



# Stone House Development Inc. Old Sauk Road Apartments

Traffic Impact Analysis Study

Prepared for:

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Old Sauk Road Apartments**

**Traffic Impact Analysis Study**

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## Chapter 1: Introduction and Proposed Development

### Part A: Purpose of Report and Study Objectives

The City of Madison requested a traffic impact analysis (TIA) study be conducted for the proposed Stone House Development Inc. development located along the north side of Old Sauk Road, near San Juan Trail, in the City of Madison, WI. The proposed development is expected to include apartment units with no commercial or retail space. The following report summarizes the development study area, the existing, future no-build, and future build traffic volumes, the proposed driveway access points, and the expected traffic operations at the study intersections.

### Part B: Proposed Development

The development, named the Old Sauk Road Apartments, is located on approximately 4 acres of land at 6101 Old Sauk Road in the City of Madison, WI. Existing usage of the land is limited to three houses and one barn. Due to minimal existing usage, existing trips to and from the site are considered negligible for the purposes of the study.

The development is anticipated to include a three-story building with approximately 138 apartment units along with underground and surface parking for its residents. No commercial or retail space is expected as part of the development. Access to the development is expected to include one southern access driveway along Old Sauk Road to the east of the San Juan Trail intersection. The proposed access point will require the construction of a north leg for ingress and egress to the development. The development is expected to be constructed in a single phase with the building in service by 2026. A site location map and study area map are included as **Exhibit 1-1** and **Exhibit 1-2**, respectively. A site plan of the proposed development is shown in **Exhibit 1-3**.



**EXHIBIT 1-1:  
SITE LOCATION MAP**

**OLD SAUK ROAD APARTMENTS  
TRAFFIC IMPACT ANALYSIS  
MADISON, WI**







EXHIBIT 1-2:  
STUDY AREA

OLD SAUK ROAD APARTMENTS  
TRAFFIC IMPACT ANALYSIS  
MADISON, WI





**PROJECT DATA:**  
 ABOVE GRADE: 3 LEVELS  
 BELOW GRADE: 1 LEVEL  
**DWELLING UNITS: ~140**  
 UNDERGROUND: ~11 (8 STALLS UNITS)  
 SURFACE: 29 STALLS  
**TOTAL PARKING ~166 STALLS**  
**PARKING RATIO: 1.2 STALLS PER UNIT**

Schematic Site Plan  
 Old Sauk Road Apartments - 2625.30.00  
 03/13/24



OLD SAUK ROAD APARTMENTS  
 TRAFFIC IMPACT ANALYSIS  
 MADISON, WI

EXHIBIT 1-3:  
 SITE PLAN





## Chapter 2: Study Area Limits

### Part A: Study area limits for transportation impact analyses

Stone House Development proposes to construct the residential development to the north of the Old Sauk Road and San Juan Trail intersection in the City of Madison, WI. The study area limits extend along the Old Sauk Road corridor and consist of the following study intersections:

- Old Sauk Road and N. Gammon Road
- Old Sauk Road and San Juan Trail
- Old Sauk Road and Old Middleton Road

#### **Roadway Geometry**

Within the study area, Old Sauk Road is a 2-lane undivided minor arterial roadway with a posted speed limit of 30 mph running in the east/west direction. A westbound bicycle lane is present along the north side of the roadway and runs throughout the study area while on-street parking is allowed in the eastbound direction along the south side of the roadway. Bus/transit Routes R1 and R2 run along the Old Sauk Road corridor.

Sidewalk is present along the entire south side of the corridor. Along the north side, sidewalk is present west of the San Juan Trail intersection, between the Yosemite Place and Sauk Ridge Trail intersections, and in front of the Crestwood Elementary School.

N. Gammon Road is a 4-lane undivided minor arterial roadway with a posted speed limit of 30 mph running in the north/south direction and intersects with Old Sauk Road west of the development site. The Old Sauk Road and N. Gammon Road intersection operates under traffic signal control. The existing lane configuration at the intersection is as follows:

- Northbound and Southbound – N. Gammon Road
  - 1 Exclusive Left-Turn Lane
  - 1 Exclusive Through Lane
  - 1 Shared Through/Right-Turn Lane
- Eastbound and Westbound – Old Sauk Road
  - 1 Exclusive Left-Turn Lane
  - 1 Exclusive Through Lane
  - 1 Exclusive Right-Turn Lane
    - Buses and bicycles may use the exclusive right-turn lane as a shared through/right-turn Lane

San Juan Trail is a 2-lane undivided local roadway with a posted speed limit of 25 mph running in the north/south direction and forms a T-intersection with Old Sauk Road at the development site. The Old Sauk Road and San Juan Trail intersection operates under minor stop control. The existing lane configuration at the intersection is as follows:

- Northbound – San Juan Trail
  - 1 Shared Left-Turn/Right-Turn Lane
- Eastbound – Old Sauk Road
  - 1 Shared Through/Right-Turn Lane
- Westbound – Old Sauk Road
  - 1 Shared Left-Turn/Through Lane

Old Middleton Road is a 2-lane undivided roadway with a posted speed limit of 30 mph running in the north/south direction and forms a T-intersection with Old Sauk Road east of the development site. At the Old Sauk Road and Old Middleton Road intersection, Old Middleton Road is classified as a minor arterial

south of the intersection and as a collector north of the intersection. The intersection operates under all-way stop control with the existing lane configuration as follows:

- Northbound – Old Middleton Road
  - 1 Exclusive Left-Turn Lane
  - 1 Exclusive Through Lane
- Southbound – Old Middleton Road
  - 1 Exclusive Through Lane
  - 1 Channelized Right-Turn Lane
- Eastbound – Old Sauk Road
  - 1 Exclusive Left-Turn Lane
  - 1 Exclusive Right-Turn Lane

#### **AAWT and Forecast Future AAWT**

2019 annual average weekday traffic (AAWT) volumes for the study area roadway network were obtained from the City of Madison's online GIS database. It should be noted that no data was available for the San Juan Trail study area roadway. Coordination with the City determined that a 0.5% average annual growth rate was an acceptable rate to forecast AAWT volumes to the 2024 existing and 2026 build years. The following data summarizes the 2019 AAWTs forecasted forward with a 0.5% annual growth rate:

- Old Sauk Road east of San Juan Trail
  - 2024 Existing: 11,175
  - 2026 Build: 11,280
- Old Sauk Road west of San Juan Trail
  - 2024 Existing: 12,045
  - 2026 Build: 12,160
- N. Gammon Road north of Old Sauk Road
  - 2024 Existing: 12,300
  - 2026 Build: 12,420
- N. Gammon Road south of Old Sauk Road (Existing AAWT data forecasted from year 2017)
  - 2024 Existing: 13,610
  - 2026 Build: 13,740
- Old Middleton Road north of Old Sauk Road
  - 2024 Existing: 6,200
  - 2026 Build: 6,260
- Old Middleton Road south of Old Sauk Road
  - 2024 Existing: 12,300
  - 2026 Build: 12,420

## Chapter 3: Traffic Volumes

### Part A: Turning Movement Volumes

Intersection turning movement counts were collected at the study intersections from 6:00 AM to 9:00 AM on Wednesday, March 20, 2024, and 3:00 PM – 6:00 PM on Tuesday, March 19, 2024. Due to the number of access points and roadways between the study intersections, and the presence of Crestwood Elementary School, the gathered turning movement counts were not adjusted to create a balanced set of existing weekday AM and PM peak hour traffic volumes.

### Part B: Peak Hour Identification and Peak Hour Factor

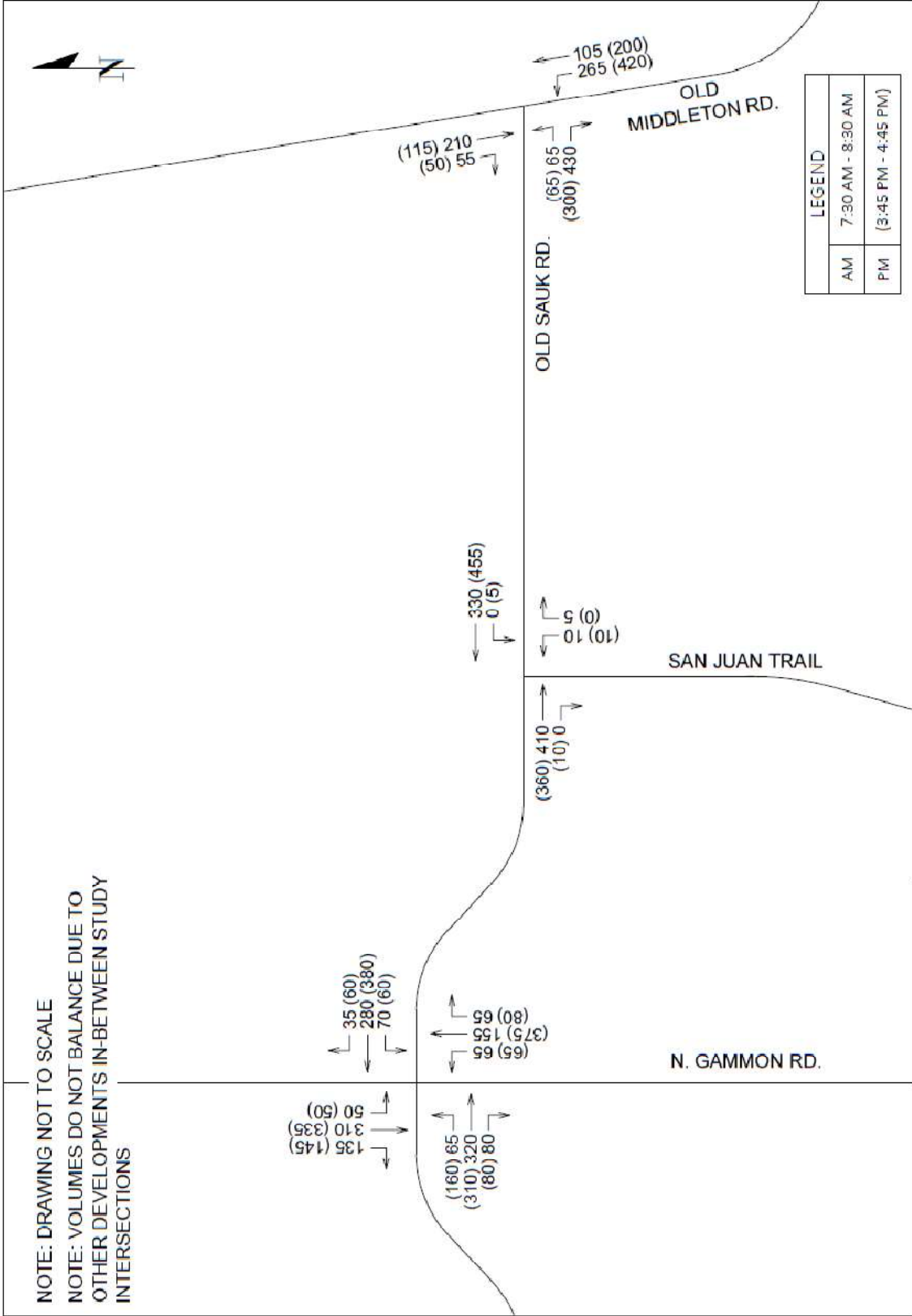
The corridor peak hours identified in the count data include the weekday AM peak hour of 7:30 AM to 8:30 AM and the weekday PM peak hour of 3:45 PM to 4:45 PM. The 2024 existing traffic volumes are shown in **Exhibit 3-1** and reflect the consistent weekday AM and PM peak hours at all intersections.

The peak hour factor (PHF) at the study intersections indicates traffic volumes along the corridor remain fairly consistent during both the AM and PM peak hours, ranging between 0.90 and 0.95. Detailed count data for each intersection is included in **Appendix A**.

### Part C: Forecast Future Volumes

Per City of Madison Light TIA Guidelines, the TIA is required to evaluate the 2024 existing and 2026 build conditions at the study intersections for the construction completion year of 2026. Analysis of the 2026 completion year no-build condition was also analyzed to better understand the impact of background traffic relative to build traffic at the study intersections.

As previously mentioned, coordination with the City determined an annual average growth rate of 0.5% would be applied to traffic volumes within the study area for the purpose of completion year analysis. The 0.5% annual growth rate was applied to the 2024 existing traffic volumes to obtain the 2026 completion year no-build volumes as shown in **Exhibit 3-2** and reflect the 2026 weekday AM and PM peak hours with no development traffic.

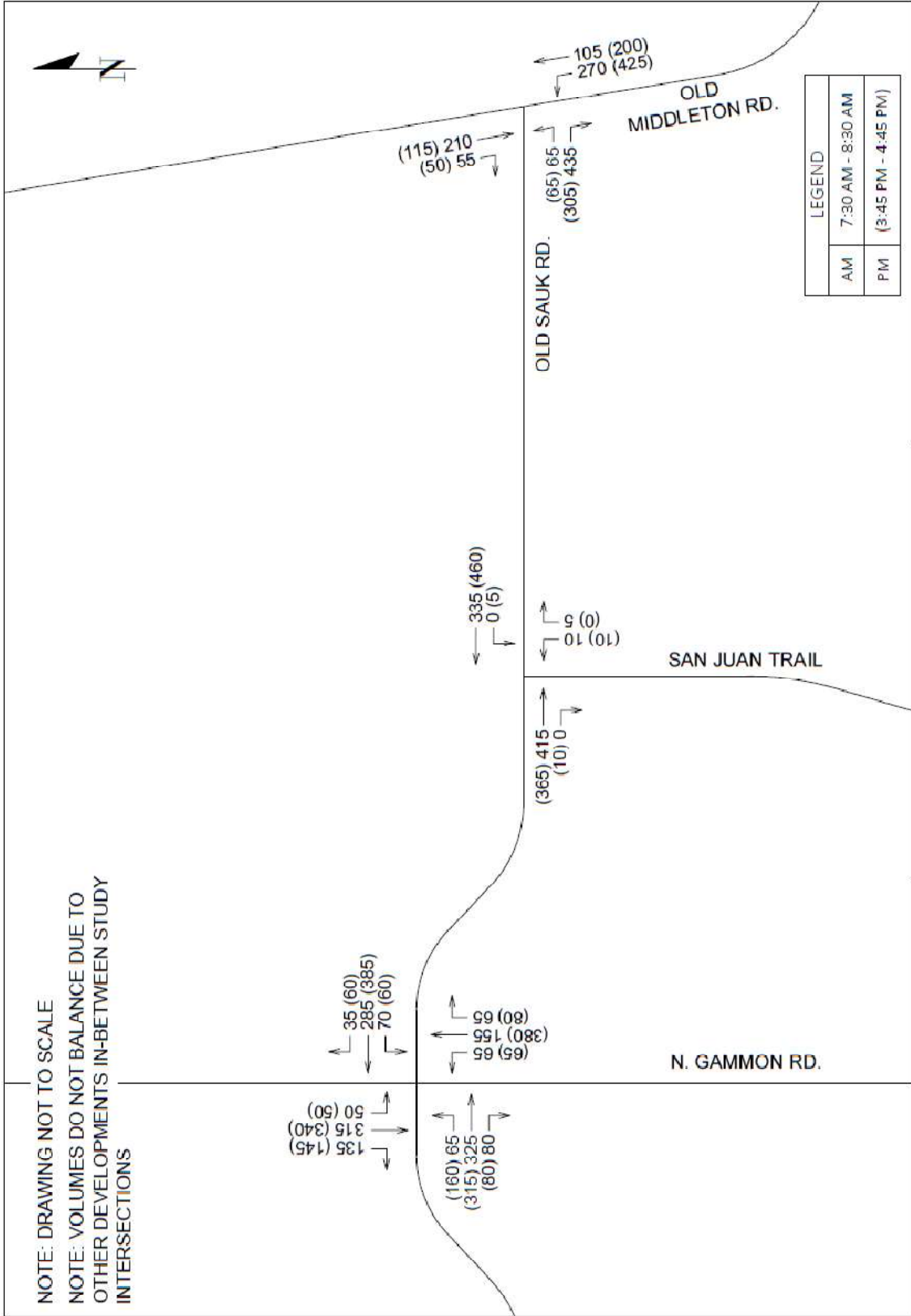


**AYRES**

OLD SAUK ROAD APARTMENTS  
 TRAFFIC IMPACT ANALYSIS  
 MADISON, WI

EXHIBIT 3-1:  
 2024 EXISTING VOLUMES





**EXHIBIT 3-2:**  
**2026 NO-BUILD VOLUMES**

**OLD SAUK ROAD APARTMENTS**  
**TRAFFIC IMPACT ANALYSIS**  
**MADISON, WI**



## Chapter 4: Trip generation

### Part A: Weekday AM/PM – In/Out

Data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* – 11<sup>th</sup> Edition was used to estimate the number of total weekday and weekday AM and PM peak hour trips expected to be generated by the proposed Old Sauk Road Apartments development. No off-site developments impacting traffic within the study area were identified, therefore, no off-site trip generation was conducted for this study.

