



North Georgia 400 Business Park DRI #3618 Traffic Impact Study

June 3, 2022



Prepared For:
Hughes Commercial Real Estate, Inc.
1303 Hightower Trail, Suite 240
Atlanta, GA 30350
770-559-1099

Prepared By:
Lowe Engineers
990 Hammond Drive, Suite 900
Atlanta, GA 30328
770-857-8401

Table of Contents

Tables	2
Figures	2
Appendix	3
Executive Summary.....	4
1 Project Description.....	1
1.1 Site Plan Summary	3
1.2 Site Access.....	3
1.3 Zoning and Land Use	3
1.4 Nearby Project and Local Plan	4
2 Existing Conditions	5
2.1 Bicycle and Pedestrian Facilities Description	5
2.2 Transportation Facilities Description	5
2.3 Study Network	5
2.3.1 Study Intersections:	5
2.4 Traffic Data.....	7
2.5 Existing Capacity Analysis	10
3 Background Conditions	11
3.1 Background Traffic Growth	11
3.2 Background Lane Geometry.....	11
3.3 Background Capacity Analysis.....	15
3.4 Background Conditions Required Improvements	16
4 Future Conditions	17
4.1 Trip Generation	17
4.2 Trip Distribution	17
4.3 Build Traffic Volumes	18
4.4 Turn Lane Warrant Analysis	18
4.4.1 Turn Lane Required Lengths	18
4.5 Signal Warrant Analysis.....	19
4.6 Signal Phase Analysis	19
4.7 Build Capacity Analysis.....	25
4.8 Build Conditions Required Improvements	26
5 Enhanced Focus Area – Heavy Vehicle	27
5.1.1 Heavy Vehicle Routing	27

5.1.2	Pavement Condition	28
5.1.3	Roadway Width	28
5.1.4	Corner Radii.....	28
5.1.5	Heavy Vehicle Staging	29
5.1.6	Pedestrian Safety	29
6	Recommendations and Conclusions	30

Tables

Table 1: Projects in Study Network.....	4
Table 2: COVID Adjustment Factors.....	7
Table 3: Existing Conditions Capacity Analysis	10
Table 4: Background Conditions Capacity Analysis.....	15
Table 5: Background Conditions Capacity Analysis with Required Improvement.....	16
Table 6: Trip Generation Summary.....	17
Table 7: Right Turn Warrants.....	18
Table 8: Left Turn Warrants	18
Table 9: Left-Turn Phase Analysis	19
Table 10: Build Conditions Capacity Analysis.....	25
Table 11: Build Conditions Capacity Analysis with Required Improvements	26
Table 12: Roadway Width Summary.....	28

Figures

Figure 1: Vicinity Map	1
Figure 2: Aerial Map.....	2
Figure 3: Existing Zoning Map	3
Figure 4: Study Network Map	6
Figure 5: Existing Lane Geometry	8
Figure 6: Existing (2022) Traffic Volumes.....	9
Figure 7: Apartment Project Trips.....	12
Figure 8: Settingdown Warehouse Project Trips	13
Figure 9: Background (2028) Traffic Volumes.....	14
Figure 10: Trip Distribution – Passenger Vehicles	20
Figure 11: Trip Distribution – Trucks.....	21
Figure 12: Project Trips	22
Figure 13: Build (2028) Traffic Volumes.....	23
Figure 14: Build (2028) Lane Geometry	24
Figure 16: Forsyth County Truck Route	27
Figure 17: Bottoms Rd at SR 400 - Looking West.....	28

Appendix

Appendix A: Site Plan

Appendix B: Traffic Counts

Appendix C: Synchro Reports, Roundabout Reports, Signal Timing Parameters

Appendix D: Area Plans

Appendix E: Trip Generation Supplement

Appendix F: AASHTO Turning Radius

Appendix G: Signal Warrant Analysis

Executive Summary

A proposed warehousing development is planned to be located in Forsyth County, GA near the intersection of GA-400 and Bottoms Rd. The development will primarily occupy undeveloped land with two proposed driveways, one full access driveway on Bottoms Rd and one right-in/right-out driveway on GA-400. The development is planned to have a full build-out of 2028.

An aerial of the proposed development is shown in Figure i. The full site plan can be found in Appendix A. The proposed development trip generation is summarized in Table i.

Figure i: Site Aerial



Table i: Site Trip Generation

Land Use Information	Project Trips			Equation Used ¹	In / Out Distribution
	Total	Inbound	Outbound		
155- High-Cube Fulfillment Center Warehouse	516,600				1000 S.F.
Daily	3,327	1,664	1,663	T=6.44(X)	50% / 50%
AM Peak Hour	449	364	85	T=0.87(X)	81% / 19%
PM Peak Hour	620	242	378	T=1.20(X)	39% / 61%
150- Warehousing	286,225				1000 S.F.
Daily	491	246	245	T=1.58(X) + 38.29	50% / 50%
AM Peak Hour	58	45	13	T=0.12(X) + 23.62	77% / 23%
PM Peak Hour	61	17	44	T=0.12(X) + 26.48	28% / 72%
151- Mini-Warehouse	96,000				1000 S.F.
Daily	139	70	69	T=1.45(X)	50% / 50%
AM Peak Hour	9	5	4	T=0.09(X)	59% / 41%
PM Peak Hour	14	7	7	T=0.15(X)	47% / 53%
155- High-Cube Fulfillment Center Warehouse- Trucks	516,600				1000 S.F.
Daily	98	49	49	T= 0.19 (X)	50% / 50%
AM Peak Hour	10	5	5	T= 0.02 (X)	50% / 50%
PM Peak Hour	10	5	5	T= 0.02 (X)	46% / 54%
150- Warehousing- Trucks	286,225				1000 S.F.
Daily	162	81	81	T=0.54(X)+7.47	50% / 50%
AM Peak Hour	6	3	3	T=0.02(X)	52% / 48%
PM Peak Hour	9	4	5	T= 0.03 (X)	52% / 48%
Total Trip Generation					
Daily	3,957	1,980	1,977	155- High-Cube Fulfillment Center Warehouse	
AM Peak Hour	516	414	102	150- Warehousing	
PM Peak Hour	695	266	429	151- Mini-Warehouse	

The proposed development is anticipated to generate 3,957 daily vehicle trips (1,980 inbound, 1,977 outbound) with 516 AM peak hour vehicle trips (414 inbound, 102 outbound), and 695 PM peak hour trips (266 inbound, 429 outbound).

Truck generation is included in the general trip generation (not in addition to). The development is anticipated generate 260 daily truck trips (130 inbound, 130 outbound) with 16 AM peak hour truck trips (8 inbound, 8 outbound), and 19 PM peak hour trips (9 inbound, 10 outbound).

A comparison of required improvement intersection capacity and added volumes is shown in Table iii.

Table iii: Intersection Capacity Analysis Comparison

Intersection:	Bottoms Rd at SR 400							
Scenario	Control	Lane Group Movement	AM Peak Hour			PM Peak Hour		
			Delay (s)	LOS	% Trips	Delay (s)	LOS	% Trips
No-Build	Side-Street Stop Control	EB	166.5	F	-	**	F	-
		WB	**	F	-	30.6	D	-
No-Build Improved	Side-Street Stop Control	EB	166.5	F	-	**	F	-
		WB	**	F	-	30.6	D	-
Build	Side-Street Stop Control	EB	166.5	F	-	**	F	-
		WB	20.1	C	98%	**	F	98%
Build Improved	Signal Control	EB	56.5	E	-	66.7	E	-
		WB	53.1	D	98%	227.9	F	98%
Intersection:	Settingdown Rd at SR 400							
Scenario	Control	Lane Group Movement	AM Peak Hour			PM Peak Hour		
			Delay (s)	LOS	% Trips	Delay (s)	LOS	% Trips
No-Build	Signal Control	NB	10.3	B	-	79.2	E	-
		SB	81.0	F	-	18.3	B	-
No-Build Improved	Signal Control	NB	8.1	A	-	16.7	B	-
		SB	18.0	B	-	16.2	B	-
Build	Signal Control	NB	11.7	B	17%	102.9	F	5%
		SB	89.2	F	2%	23.7	C	13%
Build Improved	Signal Control	NB	8.6	A	17%	18.8	B	5%
		SB	18.5	B	2%	17.8	B	13%

The conclusions and recommendations of this report by intersection are as follows:

1) SR 400 at Settingdown Rd

- The existing signalized intersection operates at an acceptable level of service (LOS) in existing conditions.
- With additional background traffic volumes, the intersection starts to experience delay for both peak hours. The SR 400 is close to capacity particularly during the PM peak hour. The PM peak hour was adjusted for COVID with a 7% growth and then grown by 3% per year. Actual growth may be less than modeled. SR 400 has experienced widening further south near SR 369 and will likely be widened in the future as population growth continues to shift north.
 - An alternatives analysis was performed adding additional through lanes on SR 400 which alleviates capacity issues.
- With additional project trips the intersection operates at the same LOS as no-build conditions (LOS E).
- No improvements are recommended or required as part of the proposed development.

2) SR 400 at Bottoms Rd

- The existing side street stop-controlled intersection operates at a failing level of service for side-street approaches. This is a typical operation for side-street stops along major throughfares with heavy volumes on the main road.
- The intersection has a wide median to allow for staged turning movements, Synchro and HCM capacity analysis does not model the two stage movements so modeled capacity will be worse than field operations.

- Additional traffic volumes from the proposed development will warrant a traffic signal at the intersection.
- The intersection will require a full GDOT Intersection Control Evaluation analysis to determine the necessary control and geometry of the intersection. It is recommended that the proposed development coordinate with GDOT for required improvements.

3) Bottoms Rd at Settingdown Rd

- The existing side-street stop-controlled intersection operates at an acceptable LOS for all scenarios.
- No improvements are required or recommended as part of the proposed development

4) GA-400 at Driveway 1

- The proposed right-in / right-out driveway operates at an acceptable LOS in the AM peak hour.
- During the PM peak hour, the exiting volumes experience delay in leaving the development. This is due to the heavy northbound volume on SR 400. Actual delay may not be as bad as modeled. If vehicles experience regular delay they will likely re-route to the proposed signalized intersection.
- A right-turn deceleration lane is warranted and should consist of a 350-foot full width storage and a 100-foot taper

5) Bottoms Rd at Driveway 2

- The proposed full access driveway will operate at an acceptable LOS for all movements
- A left-turn lane is warranted on Bottoms Rd and should be constructed to include a 160-foot full width storage and 50-foot taper.
 - Shift taper lengths are 125 feet for a 6-foot shift and 250 feet for a 12-foot shift

1 Project Description

A proposed warehousing development is planned to be located in Forsyth County, GA at the intersection of Bottoms Rd and GA-400. The development will primarily occupy undeveloped land with two proposed driveways one full access driveway on Bottom Rd (Driveway 1) and one right-in/right-out driveway on GA-400 (Driveway 2). A vicinity map is shown in Figure 1 and an aerial map is shown in Figure 2. The proposed site plan is also included in Appendix A.

The proposed development is planned for a single phase of development with an estimated completion in 2028.

Figure 1: Vicinity Map

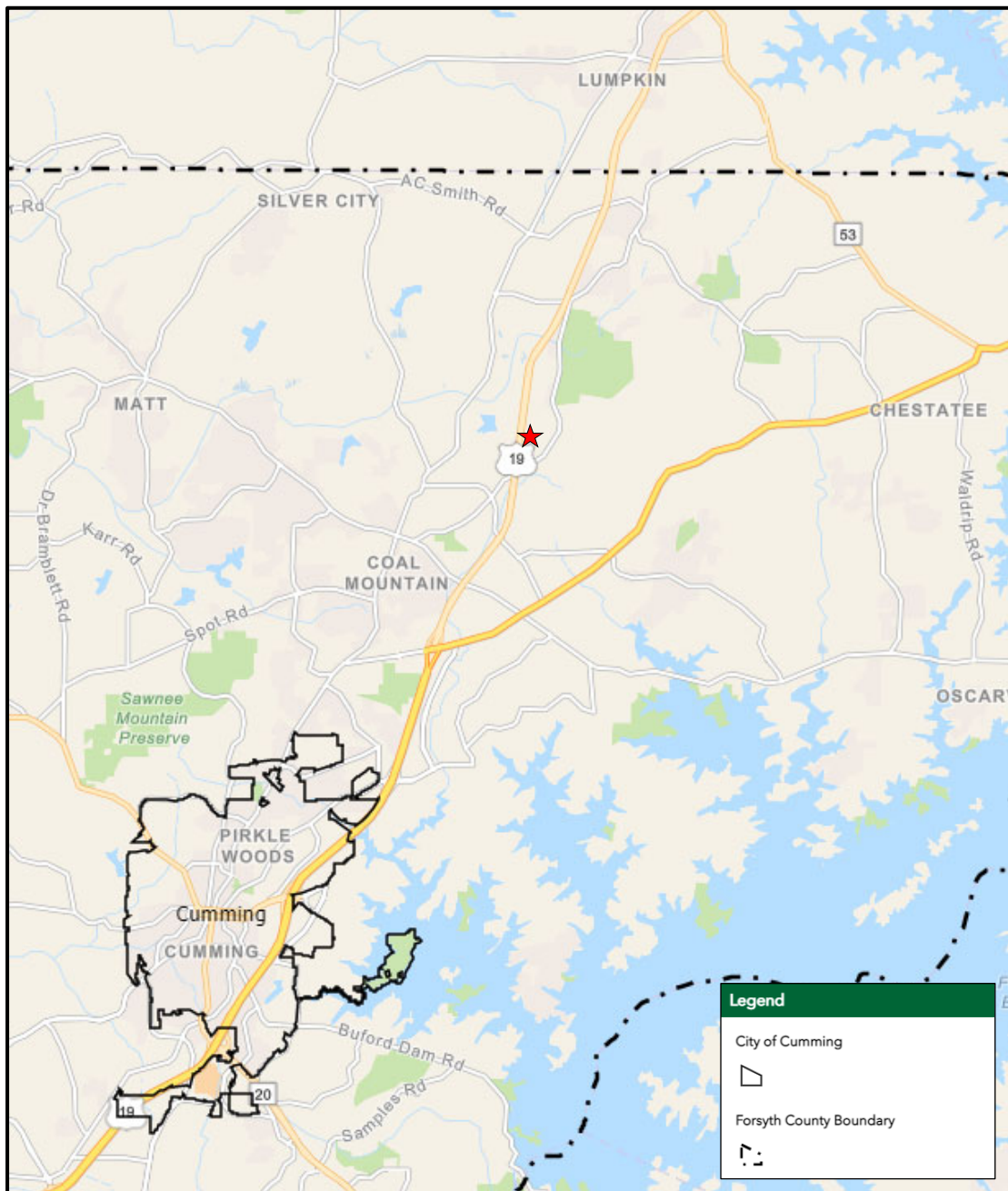


Figure 2: Aerial Map



1.1 Site Plan Summary

The proposed site is planned to consist of seven buildings totaling 898,825 square feet. There is anticipated to be a mix of warehousing, fulfillment center, and self-storage facilities. The full site plan can be found in Appendix A.

1.2 Site Access

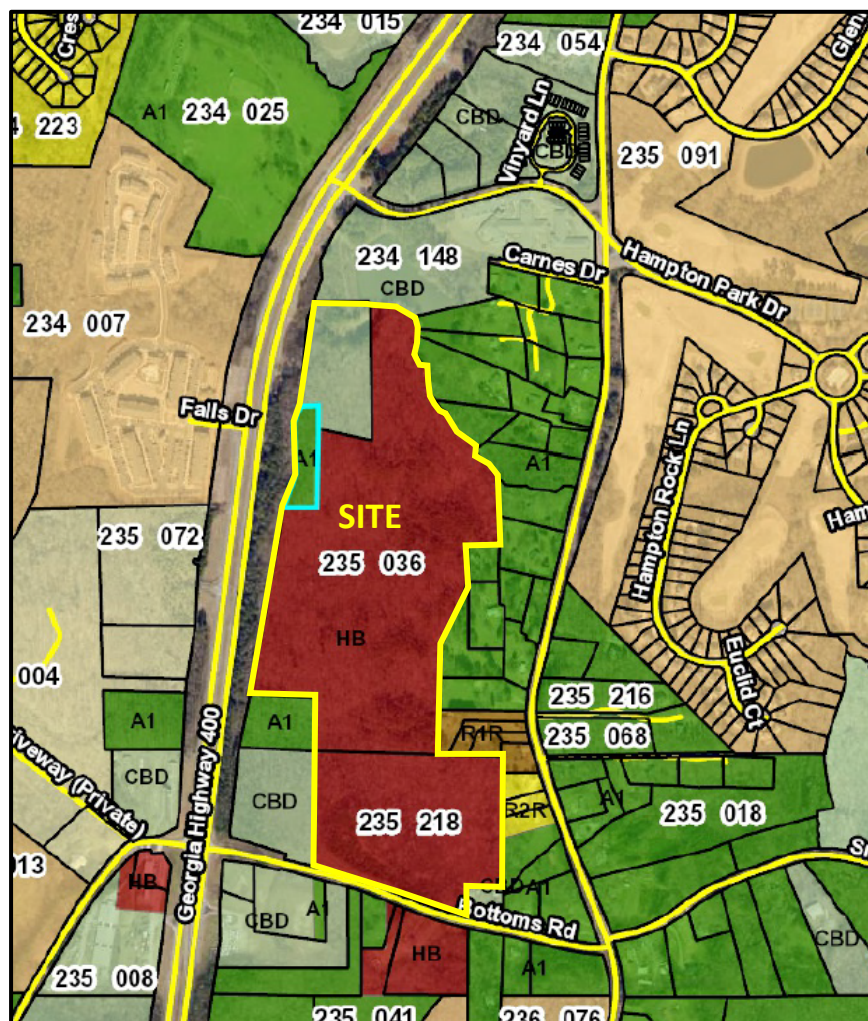
The proposed development will access the external roadway network via two proposed driveway locations.

- Driveway 1
 - Full-access driveway located on Bottoms Rd.
 - This will serve as the primary truck access into and out of the proposed development.
- Driveway 2
 - Right-in/right-out driveway located on GA-400

1.3 Zoning and Land Use

The existing zoning consists of A1, CBD, and HB. The proposed zoning is M1 and CUPs and variances for parcels 235-045, 235-056, 235-036 and 235-218.

Figure 3: Existing Zoning Map



1.4 Nearby Project and Local Plan

There are two proposed / planned developments impacting the study area which were requested during the methodology meeting for inclusion into the background “no-build” conditions of the analysis. An apartment / mixed use development opposite SR 400 of the proposed development, and a warehousing / industrial development located to the south at the intersection of SR 400 and Settingdown Rd.

Table 1: Projects in Study Network

Project Name	From / To Points:	Potential Sponsor	Project ID #	Project Timeline	Planning Document
Alta Apartments	Settingdown Cir at SR 400 and Bottoms Rd	WP South Acquisitions	ZA3994	N/A	C1-90 Site Plan (attached)
Coal Mountain Industrial	Settingdown Rd at SR 400	CSC Design, Inc.	DRI 3549	Approx. 2025	DRI 3549

The apartment project did not have an associated traffic impact study, the projects vehicle trips were calculated and assigned to study network driveways. A trip generation for the apartment complex can be found in Appendix D.

Vehicle trips for both the apartments and warehousing/ industrial development can be found graphically in Figure 7 and Figure 8.

2 Existing Conditions

2.1 Bicycle and Pedestrian Facilities Description

There are no bicycle or pedestrian facilities in the vicinity of the proposed development on Bottoms Rd or SR 400.

2.2 Transportation Facilities Description

GA-400 is a 4-lane divided roadway that runs North/South with a posted speed limit of 65 mph. It is functionally classified by Forsyth County as a major arterial. The roadway is an approved Forsyth County truck route. For the purposes of capacity analysis HCM methodology limits speed limits to 55 mph for signalized intersections.

Bottoms Rd / Settingdown Circle is a two-lane roadway that runs East/West across site frontage with a posted speed limit of 35 mph. The roadway is functionally classified as a local roadway by GDOT and is unclassified by Forsyth County. The roadway is named Bottoms Rd to the east of SR 400 and Settingdown Circle to the west of SR 400.

Settingdown Rd is a two-lane roadway that runs North/South at its intersection with Bottoms Rd and East/West at its intersection with GA-400 further to the south. The roadway has a posted speed limit of 40 mph and is functionally classified as a collector by Forsyth County.

