCM Lane LOS	F	D	-	-
HCM 95th %tile Q(veh)	31.7	10.8	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s
 +: Computation Not Defined *: All major volume in platoon

2027 PM FUTURE CUMULATIVE

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	58.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	232	1384	169	183	0
Future Vol, veh/h	3	232	1384	169	183	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	258	1538	188	203	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	3467	203	203	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	3263	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	7	835 ~ 1362		-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	835 ~ 1362		-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v		74.24		0		
HCM LOS	-					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	~ 1362	-	-	-	-	-
HCM Lane V/C Ratio	1.129	-	-	-	-	-
HCM Ctrl Dly (s/v)	83.3	-	-	-	-	-
HCM Lane LOS	F	-	-	-	-	-
HCM 95th %tile Q(veh)	37.4	-	-	-	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				

2027 PM FUTURE CUMULATIVE

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Future Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	1553		1736	1553			1827	1553	1736	1827	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1736	1553		1736	1553			1827	1553	1736	1827	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	176	0	76	163	0	1133	0	220	3	2	252	0
RTOR Reduction (vph)	0	50	0	0	324	0	0	0	3	0	0	0
Lane Group Flow (vph)	176	26	0	163	809	0	0	220	0	2	252	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	10.1	31.2		20.5	41.6			15.3	15.3	1.0	23.3	
Effective Green, g (s)	10.1	31.2		20.5	41.6			15.3	15.3	1.0	23.3	
Actuated g/C Ratio	0.11	0.34		0.22	0.45			0.17	0.17	0.01	0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	190	526		386	702			303	258	18	462	
v/s Ratio Prot	c0.10	0.02		0.09	c0.52			c0.12		0.00	c0.14	
v/s Ratio Perm									0.00			
v/c Ratio	0.93	0.05		0.42	1.15			0.73	0.00	0.11	0.55	
Uniform Delay, d1	40.6	20.4		30.7	25.2			36.4	32.0	45.1	29.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	44.4	0.0		0.7	84.2			8.4	0.0	2.7	1.3	
Delay (s)	85.0	20.5		31.4	109.4			44.7	32.0	47.8	31.1	
Level of Service	F	C		C	F			D	C	D	C	
Approach Delay (s/veh)		65.5			99.6			44.6			31.2	
Approach LOS		E			F			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			80.7			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.05									
Actuated Cycle Length (s)			92.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			98.0%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

2027 PM FUTURE CUMULATIVE

HCM 7th TWSC

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

Intersection

Int Delay, s/veh 42.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔	↔	↔	
Traffic Vol, veh/h	1	0	0	78	2	186	0	122	72	483	436	0
Future Vol, veh/h	1	0	0	78	2	186	0	122	72	483	436	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	125	-	-	-	-	350	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	1	0	0	87	2	207	0	136	80	537	484	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1694	1773	484	1693	1693	136	484	0	0	216	0	0
Stage 1	1558	1558	-	136	136	-	-	-	-	-	-	-
Stage 2	137	216	-	1558	1558	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	73	82	578	~ 73	92	908	1068	-	-	1343	-	-
Stage 1	140	172	-	863	780	-	-	-	-	-	-	-
Stage 2	862	721	-	140	172	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	33	49	578	~ 44	55	908	1068	-	-	1343	-	-
Mov Cap-2 Maneuver	33	49	-	~ 44	55	-	-	-	-	-	-	-
Stage 1	84	103	-	863	780	-	-	-	-	-	-	-
Stage 2	664	721	-	~ 84	103	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	118.53	201.57	0	4.97
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1068	-	-	33 44 780	1343	-	-
HCM Lane V/C Ratio	-	-	-	0.034 1.986 0.268	0.4	-	-
HCM Ctrl Dly (s/v)	0	-	-	118.5\$ 660.2 11.3	9.5	-	-
HCM Lane LOS	A	-	-	F F B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 9 1.1	2	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s
+: Computation Not Defined *: All major volume in platoon

2027 PM FUTURE CUMULATIVE

Appendix J

Future 2027 Plus Cumulative of Projects
Construction Traffic Conditions with
Mitigation C SYNCHRO Output

HCM Signalized Intersection Capacity Analysis

1: Ramsey Weeks Cutoff & US 50

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵		↵	↑
Traffic Volume (vph)	555	591	584	0	78	154
Future Volume (vph)	555	591	584	0	78	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0		5.0	5.0
Lane Util. Factor	0.95	1.00	1.00		1.00	1.00
Frt	1.00	0.85	1.00		1.00	0.85
Flt Protected	1.00	1.00	0.95		0.95	1.00
Satd. Flow (prot)	3539	1583	1770		1770	1583
Flt Permitted	1.00	1.00	0.95		0.95	1.00
Satd. Flow (perm)	3539	1583	1770		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	617	657	649	0	87	171
RTOR Reduction (vph)	0	338	0	0	0	150
Lane Group Flow (vph)	617	319	649	0	87	21
Turn Type	NA	Perm	Prot		Prot	Perm
Protected Phases	4		3		2	
Permitted Phases		4				2
Actuated Green, G (s)	17.1	17.1	28.1		8.9	8.9
Effective Green, g (s)	17.1	17.1	28.1		8.9	8.9
Actuated g/C Ratio	0.23	0.23	0.38		0.12	0.12
Clearance Time (s)	7.0	7.0	7.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	827	370	680		215	192
v/s Ratio Prot	0.17		c0.37		c0.05	
v/s Ratio Perm		c0.20				0.01
v/c Ratio	0.75	0.86	0.95		0.40	0.11
Uniform Delay, d1	26.0	26.9	21.9		29.7	28.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	3.7	18.3	23.7		1.2	0.3
Delay (s)	29.7	45.2	45.5		30.9	28.8
Level of Service	C	D	D		C	C
Approach Delay (s/veh)	37.7			45.5	29.5	
Approach LOS	D			D	C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			39.0		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.83			
Actuated Cycle Length (s)			73.1		Sum of lost time (s)	19.0
Intersection Capacity Utilization			78.1%		ICU Level of Service	D
Analysis Period (min)			15			

c Critical Lane Group

2027 AM FUTURE CUMULATIVE SIG

HCM Signalized Intersection Capacity Analysis

2: US 95 & Ramsey Weeks Cutoff

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	1260	201	111	95	7
Future Volume (vph)	4	1260	201	111	95	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	1845	1827	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	1845	1827	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	1400	223	123	106	8
RTOR Reduction (vph)	0	308	0	0	2	0
Lane Group Flow (vph)	4	1092	223	123	112	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	72.0	72.0	17.8	34.4	9.6	
Effective Green, g (s)	72.0	72.0	17.8	34.4	9.6	
Actuated g/C Ratio	0.61	0.61	0.15	0.29	0.08	
Clearance Time (s)	5.0	5.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1065	953	263	536	148	
v/s Ratio Prot	0.00		c0.13	0.07	c0.06	
v/s Ratio Perm		c0.70				
v/c Ratio	0.00	1.15	0.85	0.23	0.76	
Uniform Delay, d1	9.1	23.2	49.0	31.9	53.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.0	78.1	21.6	0.2	19.7	
Delay (s)	9.1	101.3	70.6	32.1	72.9	
Level of Service	A	F	E	C	E	
Approach Delay (s/veh)	101.0			56.9	72.9	
Approach LOS	F			E	E	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			91.1		HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.05			
Actuated Cycle Length (s)			118.4		Sum of lost time (s)	19.0
Intersection Capacity Utilization			93.4%		ICU Level of Service	F
Analysis Period (min)			15			
c Critical Lane Group						