The following section summarizes the on-site trip generation under a complete buildout. The on-site trip generation table can be seen in **Table 1**.

The proposed development is anticipated to include approximately 138 dwelling units and is expected to generate 65 new trips (15 in, 50 out) during the weekday AM peak hour and 80 trips (50 in, 30 out) during the weekday PM peak hour.

**Table 1: Development Trip Generation**

Old Sauk Roads Apartments - Trip Generation													
Land Use	ITE Classification	ITE Code	Size	Unit	Weekday Trips			AM Peak Hour Trips			PM Peak Hour Trips		
					In	Out	Total	In	Out	Total	In	Out	Total
Residential	Low-Rise	220	138	Units	50%	50%	ITE Rate	24%	76%	ITE Rate	63%	37%	ITE Rate
					480	480	960	15	50	65	50	30	80
<b>Total New Vehicle Trips</b>					<b>480</b>	<b>480</b>	<b>960</b>	<b>15</b>	<b>50</b>	<b>65</b>	<b>50</b>	<b>30</b>	<b>80</b>

### Part B: Trip Distribution

#### Trip Distribution

The trip distribution used to assign new development trips to the study area was estimated based on existing traffic patterns throughout the study area. The expected trip distribution for the development trips can be seen in **Exhibit 4-1**.

#### Pass-By Trips

Pass-by trips are trips where vehicles already on the roadway adjacent to the development site make an intermediate stop within the development site before continuing onto their intended destination. Given the proposed development only provides living spaces for its residents, no pass-by trips were considered for the development.

#### Linked Trips

Linked trips are trips that originate from a single point of origin but have multiple destination points within a proposed development. With only one land use within the proposed development, the potential for linked-trips is not possible, and therefore, not included in this study.

#### Modal Split

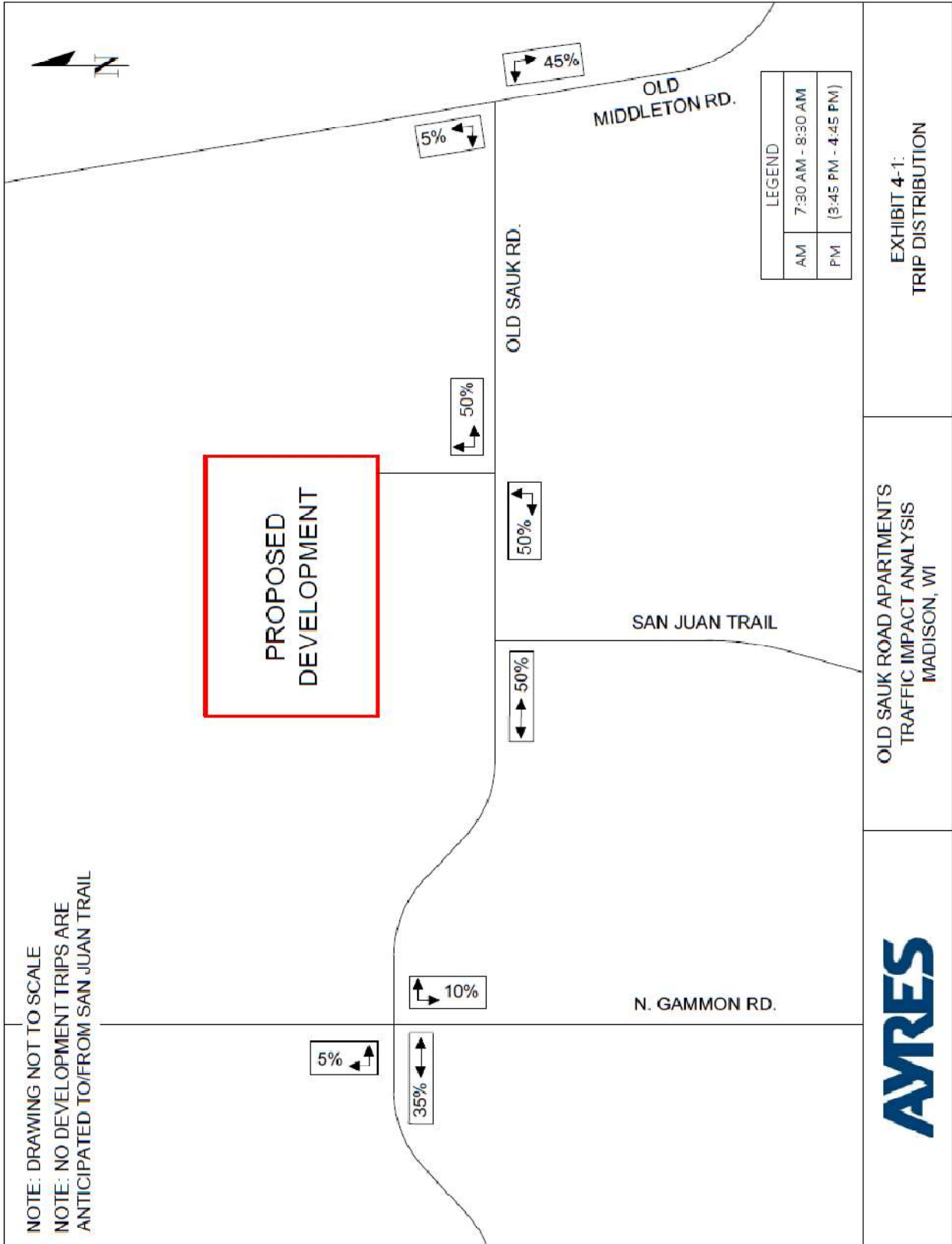
It was assumed that 100% of the trips generated by the development will be vehicular trips. Any use of transit or travel by foot/bicycle would reduce the overall vehicular impact and improve traffic operations within the study area.

#### Trip Assignment

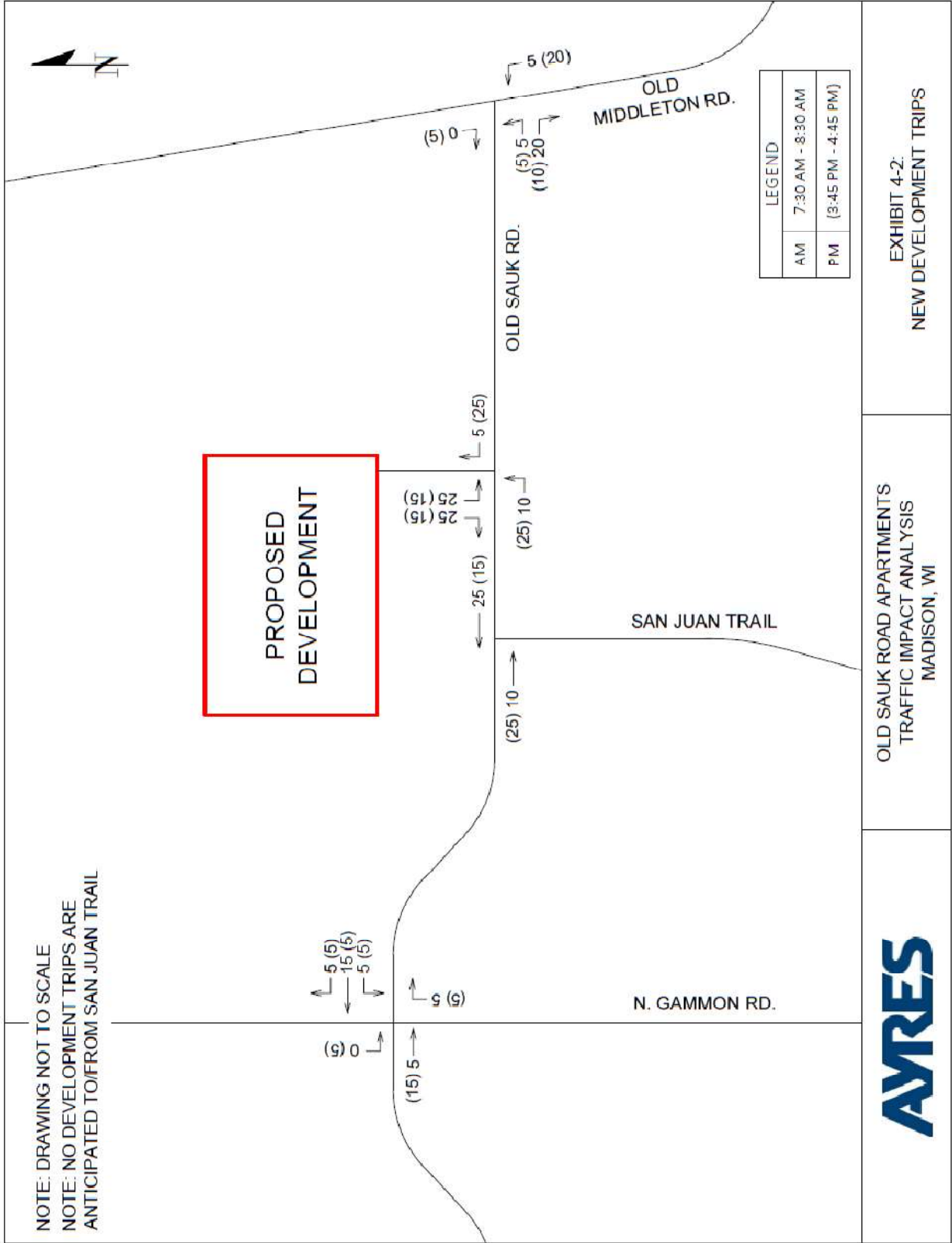
New development trips were assigned to the study area roadway network based on the trip distributions identified in **Exhibit 4-1**. These new development trips are shown in **Exhibit 4-2**.

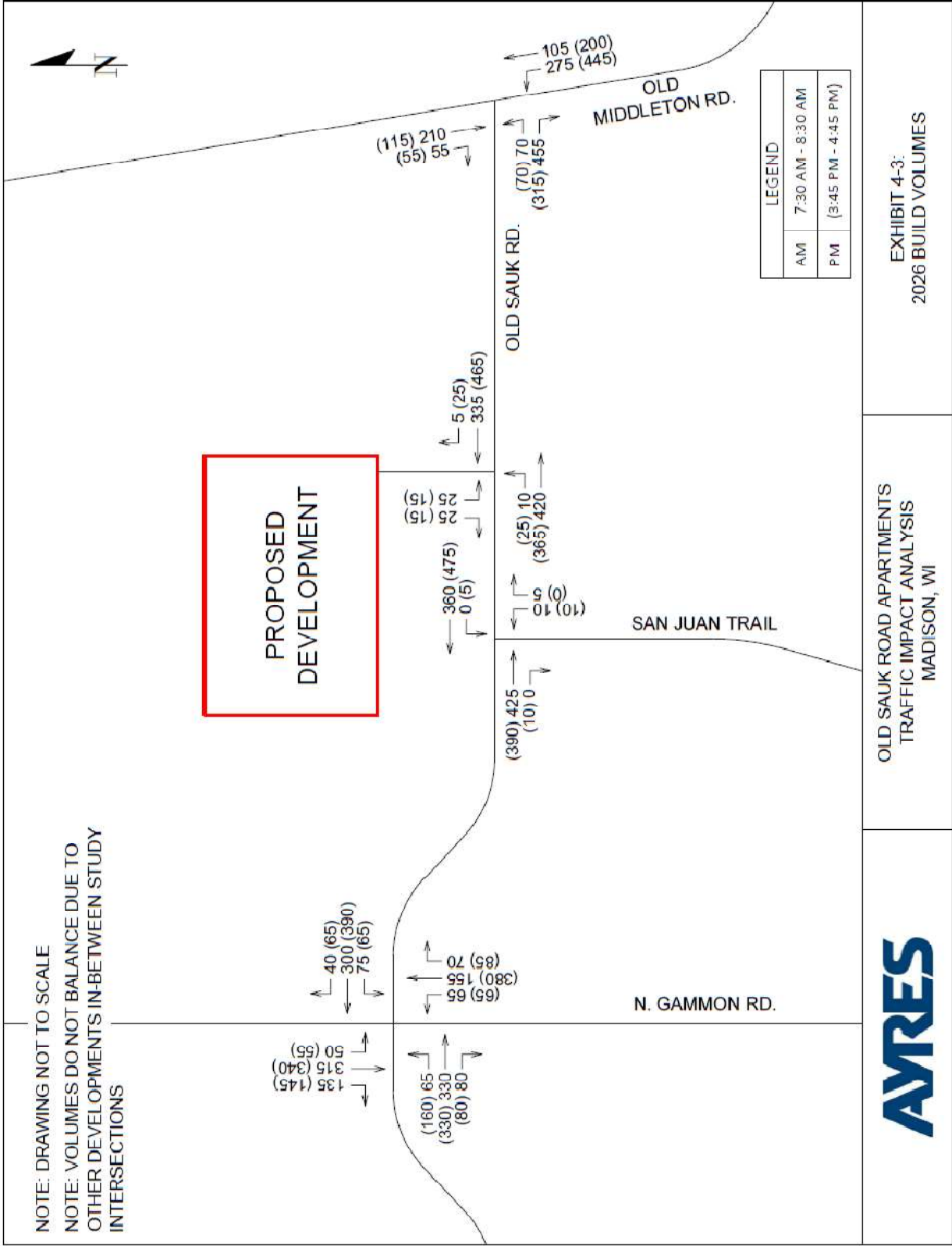
**Build Traffic**

The 2026 completion year build volumes, as shown in **Exhibit 4-3**, are the summation of the 2026 completion year no-build volumes in **Exhibit 3-2** and the proposed development volumes in **Exhibit 4-2**. These volumes represent the total traffic within the study area after the proposed development is fully open.









OLD SAUK ROAD APARTMENTS  
 TRAFFIC IMPACT ANALYSIS  
 MADISON, WI

EXHIBIT 4-3:  
 2026 BUILD VOLUMES

## Chapter 5: Operations Analyses (LOS)

### Methodology

For the purpose of this study, LOS 'D' as defined in the Highway Capacity Manual (HCM) 7th Edition is used as the threshold for acceptable peak hour intersection operating conditions or maintaining the existing LOS when below LOS 'D'. Intersection operation is typically quantified based on its LOS during peak traffic volume periods. The LOS is determined based on the average amount of delay experienced by each vehicle entering an intersection during the study period and is categorized by grades of 'A' through 'F'.

**Table 2** provides a brief summary of the different intersection LOS.

The 95<sup>th</sup> percentile queue is also included in the operations summary as an additional performance measure. The 95<sup>th</sup> percentile queue (sometimes referred to as the "maximum probable queue") represents the distance from the stop bar at which 95% of all queues for a given movement within the analysis time period are expected to be contained. In other words, there is only a 5% probability that the 95<sup>th</sup> percentile queue length will be exceeded during the analysis period.

Intersection operations for traffic signal control and stop control at the study intersections were analyzed using Synchro 12 software. The results presented within this report are based on HCM 7 equations and methodologies.