2.3 Study Network

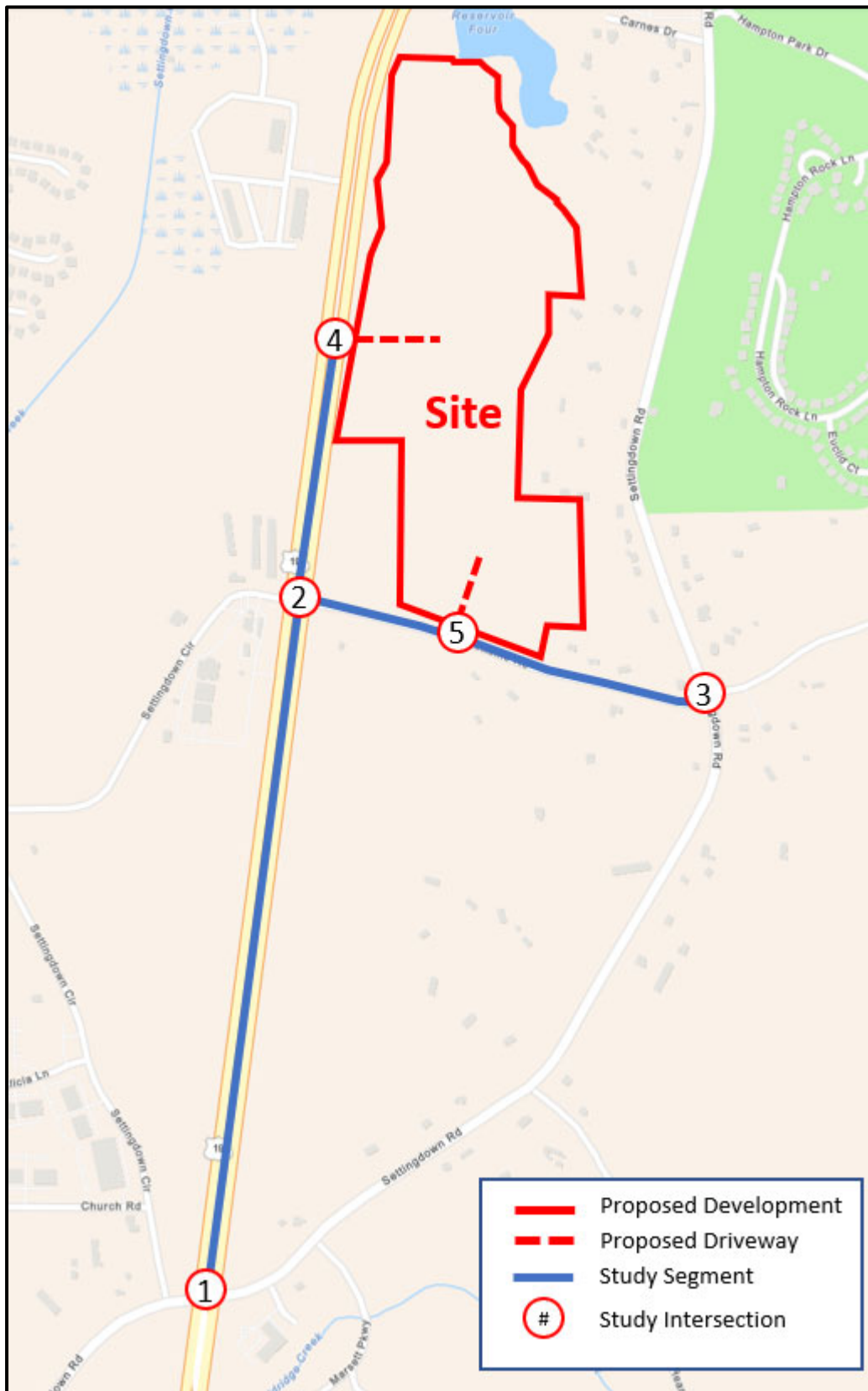
The study network as approved during the methodology meeting is shown in Figure 4.

2.3.1 Study Intersections:

- 1) SR 400 at Settingdown Rd
- 2) SR 400 at Bottoms Rd/Settingdown Cir
- 3) Bottoms at Settingdown Rd
- 4) Site Driveway 1 at SR 400
- 5) Site Driveway 2 at Bottoms Rd

Existing roadway geometry is shown in Figure 5.

Figure 4: Study Network Map



2.4 Traffic Data

Traffic counts were performed at three different study intersections on Thursday, April 28, 2022. The peak hours were determined to be 7:00AM – 8:00AM and 4:15PM – 5:15PM. The peak hour turning movement volumes are shown graphically in Figure 6. The raw traffic counts are included in Appendix B.

Due to the ongoing COVID-19 pandemic vehicle traffic can differ from typical pre-pandemic volumes and patterns. To adjust for any variation a GDOT historic count from GA-400 north of the intersection with Bottoms Rd was used for comparison. The historic 2018 volume was grown to 2022 and then compared to existing traffic volumes. Analysis showed that the AM peak hour was similar to projected volumes, and it was determined that it did not require an adjustment factor and the PM peak hour required an adjustment factor of 1.07. Analysis inputs are summarized in Table 2.

Table 2: COVID Adjustment Factors

	Existing Volume		GDOT Traffic Data	
	4/28/2022		5/22/2018 (Grown to 2022)	
Peak Hour	0700-0800	1615-1715	0700-0800	1615-1715
Peak Volume	3064	3313	3103	3542

	AM	PM
Adjustment Factor	1.01	1.07

Figure 5: Existing Lane Geometry

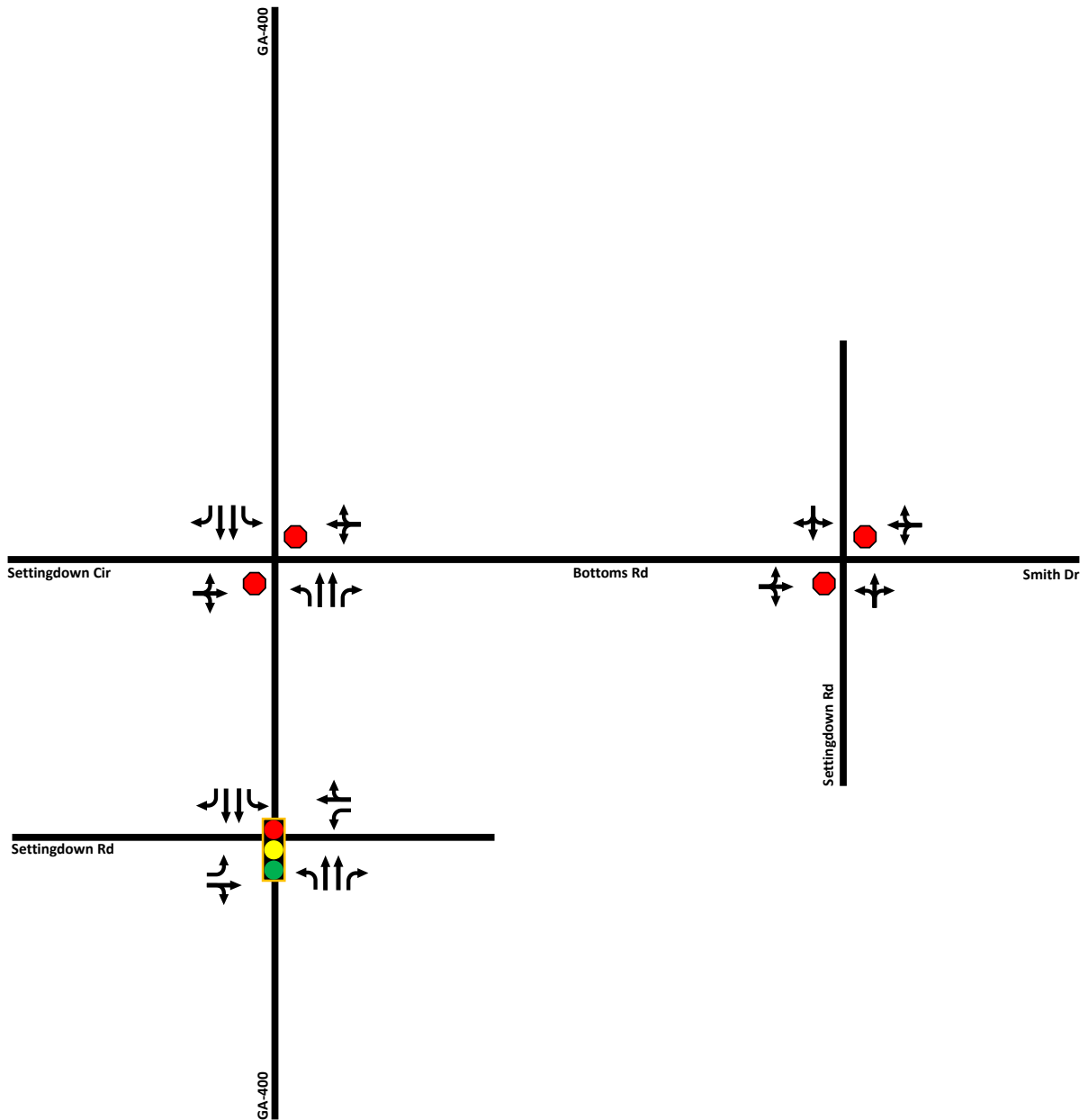
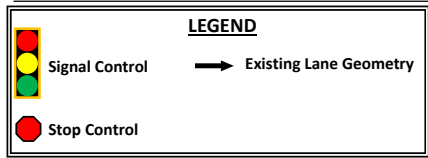
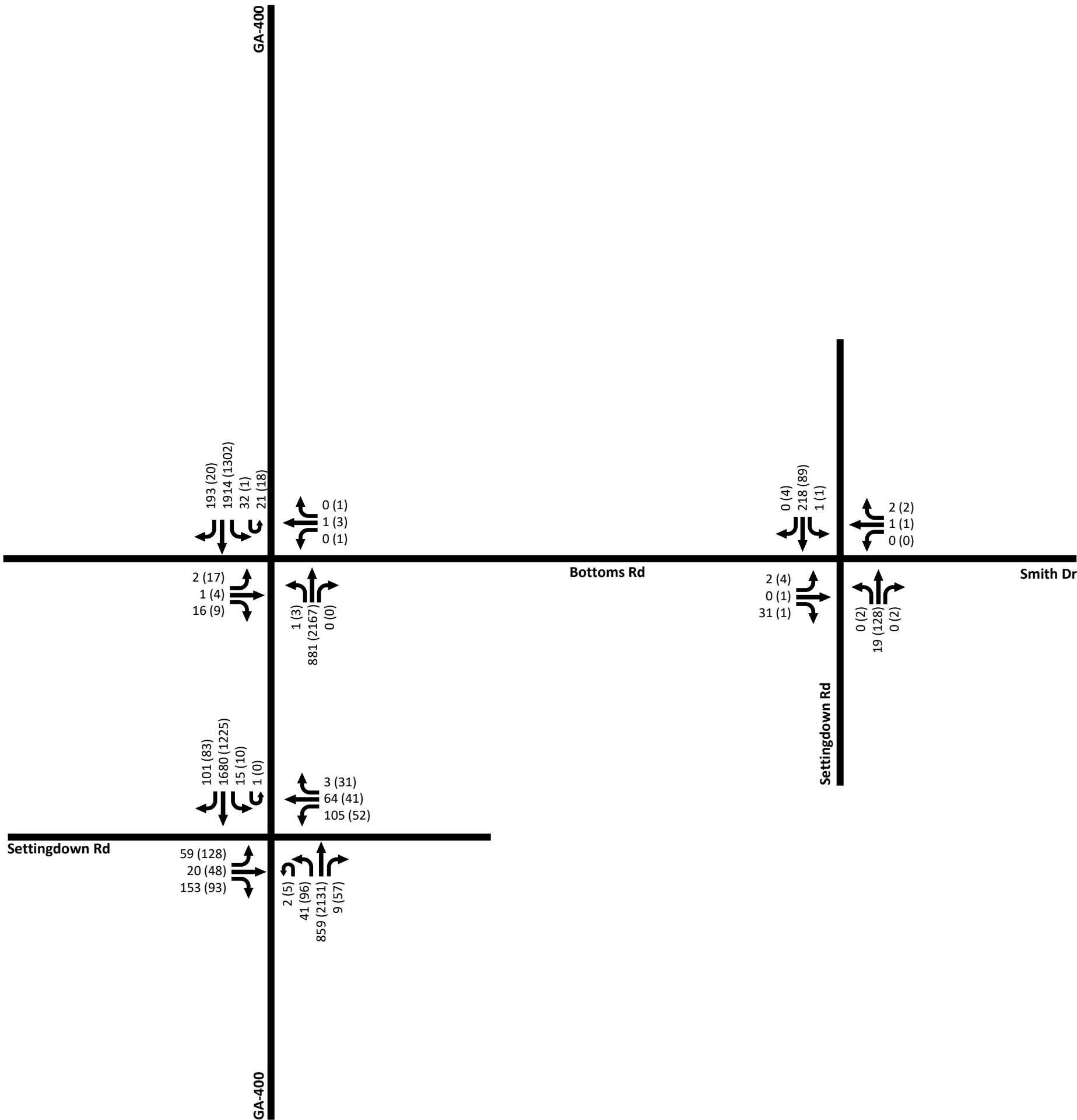


Figure 6: Existing (2022) Traffic Volumes

LEGEND

(###) → AM (PM) Peak Hour Traffic Volume



2.5 Existing Capacity Analysis

The existing traffic volumes were analyzed using a Synchro 11 model to determine the capacity of the AM and PM peak hours. The results are shown by lane group movement and total intersection capacity. Average vehicular delays are shown in seconds, level of service (LOS) is a grading system as defined by the Highway Capacity Manual (HCM) where A is best, and F is worst. The HCM 6th Edition methodology was used for analysis. Synchro reports and signal timings used in analysis are shown in Appendix C. HCM methodology limits signalized intersections to a speed limit of 55 mph, SR 400 speed limits were adjusted for capacity analysis.

Table 3: Existing Conditions Capacity Analysis

#	Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
				Delay (s)	LOS	Delay (s)	LOS
1	SR 400 at Settingdown Rd	Signal Control	EB	54.3	D	57.0	E
			WB	57.0	E	57.7	E
			NB	7.6	A	17.4	B
			SB	21.4	C	13.7	B
			Intersection	20.2	C	19.0	B
2	SR 400 at Bottoms Rd	Side-street Stop Control	EB	**	F	**	F
			WB	1541.4	F	**	F
			NB	0.0	A	0.0	A
			SB	0.4	A	1.4	A
			Intersection	1.9	-	0.5	-
3	Bottoms Rd at Settingdown Rd	Side-street Stop Control	EB	10.3	B	10.3	B
			WB	9.3	A	9.6	A
			NB	0.0	A	0.1	A
			SB	0.0	A	0.1	A
			Intersection	2.0	-	0.8	-

** Delay exceeds HCM methodology

1) SR 400 at Settingdown Rd

- The existing signalized intersection operates at LOS C for both AM and PM peak hours.
- The side street approaches operate at LOS E due to favoring the NB and SB approaches for signal timing.

2) SR 400 at Bottoms Rd

- The existing side street stop operates at a failing level of service for side-street approaches.
- This is a typical operation for side-street stops along major throughfares with heavy volumes on the main road.
- The intersection has a wide median to allow for staged turning movements, Synchro and HCM capacity analysis does not model the two stage movements so modeled capacity will be worse than field operations.

3) Bottoms Rd at Settingdown Rd

- The existing side-street controlled intersection operates with an acceptable LOS for all approaches.

3 Background Conditions

3.1 Background Traffic Growth

Background traffic growth is the analysis method of analyzing historic trends in traffic volumes / population growth, and future growth projections to determine an annual growth rate which is applied to the existing traffic counts on the study network. A growth rate of 3% was determined and approved for analysis during the methodology meeting. Planned / programmed developments located in the study area were added on top of the grown existing traffic volumes. Apartment project volumes are shown in Figure 7 and Settingdown Rd warehouse volumes are shown in Figure 8. Total background traffic volumes are shown in Figure 9.

3.2 Background Lane Geometry

Background lane geometry is anticipated to be the same as existing lane geometry.

Alternatives analysis required background improvements can be found graphically in Figure 14.