2027 AM FUTURE CUMULATIVE SIG

HCM Signalized Intersection Capacity Analysis

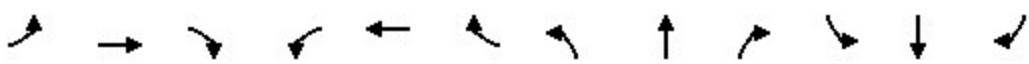
3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Future Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.85		1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1553		1736	1553		1736	1827	1553	1736	1827	1553
Flt Permitted		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1553		1736	1553		1736	1827	1553	1736	1827	1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	2	8	0	10	80	182	89	1004	197	177
RTOR Reduction (vph)	0	2	0	0	9	0	0	0	76	0	0	107
Lane Group Flow (vph)	0	0	0	8	1	0	80	182	13	1004	197	70
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)		0.9		1.2	7.1		39.6	16.5	16.5	66.5	43.4	43.4
Effective Green, g (s)		0.9		1.2	7.1		39.6	16.5	16.5	66.5	43.4	43.4
Actuated g/C Ratio		0.01		0.01	0.07		0.36	0.15	0.15	0.61	0.40	0.40
Clearance Time (s)		5.0		5.0	5.0		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		12		19	101		630	276	234	1058	726	617
v/s Ratio Prot		0.00		c0.00	c0.00		0.05	c0.10		c0.58	0.11	
v/s Ratio Perm									0.01			0.05
v/c Ratio		0.00		0.42	0.01		0.13	0.66	0.06	0.95	0.27	0.11
Uniform Delay, d1		53.7		53.6	47.7		23.2	43.7	39.6	19.7	22.2	20.7
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0		14.4	0.0		0.1	5.6	0.1	16.6	0.2	0.1
Delay (s)		53.7		68.0	47.7		23.3	49.3	39.7	36.3	22.4	20.8
Level of Service		D		E	D		C	D	D	D	C	C
Approach Delay (s/veh)		53.7			56.7			40.9			32.3	
Approach LOS		D			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			34.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			109.1			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			80.4%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

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HCM 7th Signalized Intersection Summary

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔	↔	↔	
Traffic Volume (veh/h)	0	1	0	33	0	383	0	382	57	224	114	0
Future Volume (veh/h)	0	1	0	33	0	383	0	382	57	224	114	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	1	0	37	0	426	0	424	63	249	127	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	124	0	306	0	483	0	492	417	292	973	0
Arrive On Green	0.00	0.07	0.00	0.17	0.00	0.31	0.00	0.27	0.27	0.17	0.53	0.00
Sat Flow, veh/h	0	1841	0	1753	0	1560	0	1841	1560	1753	1841	0
Grp Volume(v), veh/h	0	1	0	37	0	426	0	424	63	249	127	0
Grp Sat Flow(s),veh/h/ln	0	1841	0	1753	0	1560	0	1841	1560	1753	1841	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	19.2	0.0	16.2	2.3	10.2	2.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	19.2	0.0	16.2	2.3	10.2	2.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	124	0	306	0	483	0	492	417	292	973	0
V/C Ratio(X)	0.00	0.01	0.00	0.12	0.00	0.88	0.00	0.86	0.15	0.85	0.13	0.00
Avail Cap(c_a), veh/h	0	248	0	355	0	632	0	646	547	355	1192	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	32.2	0.0	25.8	0.0	24.3	0.0	25.8	20.7	30.0	8.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	11.3	0.0	9.1	0.2	15.4	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	0.9	0.0	12.3	0.0	12.1	1.4	8.9	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	32.3	0.0	26.0	0.0	35.5	0.0	35.0	20.9	45.4	8.9	0.0
LnGrp LOS		C		C		D		C	C	D	A	
Approach Vol, veh/h	1			463			487			376		
Approach Delay, s/veh	32.3			34.8			33.2			33.1		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	19.3	26.8	17.9	10.0		46.2		27.9				
Change Period (Y+Rc), s	7.0	7.0	5.0	5.0		7.0		5.0				
Max Green Setting (Gmax), s	15.0	26.0	15.0	10.0		48.0		30.0				
Max Q Clear Time (g_c+I1), s	12.2	18.2	3.3	2.0		4.6		21.2				
Green Ext Time (p_c), s	0.2	1.6	0.0	0.0		0.6		1.7				
Intersection Summary												
HCM 7th Control Delay, s/veh	33.7											
HCM 7th LOS	C											

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HCM Signalized Intersection Capacity Analysis

1: Ramsey Weeks Cutoff & US 50

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	290	157	150	0	740	664
Future Volume (vph)	290	157	150	0	740	664
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0		5.0	5.0
Lane Util. Factor	0.95	1.00	1.00		1.00	1.00
Frt	1.00	0.85	1.00		1.00	0.85
Flt Protected	1.00	1.00	0.95		0.95	1.00
Satd. Flow (prot)	3539	1583	1770		1770	1583
Flt Permitted	1.00	1.00	0.95		0.95	1.00
Satd. Flow (perm)	3539	1583	1770		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	322	174	167	0	822	738
RTOR Reduction (vph)	0	155	0	0	0	309
Lane Group Flow (vph)	322	19	167	0	822	429
Turn Type	NA	Perm	Prot		Prot	Perm
Protected Phases	4		3		2	
Permitted Phases		4				2
Actuated Green, G (s)	7.0	7.0	8.0		31.0	31.0
Effective Green, g (s)	7.0	7.0	8.0		31.0	31.0
Actuated g/C Ratio	0.11	0.11	0.12		0.48	0.48
Clearance Time (s)	7.0	7.0	7.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	381	170	217		844	754
v/s Ratio Prot	c0.09		c0.09		c0.46	
v/s Ratio Perm		0.01				0.27
v/c Ratio	0.85	0.11	0.77		0.97	0.57
Uniform Delay, d1	28.5	26.2	27.6		16.6	12.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	15.7	0.3	15.1		24.5	1.0
Delay (s)	44.1	26.5	42.7		41.1	13.2
Level of Service	D	C	D		D	B
Approach Delay (s/veh)	37.9			42.7	27.9	
Approach LOS	D			D	C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			31.3		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.92			
Actuated Cycle Length (s)			65.0		Sum of lost time (s)	19.0
Intersection Capacity Utilization			70.7%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