**Table 2: Intersection Level of Service Description**

Alpha LOS	Signalized (sec/veh)	Unsignalized Delay (sec/veh)	Description
A	≤ 10	≤ 10	No Congestion: Very few vehicles experience delay.
B	> 10 - 20	> 10 - 15	Minimal Congestion: Some vehicles experience delay but many travel through intersection without stopping.
C	> 20 - 35	> 15 - 25	Minor Congestion: Many vehicles experience delay but some travel through intersection without stopping.
D	> 35 - 55	> 25 - 35	Moderate Congestion: Most vehicles experience delay.
E	> 55 - 80	> 35 - 50	Severe Congestion: Most vehicles experience significant delay. Volumes nearing capacity.
F	> 80 Or V/C >1.0	> 50 Or V/C >1.0	Extreme Congestion: Nearly all vehicles experience significant delay. Volume may be higher than capacity. Potential gridlock.

The HCM operations analysis output summaries provided by Synchro are included in **Appendix B**.

### Part A: 2024 Existing Year

2024 Existing Year weekday AM and PM peak hour traffic operations at the study intersections are summarized in **Table 3**. As shown in the table, all peak hour traffic operations at the study intersections under the existing geometry and signal timing parameters operate at LOS 'C' or better during the peak hours with the exception of the northbound left-turn at the Old Middleton Road and Old Sauk Road intersection, which operates at LOS 'D' during the PM peak hour.

Maximum queues at each of the study intersections are as follows:

- Old Sauk Road and N. Gammon Road
  - AM Peak: 200 feet (Eastbound Through)
  - PM Peak: 275 feet (Westbound Through)
- Old Sauk Road and San Juan Trail
  - AM Peak: 25 feet (Westbound & Northbound Approaches)
  - PM Peak: 25 feet (Westbound & Northbound Approaches)
- Old Sauk Road and Old Middleton Road
  - AM Peak: 175 feet (Eastbound Right Turn)
  - PM Peak: 200 feet (Northbound Left Turn)

**Table 3: 2024 Existing Peak Hour Traffic Operations**

Stonehouse TIA - 2024 Existing Traffic Operations																
Intersection	Peak Hour	Traffic Control	MOE	Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT		SBR
N. Gammon Road & Old Sauk Road	AM Peak	Signal	LOS	B	B	B	B	B	B	B	B	B	B	B	B	B
			Delay (sec)	10.2	15.4	11.8	10.5	14.4	11.4	17.1	12.4	12.4	13.8	13.7	13.7	
			Queue (ft)	50'	200'	50'	50'	175'	25'	75'	75'	75'	50'	150'	--	
	PM Peak	Signal	LOS	B	B	B	B	B	B	B	B	B	B	B	B	
			Delay (sec)	12.9	15.4	12.4	12.2	19.6	13.9	18.7	14.8	14.8	17.4	14.8	15.6	
			Queue (ft)	75'	200'	50'	50'	275'	50'	75'	175'	75'	175'	--		
				Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
San Juan Trail & Old Sauk Road	AM Peak	Minor Stop	LOS	-	A		A	-		B		-	-	-	A	
			Delay (sec)	-	0.0		8.2	-		14.0		-	-	-	0.3	
			Queue (ft)	-	0'		25'	-		25'		-	-	-	--	
	PM Peak	Minor Stop	LOS	-	A		A	-		C		-	-	-	A	
			Delay (sec)	-	0.0		8.1	-		17.0		-	-	-	0.3	
			Queue (ft)	-	0'		25'	-		25'		-	-	-	--	
				Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Old Middleton Road & Old Sauk Road	AM Peak	All-Way Stop	LOS	B	-	C	-	-	-	C	B	-	-	B	A	C
			Delay (sec)	10.9	-	22.7	-	-	-	18.2	11.0	-	-	14.4	9.5	17.7
			Queue (ft)	25'	-	175'	-	-	-	100'	25'	-	-	50'	25'	--
	PM Peak	All-Way Stop	LOS	B	-	C	-	-	-	D	B	-	-	B	A	C
			Delay (sec)	11.2	-	15.6	-	-	-	31.6	12.1	-	-	11.5	9.4	19.9
			Queue (ft)	25'	-	100'	-	-	-	200'	50'	-	-	25'	25'	--

**Part B: 2026 Completion Year No-Build**

The 2026 Completion Year No-Build weekday AM and PM peak hour traffic operations at the study intersections are summarized in **Table 4**. As shown in the table, all peak hour traffic operations at the study intersections under the existing geometry and signal timing parameters operate at LOS 'C' or better during the peak hours with the exception of the northbound left-turn at the Old Middleton Road and Old Sauk Road intersection, which operates at LOS 'D' during the PM peak hour.

Due to the high movement volume, the northbound left-turn at the Old Middleton Road and Old Sauk Road intersection is sensitive to any increase in traffic as it approaches the operational threshold between LOS 'D' and LOS 'E'.



Maximum queues at each of the study intersections are as follows:

- Old Sauk Road and N. Gammon Road
  - AM Peak: 200 feet (Eastbound & Westbound Through)
  - PM Peak: 300 feet (Westbound Through)
- Old Sauk Road and San Juan Trail
  - AM Peak: 25 feet (Westbound & Northbound Approaches)
  - PM Peak: 25 feet (Westbound & Northbound Approaches)
- Old Sauk Road and Old Middleton Road
  - AM Peak: 175 feet (Eastbound Right Turn)
  - PM Peak: 225 feet (Northbound Left Turn)

**Table 4: 2026 Completion Year No-Build Peak Hour Traffic Operations**

Stonehouse TIA - 2026 No-Build Traffic Operations																
Intersection	Peak Hour	Traffic Control	MOE	Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT		SBR
N. Gammon Road & Old Sauk Road	AM Peak	Signal	LOS	B	B	B	B	B	B	B	B	B	B	B	B	B
			Delay (sec)	10.3	15.5	11.8	10.5	14.5	11.4	17.2	12.4	13.8	13.7	13.8		
			Queue (ft)	50'	200'	50'	50'	200'	25'	75'	75'	50'	150'	--		
	PM Peak	Signal	LOS	B	B	B	B	B	B	B	B	B	B	B	B	
			Delay (sec)	13.0	15.5	12.5	12.3	19.8	14.0	18.9	14.9	17.7	14.9	15.8		
			Queue (ft)	75'	200'	50'	50'	300'	50'	75'	175'	75'	175'	--		
				Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
San Juan Trail & Old Sauk Road	AM Peak	Minor Stop	LOS	-	A		A	-		B		-	-	-	A	
			Delay (sec)	-	0.0		8.2	-		14.1		-	-	-	0.3	
			Queue (ft)	-	0'		25'	-		25'		-	-	-	--	
	PM Peak	Minor Stop	LOS	-	A		A	-		C		-	-	-	A	
			Delay (sec)	-	0.0		8.2	-		17.2		-	-	-	0.3	
			Queue (ft)	-	0'		25'	-		25'		-	-	-	--	
				Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Old Middleton Road & Old Sauk Road	AM Peak	All-Way Stop	LOS	B	-	C	-	-	-	C	B	-	-	B	A	C
			Delay (sec)	10.9	-	23.5	-	-	-	18.7	11.0	-	-	14.5	9.5	18.2
			Queue (ft)	25'	-	175'	-	-	-	100'	25'	-	-	50'	25'	--
	PM Peak	All-Way Stop	LOS	B	-	C	-	-	-	D	B	-	-	B	A	C
			Delay (sec)	11.2	-	16.0	-	-	-	33.1	12.2	-	-	11.6	9.4	20.6
			Queue (ft)	25'	-	100'	-	-	-	225'	50'	-	-	25'	25'	--

**Part C: 2026 Completion Year Build**

The 2026 Completion Year Build weekday AM and PM peak hour traffic operations at the study intersections are summarized in **Table 5**. As shown in the table, all peak hour traffic operations at the study intersections under the existing geometry and signal timing parameters are expected to operate at LOS 'C' or better during the peak hours with the exception of two movements at the Old Middleton Road intersection with Old Sauk Road. At this location, the eastbound right-turn movement is expected to operate at LOS 'D' during the AM peak hour and the northbound left-turn movement is expected to operate at LOS 'E' during the PM peak hour.

Due to the high movement volume, the northbound left-turn at the Old Middleton Road and Old Sauk Road intersection is sensitive to any increases in traffic. Although minimal development traffic is added to the intersection/movement during the PM peak hour, the slight increase in volume causes the movement to operate at a LOS 'E'.

Options are limited for addressing the LOS 'E' operation under the existing intersection configuration. Achieving LOS 'D' or better for this movement would require a change in traffic control to traffic signal operation or a roundabout. A formal traffic signal warrant analysis was not included as part of this study, but completion year build traffic volumes are not expected to meet the necessary volume thresholds to warrant traffic signals. Given that the no-build condition operates very close to LOS 'E' and the development is only anticipated to add approximately six seconds of additional delay to this movement, it is not recommended that major intersection reconstruction be done at this time as it would likely require additional right of way.

**Table 5: 2026 Completion Year Build Peak Hour Traffic Operations**

Stonehouse TIA - 2026 Build Traffic Operations															
Intersection	Peak Hour	Traffic Control	MOE	Movement											OVERALL
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
N. Gammon Road & Old Sauk Road	AM Peak	Signal	LOS	B	B	B	B	B	B	B	B	B	B	B	B
			Delay (sec)	10.4	15.7	11.9	10.6	14.8	11.4	17.2	12.5	13.9	13.7	13.9	
			Queue (ft)	50'	225'	50'	50'	200'	25'	75'	75'	50'	150'	--	
	PM Peak	Signal	LOS	B	B	B	B	B	B	B	B	B	B	B	
			Delay (sec)	13.1	15.9	12.6	12.4	19.9	14.0	19.1	15.1	18.0	15.0	16.0	
			Queue (ft)	75'	225'	50'	50'	300'	50'	75'	175'	75'	200'	--	
				Movement											OVERALL
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
San Juan Trail & Old Sauk Road	AM Peak	Minor Stop	LOS	-	A	-	A	-	-	B	-	-	-	A	
			Delay (sec)	-	0.0	-	8.3	-	-	14.5	-	-	-	0.3	
			Queue (ft)	-	0'	-	25'	-	-	25'	-	-	-	--	
	PM Peak	Minor Stop	LOS	-	A	-	A	-	-	C	-	-	-	A	
			Delay (sec)	-	0.0	-	8.2	-	-	18.0	-	-	-	0.2	
			Queue (ft)	-	0'	-	25'	-	-	25'	-	-	-	--	
				Movement											OVERALL
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Old Middleton Road & Old Sauk Road	AM Peak	All-Way Stop	LOS	B	-	D	-	-	-	C	B	-	-	B	A
			Delay (sec)	11.1	-	26.4	-	-	-	19.5	11.2	-	-	14.8	9.7
			Queue (ft)	25'	-	200'	-	-	-	100'	25'	-	-	75'	25'
	PM Peak	All-Way Stop	LOS	B	-	C	-	-	-	E	B	-	-	B	A
			Delay (sec)	11.5	-	16.9	-	-	-	39.3	12.3	-	-	11.8	9.6
			Queue (ft)	25'	-	100'	-	-	-	250'	50'	-	-	25'	25'
				Movement											OVERALL
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Stonehouse Driveway & Old Sauk Road	AM Peak	Minor Stop	LOS	A	-	-	A	-	-	-	-	-	B	A	
			Delay (sec)	8.1	-	-	0.0	-	-	-	-	-	14.0	1.0	
			Queue (ft)	25'	-	-	0'	-	-	-	-	-	25'	--	
	PM Peak	Minor Stop	LOS	A	-	-	A	-	-	-	-	-	C	A	
			Delay (sec)	8.5	-	-	0.0	-	-	-	-	-	15.5	0.7	
			Queue (ft)	25'	-	-	0'	-	-	-	-	-	25'	--	

Maximum queues at each of the study intersections are as follows:

- Old Sauk Road and N. Gammon Road
  - AM Peak: 225 feet (Eastbound Through)
  - PM Peak: 300 feet (Westbound Through)
- Old Sauk Road and San Juan Trail
  - AM Peak: 25 feet (Westbound & Northbound Approaches)
  - PM Peak: 25 feet (Westbound & Northbound Approaches)
- Old Sauk Road and Old Middleton Road
  - AM Peak: 200 feet (Eastbound Right Turn)

- PM Peak: 250 feet (Northbound Left Turn)
- Stonehouse Driveway and Old Sauk Road
  - AM Peak: 25 feet (Eastbound & Southbound Approaches)
  - PM Peak: 25 feet (Eastbound & Southbound Approaches)

## Chapter 7: Summary and Recommendations

### Summary

The City of Madison requested a TIA study be conducted for the proposed Old Sauk Road Apartments development located along the north side of Old Sauk Road, near San Juan Trail, in the City of Madison, WI. The proposed development is located on approximately 4 acres of land at 6101 Old Sauk Road and is anticipated to include a three-story building with approximately 138 apartment units along with underground and surface parking for its residents. No commercial or retail space is expected as part of the development. Access to the development is expected to include one southern access driveway along Old Sauk Road to the east of the San Juan Trail intersection.

The study area limits extend along the Old Sauk Road corridor and consist of the following study intersections:

- Old Sauk Road and N. Gammon Road
- Old Sauk Road and San Juan Trail
- Old Sauk Road and Old Middleton Road

Intersection turning movement counts were collected at the study intersections from 6:00 AM to 9:00 AM on Wednesday, March 20, 2024, and 3:00 PM – 6:00 PM on Tuesday, March 19, 2024. The corridor peak hours occur during the weekday AM peak hour of 7:30 AM to 8:30 AM and the weekday PM peak hour of 3:45 PM to 4:45 PM.

Coordination with the City of Madison determined an annual average growth rate of 0.5% would be applied to traffic volumes within the study area for the purpose of completion year analysis. The 0.5% annual growth rate was applied to the 2024 existing turning movement volumes to obtain the 2026 completion year no-build volumes.

The proposed development is anticipated to include approximately 138 dwelling units and is expected to generate 65 new trips (15 in, 50 out) during the weekday AM peak hour and 80 trips (50 in, 30 out) during the weekday PM peak hour.

For the purpose of this study, LOS 'D' as defined in the HCM 7th Edition is used as the threshold for acceptable peak hour intersection operating conditions or maintaining the existing LOS when below LOS 'D'. Under the 2026 Completion Year Build volumes, only the northbound left turn at the Old Middleton Road and Old Sauk Road intersection during the PM peak hour is expected to operate at an unacceptable LOS 'E'. It should be noted that the existing high movement volume makes the operations sensitive to any slight increases in traffic. Although minimal development traffic is added to the intersection/movement during the PM peak hour, the slight increase in volume causes the movement to operate at a LOS 'E'.

Should improvements be required at the intersection, limited options are available for addressing the northbound left-turn movement since the Old Middleton Road and Old Sauk Road intersection operates as an all-way stop. Although operations would be acceptable, adding an additional northbound lane or converting the northbound through lane to a shared left-turn/through lane does not provide a feasible solution when considering the surrounding roadway configuration. Traffic volumes at the intersection make it unlikely to warrant signal installation. The reconstruction of the intersection into a three-legged single lane roundabout is expected to provide acceptable traffic operations for all movements at the intersection.

### Recommendation

The additional traffic generated by the proposed Old Sauk Road Apartments development is expected to cause no operational issues at the study intersections under existing roadway geometrics with the exception of the northbound left-turn at the Old Middleton Road and Old Sauk Road intersection. Shifting the intersection priorities or moving stop sign control is not expected to address the LOS issue.

Expansion of the intersection is challenging without impacts to adjacent property owners. In addition, signal warrants are not expected to meet the volume thresholds required to warrant the installation of signals.

Given the intersection's northbound left-turn movement is close to operating at the LOS 'E' threshold without any development traffic in the no-build scenario, it is not recommended that any major reconstruction of the intersection be completed at this time. Should a long-term intersection improvement be desired, a potential reconstruction to a single lane compact roundabout can be expected to improve traffic operations.

It is recommended that sidewalk be provided along Old Sauk Road within the development site to allow for additional pedestrian connectivity along the north side of the corridor. In addition, a continental crosswalk is recommended on the east side of the Old Sauk Road and San Juan intersection to provide pedestrians additional connectivity.