Figure 7: Apartment Project Trips

LEGEND

(###) → AM (PM) Peak Hour Traffic Volume

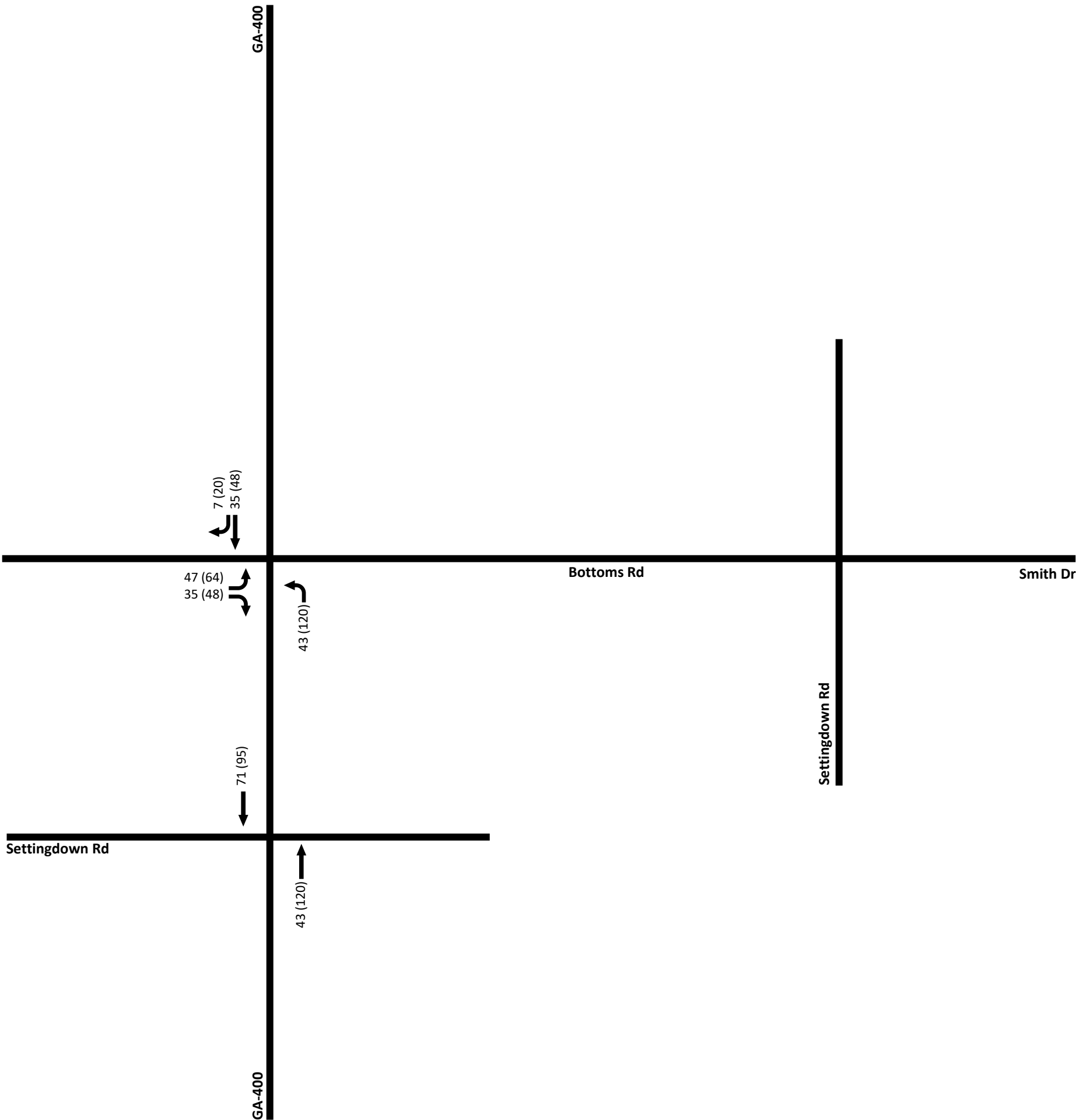


Figure 8: Settingdown Warehouse Project Trips

LEGEND

(###) → AM (PM) Peak Hour Traffic Volume

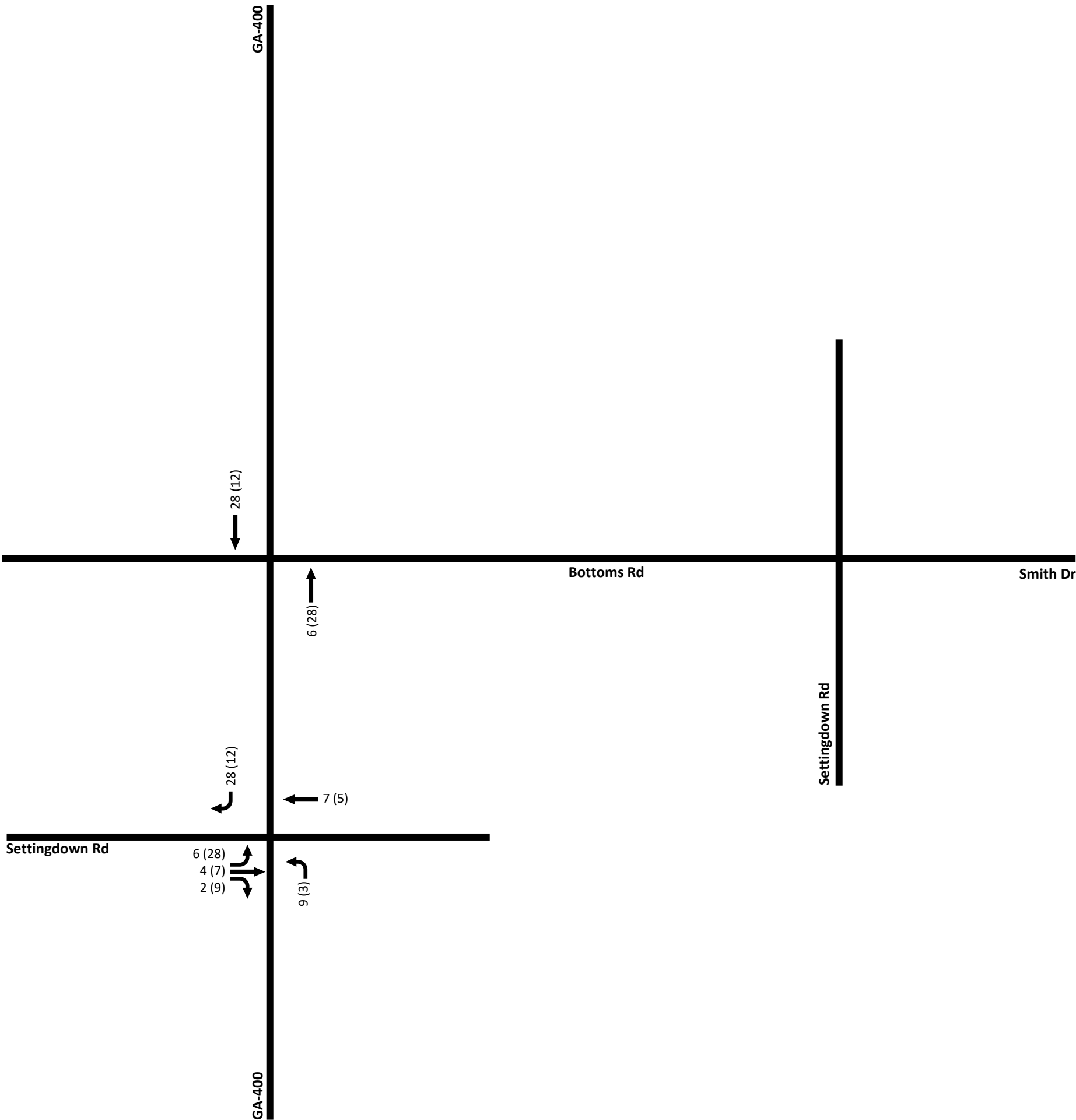
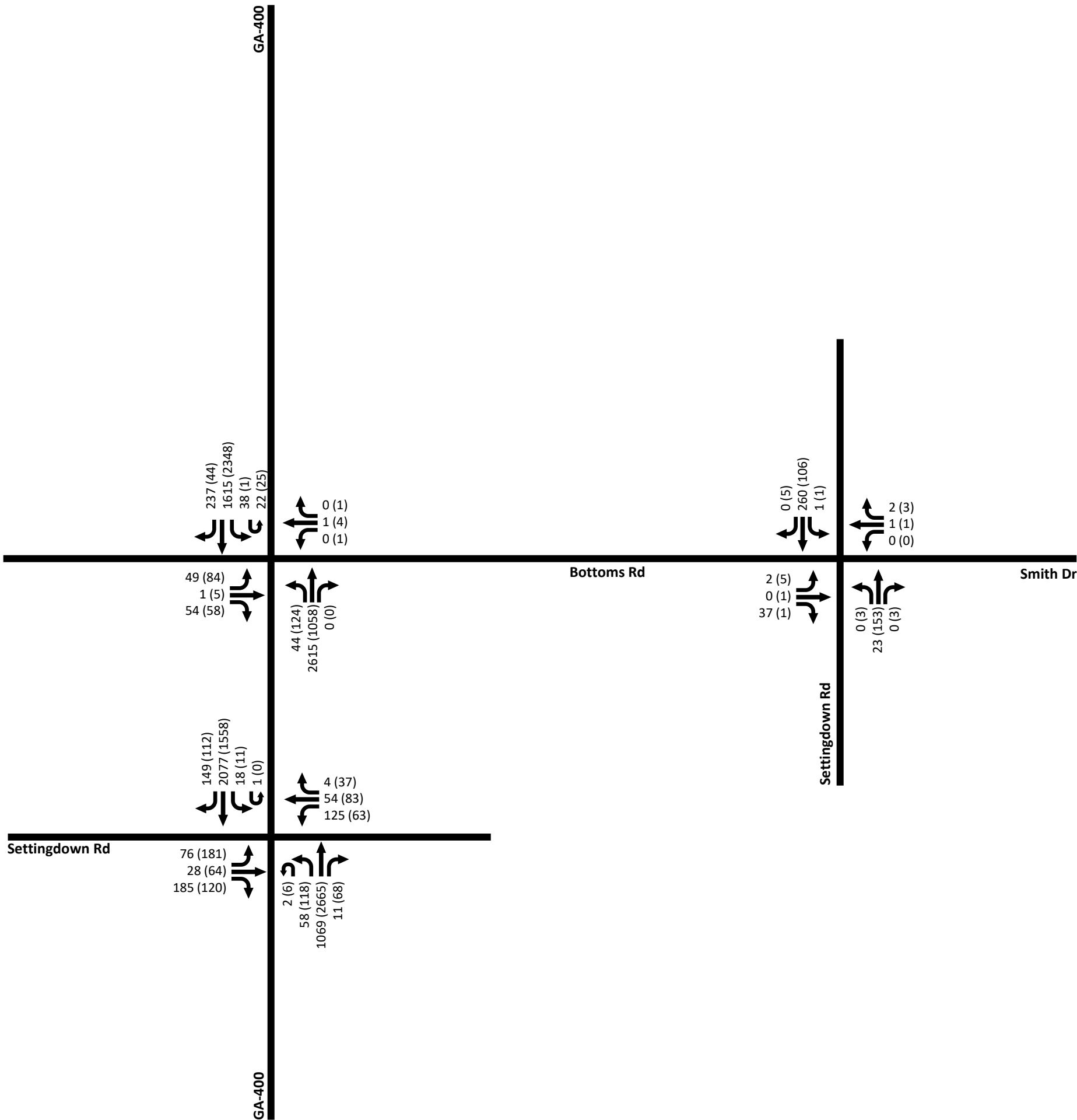


Figure 9: Background (2028) Traffic Volumes

LEGEND

(###) → AM (PM) Peak Hour Traffic Volume



3.3 Background Capacity Analysis

The background traffic volumes were analyzed using a Synchro 11 model to determine the capacity of the AM and PM peak hours. The results are shown by lane group movement and total intersection capacity. Average vehicular delays are shown in seconds, level of service (LOS) is a grading system as defined by the Highway Capacity Manual (HCM) where A is best, and F is worst. HCM 6th Edition methodology was used for analysis. Signal timings were retained from existing conditions. Synchro output files and signal timings are included in Appendix C. HCM methodology limits signalized intersections to a speed limit of 55 mph, SR 400 speed limits were adjusted for capacity analysis.

Table 4: Background Conditions Capacity Analysis

#	Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
				Delay (s)	LOS	Delay (s)	LOS
1	SR 400 at Settingdown Rd	Signal Control	EB	51.7	D	84.2	F
			WB	58.2	E	57.4	E
			NB	10.3	B	79.2	E
			SB	81.0	F	18.3	B
			Intersection	56.3	E	57.9	E
2	SR 400 at Bottoms Rd	Side-street Stop Control	EB	166.5	F	**	F
			WB	**	F	30.6	D
			NB	3.1	A	0.9	A
			SB	0.5	A	4.5	A
			Intersection	6	-	1813.4	-
3	Bottoms Rd at Settingdown Rd	Side-street Stop Control	EB	10.9	B	10.8	B
			WB	9.5	A	9.7	A
			NB	0.0	A	0.1	A
			SB	0.0	A	0.1	A
			Intersection	2.1	-	0.8	-

** Delay exceeds HCM methodology

1) SR 400 at Settingdown Rd

- With additional background traffic volumes, the intersection starts to experience delay for both peak hours. The roadway is close to capacity particularly during the PM peak hour. The PM peak hour was adjusted for COVID with a 7% growth and then grown by 3% per year. Actual growth may be less than modeled. SR 400 has experienced widening further south near SR 369 and will likely be widened in the future as population growth continues to shift north.
- During the AM peak hour, the SB approach drops from LOS C to LOS F with total intersection delay dropping to LOS E from LOS C.
- During the PM peak hour, the EB approach drops from LOS E to LOS F, NB from LOS B to LOS E and total intersection from LOS B to LOS E.
- An alternatives analysis is provided for recommended background improvements.

2) SR 400 at Bottoms Rd

- The intersection continues to operate at a failing level of service for the side-street approaches. Typical of minor road stops on major throughfares.
- The build condition proposes a traffic signal for the intersection and an alternatives model is contained within the build conditions analysis.

3) Bottoms Rd at Settingdown Rd

- The intersection operates at the same LOS as in existing conditions.

3.4 Background Conditions Required Improvements

With a modeled background growth and COVID adjustment factor particularly for the PM peak hour the volumes on SR 400 near the operating capacity of the through movements, causing issues with signalized intersections. As population growth continues it is anticipated that the SR 400 widening will continue north (currently stopping at SR 369 to the south). The modeled improvements show an additional through lane for the NB and SB directions on SR 400. The actual growth of the traffic volumes may not be as intensive as modeled.

Table 5: Background Conditions Capacity Analysis with Required Improvement

#	Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour		AM Alternative		PM Alternative	
				Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	SR 400 at Settingdown Rd	Signal Control	EB	51.7	D	84.2	F	51.7	D	51.2	D
			WB	58.2	E	57.4	E	58.2	E	57.0	E
			NB	10.3	B	79.2	E	8.1	A	16.7	B
			SB	81.0	F	18.3	B	18.0	B	16.2	B
			Intersection	56.3	E	57.9	E	18.3	B	19.3	B

Without improvements to signal timing and adding an additional northbound through / southbound through the total intersection LOS improves to LOS B for both AM and PM peak hours.

4 Future Conditions

4.1 Trip Generation

A trip generation for the proposed development was created using the Institute of Traffic Engineers (ITE) Trip Generation Manual 11th Edition, 2021. ITE provides a supplement for truck trip generation, excerpts from the supplement are included in Appendix E.

Table 6: Trip Generation Summary

Land Use Information	Project Trips			Equation Used ¹	In / Out Distribution
	Total	Inbound	Outbound		
155- High-Cube Fulfillment Center Warehouse	516,600				1000 S.F.
Daily	3,327	1,664	1,663	$T=6.44(X)$	50% / 50%
AM Peak Hour	449	364	85	$T=0.87(X)$	81% / 19%
PM Peak Hour	620	242	378	$T=1.20(X)$	39% / 61%
150- Warehousing	286,225				1000 S.F.
Daily	491	246	245	$T=1.58(X) + 38.29$	50% / 50%
AM Peak Hour	58	45	13	$T=0.12(X) + 23.62$	77% / 23%
PM Peak Hour	61	17	44	$T=0.12(X) + 26.48$	28% / 72%
151- Mini-Warehouse	96,000				1000 S.F.
Daily	139	70	69	$T=1.45(X)$	50% / 50%
AM Peak Hour	9	5	4	$T=0.09(X)$	59% / 41%
PM Peak Hour	14	7	7	$T=0.15(X)$	47% / 53%
155- High-Cube Fulfillment Center Warehouse- Trucks	516,600				1000 S.F.
Daily	98	49	49	$T=0.19(X)$	50% / 50%
AM Peak Hour	10	5	5	$T=0.02(X)$	50% / 50%
PM Peak Hour	10	5	5	$T=0.02(X)$	46% / 54%
150- Warehousing- Trucks	286,225				1000 S.F.
Daily	162	81	81	$T=0.54(X)+7.47$	50% / 50%
AM Peak Hour	6	3	3	$T=0.02(X)$	52% / 48%
PM Peak Hour	9	4	5	$T=0.03(X)$	52% / 48%
Total Trip Generation					
Daily	3,957	1,980	1,977	155- High-Cube Fulfillment Center Warehouse	
AM Peak Hour	516	414	102	150- Warehousing	
PM Peak Hour	695	266	429	151- Mini-Warehouse	

The proposed development is anticipated to generate 3,957 daily vehicle trips (1,980 inbound, 1,977 outbound) with 516 AM peak hour vehicle trips (414 inbound, 102 outbound), and 695 PM peak hour trips (266 inbound, 429 outbound).

Truck generation is included in the general trip generation (not in addition to). The development is anticipated generate 260 daily truck trips (130 inbound, 130 outbound) with 16 AM peak hour truck trips (8 inbound, 8 outbound), and 19 PM peak hour trips (9 inbound, 10 outbound).

4.2 Trip Distribution

The trip distribution for the proposed development was based on field observations, existing traffic counts and patterns, a review of land-use densities in the area, and potential origination / destination points. Additionally, discussions with the local jurisdictions during the methodology meeting helped to determine

the distribution of project trips on the study network. The proposed project trip distribution was approved during the methodology meeting.

The trip distribution is shown in Figure 10, truck distribution is shown in Figure 11, project trips are shown in Figure 12.

4.3 Build Traffic Volumes

Build traffic volumes include background volumes and project trips that will be generated by the proposed development. Total build year traffic volumes are shown graphically in Figure 13.

4.4 Turn Lane Warrant Analysis

A turn lane warrant analysis for the proposed driveways accessing the external roadway network was performed per GDOT's Regulations for Driveway and Encroachment Control Chapter 4, Tables 4-6 and 4-7 for both proposed driveways. Right turn lane analysis is shown in Table 7 and left turns are shown in Table 8. Forsyth County requires GDOT turn lane warrant analysis with AADT utilizing the 2040 projected volume. Bottoms Rd is not included in the county transportation plan and was assumed to be $\geq 6,000$ AADT for conservative analysis.

Table 7: Right Turn Warrants

Location	# of Lanes	Speed Limit (mph)	AADT Category	Turning Vehicles Needed	Daily Turning Vehicles	Met?
Driveway 1	>2	65	$\geq 10,000$	Any	740	Yes
Driveway 2	2	35	$\geq 6,000$	100	93	No

Table 8: Left Turn Warrants

Location	# of Lanes	Speed Limit (mph)	AADT Category	Turning Vehicles Needed	Daily Turning Vehicles	Met?
Driveway 2	2	35	$\geq 6,000$	200	1148	Yes

Driveway 1 at SR 400

- Right turn lane **warranted**

Driveway 2 at Bottoms Rd

- Left turn lane **warranted**

4.4.1 Turn Lane Required Lengths

GDOT's Regulations for Driveway and Encroachment Control Chapter 4, Tables 4-8 states for a 65-mph roadway the right-turn lane for Driveway 1 should be constructed to include a 350 feet of full width storage and 100-foot taper.

Forsyth County engineering standard 126 should be followed for the left turn into Driveway 1. For a 35-mph roadway a 160-foot full width storage and 50-foot taper should be used. Shift taper lengths are 125 feet for a 6-foot shift and 250 feet for a 12-foot shift.

Build year lane geometry is shown in Figure 14.

4.5 Signal Warrant Analysis

A signal warrant analysis was performed at the intersection of SR 400 at Bottoms Rd per the Manual on Uniform Traffic Control Devices (MUTCD) traffic signal warrant guidelines. A twelve-hour turning movement count was performed for the intersection. The project trip generated traffic volumes were distributed to the intersection based on the ITE Trip Generation Manual 11th Edition daily distribution for ITE Code 150,151, and 155.

Traffic signal warrants were analyzed using 100% traffic volume, as well as a right-turn reduction for vehicles turning from Bottoms Rd. Based on the analysis a traffic signal is **Warranted** for Warrants 1 (10 of 8 hours). Full traffic signal warrant analysis including the daily distribution of project trips at the study intersection is provided in Appendix G.

4.6 Signal Phase Analysis

A left turn phase warrant was conducted at the intersection of SR 400 at Bottoms Rd.

Per GDOT Policy 6785-2 left turn phases will be considered where one or more of the requirements are met:

1. Cross product of peak hour left turn volume and peak hour opposing through volume divided by the number of lanes for opposing through movement is greater than 50,000 or greater than 30,000 for a lagging left turn phase.
2. The left-turn volume exceeds 125 vehicles per hour or 75 vehicles per hour for a lagging left turn phase.

Table 9: Left-Turn Phase Analysis

Build AM								
Movement	Left (vph)	Opp. Through (vph)	Opp. Through (lanes)	Cross Product	Prot / Perm > 50,000	Lagging >30,000	Prot / Perm >125	Lagging >75
NBL	44	2348	2	51,656	Yes	-	No	Yes
SBL	172	1200	2	103,200	Yes	-	Yes	-
EBL	49	1	1	49	No	No	Yes	-
WBL	56	1	1	56	No	No	No	Yes
Build PM								
NBL	124	1615	2	100,130	Yes	-	No	Yes
SBL	96	2708	2	129,984	Yes	-	Yes	-
EBL	84	4	1	336	No	No	Yes	-
WBL	247	5	1	1,235	No	No	Yes	-

1. Correctable crashes equal or exceed 4 crashes in one year or 6 crashes in two years: Not Analyzed
2. Additional criteria including but not limited to sight distance, speed of opposing traffic, number of left turn lanes, number of opposing through lanes, delay, the angle of the left turn and if signal is included in a coordinated signal system – Not analyzed / not applicable

Based on volume warrants all left turns meet protected + permissive phasing. Under existing conditions, the side-street approaches only provide a single lane approach.