2027 PM FUTURE CUMULATIVE SIG

HCM Signalized Intersection Capacity Analysis

2: US 95 & Ramsey Weeks Cutoff

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	3	232	1384	169	183	0
Future Volume (vph)	3	232	1384	169	183	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	1568	1752	1845	1845	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	1568	1752	1845	1845	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	3	258	1538	188	203	0
RTOR Reduction (vph)	0	247	0	0	0	0
Lane Group Flow (vph)	3	11	1538	188	203	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	5.0	5.0	83.0	103.0	13.0	
Effective Green, g (s)	5.0	5.0	83.0	103.0	13.0	
Actuated g/C Ratio	0.04	0.04	0.69	0.86	0.11	
Clearance Time (s)	5.0	5.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	73	65	1211	1583	199	
v/s Ratio Prot	0.00		c0.88	0.10	c0.11	
v/s Ratio Perm		c0.01				
v/c Ratio	0.04	0.17	1.27	0.12	1.02	
Uniform Delay, d1	55.2	55.5	18.5	1.3	53.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	1.2	128.1	0.0	69.1	
Delay (s)	55.4	56.7	146.6	1.4	122.6	
Level of Service	E	E	F	A	F	
Approach Delay (s/veh)	56.7			130.8	122.6	
Approach LOS	E			F	F	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			121.2		HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.18			
Actuated Cycle Length (s)			120.0		Sum of lost time (s)	19.0
Intersection Capacity Utilization			106.3%		ICU Level of Service	G
Analysis Period (min)			15			
c Critical Lane Group						

2027 PM FUTURE CUMULATIVE SIG

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Future Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	1553		1736	1553			1827	1553	1736	1827	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1736	1553		1736	1553			1827	1553	1736	1827	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	176	0	76	163	0	1133	0	220	3	2	252	0
RTOR Reduction (vph)	0	50	0	0	324	0	0	0	3	0	0	0
Lane Group Flow (vph)	176	26	0	163	809	0	0	220	0	2	252	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	10.1	31.2		20.5	41.6			15.3	15.3	1.0	23.3	
Effective Green, g (s)	10.1	31.2		20.5	41.6			15.3	15.3	1.0	23.3	
Actuated g/C Ratio	0.11	0.34		0.22	0.45			0.17	0.17	0.01	0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	190	526		386	702			303	258	18	462	
v/s Ratio Prot	c0.10	0.02		0.09	c0.52			c0.12		0.00	c0.14	
v/s Ratio Perm									0.00			
v/c Ratio	0.93	0.05		0.42	1.15			0.73	0.00	0.11	0.55	
Uniform Delay, d1	40.6	20.4		30.7	25.2			36.4	32.0	45.1	29.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	44.4	0.0		0.7	84.2			8.4	0.0	2.7	1.3	
Delay (s)	85.0	20.5		31.4	109.4			44.7	32.0	47.8	31.1	
Level of Service	F	C		C	F			D	C	D	C	
Approach Delay (s/veh)		65.5			99.6			44.6			31.2	
Approach LOS		E			F			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			80.7			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.05									
Actuated Cycle Length (s)			92.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			98.0%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

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HCM 7th Signalized Intersection Summary

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	78	2	186	0	122	72	483	436	0
Future Volume (veh/h)	1	0	0	78	2	186	0	122	72	483	436	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	0	0	87	2	207	0	136	80	537	484	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	3	0	318	3	281	0	204	173	611	1089	0
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.00	0.11	0.11	0.35	0.59	0.00
Sat Flow, veh/h	0	1841	0	1753	15	1547	0	1841	1560	1753	1841	0
Grp Volume(v), veh/h	0	0	0	87	0	209	0	136	80	537	484	0
Grp Sat Flow(s),veh/h/ln	0	1841	0	1753	0	1562	0	1841	1560	1753	1841	0
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	6.7	0.0	3.8	2.5	15.2	7.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	6.7	0.0	3.8	2.5	15.2	7.7	0.0
Prop In Lane	0.00		0.00	1.00		0.99	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	3	0	318	0	284	0	204	173	611	1089	0
V/C Ratio(X)	0.00	0.00	0.00	0.27	0.00	0.74	0.00	0.67	0.46	0.88	0.44	0.00
Avail Cap(c_a), veh/h	0	452	0	663	0	797	0	244	206	862	1392	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	18.6	0.0	20.5	0.0	22.6	22.0	16.2	6.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	3.7	0.0	5.3	1.9	7.7	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	1.5	0.0	4.2	0.0	3.0	1.6	9.9	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	19.1	0.0	24.2	0.0	27.8	24.0	23.9	6.3	0.0
LnGrp LOS				B				C	C	C	A	
Approach Vol, veh/h	0				296				216			
Approach Delay, s/veh	0.0				22.7				26.4			
Approach LOS					C				C			
Timer - Assigned Phs	1	2	3	4	6			7	8			
Phs Duration (G+Y+Rc), s	25.4	12.9	14.6	0.0	38.3			0.0	14.6			
Change Period (Y+Rc), s	7.0	7.0	5.0	5.0	7.0			5.0	5.0			
Max Green Setting (Gmax), s	26.0	7.0	20.0	13.0	40.0			6.0	27.0			
Max Q Clear Time (g_c+I1), s	17.2	5.8	4.3	0.0	9.7			0.0	8.7			
Green Ext Time (p_c), s	1.2	0.1	0.2	0.0	2.9			0.0	1.0			
Intersection Summary												
HCM 7th Control Delay, s/veh	18.4											
HCM 7th LOS	B											

2027 PM FUTURE CUMULATIVE SIG

Appendix K

Future 2027 Plus Cumulative of Projects
Construction Traffic Conditions with
Mitigation D SYNCHRO Output