## **Appendix A)**

### **Intersection Turning Movement Counts**



# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Version 2023.05.03</b>		<b>Page 1 of 13</b>	
Start Date:	Tuesday, March 19, 2024	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

## Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: N. Gammon Rd.  
 Minor St: Old Sauk Rd.  
 Intersection of: N. Gammon Rd. & Old Sauk Rd.



IX\_ID:

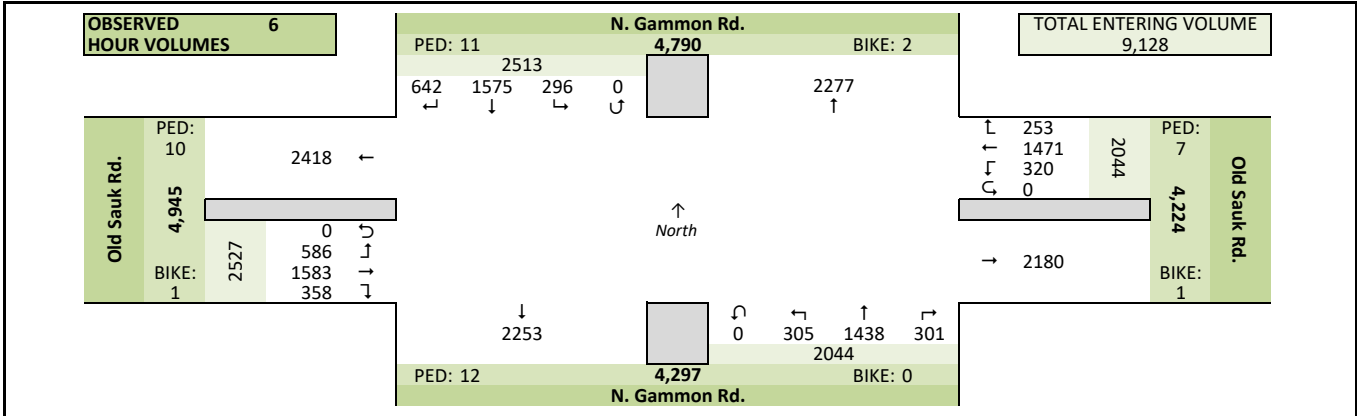
### Site Information

Municipality	City of Madison		
County	13 - Dane	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names	North Direction	↑	
North Leg	N. Gammon Rd.		
East Leg	Old Sauk Rd.		
South Leg	N. Gammon Rd.		
West Leg	Old Sauk Rd.		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementary school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
Other (describe)	None	None	

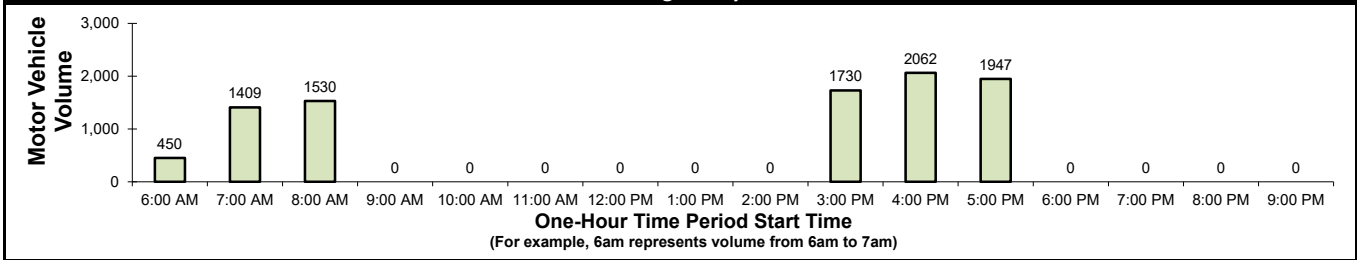
### Count Information

Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM		
1st Day of Count	Tuesday, March 19, 2024		Weather
AM Peak Period	Wednesday, March 20, 2024		Clear & Dry
Midday Peak Period			Clear & Dry
PM Peak Period	Tuesday, March 19, 2024		Clear & Dry
Calculated Peak Hours			
	AM	7:30-8:30am	MD
			PM
			3:45-4:45pm
Peak Hours Selected for Analysis			
	AM	7:30-8:30am	MD
			PM
			3:45-4:45pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	1.015	Count Expansion Factor	2.350
Company Name	Ayres Associates		Manual Adj.
			1.000
Observers	AM Peak Period	Miovision Video Recording	
	Midday Peak Period	Miovision Video Recording	
	PM Peak Period	Miovision Video Recording	
Comments	2021 DOT Daily & Seasonal Factors		

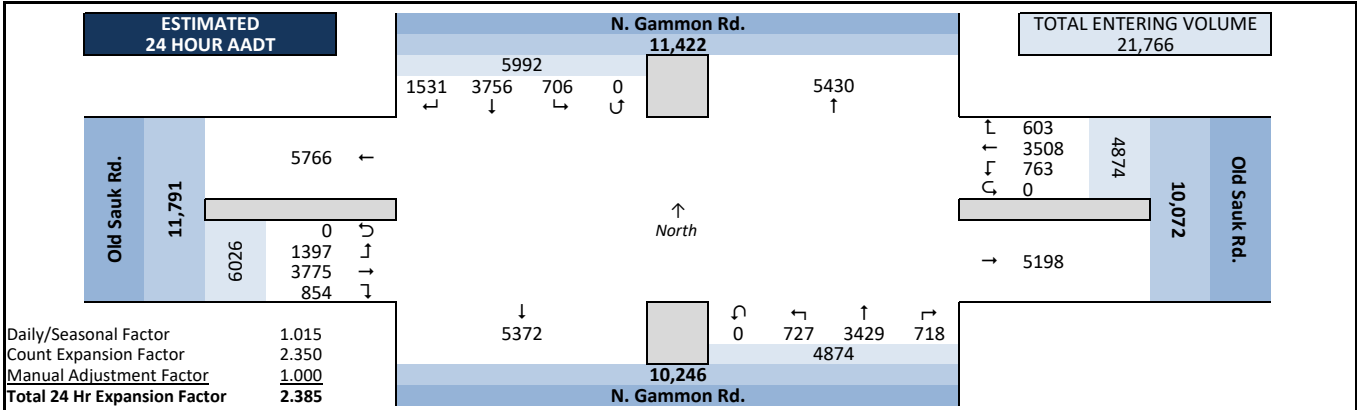
### Observed 6 Hour Volume Summary



### Total Entering Hourly Volume



### Estimated 24 Hour AADT



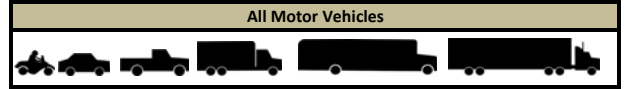


# Intersection Traffic Volume Report

<b>Count Basics</b>			<b>Page 3 of 13</b>
Start Date:	Tuesday, March 19, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

## Peak Hour Volume Summary

N. Gammon Rd. & Old Sauk Rd.



### Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, March 20, 2024		From North N. Gammon Rd.					From East Old Sauk Rd.					From South N. Gammon Rd.					From West Old Sauk Rd.					Totals
AM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM Peak Hour	7:30 AM	38	75	11	0	124	11	67	16	0	94	10	33	16	0	59	13	69	16	0	98	375
	7:45 AM	33	90	14	0	137	9	90	16	0	115	16	35	15	0	66	26	91	16	0	133	451
	8:00 AM	30	71	9	0	110	5	55	19	0	79	24	40	20	0	84	25	66	16	0	107	380
	8:15 AM	34	72	14	0	120	8	69	20	0	97	16	46	15	0	77	14	94	18	0	126	420
	Peak Hour Volume	135	308	48	0	491	33	281	71	0	385	66	154	66	0	286	78	320	66	0	464	1626
	Rounded Hourly Volume	135	310	50	0	495	35	280	70	0	385	65	155	65	0	285	80	320	65	0	465	1630
	% Single Unit Trucks	2.2	0.3	2.1	0.0	1.0	6.1	0.4	2.8	0.0	1.3	10.6	1.3	0.0	0.0	3.1	1.3	1.9	0.0	0.0	1.5	1.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	2.2	0.3	2.1	0.0	1.0	6.1	0.4	2.8	0.0	1.3	10.6	1.3	0.0	0.0	3.1	1.3	1.9	0.0	0.0	1.5	1.6	
Peak Hour Factor (PHF)	0.89	0.86	0.86	0.00	0.90	0.75	0.78	0.89	0.00	0.84	0.69	0.84	0.82	0.00	0.85	0.75	0.85	0.92	0.00	0.87	0.90	

N/A		From North N. Gammon Rd.					From East Old Sauk Rd.					From South N. Gammon Rd.					From West Old Sauk Rd.					Totals
MD Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Tuesday, March 19, 2024		From North N. Gammon Rd.					From East Old Sauk Rd.					From South N. Gammon Rd.					From West Old Sauk Rd.					Totals
PM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
PM Peak Hour	3:45 PM	39	89	11	0	139	18	98	17	0	133	22	93	19	0	134	21	78	50	0	149	555
	4:00 PM	34	89	12	0	135	12	82	17	0	111	21	80	16	0	117	15	71	42	0	128	491
	4:15 PM	37	86	15	0	138	11	111	13	0	135	20	102	17	0	139	18	71	30	0	119	531
	4:30 PM	33	70	12	0	115	20	88	15	0	123	17	100	12	0	129	25	88	40	0	153	520
	Peak Hour Volume	143	334	50	0	527	61	379	62	0	502	80	375	64	0	519	79	308	162	0	549	2097
	Rounded Hourly Volume	145	335	50	0	530	60	380	60	0	500	80	375	65	0	520	80	310	160	0	550	2100
	% Single Unit Trucks	1.4	0.3	2.0	0.0	0.8	6.6	1.1	1.6	0.0	1.8	0.0	0.3	0.0	0.0	0.2	0.0	1.0	0.6	0.0	0.7	0.9
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	1.4	0.3	2.0	0.0	0.8	6.6	1.1	1.6	0.0	1.8	0.0	0.3	0.0	0.0	0.2	0.0	1.0	0.6	0.0	0.7	0.9	
Peak Hour Factor (PHF)	0.92	0.94	0.83	0.00	0.95	0.76	0.85	0.91	0.00	0.93	0.91	0.92	0.84	0.00	0.93	0.79	0.87	0.81	0.00	0.90	0.94	

### Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume	
	N. Gammon Rd.			Old Sauk Rd.			N. Gammon Rd.			Old Sauk Rd.				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
15-Minute Start Time														
AM	7:30 AM	1	0	1	0	0	0	2	0	2	0	0	0	3
	7:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	1	1	2	1	0	1	0	0	0	3
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	1	2	1	1	2	3	0	3	0	0	0	7
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	1	0	1	0	0	0	1	0	1	6	1	7	9
	4:00 PM	2	0	2	1	0	1	0	0	0	0	0	0	3
	4:15 PM	0	1	1	1	0	1	0	0	0	1	0	1	3
	4:30 PM	2	0	2	1	0	1	0	0	0	0	0	0	3
	Total	5	1	6	3	0	3	1	0	1	7	1	8	18

















# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Page 11 of 13</b>	
Start Date:	Tuesday, March 19, 2024	Weekday:	Schools In Session
Total Number of Hours Counted:	6	Non-Holiday:	No Special Events

## 15-Minute Pedestrian and Bicyclist Data

N. Gammon Rd. & Old Sauk Rd.



### 15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	N. Gammon Rd.			Old Sauk Rd.			N. Gammon Rd.			Old Sauk Rd.				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
6:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	6
7:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	6
7:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	8
7:30 AM	1	0	1	0	0	0	2	0	2	0	0	0	3	7
7:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	1	4
8:00 AM	0	0	0	1	1	2	1	0	1	0	0	0	3	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	1	0	1	0	0	0	1	0	1	0	0	0	2	15
3:15 PM	0	0	0	0	0	0	1	0	1	1	0	1	2	16
3:30 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	17
3:45 PM	1	0	1	0	0	0	1	0	1	6	1	7	9	18
4:00 PM	2	0	2	1	0	1	0	0	0	0	0	3	15	15
4:15 PM	0	1	1	1	0	1	0	0	0	1	0	1	3	12
4:30 PM	2	0	2	1	0	1	0	0	0	0	0	3	10	10
4:45 PM	2	0	2	2	0	2	2	0	2	0	0	6	8	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	1	0	1	0	0	0	0	0	0	0	0	1	1	
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	
5:45 PM	0	0	0	1	0	1	0	0	0	0	0	1	1	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Totals</b>	<b>11</b>	<b>2</b>	<b>13</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>12</b>	<b>0</b>	<b>12</b>	<b>10</b>	<b>1</b>	<b>11</b>	<b>44</b>	

### Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/help)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Version 2023.05.03</b>		<b>Page 1 of 13</b>	
Start Date:	Tuesday, March 19, 2024	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

## Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: Old Sauk Rd.  
 Minor St: San Juan Trail  
 Intersection of: Old Sauk Rd. & San Juan Trail



IX\_ID:

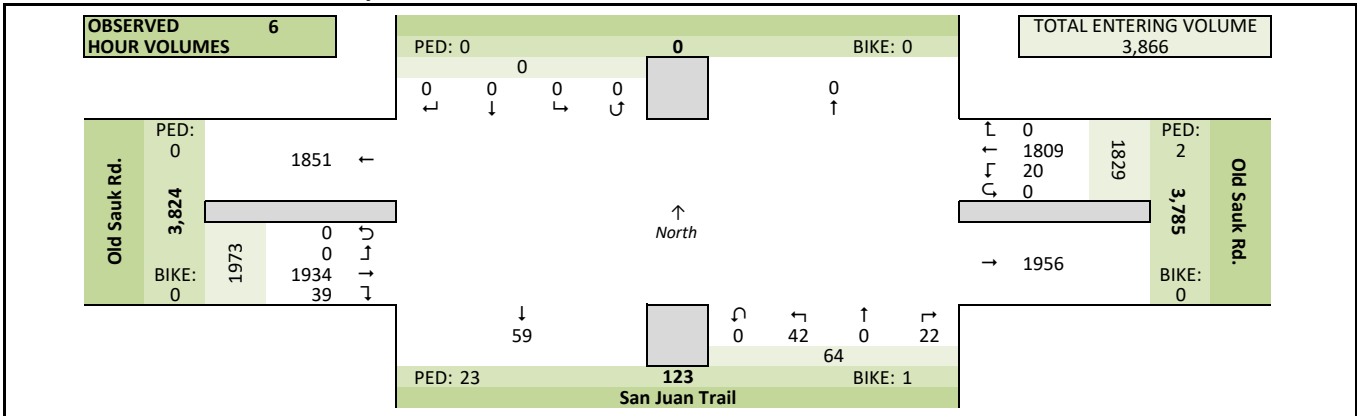
### Site Information

Municipality	City of Madison		
County	13 - Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction	↑	
North Leg			
East Leg	Old Sauk Rd.		
South Leg	San Juan Trail		
West Leg	Old Sauk Rd.		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementary school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
Other (describe)	None	None	