Figure 10: Trip Distribution – Passenger Vehicles

LEGEND

(###) → IN (OUT) % of Trip Distribution

Proposed Driveway

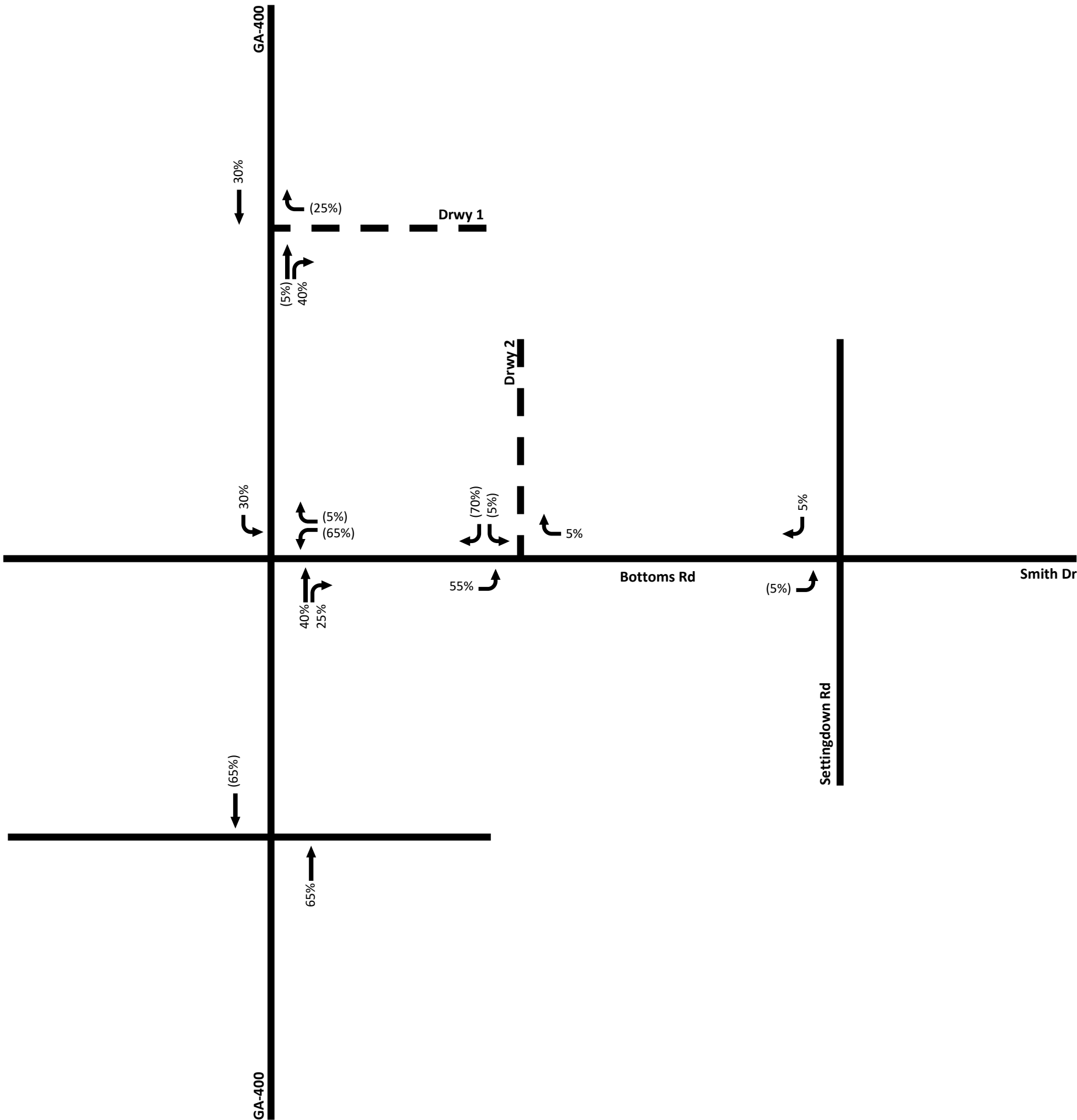


Figure 11: Trip Distribution – Trucks

LEGEND

(###) → IN (OUT) % of Trip Distribution

Proposed Driveway

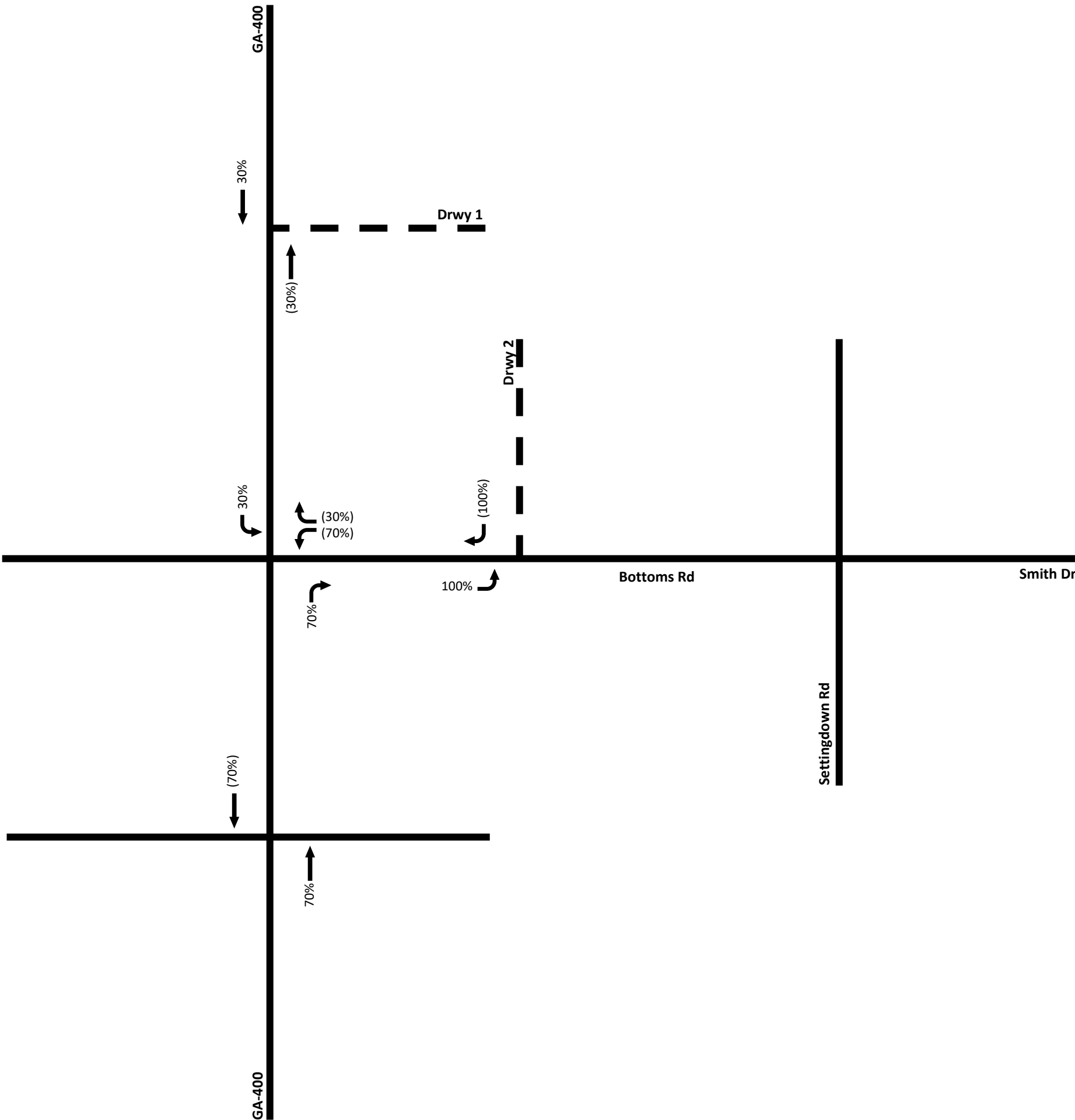


Figure 12: Project Trips

LEGEND

(###) → AM (PM) Peak Hour Traffic Volume

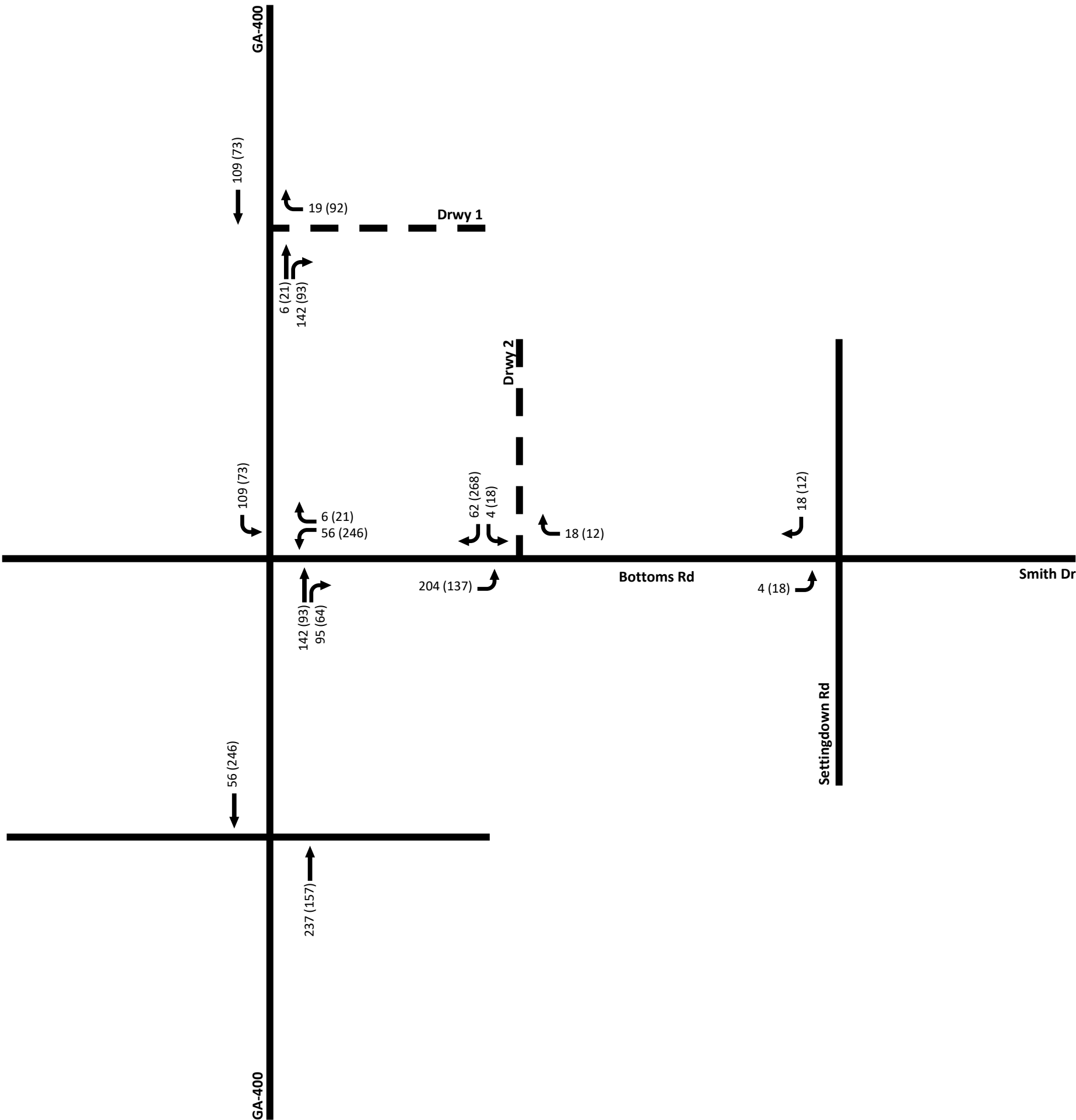


Figure 13: Build (2028) Traffic Volumes

LEGEND

(###) → AM (PM) Peak Hour Traffic Volume

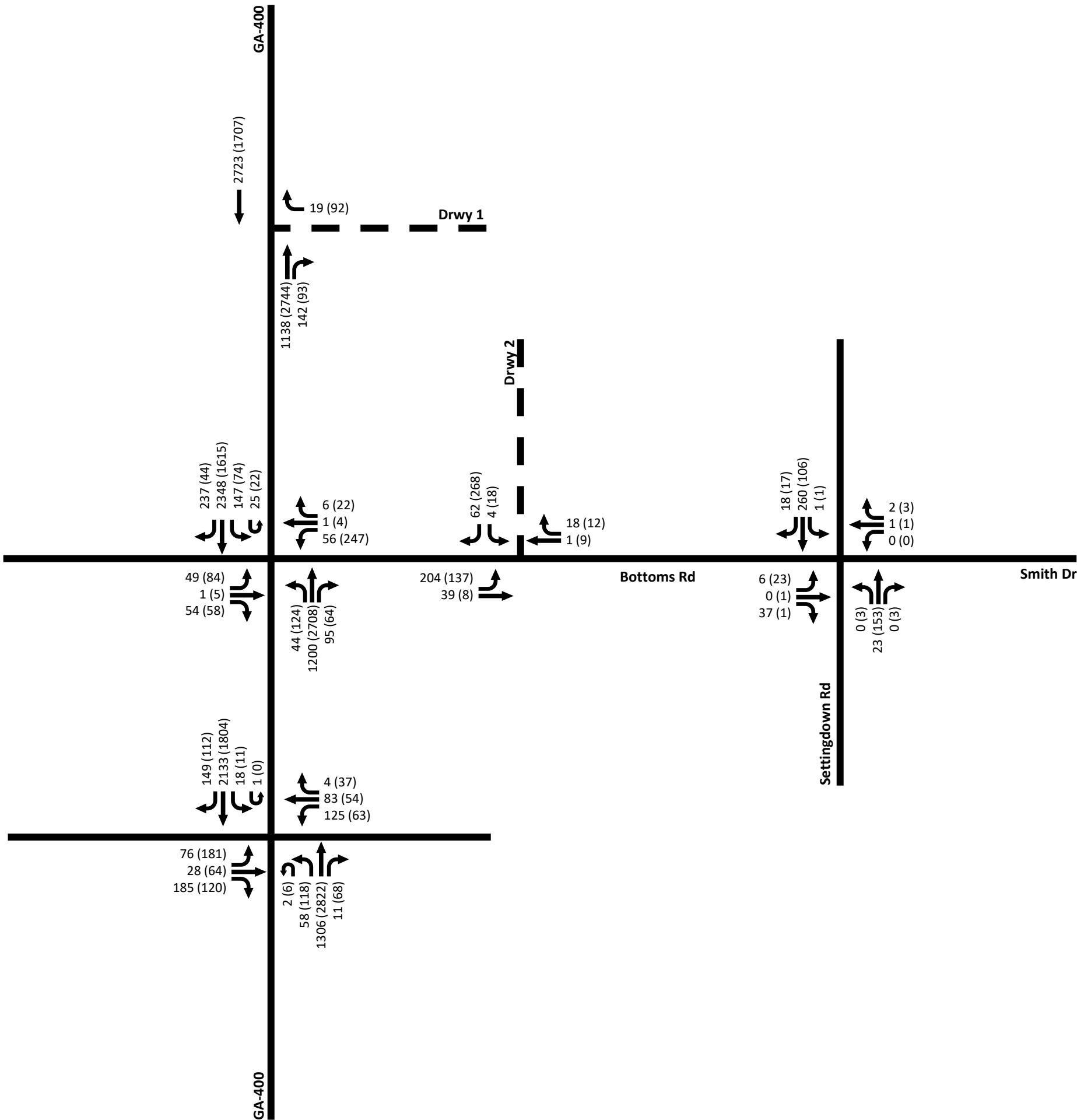


Figure 14: Build (2028) Lane Geometry



Signal Control



Stop Control



Proposed Driveway

LEGEND



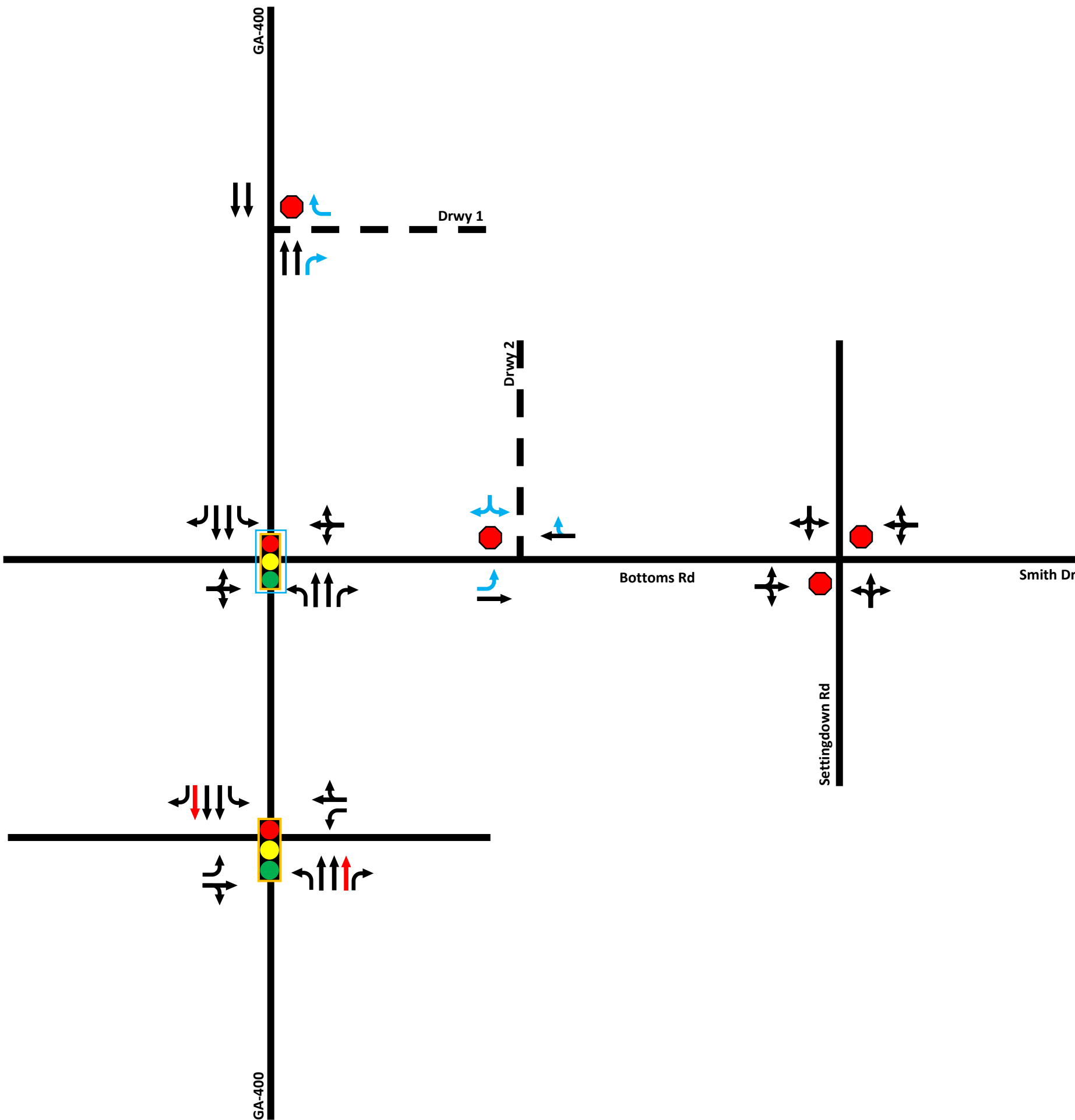
Existing Lane Geometry



Exiting / Background Improvements



Project Required / Recommended Improvements



4.7 Build Capacity Analysis

The build traffic volumes were analyzed using a Synchro 11 model to determine the capacity of the AM and PM peak hours. The results are shown by lane group movement and total intersection capacity. Average vehicular delays are shown in seconds, level of service (LOS) is a grading system as defined by the Highway Capacity Manual (HCM) where A is best, and F is worst. HCM 6th Edition methodology was used for analysis. Signal timings were retained from existing conditions. Synchro output files and signal timings are included in Appendix C. HCM methodology limits signalized intersections to a speed limit of 55 mph, SR 400 speed limits were adjusted for capacity analysis.

Table 10: Build Conditions Capacity Analysis

#	Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
				Delay (s)	LOS	Delay (s)	LOS
1	SR 400 at Settingdown Rd	Signal Control	EB	51.7	D	84.2	F
			WB	58.2	E	57.4	E
			NB	11.7	B	102.9	F
			SB	89.2	F	23.7	C
			Intersection	58.9	E	72.0	E
2	SR 400 at Bottoms Rd	Side-street Stop Control	EB	166.5	F	**	F
			WB	20.1	C	**	F
			NB	2.4	A	0.9	A
			SB	2.6	A	29.9	D
			Intersection	6.9	-	11.0	-
3	Bottoms Rd at Settingdown Rd	Side-street Stop Control	EB	10.7	B	11.4	B
			WB	9.5	A	9.8	A
			NB	0.0	A	0.1	A
			SB	0.0	A	0.1	A
			Intersection	1.2	-	1.7	-
4	Driveway 1 at SR-400	Side-street Stop Control	WB	13.8	B	129.2	F
			NB	0.0	A	0.0	A
			SB	0.0	A	0.0	A
			Intersection	0.1	-	2.6	-
5	Driveway 2 at Bottoms Rd	Side-street Stop Control	EB	6.5	A	7.1	A
			WB	0.0	A	0.0	A
			SB	9.1	A	10.1	B
			Intersection	6.6	-	8.7	-

** Delay exceeds HCM methodology

1) SR 400 at Settingdown Rd

- The intersection operates at the same total LOS as in background no-build conditions.
- An alternatives analysis showing required background improvements is shown below.

2) SR 400 at Bottoms Rd

- Without signalization the intersection continues to experience significant delay and queueing found in no-build conditions.

- HCM analysis shows volume exceeding capacity with a side street stop configuration.
- An alternatives analysis with signalization is shown below.

3) Bottoms Rd at Settingdown Rd

- The intersection continues to operate at an acceptable level of service for all approaches
- No improvements are required as part of the proposed development

4) GA-400 at Driveway 1

- The proposed right-in / right-out driveway operates at an acceptable LOS in the AM peak hour.
- During the PM peak hour, the exiting volumes experience delay in leaving the development. This is due to the heavy northbound volume on SR 400. Actual delay may not be as bad as modeled. If vehicles experience regular delay they will likely re-route to the proposed signalized intersection.

5) Bottoms Rd at Driveway 2

- The proposed full access driveway will operate at an acceptable LOS for all movements

4.8 Build Conditions Required Improvements

Improvements to the intersections are as follows:

1) SR 400 at Settingdown Rd

- Background improvements required an additional NB and SB through lane

2) SR 400 at Bottoms Rd

- A traffic signal is proposed at the study intersection. No changes to side-street lane geometry were changed for the purposes of this analysis.

With improvements made in Background conditions required improvements the LOS remains the same as background conditions. Please refer to section 3.4 for additional detail.

Table 11: Build Conditions Capacity Analysis with Required Improvements

#	Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour		AM Alternative		PM Alternative	
				Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	SR 400 at Settingdown Rd	Signal Control	EB	51.7	D	84.2	F	51.7	D	51.2	D
			WB	58.2	E	57.4	E	58.2	E	57.0	E
			NB	11.7	B	102.9	F	8.6	A	18.8	B
			SB	89.2	F	23.7	C	18.5	B	17.8	B
			Intersection	58.9	E	72.0	E	18.1	B	20.9	C
2	SR 400 at Bottoms Rd	Signal Control	EB	166.5	F	**	F	56.5	E	66.7	E
			WB	20.1	C	**	F	53.1	D	227.9	F
			NB	2.4	A	0.9	A	12.0	B	67.9	E
			SB	2.6	A	29.9	D	53.5	D	17.9	B
			Intersection	6.9	-	11.0	-	39.1	D	59.5	E

1) SR 400 at Settingdown Rd

- With background improvements the LOS is improved to acceptable ranges

2) SR 400 at Bottoms Rd

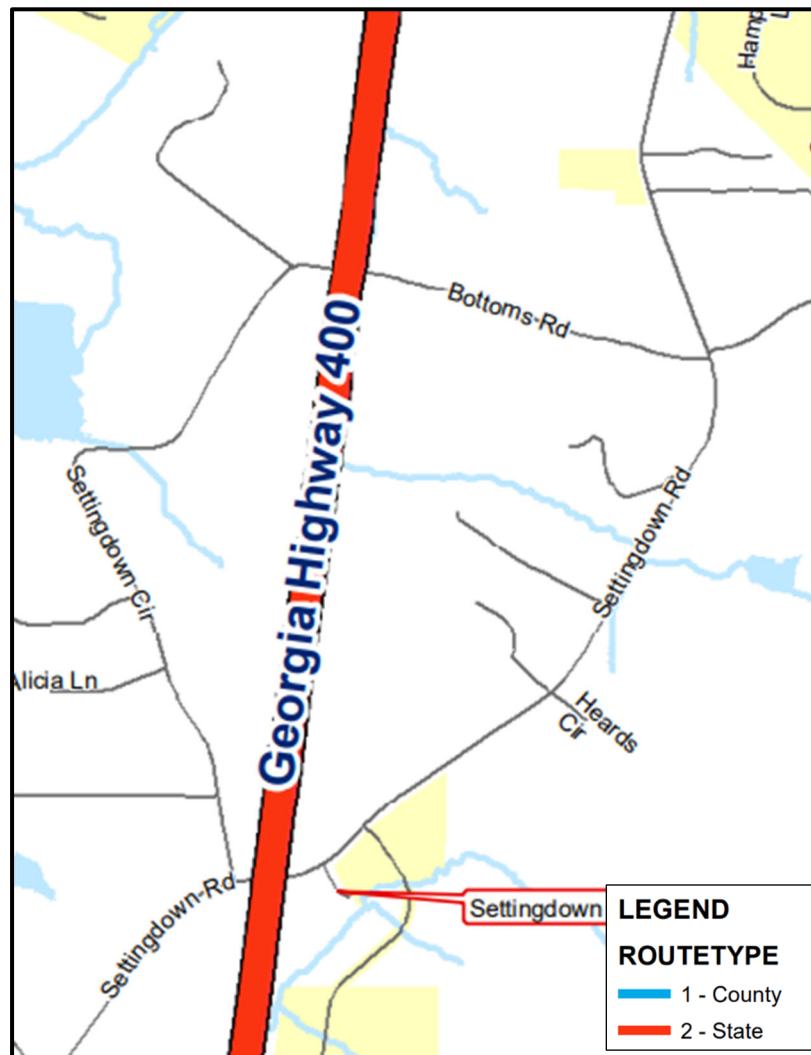
- With signalization the intersection LOS is D during the AM peak hour and E during the PM peak hour.
- During the PM peak hour, the WB approach experiences a failing LOS with a single lane approach. Signal timings favor SR 400 operation over side-street operation

5 Enhanced Focus Area – Heavy Vehicle

5.1.1 Heavy Vehicle Routing

Heavy vehicles accessing the proposed development are anticipated to primarily utilize the main driveway to be located on Bottoms Rd to access SR 400. SR 400 is shown as state truck route in Forsyth County Truck Routes map (excerpt shown in Figure 15).