HCM Signalized Intersection Capacity Analysis

1: Ramsey Weeks Cutoff & US 50

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘		↘	↑
Traffic Volume (vph)	555	591	584	0	78	154
Future Volume (vph)	555	591	584	0	78	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0		5.0	5.0
Lane Util. Factor	0.95	1.00	1.00		1.00	1.00
Frt	1.00	0.85	1.00		1.00	0.85
Flt Protected	1.00	1.00	0.95		0.95	1.00
Satd. Flow (prot)	3539	1583	1770		1770	1583
Flt Permitted	1.00	1.00	0.95		0.95	1.00
Satd. Flow (perm)	3539	1583	1770		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	617	657	649	0	87	171
RTOR Reduction (vph)	0	338	0	0	0	150
Lane Group Flow (vph)	617	319	649	0	87	21
Turn Type	NA	Perm	Prot		Prot	Perm
Protected Phases	4		3		2	
Permitted Phases		4				2
Actuated Green, G (s)	17.1	17.1	28.1		8.9	8.9
Effective Green, g (s)	17.1	17.1	28.1		8.9	8.9
Actuated g/C Ratio	0.23	0.23	0.38		0.12	0.12
Clearance Time (s)	7.0	7.0	7.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	827	370	680		215	192
v/s Ratio Prot	0.17		c0.37		c0.05	
v/s Ratio Perm		c0.20				0.01
v/c Ratio	0.75	0.86	0.95		0.40	0.11
Uniform Delay, d1	26.0	26.9	21.9		29.7	28.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	3.7	18.3	23.7		1.2	0.3
Delay (s)	29.7	45.2	45.5		30.9	28.8
Level of Service	C	D	D		C	C
Approach Delay (s/veh)	37.7			45.5	29.5	
Approach LOS	D			D	C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			39.0		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.83			
Actuated Cycle Length (s)			73.1		Sum of lost time (s)	19.0
Intersection Capacity Utilization			78.1%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

2027 AM FUTURE CUMULATIVE SIG + IMPROV

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1260	201	111	95	7
Future Vol, veh/h	4	1260	201	111	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	300	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	1400	223	123	106	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	679	-	113	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.43	-	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	-	2.227	-	-	-
Pot Cap-1 Maneuver	415	0	1470	-	-	-
Stage 1	913	0	-	-	-	-
Stage 2	564	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	352	-	1470	-	-	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	15.35	5.08		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1470	-	352	-	-	-
HCM Lane V/C Ratio	0.152	-	0.013	-	-	-
HCM Ctrl Dly (s/v)	7.9	-	15.4	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-	-

2027 AM FUTURE CUMULATIVE SIG + IMPROV

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Future Volume (vph)	0	0	2	7	0	9	72	164	80	904	177	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0		4.0	7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.85		1.00		0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1553		1736		1553	1736	1827	1553	1736	1827	1553
Flt Permitted		1.00		0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1553		1736		1553	1736	1827	1553	1736	1827	1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	2	8	0	10	80	182	89	1004	197	177
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	76	0	0	107
Lane Group Flow (vph)	0	0	0	8	0	10	80	182	13	1004	197	70
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot		Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						Free			2			6
Actuated Green, G (s)		0.9		1.2		109.1	39.6	16.5	16.5	66.5	43.4	43.4
Effective Green, g (s)		0.9		1.2		109.1	39.6	16.5	16.5	66.5	43.4	43.4
Actuated g/C Ratio		0.01		0.01		1.00	0.36	0.15	0.15	0.61	0.40	0.40
Clearance Time (s)		5.0		5.0			7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)		3.0		3.0			3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		12		19		1553	630	276	234	1058	726	617
v/s Ratio Prot		0.00		c0.00			0.05	c0.10		c0.58	0.11	
v/s Ratio Perm						c0.01			0.01			0.05
v/c Ratio		0.00		0.42		0.01	0.13	0.66	0.06	0.95	0.27	0.11
Uniform Delay, d1		53.7		53.6		0.0	23.2	43.7	39.6	19.7	22.2	20.7
Progression Factor		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0		14.4		0.0	0.1	5.6	0.1	16.6	0.2	0.1
Delay (s)		53.7		68.0		0.0	23.3	49.3	39.7	36.3	22.4	20.8
Level of Service		D		E		A	C	D	D	D	C	C
Approach Delay (s/veh)		53.7			30.2			40.9			32.3	
Approach LOS		D			C			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			34.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			109.1				Sum of lost time (s)			24.0		
Intersection Capacity Utilization			80.4%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

2027 AM FUTURE CUMULATIVE SIG + IMPROV

HCM 7th Signalized Intersection Summary

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	0	33	0	383	0	382	57	224	114	0
Future Volume (veh/h)	0	1	0	33	0	383	0	382	57	224	114	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	1	0	37	0	426	0	424	63	249	127	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	124	0	306	0	483	0	492	417	292	973	0
Arrive On Green	0.00	0.07	0.00	0.17	0.00	0.31	0.00	0.27	0.27	0.17	0.53	0.00
Sat Flow, veh/h	0	1841	0	1753	0	1560	0	1841	1560	1753	1841	0
Grp Volume(v), veh/h	0	1	0	37	0	426	0	424	63	249	127	0
Grp Sat Flow(s),veh/h/ln	0	1841	0	1753	0	1560	0	1841	1560	1753	1841	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	19.2	0.0	16.2	2.3	10.2	2.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	19.2	0.0	16.2	2.3	10.2	2.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	124	0	306	0	483	0	492	417	292	973	0
V/C Ratio(X)	0.00	0.01	0.00	0.12	0.00	0.88	0.00	0.86	0.15	0.85	0.13	0.00
Avail Cap(c_a), veh/h	0	248	0	355	0	632	0	646	547	355	1192	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	32.2	0.0	25.8	0.0	24.3	0.0	25.8	20.7	30.0	8.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	11.3	0.0	9.1	0.2	15.4	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	0.9	0.0	12.3	0.0	12.1	1.4	8.9	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	32.3	0.0	26.0	0.0	35.5	0.0	35.0	20.9	45.4	8.9	0.0
LnGrp LOS	C		C		D		C		C	D	A	
Approach Vol, veh/h	1				463				487			
Approach Delay, s/veh	32.3				34.8				33.2			
Approach LOS	C				C				C			
Timer - Assigned Phs	1	2	3	4	6			8				
Phs Duration (G+Y+Rc), s	19.3	26.8	17.9	10.0	46.2			27.9				
Change Period (Y+Rc), s	7.0	7.0	5.0	5.0	7.0			5.0				
Max Green Setting (Gmax), s	15.0	26.0	15.0	10.0	48.0			30.0				
Max Q Clear Time (g_c+I1), s	12.2	18.2	3.3	2.0	4.6			21.2				
Green Ext Time (p_c), s	0.2	1.6	0.0	0.0	0.6			1.7				
Intersection Summary												
HCM 7th Control Delay, s/veh	33.7											
HCM 7th LOS	C											