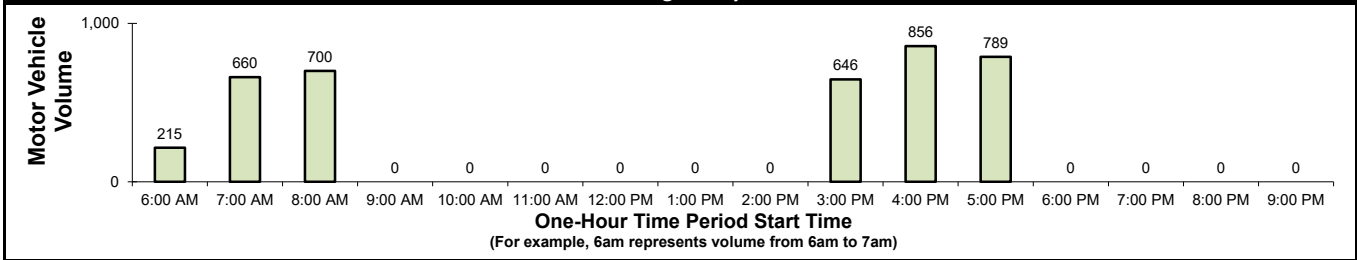
### Count Information

Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM		
1st Day of Count	Tuesday, March 19, 2024		Weather
AM Peak Period	Wednesday, March 20, 2024		Clear & Dry
Midday Peak Period			Clear & Dry
PM Peak Period	Tuesday, March 19, 2024		Clear & Dry
Calculated Peak Hours			
	AM	7:30-8:30am	MD
	PM	4:15-5:15pm	
Peak Hours Selected for Analysis			
	AM	7:30-8:30am	MD
	PM	3:45-4:45pm	
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	1.015	Count Expansion Factor	2.350
Company Name	Ayres Associates		Manual Adj.
	1.000		
Observers	AM Peak Period	Miovision Video Recording	
	Midday Peak Period	Miovision Video Recording	
	PM Peak Period	Miovision Video Recording	
Comments	2021 DOT Daily & Seasonal Factors		

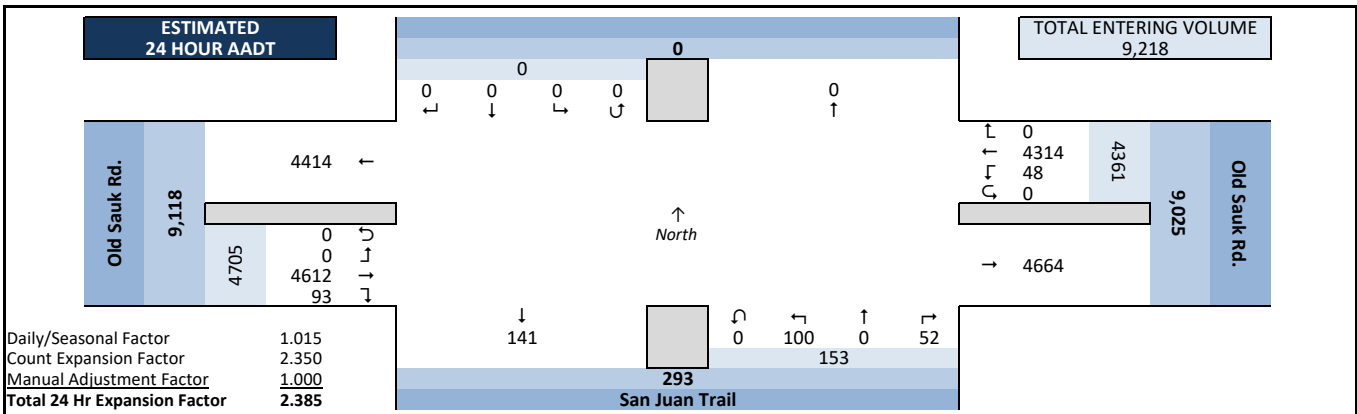
### Observed 6 Hour Volume Summary



### Total Entering Hourly Volume



### Estimated 24 Hour AADT





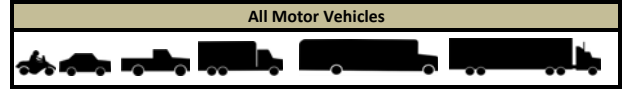


# Intersection Traffic Volume Report

<b>Count Basics</b>			<b>Page 3 of 13</b>
Start Date:	Tuesday, March 19, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

## Peak Hour Volume Summary

Old Sauk Rd. & San Juan Trail



### Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, March 20, 2024		From North					From East					From South					From West					Totals
AM Peak Hour		Old Sauk Rd.					San Juan Trail					Old Sauk Rd.										
Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
7:30 AM	0	0	0	0	0	0	85	2	0	87	4	0	2	0	6	1	88	0	0	89	182	
7:45 AM	0	0	0	0	0	0	92	0	0	92	0	0	3	0	3	0	107	0	0	107	202	
8:00 AM	0	0	0	0	0	0	74	0	0	74	2	0	1	0	3	1	101	0	0	102	179	
8:15 AM	0	0	0	0	0	0	78	0	0	78	0	0	3	0	3	0	116	0	0	116	197	
Peak Hour Volume	0	0	0	0	0	0	329	2	0	331	6	0	9	0	15	2	412	0	0	414	760	
Rounded Hourly Volume	0	0	0	0	0	0	330	0	0	330	5	0	10	0	15	0	410	0	0	410	755	
% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	3.6	2.8	
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	3.6	2.8	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.25	0.00	0.90	0.37	0.00	0.75	0.00	0.62	0.50	0.89	0.00	0.00	0.89	0.94	

N/A		From North					From East					From South					From West					Totals
MD Peak Hour		Old Sauk Rd.					San Juan Trail					Old Sauk Rd.										
Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Tuesday, March 19, 2024		From North					From East					From South					From West					Totals
PM Peak Hour		Old Sauk Rd.					San Juan Trail					Old Sauk Rd.										
Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
3:45 PM	0	0	0	0	0	0	117	1	0	118	1	0	5	0	6	0	84	0	0	84	208	
4:00 PM	0	0	0	0	0	0	100	3	0	103	1	0	0	0	1	2	84	0	0	86	190	
4:15 PM	0	0	0	0	0	0	134	1	0	135	0	0	2	0	2	4	83	0	0	87	224	
4:30 PM	0	0	0	0	0	0	106	0	0	106	0	0	2	0	2	3	108	0	0	111	219	
Peak Hour Volume	0	0	0	0	0	0	457	5	0	462	2	0	9	0	11	9	359	0	0	368	841	
Rounded Hourly Volume	0	0	0	0	0	0	455	5	0	460	0	0	10	0	10	10	360	0	0	370	840	
% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	2.2	20.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	1.8	
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	2.2	20.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	1.8	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.42	0.00	0.86	0.50	0.00	0.45	0.00	0.46	0.56	0.83	0.00	0.00	0.83	0.94	

### Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	2	1	3	0	0	0	3
	4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	1
	4:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	2
	4:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1
	Total	0	0	0	0	0	0	6	1	7	0	0	0	7



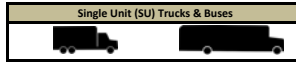




# Intersection Traffic Volume Report

## 15-Minute Single Unit (SU) Truck & Bus Data

Old Sauk Rd. & San Juan Trail



### 15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	From North				From East				From South				From West				15-Min Totals	Hourly Sum				
	Old Sauk Rd.				San Juan Trail				Old Sauk Rd.				San Juan Trail									
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right			Thru	Left	U-Tn	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	7
6:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	11
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	14
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0	0	0	3	4	18
7:15 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	1	0	0	0	1	5	22
7:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	0	0	0	1	4	21
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	0	0	0	4	5	22
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6	0	0	0	6	8	23
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	24
8:30 AM	0	0	0	0	0	0	3	0	0	3	2	0	0	0	2	0	0	0	0	0	5	25
8:45 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	1	0	0	0	1	6	26
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
3:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	3	51
3:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	3	52
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
3:45 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	2	0	0	0	2	8	54
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	2	55
4:15 PM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	1	0	0	0	1	5	56
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	3	58
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	2	59
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	3	60
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	3	62
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68
7:30 PM	0	0	0																			





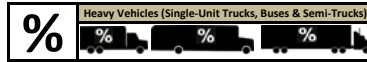


# Intersection Traffic Volume Report

<b>Count Basis</b>		<b>Page 10 of 13</b>	
Start Date	Tuesday, March 19, 2024	Weekday	Schools In Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

## 15-Minute Heavy Vehicle Percentages

Old Sauk Rd. & San Juan Trail



### 15-Minute Heavy Vehicle Percentages

15-Minute Time Period	From North				From East				From South				From West				Total Heavy Vehicle Percent		
	Old Sauk Rd.				San Juan Trail				Old Sauk Rd.				Total	Percent					
	Right	Thru	Left	U-Tn	Right	Thru	Left	U-Tn	Right	Thru	Left	U-Tn			Right	Thru		Left	U-Tn
12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.3	2.7
6:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	3.2
6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.0	1.4
7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	3.9	0.0	0.0	3.9	3.6
7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	5.9	50.0	0.0	7.5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	3.0
7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	3.4	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	2.2
7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.7	2.5
8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	5.9	0.0	0.0	5.9	4.5
8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	3.4	2.0
8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	4.1	66.7	0.0	0.0	0.0	50.0	0.0	0.0	0.0	3.0
8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	6.3	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3	3.8
9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.7	2.0
3:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	3.0	0.0	0.0	2.9	2.1
3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	5.1	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.4	3.8
4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	1.1
4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	2.2	100.0	0.0	3.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.1	2.2
4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9	1.3
5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	1.0
5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	0.0								

# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Page 11 of 13</b>	
Start Date:	Tuesday, March 19, 2024	Weekday:	Schools In Session
Total Number of Hours Counted:	6	Non-Holiday:	No Special Events

## 15-Minute Pedestrian and Bicyclist Data

Old Sauk Rd. & San Juan Trail



### 15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	Old Sauk Rd.			San Juan Trail			Old Sauk Rd.			Totals				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total					
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0		
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0		
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0		
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0		
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0		
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0		
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0		
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0		
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0		
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0		
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	
6:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	3
6:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	2
6:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
3:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	7
3:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	7
3:45 PM	0	0	0	0	0	0	2	1	3	0	0	0	3	7
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	5
4:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	5
4:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	9
4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	8
5:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	12
5:15 PM	0	0	0	1	0	1	5	0	5	0	0	0	6	
5:30 PM	0	0	0	0	0	0	4	0	4	0	0	0	0	
5:45 PM	0	0	0	1	0	1	4	0	4	0	0	0	5	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>23</b>	<b>1</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	

### Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/help)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Version 2023.05.03</b>		<b>Page 1 of 13</b>	
Start Date:	Tuesday, March 19, 2024	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

## Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: Old Middleton Rd.  
 Minor St: Old Sauk Rd.  
 Intersection of: Old Middleton Rd. & Old Sauk Rd.



IX\_ID:

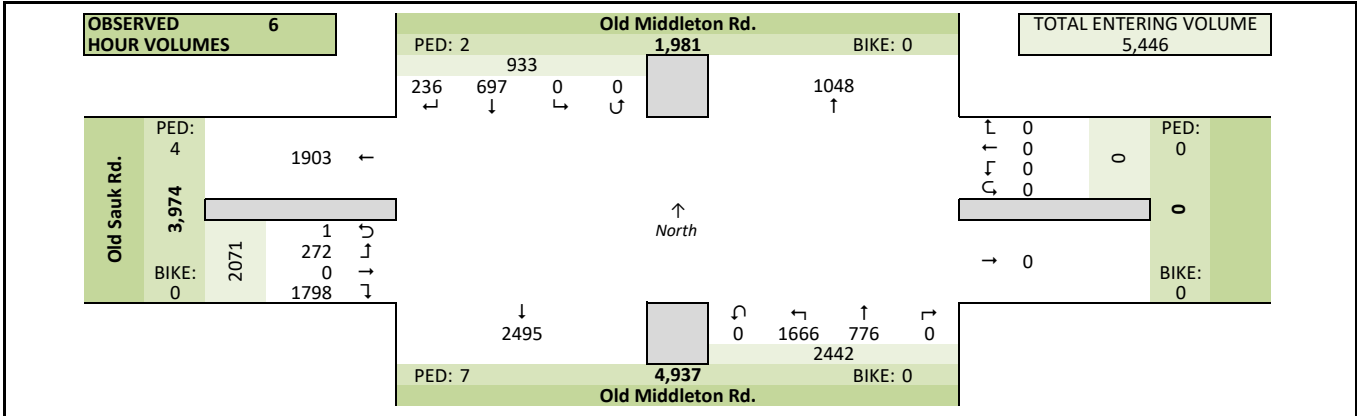
### Site Information

Municipality	City of Madison		
County	13 - Dane	WisDOT Region	SW-M
Traffic Control	All-Way Stop		
Roadway Names	North Direction	↑	
North Leg	Old Middleton Rd.		
East Leg			
South Leg	Old Middleton Rd.		
West Leg	Old Sauk Rd.		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementary school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
Other (describe)	None	None	

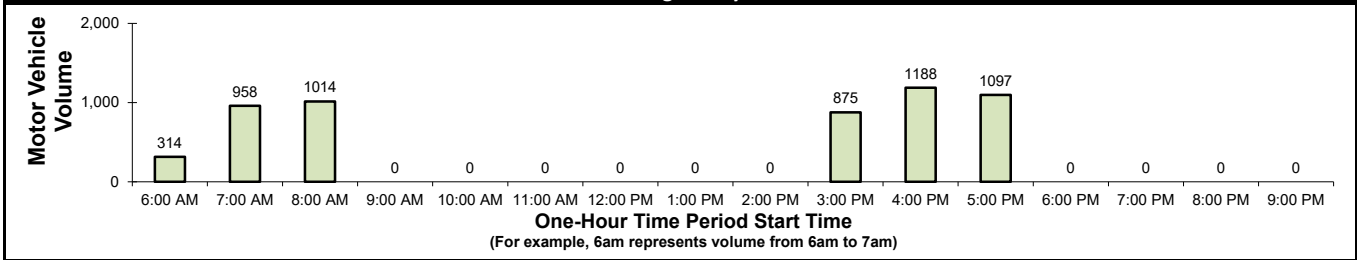
### Count Information

Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM		
1st Day of Count	Tuesday, March 19, 2024		Weather
AM Peak Period	Wednesday, March 20, 2024		Clear & Dry
Midday Peak Period			Clear & Dry
PM Peak Period	Tuesday, March 19, 2024		Clear & Dry
Calculated Peak Hours			
	AM	7:30-8:30am	MD
			PM
			4:15-5:15pm
Peak Hours Selected for Analysis			
	AM	7:30-8:30am	MD
			PM
			3:45-4:45pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	1.015	Count Expansion Factor	2.350
Company Name	Ayres Associates		Manual Adj.
			1.000
Observers	AM Peak Period	Miovision Video Recording	
	Midday Peak Period	Miovision Video Recording	
	PM Peak Period	Miovision Video Recording	
Comments	2021 DOT Daily & Seasonal Factors		

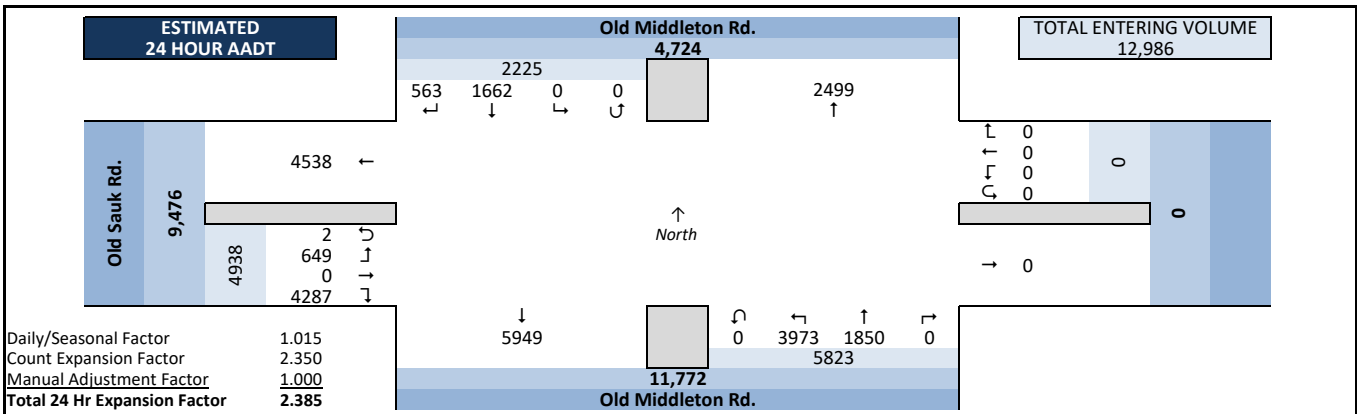
### Observed 6 Hour Volume Summary



### Total Entering Hourly Volume



### Estimated 24 Hour AADT



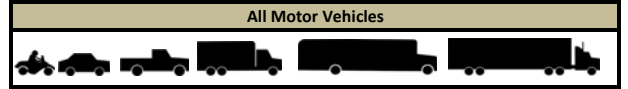


# Intersection Traffic Volume Report

<b>Count Basics</b>		Page 3 of 13	
Start Date:	Tuesday, March 19, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

## Peak Hour Volume Summary

Old Middleton Rd. & Old Sauk Rd.



### Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, March 20, 2024		From North					From East					From South					From West					Totals	
		Old Middleton Rd.										Old Middleton Rd.					Old Sauk Rd.						
AM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	7:30 AM	28	42	0	0	70	0	0	0	0	0	0	0	25	68	0	93	113	0	22	0	135	298
	7:45 AM	6	63	0	0	69	0	0	0	0	0	0	0	23	71	0	94	113	0	12	1	126	289
	8:00 AM	13	65	0	0	78	0	0	0	0	0	0	0	26	58	0	84	98	0	14	0	112	274
	8:15 AM	7	39	0	0	46	0	0	0	0	0	0	0	30	68	0	98	105	0	18	0	123	267
	Peak Hour Volume	54	209	0	0	263	0	0	0	0	0	0	0	104	265	0	369	429	0	66	1	496	1128
	Rounded Hourly Volume	55	210	0	0	265	0	0	0	0	0	0	0	105	265	0	370	430	0	65	0	495	1130
	% Single Unit Trucks	7.4	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.5	0.0	1.9	3.0	0.0	1.5	0.0	2.8	2.2
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	7.4	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.5	0.0	1.9	3.0	0.0	1.5	0.0	2.8	2.2
	Peak Hour Factor (PHF)	0.48	0.80	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.93	0.00	0.94	0.95	0.00	0.75	0.25	0.92	0.95

N/A		From North					From East					From South					From West					Totals	
		Old Middleton Rd.										Old Middleton Rd.					Old Sauk Rd.						
MD Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Tuesday, March 19, 2024		From North					From East					From South					From West					Totals	
		Old Middleton Rd.										Old Middleton Rd.					Old Sauk Rd.						
PM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	3:45 PM	12	34	0	0	46	0	0	0	0	0	0	0	42	103	0	145	71	0	20	0	91	282
	4:00 PM	8	31	0	0	39	0	0	0	0	0	0	0	56	100	0	156	74	0	11	0	85	280
	4:15 PM	23	29	0	0	52	0	0	0	0	0	0	0	53	118	0	171	70	0	14	0	84	307
	4:30 PM	7	22	0	0	29	0	0	0	0	0	0	0	51	99	0	150	86	0	20	0	106	285
	Peak Hour Volume	50	116	0	0	166	0	0	0	0	0	0	0	202	420	0	622	301	0	65	0	366	1154
	Rounded Hourly Volume	50	115	0	0	165	0	0	0	0	0	0	0	200	420	0	620	300	0	65	0	365	1150
	% Single Unit Trucks	2.0	1.7	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.4	0.0	1.6	1.7	0.0	0.0	0.0	1.4	1.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	2.0	1.7	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.4	0.0	1.6	1.7	0.0	0.0	0.0	1.4	1.6
	Peak Hour Factor (PHF)	0.54	0.85	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.89	0.00	0.91	0.87	0.00	0.81	0.00	0.86	0.94

### Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Old Middleton Rd.						Old Middleton Rd.			Old Sauk Rd.			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 AM	1	0	1	0	0	0	0	0	0	1	0	1	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	1	0	1	0	0	0	0	0	0	1	0	1	
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
PM	3:45 PM	0	0	0	0	0	0	2	0	2	0	0	0	
	4:00 PM	0	0	0	0	0	0	1	0	1	0	0	1	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	
	Total	0	0	0	0	0	0	0	3	0	3	1	0	1

















# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Page 11 of 13</b>	
Start Date:	Tuesday, March 19, 2024	Weekday:	Schools In Session
Total Number of Hours Counted:	6	Non-Holiday:	No Special Events

## 15-Minute Pedestrian and Bicyclist Data

Old Middleton Rd. & Old Sauk Rd.



### 15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	Old Middleton Rd.			Old Middleton Rd.			Old Middleton Rd.			Old Sauk Rd.				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	2	0	2	0	0	0	2	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	1	0	1	0	0	0	0	0	0	1	0	1	2	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:45 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	4
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	4
4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Totals</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>13</b>	

### Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/help)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

## **Appendix B)**

# **Highway Capacity Manual Analysis Outputs**

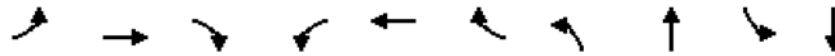


**2024 AM - Existing**

# Timings

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↕	↖	↑↕
Traffic Volume (vph)	65	320	80	70	280	35	65	155	50	310
Future Volume (vph)	65	320	80	70	280	35	65	155	50	310
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	15.0	15.0	14.0	14.0	15.0	15.0
Minimum Split (s)	9.5	15.0	15.0	9.5	20.0	20.0	19.0	19.0	20.0	20.0
Total Split (s)	19.5	45.0	45.0	19.5	45.0	45.0	65.0	65.0	50.0	50.0
Total Split (%)	15.1%	34.7%	34.7%	15.1%	34.7%	34.7%	50.2%	50.2%	38.6%	38.6%
Maximum Green (s)	15.0	40.0	40.0	15.0	40.0	40.0	60.0	60.0	45.0	45.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.5	4.5	3.0	3.0
Minimum Gap (s)	3.0	3.5	3.5	0.2	3.5	3.5	3.5	3.5	0.2	0.2
Time Before Reduce (s)	0.0	20.0	20.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	10.0	10.0	0.0	15.0	15.0	20.0	20.0	15.0	15.0
Recall Mode	None	Min	Min	None	Min	Min	Min	Min	Min	Min

Walk Time (s)  
Flash Dont Walk (s)  
Pedestrian Calls (#/hr)

### Intersection Summary

Cycle Length: 129.5  
Actuated Cycle Length: 54.8  
Natural Cycle: 50  
Control Type: Actuated-Uncoordinated

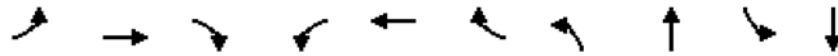
### Splits and Phases: 3: N. Gammon Road & Old Sauk Road



Queues

3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	356	55	78	311	24	72	244	56	494
v/c Ratio	0.14	0.55	0.10	0.16	0.50	0.04	0.28	0.23	0.15	0.46
Control Delay (s/veh)	7.7	19.7	14.4	8.0	19.4	14.6	20.3	16.2	17.3	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.7	19.7	14.4	8.0	19.4	14.6	20.3	16.2	17.3	18.1
Queue Length 50th (ft)	10	91	12	11	79	5	17	30	13	66
Queue Length 95th (ft)	31	194	38	33	174	21	56	66	43	131
Internal Link Dist (ft)		208			180			263		332
Turn Bay Length (ft)	70			100		85	180		170	
Base Capacity (vph)	694	1409	1180	684	1409	1182	772	3226	1082	3271
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.25	0.05	0.11	0.22	0.02	0.09	0.08	0.05	0.15

Intersection Summary

# HCM 7th Signalized Intersection Summary

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	320	80	70	280	35	65	155	65	50	310	135
Future Volume (veh/h)	65	320	80	70	280	35	65	155	65	50	310	135
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		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	72	356	55	78	311	24	72	172	72	56	344	150
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, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	453	584	493	418	590	492	330	769	308	447	764	327
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1870	1580	1781	1870	1560	895	2440	976	1135	2422	1037
Grp Volume(v), veh/h	72	356	55	78	311	24	72	122	122	56	251	243
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	1870	1560	895	1763	1653	1135	1777	1682
Q Serve(g_s), s	1.2	7.7	1.2	1.4	6.5	0.5	3.3	2.4	2.6	1.8	5.4	5.5
Cycle Q Clear(g_c), s	1.2	7.7	1.2	1.4	6.5	0.5	8.8	2.4	2.6	4.4	5.4	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.62
Lane Grp Cap(c), veh/h	453	584	493	418	590	492	330	556	521	447	560	530
V/C Ratio(X)	0.16	0.61	0.11	0.19	0.53	0.05	0.22	0.22	0.23	0.13	0.45	0.46
Avail Cap(c_a), veh/h	900	1573	1329	860	1573	1312	1177	2223	2085	1163	1681	1591
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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	13.9	11.7	10.2	13.4	11.3	16.6	12.0	12.0	13.7	13.0	13.0
Incr Delay (d2), s/veh	0.2	1.5	0.1	0.2	1.0	0.1	0.6	0.3	0.4	0.1	0.6	0.6
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(50%),veh/ln	0.4	2.9	0.4	0.4	2.4	0.2	0.6	0.8	0.8	0.4	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.2	15.4	11.8	10.5	14.4	11.4	17.1	12.3	12.4	13.8	13.5	13.7
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		483			413			316			550	
Approach Delay, s/veh		14.2			13.5			13.5			13.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	7.7	19.9		20.0	7.6	20.0				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		60.0	15.0	40.0		45.0	15.0	40.0				
Max Q Clear Time (g_c+I1), s		10.8	3.4	9.7		7.5	3.2	8.5				
Green Ext Time (p_c), s		3.4	0.1	3.5		3.4	0.1	2.9				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh											13.7	
HCM 7th LOS											B	

HCM 7th TWSC  
 8: San Juan Trail & Old Sauk Road

04/05/2024

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	410	0	1	330	10	5
Future Vol, veh/h	410	0	1	330	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	436	0	1	351	11	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	436	0	789
Stage 1	-	-	-	-	436
Stage 2	-	-	-	-	353
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1124	-	359
Stage 1	-	-	-	-	652
Stage 2	-	-	-	-	711
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1124	-	359
Mov Cap-2 Maneuver	-	-	-	-	359
Stage 1	-	-	-	-	652
Stage 2	-	-	-	-	710

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.02	13.97
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	418	-	-	5	-
HCM Lane V/C Ratio	0.038	-	-	0.001	-
HCM Control Delay (s/veh)	14	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	17.7
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↖	↖	↗	↗	↗
Traffic Vol, veh/h	65	430	265	105	210	55
Future Vol, veh/h	65	430	265	105	210	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	68	453	279	111	221	58
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay, s/veh	21.2	16.2	13.4
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	105	65	430	210	55
LT Vol	265	0	65	0	0	0
Through Vol	0	105	0	0	210	0
RT Vol	0	0	0	430	0	55
Lane Flow Rate	279	111	68	453	221	58
Geometry Grp	5	5	5	5	5	5
Degree of Util (X)	0.549	0.202	0.133	0.729	0.416	0.097
Departure Headway (Hd)	7.08	6.569	7.016	5.801	6.777	6.061
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	544	509	620	528	588
Service Time	4.851	4.34	4.782	3.567	4.555	3.838
HCM Lane V/C Ratio	0.549	0.204	0.134	0.731	0.419	0.099
HCM Control Delay, s/veh	18.2	11	10.9	22.7	14.4	9.5
HCM Lane LOS	C	B	B	C	B	A
HCM 95th-tile Q	3.3	0.7	0.5	6.2	2	0.3



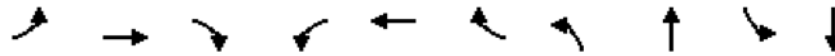
**2024 PM – Existing**



# Timings

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	160	310	80	60	380	60	65	375	50	335
Future Volume (vph)	160	310	80	60	380	60	65	375	50	335
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	15.0	15.0	14.0	14.0	15.0	15.0
Minimum Split (s)	9.5	15.0	15.0	9.5	20.0	20.0	19.0	19.0	20.0	20.0
Total Split (s)	19.5	45.0	45.0	19.5	45.0	45.0	65.0	65.0	50.0	50.0
Total Split (%)	15.1%	34.7%	34.7%	15.1%	34.7%	34.7%	50.2%	50.2%	38.6%	38.6%
Maximum Green (s)	15.0	40.0	40.0	15.0	40.0	40.0	60.0	60.0	45.0	45.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.5	4.5	3.0	3.0
Minimum Gap (s)	3.0	3.5	3.5	0.2	3.5	3.5	3.5	3.5	0.2	0.2
Time Before Reduce (s)	0.0	20.0	20.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	10.0	10.0	0.0	15.0	15.0	20.0	20.0	15.0	15.0
Recall Mode	None	Min	Min	None	Min	Min	Min	Min	Min	Min

Walk Time (s)  
Flash Dont Walk (s)  
Pedestrian Calls (#/hr)

### Intersection Summary

Cycle Length: 129.5  
Actuated Cycle Length: 66.2  
Natural Cycle: 50  
Control Type: Actuated-Uncoordinated

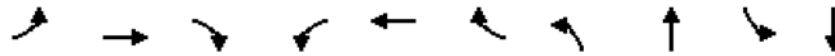
### Splits and Phases: 3: N. Gammon Road & Old Sauk Road



Queues

3: N. Gammon Road & Old Sauk Road

04/05/2024



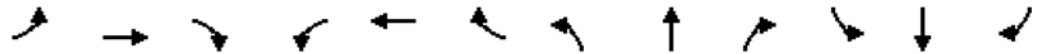
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	170	330	53	64	404	40	69	484	53	510
v/c Ratio	0.34	0.41	0.08	0.12	0.67	0.08	0.33	0.48	0.24	0.52
Control Delay (s/veh)	9.5	16.7	13.7	8.4	26.5	17.5	26.1	22.3	23.8	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.5	16.7	13.7	8.4	26.5	17.5	26.1	22.3	23.8	22.8
Queue Length 50th (ft)	29	91	13	10	133	11	21	81	16	86
Queue Length 95th (ft)	69	186	37	30	275	35	68	161	53	171
Internal Link Dist (ft)		208			180			263		332
Turn Bay Length (ft)	70			100		85	180		170	
Base Capacity (vph)	587	1168	980	739	1168	975	634	3053	671	2980
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.28	0.05	0.09	0.35	0.04	0.11	0.16	0.08	0.17

Intersection Summary

# HCM 7th Signalized Intersection Summary

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	310	80	60	380	60	65	375	80	50	335	145
Future Volume (veh/h)	160	310	80	60	380	60	65	375	80	50	335	145
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		0.98	1.00		0.99	1.00		0.97
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	330	53	64	404	40	69	399	85	53	356	154
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	408	639	539	433	561	467	326	982	207	341	811	344
Arrive On Green	0.10	0.34	0.34	0.06	0.30	0.30	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1578	1781	1870	1557	886	2914	615	907	2405	1020
Grp Volume(v), veh/h	170	330	53	64	404	40	69	242	242	53	261	249
Grp Sat Flow(s),veh/h/ln	1781	1870	1578	1781	1870	1557	886	1777	1752	907	1777	1648
Q Serve(g_s), s	3.5	7.7	1.3	1.3	10.6	1.0	3.6	5.7	5.8	2.6	6.3	6.5
Cycle Q Clear(g_c), s	3.5	7.7	1.3	1.3	10.6	1.0	10.1	5.7	5.8	8.4	6.3	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.62
Lane Grp Cap(c), veh/h	408	639	539	433	561	467	326	599	591	341	599	556
V/C Ratio(X)	0.42	0.52	0.10	0.15	0.72	0.09	0.21	0.40	0.41	0.16	0.44	0.45
Avail Cap(c_a), veh/h	720	1364	1151	819	1364	1136	996	1944	1917	779	1458	1352
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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	14.4	12.3	12.1	17.1	13.8	18.1	13.9	14.0	17.2	14.1	14.2
Incr Delay (d2), s/veh	0.7	0.9	0.1	0.2	2.5	0.1	0.6	0.8	0.8	0.2	0.5	0.6
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(50%),veh/ln	1.2	2.9	0.4	0.5	4.3	0.3	0.7	2.1	2.1	0.5	2.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.9	15.4	12.4	12.2	19.6	13.9	18.7	14.7	14.8	17.4	14.6	14.8
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		553			508			553			563	
Approach Delay, s/veh		14.3			18.3			15.2			14.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	7.6	23.7		23.5	9.9	21.4				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		60.0	15.0	40.0		45.0	15.0	40.0				
Max Q Clear Time (g_c+I1), s		12.1	3.3	9.7		10.4	5.5	12.6				
Green Ext Time (p_c), s		6.4	0.1	3.2		3.7	0.4	3.9				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh			15.6									
HCM 7th LOS			B									