Figure 15: Forsyth County Truck Route



5.1.2 Pavement Condition

A field visit was performed on May 31st, 2022, to analyze pavement conditions of Bottoms Rd. There was minor cracking observed on Bottoms Rd near the intersection with SR 400. Overall pavement conditions on Bottoms Rd and SR 400 are good.

Figure 16: Bottoms Rd at SR 400 - Looking West



5.1.3 Roadway Width

Forsyth County construction standards STD No. 121 shows a 30-foot width specification with 13-foot lanes and curb and gutter. The existing cross section of Bottoms Rd varies with the standard width field measured at 19 feet (approximately 9-foot lanes) widening to 21-foot width closer to the intersection with SR 400. Existing roadway widths are summarized in Table 12.

Table 12: Roadway Width Summary

Roadway Section	Measured Width	Forsyth Co. Width
Driveway 1	TBD	30'
Driveway 2	TBD	30'
Bottoms Rd to SR 400	19'	30'

5.1.4 Corner Radii

The design vehicle for the proposed site is WB-67, AASHTO minimum turning path is attached in Appendix F. GDOT's Regulations for Driveway and Encroachment Control Chapter 4 Section 3 table 4-2 states a corner radii minimum of 75 feet.

5.1.5 Heavy Vehicle Staging

The proposed development is being built with the end-user not known at this time. Anticipated delivery times are unknown, however, will likely be spread throughout normal operating hours. ITE truck trip generation shows an anticipated 215 truck trips (108 inbound and 108 outbound). Full trip generation rates can be found in Table 6. The internal queueing and site design is anticipated to hold all trucks within the site and not impact the external roadway network.

5.1.6 Pedestrian Safety

The proposed development will be working with Forsyth County to provide required pedestrian facilities, there is ongoing coordination about the needs of the County controlled roadways. No pedestrian facilities are to be provided along SR 400. Forsyth County code of ordinances is as follows:

Forsyth County, Georgia – Code of Ordinances Chapter 18: 5

Sidewalks:

18.5.9 Where Required:

Sidewalks shall be provided in accordance with the Forsyth County Comprehensive Plan.

18.5.10 Location Requirements:

Sidewalks shall parallel the street pavement as much as possible, but the director of engineering may permit sidewalks to be designed and constructed so that they meander around permanent obstructions or deviate from a linear pattern for design purposes.

6 Recommendations and Conclusions

A proposed warehousing development is planned to be located in Forsyth County, GA near the intersection of Bottoms Rd and GA-400. The development will primarily occupy undeveloped land with two proposed driveways one full access driveway on Bottom Rd and one right-in/right-out driveway on GA-400. The development is planned to consist of approximately 898,825 square feet (SF) of mixed warehousing, fulfillment center, and self-storage. Recommendations and conclusions are provided below by intersection.

1) SR 400 at Settingdown Rd

- The existing signalized intersection operates at an acceptable level of service (LOS) in existing conditions.
- With additional background traffic volumes, the intersection starts to experience delay for both peak hours. The SR 400 is close to capacity particularly during the PM peak hour. The PM peak hour was adjusted for COVID with a 7% growth and then grown by 3% per year. Actual growth may be less than modeled. SR 400 has experienced widening further south near SR 369 and will likely be widened in the future as population growth continues to shift north.
 - An alternatives analysis was performed adding additional through lanes on SR 400 which alleviates capacity issues.
- With additional project trips the intersection operates at the same LOS as no-build conditions (LOS E).
- No improvements are recommended or required as part of the proposed development.

2) SR 400 at Bottoms Rd

- The existing side street stop-controlled intersection operates at a failing level of service for side-street approaches. This is a typical operation for side-street stops along major throughfares with heavy volumes on the main road.
- The intersection has a wide median to allow for staged turning movements, Synchro and HCM capacity analysis does not model the two stage movements so modeled capacity will be worse than field operations.
- Additional traffic volumes from the proposed development will warrant a traffic signal at the intersection.
- The intersection will require a full GDOT Intersection Control Evaluation analysis to determine the necessary control and geometry of the intersection. It is recommended that the proposed development coordinate with GDOT for required improvements.

3) Bottoms Rd at Settingdown Rd

- The existing side-street stop-controlled intersection operates at an acceptable LOS for all scenarios.
- No improvements are required or recommended as part of the proposed development

4) GA-400 at Driveway 1

- The proposed right-in / right-out driveway operates at an acceptable LOS in the AM peak hour.
- During the PM peak hour, the exiting volumes experience delay in leaving the development. This is due to the heavy northbound volume on SR 400. Actual delay may not be as bad as modeled. If vehicles experience regular delay they will likely re-route to the proposed signalized intersection.
- A right-turn deceleration lane is warranted and should consist of a 350-foot full width storage and a 100-foot taper

5) Bottoms Rd at Driveway 2

- The proposed full access driveway will operate at an acceptable LOS for all movements
- A left-turn lane is warranted on Bottoms Rd and should be constructed to include a 160-foot full width storage and 50-foot taper.
 - Shift taper lengths are 125 feet for a 6-foot shift and 250 feet for a 12-foot shift

Appendix A: Site Plan

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----



CSC
DESIGN,
INC.
ARCHITECTS & ENGINEERS

JOB:	21-103
------	--------

DRW:	MCZ
------	-----

CHK:	MCZ
------	-----

[illegible]

LAND LOTS 314, 315, 335, & 336; 14th DISTRICT; 1st SECTION
 FORSYTH COUNTY, GEORGIA

C-1

DATE: 05/31/2022

Appendix B: Traffic Counts

Bi-Directional Class Count || NB EB 15min

Cumming, GA

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°


[Click here for Map](#)

0000 - 2400 (24h Session) (04-28-2022)

NB EB 15min

Time	Northbound (Movement 4.1)													15min	60min
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total	Total
0000 - 0015	0	26	10	0	0	0	0	0	1	0	0	0	0	37	
0015 - 0030	0	28	4	0	0	0	0	0	1	0	0	0	0	33	
0030 - 0045	0	21	8	0	0	0	0	0	0	0	0	0	0	29	
0045 - 0100	0	18	3	0	0	1	0	0	3	0	0	0	0	25	124
0100 - 0115	0	13	4	0	0	0	0	0	0	0	0	0	0	17	
0115 - 0130	0	10	2	0	1	0	0	0	2	0	0	0	0	15	
0130 - 0145	0	9	3	0	1	0	0	0	1	0	0	0	0	14	
0145 - 0200	0	10	3	0	0	0	0	0	1	0	0	0	0	14	60
0200 - 0215	0	7	2	0	2	0	0	0	0	0	0	0	0	11	
0215 - 0230	0	5	0	0	0	0	0	0	2	0	0	0	0	6	
0230 - 0245	0	7	2	0	0	0	0	0	1	0	0	0	0	10	
0245 - 0300	0	8	3	0	0	0	0	0	1	0	0	0	0	12	39
0300 - 0315	0	7	1	0	0	0	0	0	0	0	0	0	0	8	
0315 - 0330	0	9	1	0	1	0	0	0	1	0	0	0	0	12	
0330 - 0345	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
0345 - 0400	0	2	0	0	1	0	0	0	2	0	0	0	0	5	26
0400 - 0415	0	6	1	0	0	0	0	0	0	0	0	0	0	7	
0415 - 0430	0	7	2	0	2	1	0	0	2	0	0	0	0	14	
0430 - 0445	0	9	2	0	0	0	0	0	1	0	0	0	0	12	
0445 - 0500	0	16	5	0	0	0	0	0	2	0	0	0	0	23	56
0500 - 0515	0	14	4	0	0	0	0	0	1	0	0	0	0	19	
0515 - 0530	0	25	8	0	2	1	0	0	5	0	0	0	0	41	
0530 - 0545	0	40	9	0	0	0	0	1	1	0	0	0	0	51	
0545 - 0600	0	45	8	0	2	1	0	0	1	0	0	0	0	57	168
0600 - 0615	0	44	11	1	4	0	0	0	2	0	0	0	0	62	
0615 - 0630	0	60	15	0	2	3	0	0	2	0	0	0	0	82	
0630 - 0645	0	99	18	0	8	0	0	1	6	0	0	0	0	132	
0645 - 0700	0	93	44	0	6	1	0	0	4	0	0	0	0	148	424
0700 - 0715	1	109	51	0	5	1	0	2	5	0	0	0	0	174	
0715 - 0730	0	119	49	1	5	4	0	0	2	1	0	0	0	181	
0730 - 0745	0	187	45	0	7	4	0	2	3	0	0	0	0	248	
0745 - 0800	2	207	70	0	10	8	0	0	9	0	0	0	0	306	909
0800 - 0815	0	166	58	0	15	5	0	1	6	0	0	0	0	251	
0815 - 0830	0	177	42	0	11	4	0	1	4	0	0	0	0	238	
0830 - 0845	0	173	60	0	6	2	0	1	5	0	0	0	0	247	
0845 - 0900	0	189	43	0	7	1	0	3	6	0	0	0	0	249	986
0900 - 0915	0	187	50	0	9	10	0	1	5	0	0	0	0	262	
0915 - 0930	2	162	51	2	6	5	0	0	10	0	0	0	0	238	
0930 - 0945	1	170	44	0	11	8	0	1	8	0	0	0	0	243	
0945 - 1000	0	206	61	0	8	6	0	1	7	0	0	0	0	289	1032
1000 - 1015	0	192	61	1	7	4	0	0	9	0	0	0	0	274	
1015 - 1030	1	212	65	2	7	15	0	2	10	0	0	0	0	314	
1030 - 1045	2	214	63	0	9	12	0	1	9	0	0	0	0	310	
1045 - 1100	0	210	62	0	5	8	0	2	6	1	0	0	0	294	1192
1100 - 1115	1	237	78	0	5	6	0	0	7	0	0	0	0	334	
1115 - 1130	0	271	85	0	3	11	0	0	10	0	0	0	0	380	
1130 - 1145	0	247	81	0	4	6	0	0	6	0	0	0	0	344	
1145 - 1200	2	265	67	0	7	14	0	0	7	0	0	0	0	362	1420
1200 - 1215	0	246	64	1	8	5	0	0	6	0	0	0	0	330	
1215 - 1230	1	286	75	0	7	6	0	1	6	0	0	0	0	382	
1230 - 1245	2	274	72	0	8	19	0	2	5	0	0	0	0	382	
1245 - 1300	2	233	65	0	9	8	0	0	6	0	0	0	0	323	1417
1300 - 1315	1	242	78	0	5	10	0	1	8	0	0	0	0	345	
1315 - 1330	2	294	89	1	7	3	0	0	9	0	0	0	0	405	
1330 - 1345	0	238	91	0	11	8	0	0	6	0	0	0	0	354	
1345 - 1400	0	247	80	0	5	3	0	1	6	2	0	0	0	344	1448
1400 - 1415	2	256	101	0	3	5	0	1	3	0	0	0	0	371	
1415 - 1430	1	246	85	0	7	6	0	0	4	0	0	0	0	349	
1430 - 1445	0	282	98	0	4	10	0	2	6	0	0	0	0	402	
1445 - 1500	3	336	84	0	5	13	0	0	4	1	0	0	0	446	1568
1500 - 1515	0	321	94	1	5	5	0	2	4	0	0	0	0	432	
1515 - 1530	1	352	98	0	4	8	0	2	7	0	0	0	0	472	
1530 - 1545	3	312	97	0	4	9	0	1	4	0	0	0	0	430	
1545 - 1600	1	330	133	0	10	4	0	0	4	0	0	0	0	482	1816
1600 - 1615	0	347	151	0	1	7	0	1	3	0	0	0	0	510	
1615 - 1630	0	354	151	1	4	6	0	0	2	0	0	0	0	518	
1630 - 1645	0	369	133	0	7	3	0	0	3	0	0	0	0	515	
1645 - 1700	0	375	127	0	3	2	0	0	2	0	0	0	0	509	2052
1700 - 1715	2	378	133	0	1	4	0	0	2	0	0	0	0	520	
1715 - 1730	4	363	120	0	8	5	0	0	1	0	0	0	0	501	
1730 - 1745	1	378	143	0	9	6	0	0	1	0	0	0	0	538	
1745 - 1800	1	409	120	1	3	5	0	0	0	0	0	0	0	539	2098
1800 - 1815	0	351	98	0	6	4	0	0	1	0	0	0	0	460	
1815 - 1830	1	396	115	0	1	0	0	0	3	0	0	0	0	516	
1830 - 1845	2	315	121	0	5	1	1	0	1	0	0	0	0	446	
1845 - 1900	4	277	63	0	2	0	0	0	0	0	0	0	0	346	1768
1900 - 1915	0	253	55	0	1	0	0	0	1	0	0	0	0	310	
1915 - 1930	0	280	46	0	2	0	0	1	3	0	0	0	0	332	
1930 - 1945	2	222	51	0	0	0	0	3	1	1	0	0	0	280	
1945 - 2000	0	198	42	0	1	0	0	1	1	0	0	0	0	243	1165
2000 - 2015	0	225	42	0	3	0	0	0	0	0	0	0	0	270	
2015 - 2030	2	207	36	0	2	0	0	0	0	0	0	0	0	247	
2030 - 2045	0	164	28	0	5	0	0	0	2	0	0	0	0	199	
2045 - 2100	0	180	24	0	1	0	0	1	0	0	0	0	0	206	922
2100 - 2115	0	165	20	0	0	0	0	0	0	0	0	0	0	185	
2115 - 2130	0	142	22	0	0	0	0	0	0	0	0	0	0	164	
2130 - 2145	0	130	20	0	0	0	0	1	0	0	0	0	0	151	
2145 - 2200	0	131	25	0	1	1	0	0	1	0	0	0	0	159	659
2200 - 2215	0	111	20	0	1	0	0	0	2	0	0	0	0	134	
2215 - 2230	0	99	16	0	0	0	0	0	1	0	0	0	0	116	
2230 - 2245	0	69	10	0	0	1	0	0	5	0	0	0	0	85	
2245 - 2300	0	81	18	0	0	0	0	0	1	0	0	0	0	100	435
2300 - 2315	0	67	10	0	0	0	0	0	0	0	0	0	0	77	
2315 - 2330	0	74	13	0	0	0	0	0	0	0	0	0	0	87	
2330 - 2345	0	55	16	0	0	0	0	0	0	0	0	0	0	71	
2345 - 0000	0	40	11	0	0	0	0	0	0	0	0	0	0	51	286

Session Total	50	16239	4763	12	348	309	1	41	301	6	0	0	0	22070
Session Average	0.52	169.16	49.61	0.13	3.63	3.22	0.01	0.43	3.14	0.06	0.00	0.00	0.00	229.90
Session Percentage	0.23	73.58	21.58	0.05	1.58	1.40	0.00	0.19	1.36	0.03	0.00	0.00	0.00	
AM Peak Hour	0700 - 0800	0945 - 1045	0945 - 1045	0915 - 1015	0730 - 0830	0945 - 1045	-	0800 - 0900	1045 - 1045	0630 - 0730	-	-	-	0945 - 1045
AM Peak Volume	3	824	250	3	43	37	0	6	35	1	0	0	0	1187
Noon Peak Hour	1230 - 1330	1445 - 1545	1430 - 1530	1000 - 1100	1200 - 1300	1145 - 1245	-	1430 - 1530	1000 - 1100	1300 - 1400	-	-	-	1445 - 1545
Noon Peak Volume	7	1321	374	3	32	44	0	6	34	34	0	0	0	1780
PM Peak Hour	1700 - 1800	1730 - 1830	1545 - 1645	1500 - 1600	1715 - 1815	1515 - 1615	1745 - 1845	1500 - 1600	1500 - 1600	1845 - 1945	-	-	-	1700 - 1800
PM Peak Volume	353	359	253	259	353	359	353	359	359	353	0	0	0	1791

Bi-Directional Class Count || SB WB 15min

Cumming, GA

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°


[Click here for Map](#)

0000 - 2400 (24h Session) (04-28-2022)

SB WB 15min

Time	Southbound (Movement 4.2)													15min	60min
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total	Total
0000 - 0015	0	8	1	0	0	0	0	0	0	0	0	0	0	9	
0015 - 0030	0	10	0	0	0	0	0	0	1	0	0	0	0	11	
0030 - 0045	0	9	0	0	0	0	0	0	0	0	0	0	0	9	
0045 - 0100	0	8	1	0	0	1	0	0	1	0	0	0	0	11	40
0100 - 0115	0	13	2	0	0	0	0	0	1	0	0	0	0	16	
0115 - 0130	0	9	0	0	1	0	0	0	1	0	0	0	0	11	
0130 - 0145	0	6	1	0	0	0	0	0	1	0	0	0	0	8	
0145 - 0200	0	11	1	0	1	0	0	0	2	0	0	0	0	15	50
0200 - 0215	0	5	0	0	0	0	0	0	1	0	0	0	0	6	
0215 - 0230	0	3	1	0	1	0	0	0	1	0	0	0	0	6	
0230 - 0245	0	3	1	0	1	1	0	0	1	0	0	0	0	7	
0245 - 0300	0	8	2	0	0	1	0	0	0	0	0	0	0	11	30
0300 - 0315	0	12	1	0	1	1	0	0	0	0	0	0	0	15	
0315 - 0330	0	21	2	0	0	0	0	0	2	0	0	0	0	25	
0330 - 0345	1	23	7	0	1	0	0	0	1	0	0	0	0	33	
0345 - 0400	0	45	7	0	2	0	0	0	3	0	0	0	0	57	130
0400 - 0415	0	31	5	0	3	0	0	0	0	0	0	0	0	39	
0415 - 0430	0	46	13	0	2	1	0	0	2	0	0	0	0	64	
0430 - 0445	0	67	10	0	1	1	0	2	0	0	0	0	0	81	
0445 - 0500	0	61	11	0	1	0	0	0	3	0	0	0	0	76	260
0500 - 0515	0	111	23	1	2	0	0	0	1	0	0	0	0	138	
0515 - 0530	0	164	27	0	0	1	0	0	4	0	0	0	0	196	
0530 - 0545	0	178	68	0	1	2	0	0	3	0	0	0	0	252	
0545 - 0600	0	213	70	0	0	6	0	0	4	0	0	0	0	293	879
0600 - 0615	0	272	100	0	3	2	0	0	4	0	0	0	0	381	
0615 - 0630	1	350	130	0	8	6	0	0	3	0	0	0	0	498	
0630 - 0645	4	339	159	0	10	17	0	1	1	0	0	0	0	531	
0645 - 0700	1	397	149	1	7	7	0	1	3	0	0	0	0	566	1976
0700 - 0715	2	440	155	0	12	11	0	1	3	0	0	0	0	624	
0715 - 0730	0	410	136	0	14	5	0	0	4	0	0	0	0	569	
0730 - 0745	0	323	136	1	1	6	1	0	6	0	0	0	0	474	
0745 - 0800	2	356	124	1	9	4	0	0	5	0	0	0	0	501	2168
0800 - 0815	0	293	93	0	8	1	0	3	7	0	0	0	0	405	
0815 - 0830	0	280	124	1	11	5	0	4	6	0	0	0	0	431	
0830 - 0845	0	284	89	1	3	6	0	1	4	0	0	0	0	388	
0845 - 0900	0	247	56	0	6	7	0	2	5	0	0	0	0	323	1547
0900 - 0915	0	227	82	1	6	5	0	0	4	0	0	0	0	325	
0915 - 0930	0	237	77	0	7	9	0	1	5	0	0	0	0	336	
0930 - 0945	1	260	84	0	6	9	0	0	5	0	0	0	0	365	
0945 - 1000	1	283	99	0	9	13	0	0	7	0	0	0	0	412	1438
1000 - 1015	1	203	63	0	5	7	0	1	11	0	0	0	0	291	
1015 - 1030	5	253	70	0	7	4	0	0	6	0	0	0	0	345	
1030 - 1045	1	227	82	1	13	5	0	0	4	0	0	0	0	333	
1045 - 1100	2	205	69	0	8	8	0	1	11	0	0	0	0	304	1273
1100 - 1115	4	219	74	0	9	11	0	1	9	0	0	0	0	327	
1115 - 1130	0	203	79	1	3	8	0	1	10	0	0	0	0	305	
1130 - 1145	2	224	73	0	13	7	0	1	9	0	0	0	0	329	
1145 - 1200	2	186	75	0	8	9	0	1	5	0	0	0	0	286	1247
1200 - 1215	0	210	82	0	6	8	0	1	6	0	0	0	0	313	
1215 - 1230	0	223	75	1	4	8	0	0	1	0	0	0	0	312	
1230 - 1245	4	214	66	0	6	6	0	1	5	0	0	0	0	302	
1245 - 1300	1	241	58	0	5	7	0	0	4	0	0	0	0	316	1243
1300 - 1315	1	236	65	0	7	7	1	0	5	0	0	0	0	322	
1315 - 1330	2	244	62	0	7	8	2	0	8	0	0	0	0	333	
1330 - 1345	5	251	71	3	8	6	3	0	5	0	0	0	0	352	
1345 - 1400	0	244	58	1	6	7	2	1	5	0	0	0	0	324	1331
1400 - 1415	2	216	46	1	7	3	0	1	6	0	0	0	0	282	
1415 - 1430	1	225	58	1	11	11	0	3	4	0	0	0	0	314	
1430 - 1445	1	235	72	2	5	7	0	1	5	0	0	0	0	328	
1445 - 1500	2	221	62	0	4	8	0	1	7	0	0	0	0	305	1229
1500 - 1515	1	233	51	0	16	4	0	5	4	0	0	0	0	314	
1515 - 1530	1	231	74	1	6	6	0	2	7	0	0	0	0	328	
1530 - 1545	1	237	70	2	5	7	0	2	6	0	0	0	0	330	
1545 - 1600	0	208	48	2	3	4	0	1	5	0	0	0	0	271	1243
1600 - 1615	0	269	78	0	11	3	0	1	4	0	0	0	0	366	
1615 - 1630	0	242	53	1	9	0	0	1	3	0	0	0	0	309	
1630 - 1645	1	236	49	2	6	1	0	0	3	0	0	0	0	298	
1645 - 1700	0	248	55	1	11	4	0	1	2	0	0	0	0	322	1295
1700 - 1715	1	268	49	0	4	6	0	1	0	0	0	0	0	329	
1715 - 1730	0	224	64	0	9	3	0	0	1	0	0	0	0	301	
1730 - 1745	0	249	70	0	6	2	0	0	0	0	0	0	0	327	
1745 - 1800	0	258	71	0	6	3	0	1	2	0	0	0	0	341	1298
1800 - 1815	1	225	49	0	2	0	0	0	1	0	0	0	0	278	
1815 - 1830	1	235	55	0	4	0	0	0	5	0	0	0	0	300	
1830 - 1845	0	200	50	0	2	3	1	2	2	0	0	0	0	260	
1845 - 1900	0	207	44	0	3	2	0	0	1	0	0	0	0	257	1095
1900 - 1915	1	158	58	0	0	1	0	3	1	0	0	0	0	222	
1915 - 1930	0	169	67	0	0	0	0	0	4	0	0	0	0	240	
1930 - 1945	1	139	61	0	1	1	0	0	1	0	0	0	0	204	
1945 - 2000	0	135	47	0	3	1	0	0	1	0	0	0	0	187	853
2000 - 2015	1	161	34	0	2	0	0	0	1	0	0	0	0	199	
2015 - 2030	0	138	38	0	1	0	0	0	0	0	0	0	0	177	
2030 - 2045	1	122	29	0	1	1	0	0	0	0	0	0	0	154	
2045 - 2100	0	114	21	0	2	0	0	1	1	0	0	0	0	139	669
2100 - 2115	0	108	21	0	0	0	0	0	0	0	0	0	0	129	
2115 - 2130	0	67	15	0	1	0	0	0	2	0	0	0	0	85	
2130 - 2145	0	82	14	0	0	1	0	0	0	0	0	0	0	97	
2145 - 2200	0	81	17	0	1	0	0	0	1	0	0	0	0	100	411
2200 - 2215	0	58	15	0	1	0	0	0	0	0	0	0	0	74	
2215 - 2230	0	56	10	0	0	0	0	0	0	0	0	0	0	66	
2230 - 2245	0	41	9	0	0	0	0	0	2	0	0	0	0	52	
2245 - 2300	0	30	7	0	0	0	0	0	0	0	0	0	0	37	229
2300 - 2315	0	32	8	0	1	0	0	0	0	0	0	0	0	41	
2315 - 2330	0	25	7	0	0	0	0	0	3	0	0	0	0	35	
2330 - 2345	0	18	6	0	0	0	0	0	0	0	0	0	0	24	
2345 - 0000	0	22	4	0	0	0	0	0	1	0	0	0	0	27	127