2027 AM FUTURE CUMULATIVE SIG + IMPROV

HCM Signalized Intersection Capacity Analysis

1: Ramsey Weeks Cutoff & US 50

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	290	157	150	0	740	664
Future Volume (vph)	290	157	150	0	740	664
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0		5.0	5.0
Lane Util. Factor	0.95	1.00	1.00		1.00	1.00
Frt	1.00	0.85	1.00		1.00	0.85
Flt Protected	1.00	1.00	0.95		0.95	1.00
Satd. Flow (prot)	3539	1583	1770		1770	1583
Flt Permitted	1.00	1.00	0.95		0.95	1.00
Satd. Flow (perm)	3539	1583	1770		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	322	174	167	0	822	738
RTOR Reduction (vph)	0	155	0	0	0	309
Lane Group Flow (vph)	322	19	167	0	822	429
Turn Type	NA	Perm	Prot		Prot	Perm
Protected Phases	4		3		2	
Permitted Phases		4				2
Actuated Green, G (s)	7.0	7.0	8.0		31.0	31.0
Effective Green, g (s)	7.0	7.0	8.0		31.0	31.0
Actuated g/C Ratio	0.11	0.11	0.12		0.48	0.48
Clearance Time (s)	7.0	7.0	7.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	381	170	217		844	754
v/s Ratio Prot	c0.09		c0.09		c0.46	
v/s Ratio Perm		0.01				0.27
v/c Ratio	0.85	0.11	0.77		0.97	0.57
Uniform Delay, d1	28.5	26.2	27.6		16.6	12.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	15.7	0.3	15.1		24.5	1.0
Delay (s)	44.1	26.5	42.7		41.1	13.2
Level of Service	D	C	D		D	B
Approach Delay (s/veh)	37.9			42.7	27.9	
Approach LOS	D			D	C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			31.3		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.92			
Actuated Cycle Length (s)			65.0		Sum of lost time (s)	19.0
Intersection Capacity Utilization			70.7%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

2027 PM FUTURE CUMULATIVE SIG + IMPROV

HCM 7th TWSC

2: US 95 & Ramsey Weeks Cutoff

Intersection						
Int Delay, s/veh	66.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	232	1384	169	183	0
Future Vol, veh/h	3	232	1384	169	183	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	300	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	258	1538	188	203	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	3467	-	203	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	3263	-	-	-	-	-
Critical Hdwy	6.43	-	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	-	2.227	-	-	-
Pot Cap-1 Maneuver	7	0 ~ 1362		-	-	-
Stage 1	828	0	-	-	-	-
Stage 2	25	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	~ 1362		-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v		74.24		0		
HCM LOS	-					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	~ 1362	-	-	-	-	-
HCM Lane V/C Ratio	1.129	-	-	-	-	-
HCM Ctrl Dly (s/v)	83.3	-	-	0	-	-
HCM Lane LOS	F	-	-	A	-	-
HCM 95th %tile Q(veh)	37.4	-	-	-	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				

2027 PM FUTURE CUMULATIVE SIG + IMPROV

HCM Signalized Intersection Capacity Analysis

3: US 95 & Sierra Way

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Future Volume (vph)	158	0	68	147	0	1020	0	198	3	2	227	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0		4.0		7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	1553		1736		1553		1827	1553	1736	1827	
Flt Permitted	0.95	1.00		0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1736	1553		1736		1553		1827	1553	1736	1827	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	176	0	76	163	0	1133	0	220	3	2	252	0
RTOR Reduction (vph)	0	71	0	0	0	0	0	0	2	0	0	0
Lane Group Flow (vph)	176	5	0	163	0	1133	0	220	1	2	252	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Prot	NA		Prot		Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						Free			2			6
Actuated Green, G (s)	13.5	2.7		5.8		40.7		7.8	7.8	0.4	15.2	
Effective Green, g (s)	13.5	2.7		5.8		40.7		7.8	7.8	0.4	15.2	
Actuated g/C Ratio	0.33	0.07		0.14		1.00		0.19	0.19	0.01	0.37	
Clearance Time (s)	5.0	5.0		5.0				7.0	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0				3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	575	103		247		1553		350	297	17	682	
v/s Ratio Prot	0.10	0.00		0.09				0.12		0.00	0.14	
v/s Ratio Perm						c0.73			0.00			
v/c Ratio	0.31	0.05		0.66		0.73		0.63	0.00	0.12	0.37	
Uniform Delay, d1	10.1	17.8		16.5		0.0		15.1	13.3	20.0	9.3	
Progression Factor	1.00	1.00		1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	0.2		6.2		3.1		3.5	0.0	3.1	0.3	
Delay (s)	10.4	18.0		22.8		3.1		18.6	13.3	23.1	9.6	
Level of Service	B	B		C		A		B	B	C	A	
Approach Delay (s/veh)		12.7			5.5			18.6			9.7	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			8.4			HCM 2000 Level of Service				A		
HCM 2000 Volume to Capacity ratio			1.78									
Actuated Cycle Length (s)			40.7			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			37.4%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

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HCM 7th Signalized Intersection Summary

4: SR 339/US 95 & McGowan Ln/US 95/ W Goldfield Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	78	2	186	0	122	72	483	436	0
Future Volume (veh/h)	1	0	0	78	2	186	0	122	72	483	436	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	0	0	87	2	207	0	136	80	537	484	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	3	0	318	3	281	0	204	173	611	1089	0
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.00	0.11	0.11	0.35	0.59	0.00
Sat Flow, veh/h	0	1841	0	1753	15	1547	0	1841	1560	1753	1841	0
Grp Volume(v), veh/h	0	0	0	87	0	209	0	136	80	537	484	0
Grp Sat Flow(s),veh/h/ln	0	1841	0	1753	0	1562	0	1841	1560	1753	1841	0
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	6.7	0.0	3.8	2.5	15.2	7.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	6.7	0.0	3.8	2.5	15.2	7.7	0.0
Prop In Lane	0.00		0.00	1.00		0.99	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	3	0	318	0	284	0	204	173	611	1089	0
V/C Ratio(X)	0.00	0.00	0.00	0.27	0.00	0.74	0.00	0.67	0.46	0.88	0.44	0.00
Avail Cap(c_a), veh/h	0	452	0	663	0	797	0	244	206	862	1392	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	18.6	0.0	20.5	0.0	22.6	22.0	16.2	6.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	3.7	0.0	5.3	1.9	7.7	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	1.5	0.0	4.2	0.0	3.0	1.6	9.9	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	19.1	0.0	24.2	0.0	27.8	24.0	23.9	6.3	0.0
LnGrp LOS				B	C			C	C	C	A	
Approach Vol, veh/h	0			296			216			1021		
Approach Delay, s/veh	0.0			22.7			26.4			15.5		
Approach LOS				C			C			B		
Timer - Assigned Phs	1	2	3	4	6		7	8				
Phs Duration (G+Y+Rc), s	25.4	12.9	14.6	0.0	38.3		0.0	14.6				
Change Period (Y+Rc), s	7.0	7.0	5.0	5.0	7.0		5.0	5.0				
Max Green Setting (Gmax), s	26.0	7.0	20.0	13.0	40.0		6.0	27.0				
Max Q Clear Time (g_c+I1), s	17.2	5.8	4.3	0.0	9.7		0.0	8.7				
Green Ext Time (p_c), s	1.2	0.1	0.2	0.0	2.9		0.0	1.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	18.4											
HCM 7th LOS	B											