HCM 7th TWSC  
8: San Juan Trail & Old Sauk Road

04/05/2024

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	360	10	5	455	10	0
Future Vol, veh/h	360	10	5	455	10	0
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	383	11	5	484	11	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	400	0	889 394
Stage 1	-	-	-	-	394 -
Stage 2	-	-	-	-	495 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1159	-	314 655
Stage 1	-	-	-	-	681 -
Stage 2	-	-	-	-	613 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1153	-	310 651
Mov Cap-2 Maneuver	-	-	-	-	310 -
Stage 1	-	-	-	-	678 -
Stage 2	-	-	-	-	609 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.09	17.02
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	310	-	-	20	-
HCM Lane V/C Ratio	0.034	-	-	0.005	-
HCM Control Delay (s/veh)	17	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	19.9
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↖	↖	↗	↗	↖
Traffic Vol, veh/h	65	300	420	200	115	50
Future Vol, veh/h	65	300	420	200	115	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	319	447	213	122	53
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay, s/veh	14.8	25.3	10.9
HCM LOS	B	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	420	200	65	300	115	50
LT Vol	420	0	65	0	0	0
Through Vol	0	200	0	0	115	0
RT Vol	0	0	0	300	0	50
Lane Flow Rate	447	213	69	319	122	53
Geometry Grp	5	5	5	5	5	5
Degree of Util (X)	0.811	0.356	0.14	0.536	0.229	0.089
Departure Headway (Hd)	6.535	6.028	7.264	6.049	6.737	6.022
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	554	596	493	594	531	593
Service Time	4.28	3.773	5.021	3.806	4.501	3.785
HCM Lane V/C Ratio	0.807	0.357	0.14	0.537	0.23	0.089
HCM Control Delay, s/veh	31.6	12.1	11.2	15.6	11.5	9.4
HCM Lane LOS	D	B	B	C	B	A
HCM 95th-tile Q	8	1.6	0.5	3.2	0.9	0.3

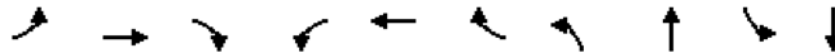


**2026 AM – No-Build**

# Timings

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	65	325	80	70	285	35	65	155	50	315
Future Volume (vph)	65	325	80	70	285	35	65	155	50	315
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	15.0	15.0	14.0	14.0	15.0	15.0
Minimum Split (s)	9.5	15.0	15.0	9.5	20.0	20.0	19.0	19.0	20.0	20.0
Total Split (s)	19.5	45.0	45.0	19.5	45.0	45.0	65.0	65.0	50.0	50.0
Total Split (%)	15.1%	34.7%	34.7%	15.1%	34.7%	34.7%	50.2%	50.2%	38.6%	38.6%
Maximum Green (s)	15.0	40.0	40.0	15.0	40.0	40.0	60.0	60.0	45.0	45.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.5	4.5	3.0	3.0
Minimum Gap (s)	3.0	3.5	3.5	0.2	3.5	3.5	3.5	3.5	0.2	0.2
Time Before Reduce (s)	0.0	20.0	20.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	10.0	10.0	0.0	15.0	15.0	20.0	20.0	15.0	15.0
Recall Mode	None	Min	Min	None	Min	Min	Min	Min	Min	Min

Walk Time (s)  
Flash Dont Walk (s)  
Pedestrian Calls (#/hr)

### Intersection Summary

Cycle Length: 129.5  
Actuated Cycle Length: 55.1  
Natural Cycle: 50  
Control Type: Actuated-Uncoordinated

### Splits and Phases: 3: N. Gammon Road & Old Sauk Road

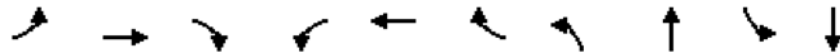




Queues

3: N. Gammon Road & Old Sauk Road

04/05/2024



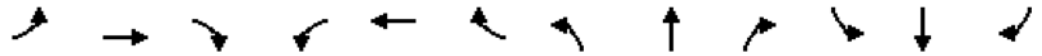
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	361	55	78	317	24	72	244	56	500
v/c Ratio	0.14	0.56	0.10	0.16	0.51	0.04	0.29	0.23	0.15	0.46
Control Delay (s/veh)	7.7	19.9	14.4	8.1	19.6	14.7	20.5	16.3	17.4	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.7	19.9	14.4	8.1	19.6	14.7	20.5	16.3	17.4	18.2
Queue Length 50th (ft)	10	94	12	11	82	5	18	30	13	68
Queue Length 95th (ft)	31	199	38	33	179	22	57	67	43	133
Internal Link Dist (ft)		208			180			263		332
Turn Bay Length (ft)	70			100		85	180		170	
Base Capacity (vph)	690	1402	1174	680	1402	1176	760	3219	1080	3268
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.26	0.05	0.11	0.23	0.02	0.09	0.08	0.05	0.15

Intersection Summary

# HCM 7th Signalized Intersection Summary

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	325	80	70	285	35	65	155	65	50	315	135
Future Volume (veh/h)	65	325	80	70	285	35	65	155	65	50	315	135
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		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	72	361	55	78	317	24	72	172	72	56	350	150
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, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	449	584	493	415	590	492	328	769	308	447	768	323
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1870	1580	1781	1870	1560	890	2440	976	1135	2435	1026
Grp Volume(v), veh/h	72	361	55	78	317	24	72	122	122	56	254	246
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	1870	1560	890	1763	1653	1135	1777	1684
Q Serve(g_s), s	1.2	7.8	1.2	1.4	6.6	0.5	3.4	2.4	2.6	1.8	5.4	5.6
Cycle Q Clear(g_c), s	1.2	7.8	1.2	1.4	6.6	0.5	8.9	2.4	2.6	4.4	5.4	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.61
Lane Grp Cap(c), veh/h	449	584	493	415	590	492	328	556	521	447	560	531
V/C Ratio(X)	0.16	0.62	0.11	0.19	0.54	0.05	0.22	0.22	0.23	0.13	0.45	0.46
Avail Cap(c_a), veh/h	895	1573	1329	856	1573	1312	1170	2223	2085	1163	1681	1593
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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	13.9	11.7	10.3	13.4	11.3	16.6	12.0	12.0	13.7	13.0	13.1
Incr Delay (d2), s/veh	0.2	1.5	0.1	0.2	1.1	0.1	0.6	0.3	0.4	0.1	0.6	0.6
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(50%),veh/ln	0.4	2.9	0.4	0.4	2.4	0.2	0.6	0.8	0.8	0.4	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.3	15.5	11.8	10.5	14.5	11.4	17.2	12.3	12.4	13.8	13.6	13.7
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		488			419			316			556	
Approach Delay, s/veh		14.3			13.6			13.5			13.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	7.7	19.9		20.0	7.6	20.0				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		60.0	15.0	40.0		45.0	15.0	40.0				
Max Q Clear Time (g_c+I1), s		10.9	3.4	9.8		7.6	3.2	8.6				
Green Ext Time (p_c), s		3.4	0.1	3.6		3.5	0.1	2.9				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh			13.8									
HCM 7th LOS			B									

HCM 7th TWSC  
 8: San Juan Trail & Old Sauk Road

04/05/2024

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	415	0	1	335	10	5
Future Vol, veh/h	415	0	1	335	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	441	0	1	356	11	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	441	0	800 441
Stage 1	-	-	-	-	441 -
Stage 2	-	-	-	-	359 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1119	-	354 616
Stage 1	-	-	-	-	648 -
Stage 2	-	-	-	-	707 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1119	-	354 616
Mov Cap-2 Maneuver	-	-	-	-	354 -
Stage 1	-	-	-	-	648 -
Stage 2	-	-	-	-	706 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.02	14.08
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	412	-	-	5	-
HCM Lane V/C Ratio	0.039	-	-	0.001	-
HCM Control Delay (s/veh)	14.1	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↖	↖	↗	↗	↗
Traffic Vol, veh/h	65	435	270	105	210	55
Future Vol, veh/h	65	435	270	105	210	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	68	458	284	111	221	58
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay, s/veh	21.9	16.5	13.5
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	270	105	65	435	210	55
LT Vol	270	0	65	0	0	0
Through Vol	0	105	0	0	210	0
RT Vol	0	0	0	435	0	55
Lane Flow Rate	284	111	68	458	221	58
Geometry Grp	5	5	5	5	5	5
Degree of Util (X)	0.561	0.202	0.134	0.741	0.418	0.098
Departure Headway (Hd)	7.105	6.595	7.037	5.822	6.812	6.095
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	506	542	508	618	526	584
Service Time	4.88	4.369	4.803	3.587	4.593	3.876
HCM Lane V/C Ratio	0.561	0.205	0.134	0.741	0.42	0.099
HCM Control Delay, s/veh	18.7	11	10.9	23.5	14.5	9.5
HCM Lane LOS	C	B	B	C	B	A
HCM 95th-tile Q	3.4	0.7	0.5	6.5	2	0.3

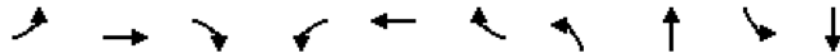


**2026 PM – No-Build**

# Timings

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	160	315	80	60	385	60	65	380	50	340
Future Volume (vph)	160	315	80	60	385	60	65	380	50	340
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	15.0	15.0	14.0	14.0	15.0	15.0
Minimum Split (s)	9.5	15.0	15.0	9.5	20.0	20.0	19.0	19.0	20.0	20.0
Total Split (s)	19.5	45.0	45.0	19.5	45.0	45.0	65.0	65.0	50.0	50.0
Total Split (%)	15.1%	34.7%	34.7%	15.1%	34.7%	34.7%	50.2%	50.2%	38.6%	38.6%
Maximum Green (s)	15.0	40.0	40.0	15.0	40.0	40.0	60.0	60.0	45.0	45.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.5	4.5	3.0	3.0
Minimum Gap (s)	3.0	3.5	3.5	0.2	3.5	3.5	3.5	3.5	0.2	0.2
Time Before Reduce (s)	0.0	20.0	20.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	10.0	10.0	0.0	15.0	15.0	20.0	20.0	15.0	15.0
Recall Mode	None	Min	Min	None	Min	Min	Min	Min	Min	Min

Walk Time (s)  
Flash Dont Walk (s)  
Pedestrian Calls (#/hr)

### Intersection Summary

Cycle Length: 129.5  
Actuated Cycle Length: 66.8  
Natural Cycle: 50  
Control Type: Actuated-Uncoordinated

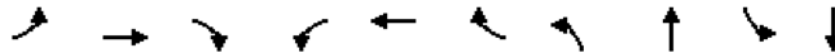
### Splits and Phases: 3: N. Gammon Road & Old Sauk Road



Queues

3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	170	335	53	64	410	40	69	489	53	516
v/c Ratio	0.35	0.42	0.07	0.12	0.67	0.07	0.33	0.48	0.24	0.52
Control Delay (s/veh)	9.5	16.7	13.7	8.4	26.8	17.5	26.5	22.5	24.0	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.5	16.7	13.7	8.4	26.8	17.5	26.5	22.5	24.0	23.1
Queue Length 50th (ft)	29	94	13	10	136	11	21	82	16	88
Queue Length 95th (ft)	69	189	37	30	280	35	69	164	54	175
Internal Link Dist (ft)		208			180			263		332
Turn Bay Length (ft)	70			100		85	180		170	
Base Capacity (vph)	582	1161	974	737	1159	968	622	3036	659	2964
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.29	0.05	0.09	0.35	0.04	0.11	0.16	0.08	0.17

Intersection Summary



# HCM 7th Signalized Intersection Summary

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	315	80	60	385	60	65	380	80	50	340	145
Future Volume (veh/h)	160	315	80	60	385	60	65	380	80	50	340	145
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		0.98	1.00		0.99	1.00		0.97
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	335	53	64	410	40	69	404	85	53	362	154
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	405	644	543	430	566	471	323	988	206	338	818	341
Arrive On Green	0.10	0.34	0.34	0.06	0.30	0.30	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1578	1781	1870	1557	881	2921	609	903	2418	1009
Grp Volume(v), veh/h	170	335	53	64	410	40	69	244	245	53	264	252
Grp Sat Flow(s),veh/h/ln	1781	1870	1578	1781	1870	1557	881	1777	1753	903	1777	1650
Q Serve(g_s), s	3.5	7.9	1.3	1.3	10.9	1.0	3.7	5.9	6.0	2.7	6.4	6.6
Cycle Q Clear(g_c), s	3.5	7.9	1.3	1.3	10.9	1.0	10.3	5.9	6.0	8.6	6.4	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.61
Lane Grp Cap(c), veh/h	405	644	543	430	566	471	323	601	593	338	601	558
V/C Ratio(X)	0.42	0.52	0.10	0.15	0.72	0.08	0.21	0.41	0.41	0.16	0.44	0.45
Avail Cap(c_a), veh/h	711	1348	1137	811	1348	1122	977	1920	1895	765	1440	1338
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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	14.5	12.4	12.1	17.3	13.9	18.4	14.1	14.1	17.4	14.3	14.3
Incr Delay (d2), s/veh	0.7	0.9	0.1	0.2	2.5	0.1	0.6	0.8	0.8	0.2	0.5	0.6
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(50%),veh/ln	1.2	3.0	0.4	0.5	4.4	0.3	0.7	2.1	2.1	0.5	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.0	15.5	12.5	12.3	19.8	14.0	18.9	14.9	14.9	17.7	14.8	14.9
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		558			514			558				569
Approach Delay, s/veh		14.4			18.4			15.4				15.1
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.8	7.6	24.1		23.8	9.9	21.8				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		60.0	15.0	40.0		45.0	15.0	40.0				
Max Q Clear Time (g_c+I1), s		12.3	3.3	9.9		10.6	5.5	12.9				
Green Ext Time (p_c), s		6.5	0.1	3.3		3.7	0.4	3.9				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh			15.8									
HCM 7th LOS			B									

HCM 7th TWSC  
 8: San Juan Trail & Old Sauk Road

04/05/2024

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	365	10	5	460	10	0
Future Vol, veh/h	365	10	5	460	10	0
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	388	11	5	489	11	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	405	0	900
Stage 1	-	-	-	-	400
Stage 2	-	-	-	-	500
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1154	-	309
Stage 1	-	-	-	-	677
Stage 2	-	-	-	-	609
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1148	-	306
Mov Cap-2 Maneuver	-	-	-	-	306
Stage 1	-	-	-	-	674
Stage 2	-	-	-	-	605

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.09	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	306	-	-	19	-
HCM Lane V/C Ratio	0.035	-	-	0.005	-
HCM Control Delay (s/veh)	17.2	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	20.6
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖
Traffic Vol, veh/h	65	305	425	200	115	50
Future Vol, veh/h	65	305	425	200	115	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	324	452	213	122	53
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay, s/veh	15.2	26.4	10.9
HCM LOS	C	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	425	200	65	305	115	50
LT Vol	425	0	65	0	0	0
Through Vol	0	200	0	0	115	0
RT Vol	0	0	0	305	0	50
Lane Flow Rate	452	213	69	324	122	53
Geometry Grp	5	5	5	5	5	5
Degree of Util (X)	0.824	0.358	0.14	0.547	0.23	0.089
Departure Headway (Hd)	6.558	6.051	7.282	6.067	6.77	6.054
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	594	492	594	529	589
Service Time	4.303	3.795	5.041	3.826	4.537	3.821
HCM Lane V/C Ratio	0.819	0.359	0.14	0.545	0.231	0.09
HCM Control Delay, s/veh	33.1	12.2	11.2	16	11.6	9.4
HCM Lane LOS	D	B	B	C	B	A
HCM 95th-tile Q	8.3	1.6	0.5	3.3	0.9	0.3