Session Total	60	16069	4825	27	397	326	10	52	295	0	0	0	0	22061
Session Average	0.63	167.39	50.26	0.28	4.14	3.40	0.10	0.54	3.07	0.00	0.00	0.00	0.00	229.80
Session Percentage	0.27	72.84	21.87	0.12	1.80	1.48	0.05	0.24	1.34	0.00	0.00	0.00	0.00	
AM Peak Hour	0615 - 0715	0630 - 0730	0630 - 0730	0730 - 0830	0630 - 0730	0615 - 0715	0645 - 0745	0800 - 0900	1030 - 1030	-	-	-	-	0630 - 0730
AM Peak Volume	8	1586	599	3	43	41	1	10	29	0	0	0	0	2290
Noon Peak Hour	1015 - 1115	1300 - 1400	1115 - 1215	1330 - 1430	1015 - 1115	1100 - 1200	1300 - 1400	1415 - 1515	1045 - 1145	-	-	-	-	1300 - 1400
Noon Peak Volume	12	975	309	8	37	35	8	10	39	0	0	0	0	1331
PM Peak Hour	1500 - 1600	1700 - 1800	1515 - 1615	1500 - 1600	1600 - 1700	1500 - 1600	1745 - 1845	1500 - 1600	1500 - 1600	-	-	-	-	1700 - 1800
PM Peak Volume	3	993	270	5	37	21	1	10	22	0	0	0	0	1298

Bi-Directional Class Count || Bi-Directional 15min

Cumming, GA

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°

0000 - 2400 (24h Session) (04-28-2022)

Bi-Directional 15min

Time	Bi-Directional 15min													15min	60min
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total	Total
0000 - 0015	0	34	11	0	0	0	0	0	1	0	0	0	0	46	46
0015 - 0030	0	38	4	0	0	0	0	0	2	0	0	0	0	44	44
0030 - 0045	0	30	8	0	0	0	0	0	0	0	0	0	0	38	38
0045 - 0100	0	26	4	0	0	2	0	0	4	0	0	0	0	36	164
0100 - 0115	0	26	6	0	0	0	0	0	1	0	0	0	0	33	33
0115 - 0130	0	19	2	0	2	0	0	0	3	0	0	0	0	26	26
0130 - 0145	0	15	4	0	1	0	0	0	2	0	0	0	0	22	22
0145 - 0200	0	21	4	0	1	0	0	0	3	0	0	0	0	29	110
0200 - 0215	0	12	2	0	2	0	0	0	1	0	0	0	0	17	17
0215 - 0230	0	8	1	0	1	0	0	0	0	2	0	0	0	12	12
0230 - 0245	0	10	3	0	1	1	0	0	2	0	0	0	0	17	17
0245 - 0300	0	16	5	0	0	1	0	0	1	0	0	0	0	23	69
0300 - 0315	0	19	2	0	1	1	0	0	0	0	0	0	0	23	23
0315 - 0330	0	30	3	0	1	0	0	0	3	0	0	0	0	37	37
0330 - 0345	1	24	7	0	1	0	0	0	1	0	0	0	0	34	34
0345 - 0400	0	47	7	0	3	0	0	0	5	0	0	0	0	62	156
0400 - 0415	0	37	6	0	3	0	0	0	0	0	0	0	0	46	46
0415 - 0430	0	53	15	0	4	2	0	0	4	0	0	0	0	78	78
0430 - 0445	0	76	12	0	1	1	0	2	1	0	0	0	0	93	93
0445 - 0500	0	77	16	0	1	0	0	0	5	0	0	0	0	99	316
0500 - 0515	0	125	27	1	2	0	0	0	2	0	0	0	0	157	157
0515 - 0530	0	189	35	0	2	2	0	0	9	0	0	0	0	237	237
0530 - 0545	0	218	77	0	1	2	0	1	4	0	0	0	0	303	303
0545 - 0600	0	258	78	0	2	7	0	0	5	0	0	0	0	350	1047
0600 - 0615	0	316	111	1	7	2	0	0	6	0	0	0	0	443	443
0615 - 0630	1	410	145	0	10	9	0	0	5	0	0	0	0	580	580
0630 - 0645	4	438	177	0	18	17	0	2	7	0	0	0	0	663	663
0645 - 0700	1	490	193	1	13	8	0	1	7	0	0	0	0	714	2400
0700 - 0715	3	549	206	0	17	12	0	3	8	0	0	0	0	798	798
0715 - 0730	0	529	185	1	19	9	0	0	6	1	0	0	0	750	750
0730 - 0745	0	510	181	1	8	10	1	2	9	0	0	0	0	722	722
0745 - 0800	4	563	194	1	19	12	0	0	14	0	0	0	0	807	3077
0800 - 0815	0	459	151	0	23	6	0	4	13	0	0	0	0	656	656
0815 - 0830	0	457	166	1	22	9	0	5	10	0	0	0	0	670	670
0830 - 0845	0	457	149	1	9	8	0	2	9	0	0	0	0	635	635
0845 - 0900	0	436	99	0	13	8	0	5	11	0	0	0	0	572	2533
0900 - 0915	0	414	132	1	15	15	0	1	9	0	0	0	0	587	587
0915 - 0930	2	399	128	2	13	14	0	1	15	0	0	0	0	574	574
0930 - 0945	2	430	128	0	17	17	0	1	13	0	0	0	0	608	608
0945 - 1000	1	489	160	0	17	19	0	1	14	0	0	0	0	701	2470
1000 - 1015	1	395	124	1	12	11	0	1	20	0	0	0	0	565	565
1015 - 1030	6	465	135	2	14	19	0	2	16	0	0	0	0	659	659
1030 - 1045	3	441	145	1	22	17	0	1	13	0	0	0	0	643	643
1045 - 1100	2	415	131	0	13	16	0	3	17	1	0	0	0	598	2465
1100 - 1115	5	456	152	0	14	17	0	1	16	0	0	0	0	661	661
1115 - 1130	0	474	164	1	6	19	0	1	20	0	0	0	0	685	685
1130 - 1145	2	471	154	0	17	13	0	1	15	0	0	0	0	673	673
1145 - 1200	4	451	142	0	15	23	0	1	12	0	0	0	0	648	2667
1200 - 1215	0	456	146	1	14	13	0	1	12	0	0	0	0	643	643
1215 - 1230	1	509	150	1	11	14	0	1	7	0	0	0	0	694	694
1230 - 1245	6	488	138	0	14	25	0	3	10	0	0	0	0	684	684
1245 - 1300	3	474	123	0	14	15	0	0	10	0	0	0	0	639	2660
1300 - 1315	2	478	143	0	12	17	1	1	13	0	0	0	0	667	667
1315 - 1330	4	538	151	1	14	11	2	0	17	0	0	0	0	738	738
1330 - 1345	5	489	162	3	19	14	3	0	11	0	0	0	0	706	706
1345 - 1400	0	491	138	1	11	10	2	2	11	2	0	0	0	668	2779
1400 - 1415	4	472	147	1	10	8	0	2	9	0	0	0	0	653	653
1415 - 1430	2	471	143	1	18	17	0	3	8	0	0	0	0	663	663
1430 - 1445	1	517	170	2	9	17	0	3	11	0	0	0	0	730	730
1445 - 1500	5	557	146	0	9	21	0	1	11	1	0	0	0	751	2797
1500 - 1515	1	554	145	1	21	9	0	7	8	0	0	0	0	746	746
1515 - 1530	2	583	172	1	10	14	0	4	14	0	0	0	0	800	800
1530 - 1545	4	549	167	2	9	16	0	3	10	0	0	0	0	760	760
1545 - 1600	1	538	181	2	13	8	0	1	9	0	0	0	0	753	3059
1600 - 1615	0	616	229	0	12	10	0	2	7	0	0	0	0	876	876
1615 - 1630	0	596	204	2	13	6	0	1	5	0	0	0	0	827	827
1630 - 1645	1	605	182	2	13	4	0	0	6	0	0	0	0	813	813
1645 - 1700	0	623	182	1	14	6	0	1	4	0	0	0	0	831	831
1700 - 1715	3	646	182	0	5	10	0	1	2	0	0	0	0	849	849
1715 - 1730	4	587	184	0	17	8	0	0	2	0	0	0	0	802	802
1730 - 1745	1	627	213	0	15	8	0	0	1	0	0	0	0	865	865
1745 - 1800	1	667	191	1	9	8	0	1	2	0	0	0	0	880	3396
1800 - 1815	1	576	147	0	8	4	0	0	2	0	0	0	0	738	738
1815 - 1830	2	631	170	0	5	0	0	0	8	0	0	0	0	816	816
1830 - 1845	2	515	171	0	7	4	2	2	3	0	0	0	0	706	706
1845 - 1900	4	484	107	0	5	2	0	0	1	0	0	0	0	603	603
1900 - 1915	1	411	113	0	1	1	0	3	2	0	0	0	0	532	532
1915 - 1930	0	449	113	0	2	0	0	1	7	0	0	0	0	572	572
1930 - 1945	3	361	112	0	1	1	0	3	2	1	0	0	0	484	484
1945 - 2000	0	333	89	0	4	1	0	1	2	0	0	0	0	430	2018
2000 - 2015	1	386	76	0	5	0	0	0	1	0	0	0	0	469	469
2015 - 2030	2	345	74	0	3	0	0	0	0	0	0	0	0	424	424
2030 - 2045	1	286	57	0	6	1	0	0	2	0	0	0	0	353	353
2045 - 2100	0	294	45	0	3	0	0	2	1	0	0	0	0	345	345
2100 - 2115	0	273	41	0	0	0	0	0	0	0	0	0	0	314	314
2115 - 2130	0	209	37	0	1	0	0	0	2	0	0	0	0	249	249
2130 - 2145	0	212	34	0	0	1	0	1	0	0	0	0	0	248	248
2145 - 2200	0	212	42	0	2	1	0	0	2	0	0	0	0	259	1070
2200 - 2215	0	169	35	0	2	0	0	0	2	0	0	0	0	208	208
2215 - 2230	0	155	26	0	0	0	0	0	1	0	0	0	0	182	182
2230 - 2245	0	110	19	0	0	1	0	0	7	0	0	0	0	137	137
2245 - 2300	0	111	25	0	0	0	0	0	1	0	0	0	0	137	137
2300 - 2315	0	99	18	0	1	0	0	0	0	0	0	0	0	118	118
2315 - 2330	0	99	20	0	0	0	0	0	3	0	0	0	0	122	122
2330 - 2345	0	73	22	0	0	0	0	0	0	0	0	0	0	95	95
2345 - 0000	0	62	15	0	0	0	0	0	1	0	0	0	0	78	413

Session Total	110	32208	9588	39	745	635	11	93	596	6	0	0	0	0	44131
Session Average	1.15	336.54	99.88	0.41	7.76	6.61	0.11	0.97	6.21	0.06	0.00	0.00	0.00	0.00	459.70
Session Percentage	0.25	73.21	21.73	0.09	1.69	1.44	0.02	0.21	1.35	0.01	0.00	0.00	0.00	0.00	

AM Peak Hour	0945 - 1045	0700 - 0800	0700 - 0800	0830 - 0930	0745 - 0845	0930 - 1030	0645 - 0745	0800 - 0900	0930 - 1030	1630 - 0730	-	-	-	-	0700 - 0800
AM Peak Volume	11	2151	766	4	73	66	1	16	693	0	0	0	0	0	3077

Noon Peak Hour	1015 - 1115	1445 - 1545	1430 - 1530	1315 - 1415	1501 - 1115	1145 - 1245	1300 - 1400	1430 - 1530	1045 - 1145	1300 - 1400	-	-	-	-	1445 - 1545
Noon Peak Volume	16	2243	633	6	63	75	8	15	68	2	0	0	0	0	3057

PM Peak Hour	1700 - 1800	1700 - 1800	1600 - 1700	1500 - 1600	1515 - 1615	1745 - 1845	1500 - 1600	1500 - 1600	1845 - 1945	-	-	-	-	-	1700 - 1800
PM Peak Volume	257	257	297	297	297	15	15	15	0	0	0	0	0	0	319

Bi-Directional Class Count || Volume Summary 15min

Cumming, GA



www.marrtraffic.com

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°

0000 - 2400 (24h Session) (04-28-2022)

Volume Summary 15min

TIME	Volume Summary 15min		15min	60min
	NB	SB	Total	Total
0000 - 0015	37	9	46	164
0015 - 0030	33	11	44	
0030 - 0045	29	9	38	
0045 - 0100	25	11	36	
0100 - 0115	17	16	33	110
0115 - 0130	15	11	26	
0130 - 0145	14	8	22	
0145 - 0200	14	15	29	
0200 - 0215	11	6	17	69
0215 - 0230	6	6	12	
0230 - 0245	10	7	17	
0245 - 0300	12	11	23	
0300 - 0315	8	15	23	156
0315 - 0330	12	25	37	
0330 - 0345	1	33	34	
0345 - 0400	5	57	62	
0400 - 0415	7	39	46	316
0415 - 0430	14	64	78	
0430 - 0445	12	81	93	
0445 - 0500	23	76	99	
0500 - 0515	19	138	157	1047
0515 - 0530	41	196	237	
0530 - 0545	51	252	303	
0545 - 0600	57	293	350	
0600 - 0615	62	381	443	2400
0615 - 0630	82	498	580	
0630 - 0645	132	531	663	
0645 - 0700	148	566	714	
0700 - 0715	174	624	798	3077
0715 - 0730	181	569	750	
0730 - 0745	248	474	722	
0745 - 0800	306	501	807	
0800 - 0815	251	405	656	2533
0815 - 0830	239	431	670	
0830 - 0845	247	388	635	
0845 - 0900	249	323	572	
0900 - 0915	262	325	587	2470
0915 - 0930	238	336	574	
0930 - 0945	243	365	608	
0945 - 1000	289	412	701	
1000 - 1015	274	291	565	2465
1015 - 1030	314	345	659	
1030 - 1045	310	333	643	
1045 - 1100	294	304	598	
1100 - 1115	334	327	661	2667
1115 - 1130	380	305	685	
1130 - 1145	344	329	673	
1145 - 1200	362	286	648	

Time	Volume Summary 15min		15min	60min
	NB	SB	Total	Total
1200 - 1215	330	313	643	2660
1215 - 1230	382	312	694	
1230 - 1245	382	302	684	
1245 - 1300	323	316	639	
1300 - 1315	345	322	667	2779
1315 - 1330	405	333	738	
1330 - 1345	354	352	706	
1345 - 1400	344	324	668	
1400 - 1415	371	282	653	2797
1415 - 1430	349	314	663	
1430 - 1445	402	328	730	
1445 - 1500	446	305	751	
1500 - 1515	432	314	746	3059
1515 - 1530	472	328	800	
1530 - 1545	430	330	760	
1545 - 1600	482	271	753	
1600 - 1615	510	366	876	3347
1615 - 1630	518	309	827	
1630 - 1645	515	298	813	
1645 - 1700	509	322	831	
1700 - 1715	520	329	849	3396
1715 - 1730	501	301	802	
1730 - 1745	538	327	865	
1745 - 1800	539	341	880	
1800 - 1815	460	278	738	2863
1815 - 1830	516	300	816	
1830 - 1845	446	260	706	
1845 - 1900	346	257	603	
1900 - 1915	310	222	532	2018
1915 - 1930	332	240	572	
1930 - 1945	280	204	484	
1945 - 2000	243	187	430	
2000 - 2015	270	199	469	1591
2015 - 2030	247	177	424	
2030 - 2045	199	154	353	
2045 - 2100	206	139	345	
2100 - 2115	185	129	314	1070
2115 - 2130	164	85	249	
2130 - 2145	151	97	248	
2145 - 2200	159	100	259	
2200 - 2215	134	74	208	664
2215 - 2230	116	66	182	
2230 - 2245	85	52	137	
2245 - 2300	100	37	137	
2300 - 2315	77	41	118	413
2315 - 2330	87	35	122	
2330 - 2345	71	24	95	
2345 - 0000	51	27	78	

Session Total	22070	22061	44131
Session Average	229.90	229.80	459.70
Session Percentage	50.01	49.99	

Bi-Directional Class Count || NB EB 60min

Cumming, GA

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°

0000 - 2400 (24h Session) (04-28-2022)

NB EB 60min

Northbound (Movement 4.1)														
TIME	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
0000 - 0100	0	93	25	0	0	1	0	0	5	0	0	0	0	124
0100 - 0200	0	42	12	0	2	0	0	0	4	0	0	0	0	60
0200 - 0300	0	27	7	0	2	0	0	0	3	0	0	0	0	39
0300 - 0400	0	19	2	0	2	0	0	0	3	0	0	0	0	26
0400 - 0500	0	38	10	0	2	1	0	0	5	0	0	0	0	56
0500 - 0600	0	124	29	0	4	2	0	1	8	0	0	0	0	168
0600 - 0700	0	296	88	1	20	4	0	1	14	0	0	0	0	424
0700 - 0800	3	622	215	1	27	17	0	4	19	1	0	0	0	909
0800 - 0900	0	705	203	0	39	12	0	6	21	0	0	0	0	986
0900 - 1000	3	725	206	2	34	29	0	3	30	0	0	0	0	1032
1000 - 1100	3	828	251	3	28	39	0	5	34	1	0	0	0	1192
1100 - 1200	3	1020	311	0	19	37	0	0	30	0	0	0	0	1420
1200 - 1300	5	1039	276	1	32	38	0	3	23	0	0	0	0	1417
1300 - 1400	3	1021	338	1	28	24	0	2	29	2	0	0	0	1448
1400 - 1500	6	1120	368	0	19	34	0	3	17	1	0	0	0	1568
1500 - 1600	5	1315	422	1	23	26	0	5	19	0	0	0	0	1816
1600 - 1700	0	1445	562	1	15	18	0	1	10	0	0	0	0	2052
1700 - 1800	8	1528	516	1	21	20	0	0	4	0	0	0	0	2098
1800 - 1900	7	1339	397	0	14	5	1	0	5	0	0	0	0	1768
1900 - 2000	2	953	194	0	4	0	0	5	6	1	0	0	0	1165
2000 - 2100	2	776	130	0	11	0	0	1	2	0	0	0	0	922
2100 - 2200	0	568	87	0	1	1	0	1	1	0	0	0	0	659
2200 - 2300	0	360	64	0	1	1	0	0	9	0	0	0	0	435
2300 - 2400	0	236	50	0	0	0	0	0	0	0	0	0	0	286