2027 PM FUTURE CUMULATIVE SIG + IMPROV

Appendix L

Crash Data

OBJECTID	Shape *	CrashNum	Street1	Street1Other	Street1Located	Street2	Street2Other	Street2Located	MilePost	RoadPaddleMarkers	Intersectio	DistLandm	DistFromL	DistFromL	LandmarkI	DirFromLa
79198	Point	NHP210100984	US95A	<Null>	US95A	SIERRA WAY	<Null>	SIERRA WAY	23	BOTH SIDES	YES	YES	<Null>	<Null>	FEET	<Null>
219391	Point	NHP221001431	OTHER	US95A	US95AN	OTHER	23 LY	Mile Post 23	23	NONE	NO	YES	300	300	FEET	South
77159	Point	LYSO21LY00051	US95A	<Null>	US95A	FARRELL LN	<Null>	FARRELL LN	<Null>	<Null>	NO	NO	100	100	Feet	North
116689	Point	NHP200801671	OTHER	US95 ALTERNATE	OTHER	OTHER	FARRELL LANE	OTHER	19	BOTH SIDES	YES	NO	<Null>	<Null>	FEET	<Null>
228641	Point	NHP230500687	US95AN		US95AN	<Null>	<Null>	Mile Post 21	21	BOTH SIDES	NO	YES	400	400	FEET	South
8272	Point	LYSO23LY00615	MILLER LN		MILLER LN	US95AN	<Null>	US95AN		<Null>	YES	NO				
37590	Point	NHP221201650	OTHER	MILLER LANE	MILLER LN	OTHER	US95A	US95AN		NONE	YES	NO			FEET	
70761	Point	LYSO21LY02269	MILLER LN		MILLER LN	US95A	<Null>	US95AN		<Null>	NO	NO	2.5	2.5	Miles	East
141560	Point	NHP190201979	US95A	<Null>	US95A	MILLER LN	<Null>	MILLER LN	<Null>	BOTH SIDES	YES	NO	<Null>	<Null>	FEET	<Null>
43837	Point	LYSO22LY02193	GOLDFIELD AVE		US95AN	US95A	<Null>	SR339		<Null>	YES	NO				
65390	Point	NHP210400859	US95A	<Null>	US95A	SR339	<Null>	SR339	11	NONE	YES	YES	O	O	FEET	<Null>
101952	Point	NHP200400423	US95A	<Null>	US95A	SR339	<Null>	SR339	13	<Null>	YES	NO	<Null>	<Null>	<Null>	<Null>
112723	Point	NHP200701537	US95A	<Null>	US95A	SR339	<Null>	SR339	12	BOTH SIDES	YES	NO	<Null>	<Null>	FEET	<Null>
141938	Point	NHP190202432	US95A	<Null>	US95A	SR339	<Null>	SR339	<Null>	BOTH SIDES	YES	NO	<Null>	<Null>	FEET	<Null>
143274	Point	NHP190300332	US95A	<Null>	US95A	SR339	<Null>	SR339	<Null>	NONE	YES	NO	<Null>	<Null>	FEET	<Null>
153162	Point	LYSO23LY02356	GOLDFIELD AVE		US95AN	US95AN	<Null>	SR339		<Null>	NO	NO	100	100		East
189976	Point	LYSO23LY02839	GOLDFIELD AVE		US95AN	SR339	<Null>	SR339		<Null>	YES	NO				
204510	Point	LYSO23LY03044	SR339	<Null>	SR339	US95AN	<Null>	US95AN	<Null>	<Null>	YES	NO	<Null>	<Null>	<Null>	<Null>
213698	Point	NHP220500633	SR339		SR339	US95A	<Null>	US95AN		NONE	YES	NO			FEET	
229176	Point	NHP230600021	OTHER	US95A	US95AN	OTHER	SR339	SR339	12	BOTH SIDES	NO	YES	200	200	FEET	South
242396	Point	NHP231100241	US95A	US95A	US95AN	SR339	SR339	SR339		NONE	NO	YES	25	25	FEET	South
247895	Point	LYSO23LY04375	US95AN		US95AN	SR339	<Null>	SR339		<Null>	YES	NO				

OBJECTID	Shape *	CrashNum	DirFromLa	CrashDate	CrashTime	NotifiedDate	NotifiedTime	ArrivedDate	ArrivedTime	RoadwayC	IncidentCl	RoadIntersectTy	RoadInter	OfficeRep	ReportDate	ReportCon
79198	Point	NHP210100984	<Null>	1/16/2021	1312	1/16/2021	1314	1/16/2021	1354	1312	1443	T	<Null>	NO	1/16/2021	NO
219391	Point	NHP221001431	S	10/20/2022	817	10/20/2022	818	10/20/2022	907	1148	1148	<Null>	<Null>	NO	10/20/2022	NO
77159	Point	LYSO21LY00051	North	1/4/2021	1619	1/4/2021	1620	1/4/2021	1627	1620	1702	FOUR WAY	<Null>	NO	1/7/2021	<Null>
116689	Point	NHP200801671	<Null>	8/26/2020	1440	8/26/2020	1450	8/26/2020	1513	1440	1600	FOUR WAY	<Null>	NO	8/26/2020	NO
228641	Point	NHP230500687	S	5/10/2023	2055	5/10/2023	2056	5/10/2023	2129	2300	2343	<Null>	<Null>	NO	5/10/2023	YES
8272	Point	LYSO23LY00615		2/11/2023	416	2/11/2023	416	2/11/2023	418	507	555	T	<Null>	YES	2/12/2023	<Null>
37590	Point	NHP221201650		12/21/2022	1010	12/21/2022	1010	12/21/2022	1044	1044	1156	T	<Null>	NO	12/21/2022	NO
70761	Point	LYSO21LY02269	E	5/20/2021	2033	5/20/2021	2035	5/20/2021	2044	2033	2233	<Null>	<Null>	NO	5/21/2021	<Null>
141560	Point	NHP190201979	<Null>	2/22/2019	530	2/22/2019	540	2/22/2019	546	700	700	T	<Null>	NO	2/22/2019	NO
43837	Point	LYSO22LY02193		5/27/2022	1250	5/27/2022	1251	5/27/2022	1251	1250	1324	T	<Null>	NO	5/27/2022	<Null>
65390	Point	NHP210400859	<Null>	4/12/2021	1620	4/12/2021	1625	4/12/2021	1628	1625	1725	T	<Null>	NO	4/12/2021	NO
101952	Point	NHP200400423	<Null>	4/13/2020	1700	4/13/2020	1701	4/13/2020	1836	1705	1900	T	<Null>	NO	4/14/2020	<Null>
112723	Point	NHP200701537	<Null>	7/25/2020	1405	7/25/2020	1406	7/25/2020	1410	1430	1530	T	<Null>	NO	7/25/2020	NO
141938	Point	NHP190202432	<Null>	2/27/2019	1906	2/27/2019	1908	2/27/2019	1920	1906	2020	T	<Null>	NO	2/27/2019	NO
143274	Point	NHP190300332	<Null>	3/5/2019	1524	3/5/2019	1524	3/5/2019	1612	1524	<Null>	T	<Null>	NO	3/5/2019	NO
153162	Point	LYSO23LY02356	S	5/31/2023	1524	5/31/2023	1525	5/31/2023	1542	1524	1611	T	<Null>	NO	5/31/2023	<Null>
189976	Point	LYSO23LY02839		6/30/2023	1007	6/30/2023	1007	6/30/2023	1009	1000	1107	T	<Null>	NO	7/6/2023	<Null>
204510	Point	LYSO23LY03044	<Null>	7/13/2023	2100	7/13/2023	2106	7/13/2023	2110	2211	2211	T	<Null>	YES	7/15/2023	<Null>
213698	Point	NHP220500633		5/10/2022	1435	5/10/2022	1438	5/10/2022	1507	1507	1608	T	<Null>	NO	5/10/2022	NO
229176	Point	NHP230600021	S	6/1/2023	803	6/1/2023	804	6/1/2023	805	845	900	T	<Null>	NO	6/1/2023	NO
242396	Point	NHP231100241	S	11/3/2023	2258	11/3/2023	2301	11/3/2023	2340	56	56	<Null>	<Null>	NO	11/3/2023	NO
247895	Point	LYSO23LY04375		10/24/2023	1813	10/24/2023	1814	10/24/2023	1814	1813	1914	T	<Null>	NO	10/24/2023	<Null>