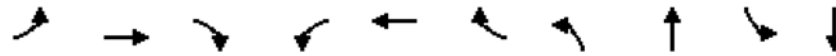


# **2026 AM – Build**

# Timings

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	65	330	80	75	300	40	65	155	50	315
Future Volume (vph)	65	330	80	75	300	40	65	155	50	315
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	15.0	15.0	14.0	14.0	15.0	15.0
Minimum Split (s)	9.5	15.0	15.0	9.5	20.0	20.0	19.0	19.0	20.0	20.0
Total Split (s)	19.5	45.0	45.0	19.5	45.0	45.0	65.0	65.0	50.0	50.0
Total Split (%)	15.1%	34.7%	34.7%	15.1%	34.7%	34.7%	50.2%	50.2%	38.6%	38.6%
Maximum Green (s)	15.0	40.0	40.0	15.0	40.0	40.0	60.0	60.0	45.0	45.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.5	4.5	3.0	3.0
Minimum Gap (s)	3.0	3.5	3.5	0.2	3.5	3.5	3.5	3.5	0.2	0.2
Time Before Reduce (s)	0.0	20.0	20.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	10.0	10.0	0.0	15.0	15.0	20.0	20.0	15.0	15.0
Recall Mode	None	Min	Min	None	Min	Min	Min	Min	Min	Min

Walk Time (s)  
Flash Dont Walk (s)  
Pedestrian Calls (#/hr)

### Intersection Summary

Cycle Length: 129.5  
Actuated Cycle Length: 55.7  
Natural Cycle: 50  
Control Type: Actuated-Uncoordinated

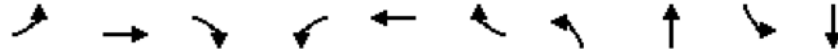
### Splits and Phases: 3: N. Gammon Road & Old Sauk Road



Queues

3: N. Gammon Road & Old Sauk Road

04/05/2024



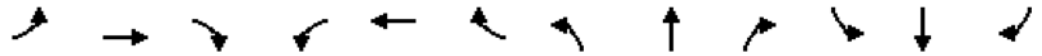
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	367	55	83	333	28	72	250	56	500
v/c Ratio	0.14	0.56	0.10	0.18	0.52	0.05	0.29	0.23	0.16	0.47
Control Delay (s/veh)	7.7	19.9	14.4	8.1	19.7	14.6	20.9	16.6	17.7	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.7	19.9	14.4	8.1	19.7	14.6	20.9	16.6	17.7	18.5
Queue Length 50th (ft)	10	97	12	12	87	6	18	32	14	71
Queue Length 95th (ft)	31	203	38	35	188	24	57	70	44	135
Internal Link Dist (ft)		208			180			263		332
Turn Bay Length (ft)	70			100		85	180		170	
Base Capacity (vph)	684	1391	1165	677	1391	1166	753	3196	1070	3257
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.26	0.05	0.12	0.24	0.02	0.10	0.08	0.05	0.15

Intersection Summary

# HCM 7th Signalized Intersection Summary

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	330	80	75	300	40	65	155	70	50	315	135
Future Volume (veh/h)	65	330	80	75	300	40	65	155	70	50	315	135
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		0.98	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	72	367	55	83	333	28	72	172	78	56	350	150
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, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	437	580	490	412	590	492	328	750	324	444	768	323
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1870	1580	1781	1870	1560	890	2378	1028	1129	2435	1026
Grp Volume(v), veh/h	72	367	55	83	333	28	72	125	125	56	254	246
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	1870	1560	890	1763	1642	1129	1777	1684
Q Serve(g_s), s	1.3	8.0	1.2	1.4	7.1	0.6	3.4	2.5	2.7	1.8	5.4	5.6
Cycle Q Clear(g_c), s	1.3	8.0	1.2	1.4	7.1	0.6	8.9	2.5	2.7	4.5	5.4	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		0.61
Lane Grp Cap(c), veh/h	437	580	490	412	590	492	328	556	518	444	560	531
V/C Ratio(X)	0.16	0.63	0.11	0.20	0.56	0.06	0.22	0.23	0.24	0.13	0.45	0.46
Avail Cap(c_a), veh/h	883	1573	1329	849	1573	1312	1170	2223	2072	1156	1681	1593
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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	14.1	11.7	10.3	13.6	11.4	16.6	12.0	12.1	13.7	13.0	13.1
Incr Delay (d2), s/veh	0.2	1.6	0.1	0.2	1.2	0.1	0.6	0.3	0.4	0.1	0.6	0.6
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(50%),veh/ln	0.4	3.0	0.4	0.5	2.6	0.2	0.6	0.9	0.9	0.4	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.4	15.7	11.9	10.6	14.8	11.4	17.2	12.4	12.5	13.9	13.6	13.7
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		494			444			322			556	
Approach Delay, s/veh		14.5			13.8			13.5			13.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	7.8	19.7		20.0	7.6	20.0				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		60.0	15.0	40.0		45.0	15.0	40.0				
Max Q Clear Time (g_c+I1), s		10.9	3.4	10.0		7.6	3.3	9.1				
Green Ext Time (p_c), s		3.5	0.2	3.6		3.5	0.1	3.1				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh			13.9									
HCM 7th LOS			B									



HCM 7th TWSC  
 8: San Juan Trail & Old Sauk Road

04/05/2024

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	425	0	1	360	10	5
Future Vol, veh/h	425	0	1	360	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	452	0	1	383	11	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	452	0	837
Stage 1	-	-	-	-	452
Stage 2	-	-	-	-	385
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1108	-	337
Stage 1	-	-	-	-	641
Stage 2	-	-	-	-	688
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1108	-	336
Mov Cap-2 Maneuver	-	-	-	-	336
Stage 1	-	-	-	-	641
Stage 2	-	-	-	-	687

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.02	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	395	-	-	5	-
HCM Lane V/C Ratio	0.04	-	-	0.001	-
HCM Control Delay (s/veh)	14.5	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	19.6
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↗	↗	↗
Traffic Vol, veh/h	70	455	275	105	210	55
Future Vol, veh/h	70	455	275	105	210	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	74	479	289	111	221	58
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay, s/veh	24.4	17.2	13.7
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	275	105	70	455	210	55
LT Vol	275	0	70	0	0	0
Through Vol	0	105	0	0	210	0
RT Vol	0	0	0	455	0	55
Lane Flow Rate	289	111	74	479	221	58
Geometry Grp	5	5	5	5	5	5
Degree of Util (X)	0.579	0.205	0.145	0.779	0.425	0.1
Departure Headway (Hd)	7.197	6.686	7.071	5.855	6.916	6.199
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	498	534	505	613	517	574
Service Time	4.978	4.467	4.843	3.626	4.703	3.985
HCM Lane V/C Ratio	0.58	0.208	0.147	0.781	0.427	0.101
HCM Control Delay, s/veh	19.5	11.2	11.1	26.4	14.8	9.7
HCM Lane LOS	C	B	B	D	B	A
HCM 95th-tile Q	3.6	0.8	0.5	7.4	2.1	0.3

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	10	420	335	5	25	25
Future Vol, veh/h	10	420	335	5	25	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	11	447	356	5	27	27

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	362	0	-	0	827 359
Stage 1	-	-	-	-	359 -
Stage 2	-	-	-	-	468 -
Critical Hdwy	4.14	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.236	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1186	-	-	-	341 685
Stage 1	-	-	-	-	707 -
Stage 2	-	-	-	-	630 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1186	-	-	-	337 685
Mov Cap-2 Maneuver	-	-	-	-	337 -
Stage 1	-	-	-	-	698 -
Stage 2	-	-	-	-	630 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.19	0	14.02
HCM LOS			B

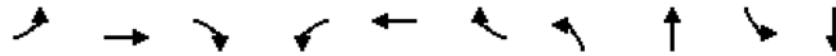
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	42	-	-	-	452
HCM Lane V/C Ratio	0.009	-	-	-	0.118
HCM Control Delay (s/veh)	8.1	0	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

## **2026 PM – Build**

# Timings

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	160	330	80	65	390	65	65	380	55	340
Future Volume (vph)	160	330	80	65	390	65	65	380	55	340
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	15.0	15.0	14.0	14.0	15.0	15.0
Minimum Split (s)	9.5	15.0	15.0	9.5	20.0	20.0	19.0	19.0	20.0	20.0
Total Split (s)	19.5	45.0	45.0	19.5	45.0	45.0	65.0	65.0	50.0	50.0
Total Split (%)	15.1%	34.7%	34.7%	15.1%	34.7%	34.7%	50.2%	50.2%	38.6%	38.6%
Maximum Green (s)	15.0	40.0	40.0	15.0	40.0	40.0	60.0	60.0	45.0	45.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.5	4.5	3.0	3.0
Minimum Gap (s)	3.0	3.5	3.5	0.2	3.5	3.5	3.5	3.5	0.2	0.2
Time Before Reduce (s)	0.0	20.0	20.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	10.0	10.0	0.0	15.0	15.0	20.0	20.0	15.0	15.0
Recall Mode	None	Min	Min	None	Min	Min	Min	Min	Min	Min

Walk Time (s)  
Flash Dont Walk (s)  
Pedestrian Calls (#/hr)

### Intersection Summary

Cycle Length: 129.5  
Actuated Cycle Length: 67.1  
Natural Cycle: 55  
Control Type: Actuated-Uncoordinated

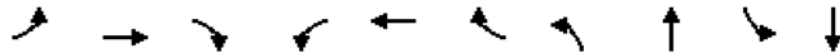
### Splits and Phases: 3: N. Gammon Road & Old Sauk Road



Queues

3: N. Gammon Road & Old Sauk Road

04/05/2024



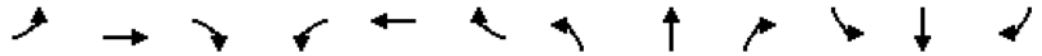
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	170	351	53	69	415	43	69	494	59	516
v/c Ratio	0.35	0.44	0.07	0.13	0.68	0.08	0.33	0.49	0.27	0.52
Control Delay (s/veh)	9.6	17.2	13.8	8.5	27.0	17.5	26.5	22.6	24.8	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.6	17.2	13.8	8.5	27.0	17.5	26.5	22.6	24.8	23.1
Queue Length 50th (ft)	29	100	13	11	139	12	21	84	18	88
Queue Length 95th (ft)	69	201	38	32	284	38	69	167	60	176
Internal Link Dist (ft)		208			180			263		332
Turn Bay Length (ft)	70			100		85	180		170	
Base Capacity (vph)	579	1158	971	732	1155	964	620	3023	651	2956
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.30	0.05	0.09	0.36	0.04	0.11	0.16	0.09	0.17

Intersection Summary

# HCM 7th Signalized Intersection Summary

## 3: N. Gammon Road & Old Sauk Road

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	330	80	65	390	65	65	380	85	55	340	145
Future Volume (veh/h)	160	330	80	65	390	65	65	380	85	55	340	145
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		0.98	1.00		0.99	1.00		0.97
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	351	53	69	415	43	69	404	90	59	362	154
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	643	543	422	571	475	322	977	215	335	818	341
Arrive On Green	0.10	0.34	0.34	0.06	0.31	0.31	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1578	1781	1870	1557	881	2888	637	899	2418	1009
Grp Volume(v), veh/h	170	351	53	69	415	43	69	247	247	59	264	252
Grp Sat Flow(s),veh/h/ln	1781	1870	1578	1781	1870	1557	881	1777	1748	899	1777	1650
Q Serve(g_s), s	3.5	8.5	1.3	1.4	11.1	1.1	3.7	6.0	6.1	3.0	6.5	6.7
Cycle Q Clear(g_c), s	3.5	8.5	1.3	1.4	11.1	1.1	10.4	6.0	6.1	9.1	6.5	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.61
Lane Grp Cap(c), veh/h	402	643	543	422	571	475	322	601	591	335	601	558
V/C Ratio(X)	0.42	0.55	0.10	0.16	0.73	0.09	0.21	0.41	0.42	0.18	0.44	0.45
Avail Cap(c_a), veh/h	705	1336	1127	794	1336	1112	968	1904	1873	753	1428	1326
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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	14.8	12.5	12.2	17.4	13.9	18.5	14.2	14.3	17.8	14.4	14.5
Incr Delay (d2), s/veh	0.7	1.0	0.1	0.2	2.5	0.1	0.6	0.8	0.8	0.2	0.5	0.6
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(50%),veh/ln	1.2	3.3	0.4	0.5	4.5	0.4	0.7	2.2	2.2	0.6	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.1	15.9	12.6	12.4	19.9	14.0	19.1	15.0	15.1	18.0	14.9	15.0
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		574			527			563			575	
Approach Delay, s/veh		14.7			18.4			15.5			15.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.9	7.8	24.3		23.9	10.0	22.1				
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0				
Max Green Setting (Gmax), s		60.0	15.0	40.0		45.0	15.0	40.0				
Max Q Clear Time (g_c+I1), s		12.4	3.4	10.5		11.1	5.5	13.1				
Green Ext Time (p_c), s		6.6	0.1	3.4		3.7	0.4	4.0				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh			16.0									
HCM 7th LOS			B									

HCM 7th TWSC  
 8: San Juan Trail & Old Sauk Road

04/05/2024

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	390	10	5	475	10	0
Future Vol, veh/h	390	10	5	475	10	0
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	415	11	5	505	11	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	432	0	942 426
Stage 1	-	-	-	-	426 -
Stage 2	-	-	-	-	516 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1128	-	292 628
Stage 1	-	-	-	-	659 -
Stage 2	-	-	-	-	599 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1122	-	288 625
Mov Cap-2 Maneuver	-	-	-	-	288 -
Stage 1	-	-	-	-	655 -
Stage 2	-	-	-	-	595 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.09	17.96
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	288	-	-	19	-
HCM Lane V/C Ratio	0.037	-	-	0.005	-
HCM Control Delay (s/veh)	18	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



Intersection	
Intersection Delay, s/veh	23.3
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖
Traffic Vol, veh/h	70	315	445	200	115	55
Future Vol, veh/h	70	315	445	200	115	55
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	335	473	213	122	59
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay, s/veh	15.9	30.9	11.1
HCM LOS	C	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	445	200	70	315	115	55
LT Vol	445	0	70	0	0	0
Through Vol	0	200	0	0	115	0
RT Vol	0	0	0	315	0	55
Lane Flow Rate	473	213	74	335	122	59
Geometry Grp	5	5	5	5	5	5
Degree of Util (X)	0.872	0.362	0.152	0.572	0.234	0.1
Departure Headway (Hd)	6.63	6.122	7.361	6.146	6.875	6.159
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	587	486	586	520	579
Service Time	4.382	3.874	5.125	3.909	4.649	3.932
HCM Lane V/C Ratio	0.869	0.363	0.152	0.572	0.235	0.102
HCM Control Delay, s/veh	39.3	12.3	11.5	16.9	11.8	9.6
HCM Lane LOS	E	B	B	C	B	A
HCM 95th-tile Q	9.6	1.6	0.5	3.6	0.9	0.3

HCM 7th TWSC  
 14: Old Sauk Road & Development Drwy.

04/05/2024

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	25	365	465	25	15	15
Future Vol, veh/h	25	365	465	25	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	388	495	27	16	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	521	0	-	0	949 508
Stage 1	-	-	-	-	508 -
Stage 2	-	-	-	-	441 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1045	-	-	-	289 565
Stage 1	-	-	-	-	604 -
Stage 2	-	-	-	-	648 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1045	-	-	-	279 565
Mov Cap-2 Maneuver	-	-	-	-	279 -
Stage 1	-	-	-	-	585 -
Stage 2	-	-	-	-	648 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.55	0	15.52
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	115	-	-	-	374
HCM Lane V/C Ratio	0.025	-	-	-	0.085
HCM Control Delay (s/veh)	8.5	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3