OBJECTID	Shape *	CrashNum	AgencyName	Location	OutsideTo	City	County	CountyLoc	Beat	PropertyD	PropertyD	SchoolZon	PrivatePro	TrafficCon	Weather	WeatherO	RoadSurfa	RoadSurfa
79198	Point	NHP210100984	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
219391	Point	NHP221001431	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRY24	YES	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
77159	Point	LYSO21LY00051	Lyon County SO	County	YES	<Null>	LYON	LYON	WALKER R	NO	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
116689	Point	NHP200801671	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRF15	NO	<Null>	NO	NO	<Null>	FOG, SMO	<Null>	ASPHALT	<Null>
228641	Point	NHP230500687	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRY27	NO	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
8272	Point	LYSO23LY00615	Lyon County SO	County	NO	YERINGTO	LYON	LYON	LYMV	YES	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
37590	Point	NHP221201650	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRY	YES	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
70761	Point	LYSO21LY02269	Lyon County SO	County	YES	<Null>	LYON	LYON	WALKER R	YES	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
141560	Point	NHP190201979	Nevada Highway Patrol	COUNTY	YES	RENO	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
43837	Point	LYSO22LY02193	Lyon County SO	County	NO	<Null>	LYON	LYON	WALKER R	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
65390	Point	NHP210400859	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
101952	Point	NHP200400423	Nevada Highway Patrol	County	YES	<Null>	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
112723	Point	NHP200701537	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
141938	Point	NHP190202432	Nevada Highway Patrol	COUNTY	YES	RENO	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
143274	Point	NHP190300332	Nevada Highway Patrol	COUNTY	YES	RENO	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
153162	Point	LYSO23LY02356	Lyon County SO	County	NO	<Null>	LYON	LYON	YERINGTO	NO	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
189976	Point	LYSO23LY02839	Lyon County SO	County	YES	YERINGTO	LYON	LYON	MASON V	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
204510	Point	LYSO23LY03044	Lyon County SO	County	NO	YERINGTO	LYON	LYON	LYMV	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
213698	Point	NHP220500633	Nevada Highway Patrol	COUNTY	YES	<Null>	LYON	LYON	<Null>	NO	<Null>	NO	NO	<Null>	CLOUDY	<Null>	ASPHALT	<Null>
229176	Point	NHP230600021	Nevada Highway Patrol	COUNTY	YES	YERINGTO	LYON	LYON	HRY28	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
242396	Point	NHP231100241	Nevada Highway Patrol	City	YES	YERINGTO	LYON	LYON	HRY	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>
247895	Point	LYSO23LY04375	Lyon County SO	County	NO	<Null>	LYON	LYON	LYMV	NO	<Null>	NO	NO	<Null>	CLEAR	<Null>	ASPHALT	<Null>

OBJECTID	Shape *	CrashNum	LightCondition	LightConditionOther	CrashType	CrashSeverity	VehCrashType	AreaOfInitialImpact	LocationFirstEvent	LocationFirstEventID	FirstHarmfulHit	AndRun	AlcoholInv
79198	Point	NHP210100984	DAYLIGHT	<Null>	PROPERTY	O	REAR END	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
219391	Point	NHP221001431	DAYLIGHT	<Null>	PROPERTY	O	ANGLE	<Null>	TRAVEL LANE	<Null>	<Null>	NO	NO
77159	Point	LYSO21LY00051	Dusk	<Null>	PROPERTY	O	Rear End	<Null>	Travel Lane	<Null>	<Null>	NO	NO
116689	Point	NHP200801671	DAYLIGHT	<Null>	INJURY	B	REAR END	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
228641	Point	NHP230500687	DARK - NO ROADWAY	<Null>	INJURY	A	HEAD ON	<Null>	TRAVEL LANE	<Null>	<Null>	NO	NO
8272	Point	LYSO23LY00615	Dark - Spot Roadway	<Null>	PROPERTY	N	Non-Collision	<Null>	Intersection	<Null>	<Null>	NO	YES
37590	Point	NHP221201650	DAYLIGHT	<Null>	PROPERTY	O	NON-COLLISION	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
70761	Point	LYSO21LY02269	Dark - No Roadway Light	<Null>	PROPERTY	O	Non-Collision	<Null>	Outside Shoulder	<Null>	<Null>	NO	YES
141560	Point	NHP190201979	DARK - NO ROADWAY	<Null>	PROPERTY	O	NON-COLLISION	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
43837	Point	LYSO22LY02193	Daylight	<Null>	PROPERTY	O	Angle	M. LENIHAN #0059	Intersection	<Null>	<Null>	YES	NO
65390	Point	NHP210400859	DAYLIGHT	<Null>	PROPERTY	O	REAR END	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
101952	Point	NHP200400423	Daylight	<Null>	PROPERTY	O	Rear End	<Null>	Turn Lane	<Null>	<Null>	NO	NO
112723	Point	NHP200701537	DAYLIGHT	<Null>	INJURY	C	ANGLE	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
141938	Point	NHP190202432	DARK - SPOT ROADWAY	<Null>	PROPERTY	O	ANGLE	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
143274	Point	NHP190300332	Daylight	<Null>	PROPERTY	O	Sideswipe - Meeting	<Null>	Travel Lane	<Null>	<Null>	NO	NO
153162	Point	LYSO23LY02356	Daylight	<Null>	PROPERTY	O	Sideswipe - Meeting	T. WATSON #0136	Travel Lane	<Null>	<Null>	NO	NO
189976	Point	LYSO23LY02839	Daylight	<Null>	PROPERTY	O	Rear End	DEPUTY T. WATSON	Travel Lane	<Null>	<Null>	YES	NO
204510	Point	LYSO23LY03044	Dark - Spot Roadway	<Null>	PROPERTY	N	Head On	N. WHITTEMORE #0054	Intersection	<Null>	<Null>	NO	NO
213698	Point	NHP220500633	DAYLIGHT	<Null>	PROPERTY	O	ANGLE	<Null>	INTERSECTION	<Null>	<Null>	NO	NO
229176	Point	NHP230600021	DAYLIGHT	<Null>	INJURY	C	ANGLE	<Null>	TURN LANE	<Null>	<Null>	NO	NO
242396	Point	NHP231100241	Dark - Spot Roadway	<Null>	PROPERTY	O	Sideswipe - Meeting	<Null>	Turn Lane	<Null>	<Null>	NO	NO
247895	Point	LYSO23LY04375	Dark - Spot Roadway	<Null>	PROPERTY	O	Rear End	CHRIS MILLER #0060	Travel Lane	<Null>	<Null>	NO	NO

OBJECTID	Shape *	CrashNum	Pedestrian	Motorcycl	NumVehic	NumNonV	NumOccur	NumFatali	NumInjure	NumRestr	LocationFirstEventTurn	LocationFirstEventTrav	RoadEnvironmentalFactors
79198	Point	NHP210100984	NO	NO	2	0	3	0	0	3	<Null>	<Null>	NONE
219391	Point	NHP221001431	NO	NO	2	0	2	0	0	2	<Null>	1	NONE
77159	Point	LYSO21LY00051	NO	NO	2	0	2	0	0	2	<Null>	1	NONE
116689	Point	NHP200801671	NO	NO	2	0	3	0	1	3	<Null>	<Null>	NONE
228641	Point	NHP230500687	NO	NO	2	0	2	0	1	2	<Null>	1	OTHER HIGHWAY
8272	Point	LYSO23LY00615	NO	NO	1	0	1	0	0	0	<Null>	<Null>	NONE
37590	Point	NHP221201650	NO	NO	1	0	1	0	0	1	<Null>	1	NONE
70761	Point	LYSO21LY02269	NO	NO	1	0	2	0	0	0	<Null>	<Null>	NONE
141560	Point	NHP190201979	NO	NO	1	0	1	0	0	1	<Null>	<Null>	WET, ICY, SNOW, SLUSH
43837	Point	LYSO22LY02193	NO	NO	2	0	3	0	0	2	<Null>	<Null>	NONE
65390	Point	NHP210400859	NO	NO	2	0	2	0	0	2	<Null>	<Null>	NONE
101952	Point	NHP200400423	NO	NO	2	0	2	0	0	2	1	<Null>	NONE
112723	Point	NHP200701537	NO	NO	2	0	2	0	1	2	<Null>	<Null>	NONE
141938	Point	NHP190202432	NO	NO	2	0	3	0	0	3	<Null>	<Null>	NONE
143274	Point	NHP190300332	NO	NO	2	0	2	0	0	2	<Null>	1	NONE
153162	Point	LYSO23LY02356	NO	NO	2	0	2	0	0	0	<Null>	1	NONE
189976	Point	LYSO23LY02839	NO	NO	2	0	3	0	0	0	<Null>	1	NONE
204510	Point	LYSO23LY03044	NO	NO	2	0	2	0	0	0	<Null>	<Null>	NONE
213698	Point	NHP220500633	NO	NO	2	0	5	0	0	5	<Null>	<Null>	<Null>
229176	Point	NHP230600021	NO	NO	2	0	5	0	1	3	L1	<Null>	NONE
242396	Point	NHP231100241	NO	NO	2	0	3	0	0	0	L1	<Null>	NONE
247895	Point	LYSO23LY04375	NO	NO	2	0	3	0	0	1	<Null>	1	NONE

OBJECTID	Shape *	CrashNum	RoadEnvironFactorsOtherEnv	RoadEnvironFactorsOther	RouteID	Measure	SecondaryCollision	X	Y
79198	Point	NHP210100984	<Null>	<Null>	133502LY	0.98356	<Null>	311470.2	4333270
219391	Point	NHP221001431	<Null>	<Null>	13LY	22.923609	<Null>	311470.5	4333283
77159	Point	LYSO21LY00051	<Null>	<Null>	13LY	20.925484	<Null>	311397.3	4330068
116689	Point	NHP200801671	<Null>	<Null>	113142LY	3.812409	<Null>	311396.6	4330037
228641	Point	NHP230500687	<Null>	PRIOR CRASH	13LY	20.922586	<Null>	311397.2	4330063
8272	Point	LYSO23LY00615	<Null>	<Null>	123253LY	0	<Null>	311220.5	4324377
37590	Point	NHP221201650	<Null>	<Null>	123253LY	0	<Null>	311220.5	4324377
70761	Point	LYSO21LY02269	<Null>	<Null>	123253LY	0.000473	<Null>	311221.2	4324377
141560	Point	NHP190201979	<Null>	<Null>	123253LY	0	<Null>	311220.5	4324377
43837	Point	LYSO22LY02193	<Null>	<Null>	13LY	13.647526	<Null>	311035.6	4318372
65390	Point	NHP210400859	<Null>	<Null>	122614LY	0.176991	<Null>	311035.6	4318372
101952	Point	NHP200400423	<Null>	<Null>	122614LY	0.176991	<Null>	311035.6	4318372
112723	Point	NHP200701537	<Null>	<Null>	122614LY	0.176991	<Null>	311035.6	4318372
141938	Point	NHP190202432	<Null>	<Null>	122614LY	0.176991	<Null>	311035.6	4318372
143274	Point	NHP190300332	<Null>	<Null>	122614LY	0.176991	<Null>	311035.6	4318372
153162	Point	LYSO23LY02356	<Null>	<Null>	13LY	13.628587	<Null>	311066	4318371
189976	Point	LYSO23LY02839	<Null>	<Null>	13LY	13.647526	NO	311035.6	4318372
204510	Point	LYSO23LY03044	<Null>	<Null>	73LY	11.490813	NO	311035.6	4318372
213698	Point	NHP220500633	<Null>	<Null>	73LY	11.490813	<Null>	311035.6	4318372
229176	Point	NHP230600021	<Null>	<Null>	13LY	13.609647	<Null>	311096.5	4318371
242396	Point	NHP231100241	<Null>	<Null>	13LY	13.642791	NO	311043.2	4318371
247895	Point	LYSO23LY04375	<Null>	<Null>	13LY	13.647526	<Null>	311035.6	4318372