Session Total	50	16239	4763	12	348	309	1	41	301	6	0	0	0	22070
Session Average	2.08	676.63	198.46	0.50	14.50	12.88	0.04	1.71	12.54	0.25	0.00	0.00	0.00	919.58
Session Percentage	0.23	73.58	21.58	0.05	1.58	1.40	0.00	0.19	1.36	0.03	0.00	0.00	0.00	

AM Peak Hour	0700 - 0800	0900 - 1000	0700 - 0800	0900 - 1000	0800 - 0900	0900 - 1000	-	0800 - 0900	0900 - 1000	0700 - 0800	-	-	-	0900 - 1000
AM Peak Volume	3	725	215	2	39	29	0	6	30	1	0	0	0	1032

Noon Peak Hour	1400 - 1500	1400 - 1500	1400 - 1500	1000 - 1100	1200 - 1300	1000 - 1100	-	1000 - 1100	1000 - 1100	1300 - 1400	-	-	-	1400 - 1500
Noon Peak Volume	6	1120	368	3	32	39	0	5	34	2	0	0	0	1568

PM Peak Hour	1700 - 1800	1700 - 1800	1600 - 1700	1500 - 1600	1500 - 1600	1500 - 1600	1800 - 1900	1500 - 1600	1500 - 1600	1900 - 2000	-	-	-	1700 - 1800
PM Peak Volume	8	1528	562	1	23	26	1	5	19	1	0	0	0	2098

Bi-Directional Class Count || SB WB 60min

Cumming, GA



www.marrtraffic.com

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°

0000 - 2400 (24h Session) (04-28-2022)

SB WB 60min

Southbound (Movement 4.2)														
TIME	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
0000 - 0100	0	35	2	0	0	1	0	0	2	0	0	0	0	40
0100 - 0200	0	39	4	0	2	0	0	0	5	0	0	0	0	50
0200 - 0300	0	19	4	0	2	2	0	0	3	0	0	0	0	30
0300 - 0400	1	101	17	0	4	1	0	0	6	0	0	0	0	130
0400 - 0500	0	205	39	0	7	2	0	2	5	0	0	0	0	260
0500 - 0600	0	666	188	1	3	9	0	0	12	0	0	0	0	879
0600 - 0700	6	1358	538	1	28	32	0	2	11	0	0	0	0	1976
0700 - 0800	4	1529	551	2	36	26	1	1	18	0	0	0	0	2168
0800 - 0900	0	1104	362	2	28	19	0	10	22	0	0	0	0	1547
0900 - 1000	2	1007	342	1	28	36	0	1	21	0	0	0	0	1438
1000 - 1100	9	888	284	1	33	24	0	2	32	0	0	0	0	1273
1100 - 1200	8	832	301	1	33	35	0	4	33	0	0	0	0	1247
1200 - 1300	5	888	281	1	21	29	0	2	16	0	0	0	0	1243
1300 - 1400	8	975	256	4	28	28	8	1	23	0	0	0	0	1331
1400 - 1500	6	897	238	4	27	29	0	6	22	0	0	0	0	1229
1500 - 1600	3	909	243	5	30	21	0	10	22	0	0	0	0	1243
1600 - 1700	1	995	235	4	37	8	0	3	12	0	0	0	0	1295
1700 - 1800	1	999	254	0	25	14	0	2	3	0	0	0	0	1298
1800 - 1900	2	867	198	0	11	5	1	2	9	0	0	0	0	1095
1900 - 2000	2	601	233	0	4	3	0	3	7	0	0	0	0	853
2000 - 2100	2	535	122	0	6	1	0	1	2	0	0	0	0	669
2100 - 2200	0	338	67	0	2	1	0	0	3	0	0	0	0	411
2200 - 2300	0	185	41	0	1	0	0	0	2	0	0	0	0	229
2300 - 2400	0	97	25	0	1	0	0	0	4	0	0	0	0	127

Session Total	60	16069	4825	27	397	326	10	52	295	0	0	0	0	22061
Session Average	2.50	669.54	201.04	1.13	16.54	13.58	0.42	2.17	12.29	0.00	0.00	0.00	0.00	919.21
Session Percentage	0.27	72.84	21.87	0.12	1.80	1.48	0.05	0.24	1.34	0.00	0.00	0.00	0.00	

AM Peak Hour	0600 - 0700	0700 - 0800	0700 - 0800	0700 - 0800	0700 - 0800	0900 - 1000	0700 - 0800	0800 - 0900	0800 - 0900	-	-	-	-	0700 - 0800
AM Peak Volume	6	1529	551	2	36	36	1	10	22	0	0	0	0	2168

Noon Peak Hour	1000 - 1100	1300 - 1400	1100 - 1200	1300 - 1400	1000 - 1100	1100 - 1200	1300 - 1400	1400 - 1500	1100 - 1200	-	-	-	-	1300 - 1400
Noon Peak Volume	9	975	301	4	33	35	8	6	33	0	0	0	0	1331

PM Peak Hour	1500 - 1600	1700 - 1800	1700 - 1800	1500 - 1600	1600 - 1700	1500 - 1600	1800 - 1900	1500 - 1600	1500 - 1600	-	-	-	-	1700 - 1800
PM Peak Volume	3	999	254	5	37	21	1	10	22	0	0	0	0	1298

Bi-Directional Class Count || Bi-Directional 60min

Cumming, GA

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°

0000 - 2400 (24h Session) (04-28-2022)

Bi-Directional 60min

Bi-Directional 60min														
TIME	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
0000 - 0100	0	128	27	0	0	2	0	0	7	0	0	0	0	164
0100 - 0200	0	81	16	0	4	0	0	0	9	0	0	0	0	110
0200 - 0300	0	46	11	0	4	2	0	0	6	0	0	0	0	69
0300 - 0400	1	120	19	0	6	1	0	0	9	0	0	0	0	156
0400 - 0500	0	243	49	0	9	3	0	2	10	0	0	0	0	316
0500 - 0600	0	790	217	1	7	11	0	1	20	0	0	0	0	1047
0600 - 0700	6	1654	626	2	48	36	0	3	25	0	0	0	0	2400
0700 - 0800	7	2151	766	3	63	43	1	5	37	1	0	0	0	3077
0800 - 0900	0	1809	565	2	67	31	0	16	43	0	0	0	0	2533
0900 - 1000	5	1732	548	3	62	65	0	4	51	0	0	0	0	2470
1000 - 1100	12	1716	535	4	61	63	0	7	66	1	0	0	0	2465
1100 - 1200	11	1852	612	1	52	72	0	4	63	0	0	0	0	2667
1200 - 1300	10	1927	557	2	53	67	0	5	39	0	0	0	0	2660
1300 - 1400	11	1996	594	5	56	52	8	3	52	2	0	0	0	2779
1400 - 1500	12	2017	606	4	46	63	0	9	39	1	0	0	0	2797
1500 - 1600	8	2224	665	6	53	47	0	15	41	0	0	0	0	3059
1600 - 1700	1	2440	797	5	52	26	0	4	22	0	0	0	0	3347
1700 - 1800	9	2527	770	1	46	34	0	2	7	0	0	0	0	3396
1800 - 1900	9	2206	595	0	25	10	2	2	14	0	0	0	0	2863
1900 - 2000	4	1554	427	0	8	3	0	8	13	1	0	0	0	2018
2000 - 2100	4	1311	252	0	17	1	0	2	4	0	0	0	0	1591
2100 - 2200	0	906	154	0	3	2	0	1	4	0	0	0	0	1070
2200 - 2300	0	545	105	0	2	1	0	0	11	0	0	0	0	664
2300 - 2400	0	333	75	0	1	0	0	0	4	0	0	0	0	413

Session Total	110	32308	9588	39	745	635	11	93	596	6	0	0	0	44131
Session Average	4.58	1346.17	399.50	1.63	31.04	26.46	0.46	3.88	24.83	0.25	0.00	0.00	0.00	1838.79
Session Percentage	0.25	73.21	21.73	0.09	1.69	1.44	0.02	0.21	1.35	0.01	0.00	0.00	0.00	

AM Peak Hour	0700 - 0800	0700 - 0800	0700 - 0800	0700 - 0800	0800 - 0900	0900 - 1000	0700 - 0800	0800 - 0900	0900 - 1000	0700 - 0800	-	-	-	0700 - 0800
AM Peak Volume	7	2151	766	3	67	65	1	16	51	1	0	0	0	3077

Noon Peak Hour	1000 - 1100	1400 - 1500	1100 - 1200	1300 - 1400	1000 - 1100	1100 - 1200	1300 - 1400	1400 - 1500	1000 - 1100	1300 - 1400	-	-	-	1400 - 1500
Noon Peak Volume	12	2017	612	5	61	72	8	9	66	2	0	0	0	2797

PM Peak Hour	1700 - 1800	1700 - 1800	1600 - 1700	1500 - 1600	1500 - 1600	1500 - 1600	1800 - 1900	1500 - 1600	1500 - 1600	1900 - 2000	-	-	-	1700 - 1800
PM Peak Volume	9	2527	797	6	53	47	2	15	41	1	0	0	0	3396

Bi-Directional Class Count || Volume Summary 60min

Cumming, GA



www.marrtraffic.com

Site 4

GA-400 Georgia 400 S (North),
north of Bottoms Rd

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.295948°, -84.073980°

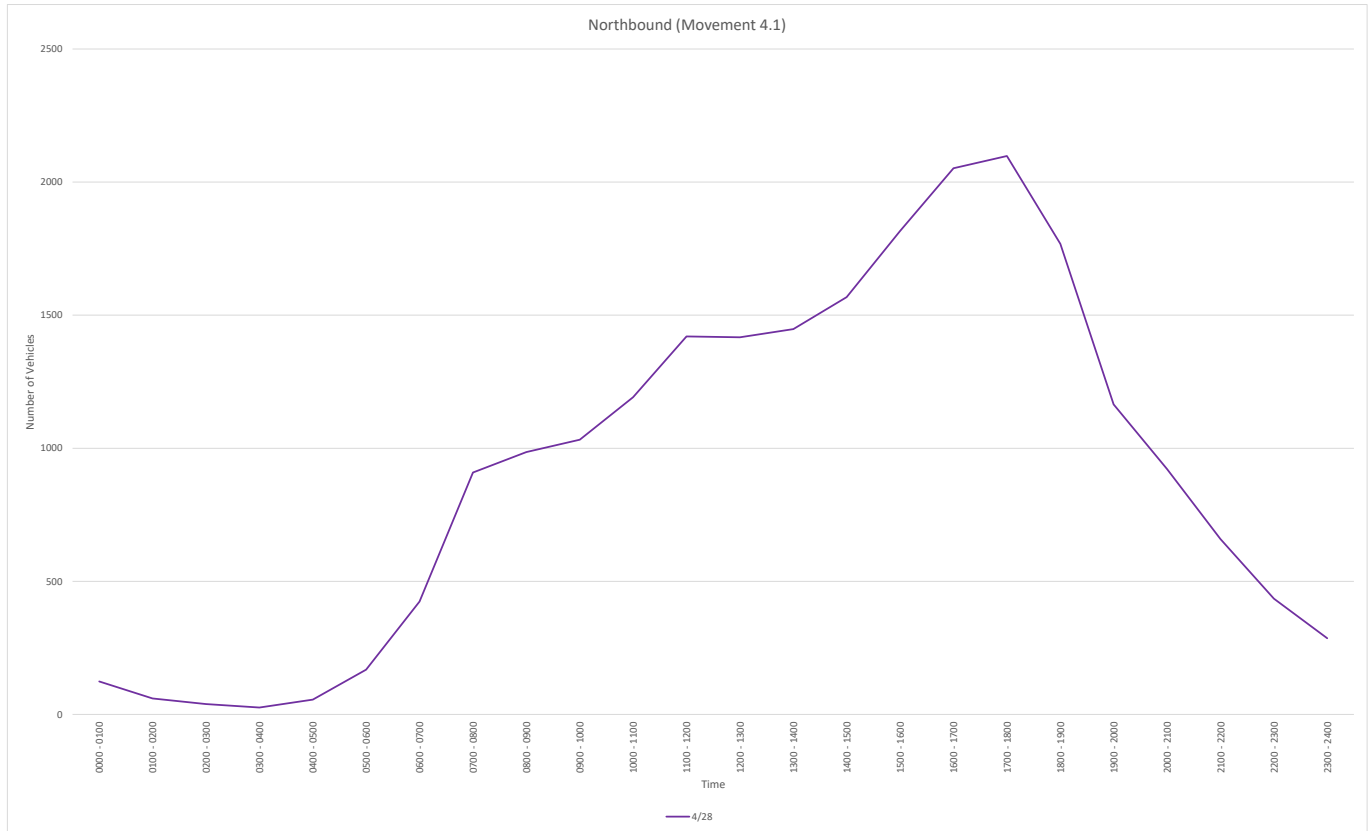
0000 - 2400 (24h Session) (04-28-2022)

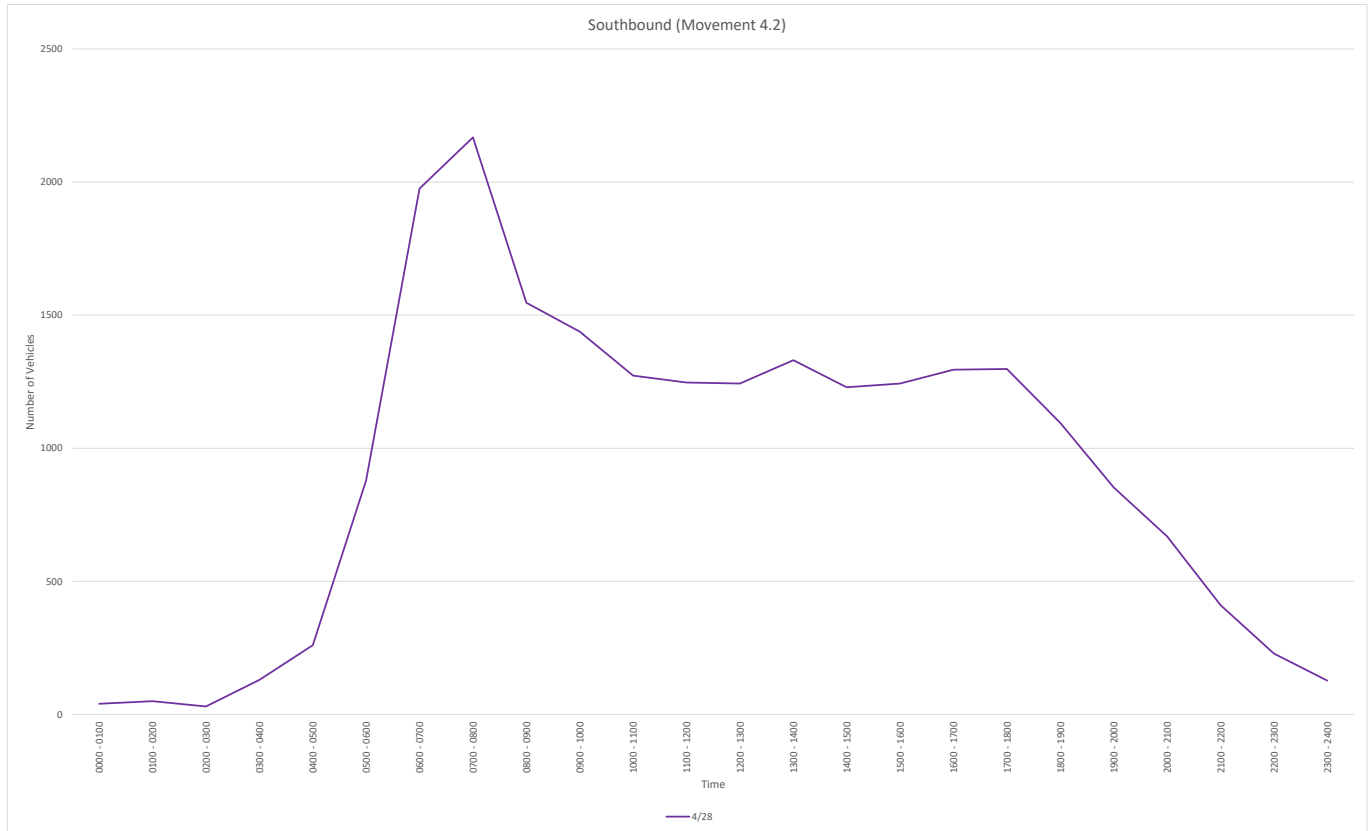
Volume Summary 60min

Volume Summary 60min			
TIME	NB	SB	Total
0000 - 0100	124	40	164
0100 - 0200	60	50	110
0200 - 0300	39	30	69
0300 - 0400	26	130	156
0400 - 0500	56	260	316
0500 - 0600	168	879	1047
0600 - 0700	424	1976	2400
0700 - 0800	909	2168	3077
0800 - 0900	986	1547	2533
0900 - 1000	1032	1438	2470
1000 - 1100	1192	1273	2465
1100 - 1200	1420	1247	2667

Session Total	22070	22061	44131
Session Average	919.58	919.21	1838.79
Session Percentage	50.01	49.99	

Volume Summary 60min			
Time	NB	SB	Total
1200 - 1300	1417	1243	2660
1300 - 1400	1448	1331	2779
1400 - 1500	1568	1229	2797
1500 - 1600	1816	1243	3059
1600 - 1700	2052	1295	3347
1700 - 1800	2098	1298	3396
1800 - 1900	1768	1095	2863
1900 - 2000	1165	853	2018
2000 - 2100	922	669	1591
2100 - 2200	659	411	1070
2200 - 2300	435	229	664
2300 - 2400	286	127	413





File Name:

Start Time: 0

Station ID: 1

Location 2:

Date _____

4/28/2022	12:00 AM	0	26	10	0	0	0	0	0	1	0	0	0	0
4/28/2022	12:15 AM	0	28	4	0	0	0	0	0	1	0	0	0	0
4/28/2022	12:30 AM	0	21	8	0	0	0	0	0	0	0	0	0	0
4/28/2022	12:45 AM	0	18	3	0	0	1	0	0	3	0	0	0	0
4/28/2022	1:00 AM	0	13	4	0	0	0	0	0	0	0	0	0	0
4/28/2022	1:15 AM	0	10	2	0	1	0	0	0	2	0	0	0	0
4/28/2022	1:30 AM	0	9	3	0	1	0	0	0	1	0	0	0	0
4/28/2022	1:45 AM	0	10	3	0	0	0	0	0	1	0	0	0	0
4/28/2022	2:00 AM	0	7	2	0	2	0	0	0	0	0	0	0	0
4/28/2022	2:15 AM	0	5	0	0	0	0	0	0	1	0	0	0	0
4/28/2022	2:30 AM	0	7	2	0	0	0	0	0	1	0	0	0	0
4/28/2022	2:45 AM	0	8	3	0	0	0	0	0	1	0	0	0	0
4/28/2022	3:00 AM	0	7	1	0	0	0	0	0	0	0	0	0	0
4/28/2022	3:15 AM	0	9	1	0	1	0	0	0	1	0	0	0	0
4/28/2022	3:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0
4/28/2022	3:45 AM	0	2	0	0	1	0	0	0	2	0	0	0	0
4/28/2022	4:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0
4/28/2022	4:15 AM	0	7	2	0	2	1	0	0	2	0	0	0	0
4/28/2022	4:30 AM	0	9	2	0	0	0	0	0	1	0	0	0	0
4/28/2022	4:45 AM	0	16	5	0	0	0	0	0	2	0	0	0	0
4/28/2022	5:00 AM	0	14	4	0	0	0	0	0	1	0	0	0	0
4/28/2022	5:15 AM	0	25	8	0	2	1	0	0	5	0	0	0	0
4/28/2022	5:30 AM	0	40	9	0	0	0	0	1	1	0	0	0	0
4/28/2022	5:45 AM	0	45	8	0	2	1	0	0	1	0	0	0	0
4/28/2022	6:00 AM	0	44	11	1	4	0	0	0	2	0	0	0	0
4/28/2022	6:15 AM	0	60	15	0	2	3	0	0	2	0	0	0	0
4/28/2022	6:30 AM	0	99	18	0	8	0	0	1	6	0	0	0	0
4/28/2022	6:45 AM	0	93	44	0	6	1	0	0	4	0	0	0	0
4/28/2022	7:00 AM	1	109	51	0	5	1	0	2	5	0	0	0	0
4/28/2022	7:15 AM	0	119	49	1	5	4	0	0	2	1	0	0	0
4/28/2022	7:30 AM	0	187	45	0	7	4	0	2	3	0	0	0	0
4/28/2022	7:45 AM	2	207	70	0	10	8	0	0	9	0	0	0	0
4/28/2022	8:00 AM	0	166	58	0	15	5	0	1	6	0	0	0	0
4/28/2022	8:15 AM	0	177	42	0	11	4	0	1	4	0	0	0	0
4/28/2022	8:30 AM	0	173	60	0	6	2	0	1	5	0	0	0	0
4/28/2022	8:45 AM	0	189	43	0	7	1	0	3	6	0	0	0	0
4/28/2022	9:00 AM	0	187	50	0	9	10	0	1	5	0	0	0	0
4/28/2022	9:15 AM	2	162	51	2	6	5	0	0	10	0	0	0	0
4/28/2022	9:30 AM	1	170	44	0	11	8	0	1	8	0	0	0	0
4/28/2022	9:45 AM	0	206	61	0	8	6	0	1	7	0	0	0	0
4/28/2022	10:00 AM	0	192	61	1	7	4	0	0	9	0	0	0	0
4/28/2022	10:15 AM	1	212	65	2	7	15	0	2	10	0	0	0	0
4/28/2022	10:30 AM	2	214	63	0	9	12	0	1	9	0	0	0	0
4/28/2022	10:45 AM	0	210	62	0	5	8	0	2	6	1	0	0	0
4/28/2022	11:00 AM	1	237	78	0	5	6	0	0	7	0	0	0	0
4/28/2022	11:15 AM	0	271	85	0	3	11	0	0	10	0	0	0	0
4/28/2022	11:30 AM	0	247	81	0	4	6	0	0	6	0	0	0	0
4/28/2022	11:45 AM	2	265	67	0	7	14	0	0	7	0	0	0	0
4/28/2022	12:00 PM	0	246	64	1	8	5	0	0	6	0	0	0	0
4/28/2022	12:15 PM	1	286	75	0	7	6	0	1	6	0	0	0	0
4/28/2022	12:30 PM	2	274	72	0	8	19	0	2	5	0	0	0	0
4/28/2022	12:45 PM	2	233	65	0	9	8	0	0	6	0	0	0	0
4/28/2022	1:00 PM	1	242	78	0	5	10	0	1	8	0	0	0	0
4/28/2022	1:15 PM	2	294	89	1	7	3	0	0	9	0	0	0	0
4/28/2022	1:30 PM	0	238	91	0	11	8	0	0	6	0	0	0	0
4/28/2022	1:45 PM	0	247	80	0	5	3	0	1	6	2	0	0	0
4/28/2022	2:00 PM	2	256	101	0	3	5	0	1	3	0	0	0	0
4/28/2022	2:15 PM	1	246	85	0	7	6	0	0	4	0	0	0	0
4/28/2022	2:30 PM	0	282	98	0	4	10	0	2	6	0	0	0	0
4/28/2022	2:45 PM	3	336	84	0	5	13	0	0	4	1	0	0	0
4/28/2022	3:00 PM	0	321	94	1	5	5	0	2	4	0	0	0	0
4/28/2022	3:15 PM	1	352	98	0	4	8	0	2	7	0	0	0	0
4/28/2022	3:30 PM	3	312	97	0	4	9	0	1	4	0	0	0	0
4/28/2022	3:45 PM	1	330	133	0	10	4	0	0	4	0	0	0	0
4/28/2022	4:00 PM	0	347	151	0	1	7	0	1	3	0	0	0	0
4/28/2022	4:15 PM	0	354	151	1	4	6	0	0	2	0	0	0	0
4/28/2022	4:30 PM	0	369	133	0	7	3	0	0	3	0	0	0	0
4/28/2022	4:45 PM	0	375	127	0	3	2	0	0	2	0	0	0	0
4/28/2022	5:00 PM	2	378	133	0	1	4	0	0	2	0	0	0	0
4/28/2022	5:15 PM	4	363	120	0	8	5	0	0	1	0	0	0	0
4/28/2022	5:30 PM	1	378	143	0	9	6	0	0	1	0	0	0	0
4/28/2022	5:45 PM	1	409	120	1	3	5	0	0	0	0	0	0	0
4/28/2022	6:00 PM	0	351	98	0	6	4	0	0	1	0	0	0	0
4/28/2022	6:15 PM	1	396	115	0	1	0	0	0	3	0	0	0	0
4/28/2022	6:30 PM	2	315	121	0	5	1	1	0	0	1	0	0	0
4/28/2022	6:45 PM	4	277	63	0	2	0	0	0	0	0	0	0	0
4/28/2022	7:00 PM	0	253	55	0	1	0	0	0	1	0	0	0	0
4/28/2022	7:15 PM	0	280	46	0	2	0	0	1	3	0	0	0	0
4/28/2022	7:30 PM	2	222	51	0	0	0	0	3	1	1	0	0	0
4/28/2022	7:45 PM	0	198	42	0	1	0	0	1	1	0	0	0	0
4/28/2022	8:00 PM	0	225	42	0	3	0	0	0	0	0	0	0	0
4/28/2022	8:15 PM	2	207	36	0	2	0	0	0	0	0	0	0	0
4/28/2022	8:30 PM	0	164	28	0	5	0	0	0	2	0	0	0	0
4/28/2022	8:45 PM	0	180	24	0	1	0	0	1	0	0	0	0	0
4/28/2022	9:00 PM	0	165	20	0	0	0	0	0	0	0	0	0	0
4/28/2022	9:15 PM	0	142	22	0	0	0	0	0	0	0	0	0	0
4/28/2022	9:30 PM	0	130	20	0	0	0	0	1	0	0	0	0	0
4/28/2022	9:45 PM	0	131	25	0	1	1	0	0	1	0	0	0	0
4/28/2022	10:00 PM	0	111	20	0	1	0	0	0	2	0	0	0	0
4/28/2022	10:15 PM	0	99	16	0	0	0	0	0	1	0	0	0	0
4/28/2022	10:30 PM	0	69	10	0	0	1	0	0	5	0	0	0	0
4/28/2022	10:45 PM	0	81	18	0	0	0	0	0	1	0	0	0	0
4/28/2022	11:00 PM	0	67	10	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:15 PM	0	74	13	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:30 PM	0	55	16	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:45 PM	0	40	11	0	0	0	0	0	0	0	0	0	0

SB

File Name:

Start Date: 4/28/2022

Start Time: 0

Site Code: 4

Station ID: 1

Location 1: GA-400 Georgia 400 S (North), north of Bottoms Rd

Location 2:

Date	Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13
4/28/2022	12:00 AM	0	8	1	0	0	0	0	0	0	0	0	0	0
4/28/2022	12:15 AM	0	10	0	0	0	0	0	0	1	0	0	0	0
4/28/2022	12:30 AM	0	9	0	0	0	0	0	0	0	0	0	0	0
4/28/2022	12:45 AM	0	8	1	0	0	1	0	0	1	0	0	0	0
4/28/2022	1:00 AM	0	13	2	0	0	0	0	0	1	0	0	0	0
4/28/2022	1:15 AM	0	9	0	0	1	0	0	0	1	0	0	0	0
4/28/2022	1:30 AM	0	6	1	0	0	0	0	0	1	0	0	0	0
4/28/2022	1:45 AM	0	11	1	0	1	0	0	0	2	0	0	0	0
4/28/2022	2:00 AM	0	5	0	0	0	0	0	0	1	0	0	0	0
4/28/2022	2:15 AM	0	3	1	0	1	0	0	0	1	0	0	0	0
4/28/2022	2:30 AM	0	3	1	0	1	1	0	0	1	0	0	0	0
4/28/2022	2:45 AM	0	8	2	0	0	1	0	0	0	0	0	0	0
4/28/2022	3:00 AM	0	12	1	0	1	1	0	0	0	0	0	0	0
4/28/2022	3:15 AM	0	21	2	0	0	0	0	0	2	0	0	0	0
4/28/2022	3:30 AM	1	23	7	0	1	0	0	0	1	0	0	0	0
4/28/2022	3:45 AM	0	45	7	0	2	0	0	0	3	0	0	0	0
4/28/2022	4:00 AM	0	31	5	0	3	0	0	0	0	0	0	0	0
4/28/2022	4:15 AM	0	46	13	0	2	1	0	0	2	0	0	0	0
4/28/2022	4:30 AM	0	67	10	0	1	1	0	2	0	0	0	0	0
4/28/2022	4:45 AM	0	61	11	0	1	0	0	0	3	0	0	0	0
4/28/2022	5:00 AM	0	111	23	1	2	0	0	0	1	0	0	0	0
4/28/2022	5:15 AM	0	164	27	0	0	1	0	0	4	0	0	0	0
4/28/2022	5:30 AM	0	178	68	0	1	2	0	0	3	0	0	0	0
4/28/2022	5:45 AM	0	213	70	0	0	6	0	0	4	0	0	0	0
4/28/2022	6:00 AM	0	272	100	0	3	2	0	0	4	0	0	0	0
4/28/2022	6:15 AM	1	350	130	0	8	6	0	0	3	0	0	0	0
4/28/2022	6:30 AM	4	339	159	0	10	17	0	1	1	0	0	0	0
4/28/2022	6:45 AM	1	397	149	1	7	7	0	1	3	0	0	0	0
4/28/2022	7:00 AM	2	440	155	0	12	11	0	1	3	0	0	0	0
4/28/2022	7:15 AM	0	410	136	0	14	5	0	0	4	0	0	0	0
4/28/2022	7:30 AM	0	323	136	1	1	6	1	0	6	0	0	0	0
4/28/2022	7:45 AM	2	356	124	1	9	4	0	0	5	0	0	0	0
4/28/2022	8:00 AM	0	293	93	0	8	1	0	3	7	0	0	0	0
4/28/2022	8:15 AM	0	280	124	1	11	5	0	4	6	0	0	0	0
4/28/2022	8:30 AM	0	284	89	1	3	6	0	1	4	0	0	0	0
4/28/2022	8:45 AM	0	247	56	0	6	7	0	2	5	0	0	0	0
4/28/2022	9:00 AM	0	227	82	1	6	5	0	0	4	0	0	0	0
4/28/2022	9:15 AM	0	237	77	0	7	9	0	1	5	0	0	0	0
4/28/2022	9:30 AM	1	260	84	0	6	9	0	0	5	0	0	0	0
4/28/2022	9:45 AM	1	283	99	0	9	13	0	0	7	0	0	0	0
4/28/2022	10:00 AM	1	203	63	0	5	7	0	1	11	0	0	0	0
4/28/2022	10:15 AM	5	253	70	0	7	4	0	0	6	0	0	0	0
4/28/2022	10:30 AM	1	227	82	1	13	5	0	0	4	0	0	0	0
4/28/2022	10:45 AM	2	205	69	0	8	8	0	1	11	0	0	0	0
4/28/2022	11:00 AM	4	219	74	0	9	11	0	1	9	0	0	0	0
4/28/2022	11:15 AM	0	203	79	1	3	8	0	1	10	0	0	0	0
4/28/2022	11:30 AM	2	224	73	0	13	7	0	1	9	0	0	0	0
4/28/2022	11:45 AM	2	186	75	0	8	9	0	1	5	0	0	0	0
4/28/2022	12:00 PM	0	210	82	0	6	8	0	1	6	0	0	0	0
4/28/2022	12:15 PM	0	223	75	1	4	8	0	0	1	0	0	0	0
4/28/2022	12:30 PM	4	214	66	0	6	6	0	1	5	0	0	0	0
4/28/2022	12:45 PM	1	241	58	0	5	7	0	0	4	0	0	0	0
4/28/2022	1:00 PM	1	236	65	0	7	7	1	0	5	0	0	0	0
4/28/2022	1:15 PM	2	244	62	0	7	8	2	0	8	0	0	0	0
4/28/2022	1:30 PM	5	251	71	3	8	6	3	0	5	0	0	0	0
4/28/2022	1:45 PM	0	244	58	1	6	7	2	1	5	0	0	0	0
4/28/2022	2:00 PM	2	216	46	1	7	3	0	1	6	0	0	0	0
4/28/2022	2:15 PM	1	225	58	1	11	11	0	3	4	0	0	0	0
4/28/2022	2:30 PM	1	235	72	2	5	7	0	1	5	0	0	0	0
4/28/2022	2:45 PM	2	221	62	0	4	8	0	1	7	0	0	0	0
4/28/2022	3:00 PM	1	233	51	0	16	4	0	5	4	0	0	0	0
4/28/2022	3:15 PM	1	231	74	1	6	6	0	2	7	0	0	0	0
4/28/2022	3:30 PM	1	237	70	2	5	7	0	2	6	0	0	0	0
4/28/2022	3:45 PM	0	208	48	2	3	4	0	1	5	0	0	0	0
4/28/2022	4:00 PM	0	269	78	0	11	3	0	1	4	0	0	0	0
4/28/2022	4:15 PM	0	242	53	1	9	0	0	1	3	0	0	0	0
4/28/2022	4:30 PM	1	236	49	2	6	1	0	0	3	0	0	0	0
4/28/2022	4:45 PM	0	248	55	1	11	4	0	1	2	0	0	0	0
4/28/2022	5:00 PM	1	268	49	0	4	6	0	1	0	0	0	0	0
4/28/2022	5:15 PM	0	224	64	0	9	3	0	0	1	0	0	0	0
4/28/2022	5:30 PM	0	249	70	0	6	2	0	0	0	0	0	0	0
4/28/2022	5:45 PM	0	258	71	0	6	3	0	1	2	0	0	0	0
4/28/2022	6:00 PM	1	225	49	0	2	0	0	0	1	0	0	0	0
4/28/2022	6:15 PM	1	235	55	0	4	0	0	0	5	0	0	0	0
4/28/2022	6:30 PM	0	200	50	0	2	3	1	2	2	0	0	0	0
4/28/2022	6:45 PM	0	207	44	0	3	2	0	0	1	0	0	0	0
4/28/2022	7:00 PM	1	158	58	0	0	1	0	3	1	0	0	0	0
4/28/2022	7:15 PM	0	169	67	0	0	0	0	0	4	0	0	0	0
4/28/2022	7:30 PM	1	139	61	0	1	1	0	0	1	0	0	0	0
4/28/2022	7:45 PM	0	135	47	0	3	1	0	0	1	0	0	0	0
4/28/2022	8:00 PM	1	161	34	0	2	0	0	0	1	0	0	0	0
4/28/2022	8:15 PM	0	138	38	0	1	0	0	0	0	0	0	0	0
4/28/2022	8:30 PM	1	122	29	0	1	1	0	0	0	0	0	0	0
4/28/2022	8:45 PM	0	114	21	0	2	0	0	1	1	0	0	0	0
4/28/2022	9:00 PM	0	108	21	0	0	0	0	0	0	0	0	0	0
4/28/2022	9:15 PM	0	67	15	0	1	0	0	0	2	0	0	0	0
4/28/2022	9:30 PM	0	82	14	0	0	1	0	0	0	0	0	0	0
4/28/2022	9:45 PM	0	81	17	0	1	0	0	0	1	0	0	0	0
4/28/2022	10:00 PM	0	58	15	0	1	0	0	0	0	0	0	0	0
4/28/2022	10:15 PM	0	56	10	0	0	0	0	0	0	0	0	0	0
4/28/2022	10:30 PM	0	41	9	0	0	0	0	0	2	0	0	0	0
4/28/2022	10:45 PM	0	30	7	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:00 PM	0	32	8	0	1	0	0	0	0	0	0	0	0
4/28/2022	11:15 PM	0	25	7	0	0	0	0	0	3	0	0	0	0
4/28/2022	11:30 PM	0	18	6	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:45 PM	0	22	4	0	0	0	0	0	1	0	0	0	0

File Name:

Start Time: 0

Site Code: 4
Station ID: 1

Location 1: G

	Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13
4/28/2022	12:00 AM	0	93	25	0	0	1	0	0	5	0	0	0	0
4/28/2022	12:15 AM	0	80	19	0	0	1	0	0	4	0	0	0	0
4/28/2022	12:30 AM	0	62	17	0	1	1	0	0	5	0	0	0	0
4/28/2022	12:45 AM	0	50	12	0	2	1	0	0	6	0	0	0	0
4/28/2022	1:00 AM	0	42	12	0	2	0	0	0	4	0	0	0	0
4/28/2022	1:15 AM	0	36	10	0	4	0	0	0	4	0	0	0	0
4/28/2022	1:30 AM	0	31	8	0	3	0	0	0	3	0	0	0	0
4/28/2022	1:45 AM	0	29	7	0	2	0	0	0	3	0	0	0	0
4/28/2022	2:00 AM	0	27	7	0	2	0	0	0	3	0	0	0	0
4/28/2022	2:15 AM	0	27	6	0	0	0	0	0	3	0	0	0	0
4/28/2022	2:30 AM	0	31	7	0	1	0	0	0	3	0	0	0	0
4/28/2022	2:45 AM	0	25	5	0	1	0	0	0	2	0	0	0	0
4/28/2022	3:00 AM	0	19	2	0	2	0	0	0	3	0	0	0	0
4/28/2022	3:15 AM	0	18	2	0	2	0	0	0	3	0	0	0	0
4/28/2022	3:30 AM	0	16	3	0	3	1	0	0	4	0	0	0	0
4/28/2022	3:45 AM	0	24	5	0	3	1	0	0	5	0	0	0	0
4/28/2022	4:00 AM	0	38	10	0	2	1	0	0	5	0	0	0	0
4/28/2022	4:15 AM	0	46	13	0	2	1	0	0	6	0	0	0	0
4/28/2022	4:30 AM	0	64	19	0	2	1	0	0	9	0	0	0	0
4/28/2022	4:45 AM	0	95	26	0	2	1	0	1	9	0	0	0	0
4/28/2022	5:00 AM	0	124	29	0	4	2	0	1	8	0	0	0	0
4/28/2022	5:15 AM	0	154	36	1	8	2	0	1	9	0	0	0	0
4/28/2022	5:30 AM	0	189	43	1	8	4	0	1	6	0	0	0	0
4/28/2022	5:45 AM	0	248	52	1	16	4	0	1	11	0	0	0	0
4/28/2022	6:00 AM	0	296	88	1	20	4	0	1	14	0	0	0	0
4/28/2022	6:15 AM	1	361	128	0	21	5	0	3	17	0	0	0	0
4/28/2022	6:30 AM	1	420	162	1	24	6	0	3	17	1	0	0	0
4/28/2022	6:45 AM	1	508	189	1	23	10	0	4	14	1	0	0	0
4/28/2022	7:00 AM	3	622	215	1	27	17	0	4	19	1	0	0	0
4/28/2022	7:15 AM	2	679	222	1	37	21	0	3	20	1	0	0	0
4/28/2022	7:30 AM	2	737	215	0	43	21	0	4	22	0	0	0	0
4/28/2022	7:45 AM	2	723	230	0	42	19	0	3	24	0	0	0	0
4/28/2022	8:00 AM	0	705	203	0	39	12	0	6	21	0	0	0	0
4/28/2022	8:15 AM	0	726	195	0	33	17	0	6	20	0	0	0	0
4/28/2022	8:30 AM	2	711	204	2	28	18	0	5	26	0	0	0	0
4/28/2022	8:45 AM	3	708	188	2	33	24	0	5	29	0	0	0	0
4/28/2022	9:00 AM	3	725	206	2	34	29	0	3	30	0	0	0	0
4/28/2022	9:15 AM	3	730	217	3	32	23	0	2	34	0	0	0	0
4/28/2022	9:30 AM	2	780	231	3	33	33	0	4	34	0	0	0	0
4/28/2022	9:45 AM	3	824	250	3	31	37	0	4	35	0	0	0	0
4/28/2022	10:00 AM	3	828	251	3	28	39	0	5	34	1	0	0	0
4/28/2022	10:15 AM	4	873	268	2	26	41	0	5	32	1	0	0	0
4/28/2022	10:30 AM	3	932	288	0	22	37	0	3	32	1	0	0	0
4/28/2022	10:45 AM	1	965	306	0	17	31	0	2	29	1	0	0	0
4/28/2022	11:00 AM	3	1020	311	0	19	37	0	0	30	0	0	0	0
4/28/2022	11:15 AM	2	1029	297	1	22	36	0	0	29	0	0	0	0
4/28/2022	11:30 AM	3	1044	287	1	26	31	0	1	25	0	0	0	0
4/28/2022	11:45 AM	5	1071	278	1	30	44	0	3	24	0	0	0	0
4/28/2022	12:00 PM	5	1039	276	1	32	38	0	3	23	0	0	0	0
4/28/2022	12:15 PM	6	1035	290	0	29	43	0	4	25	0	0	0	0
4/28/2022	12:30 PM	7	1043	304	1	29	40	0	3	28	0	0	0	0
4/28/2022	12:45 PM	5	1007	323	1	32	29	0	1	29	0	0	0	0
4/28/2022	1:00 PM	3	1021	338	1	28	24	0	2	29	2	0	0	0
4/28/2022	1:15 PM	4	1035	361	1	26	19	0	2	24	2	0	0	0
4/28/2022	1:30 PM	3	987	357	0	26	22	0	2	19	2	0	0	0
4/28/2022	1:45 PM	3	1031	364	0	19	24	0	4	19	2	0	0	0
4/28/2022	2:00 PM	6	1120	368	0	19	34	0	3	17	1	0	0	0
4/28/2022	2:15 PM	4	1185	361	1	21	34	0	4	18	1	0	0	0
4/28/2022	2:30 PM	4	1291	374	1	18	36	0	6	21	1	0	0	0
4/28/2022	2:45 PM	7	1321	373	1	18	35	0	5	19	1	0	0	0
4/28/2022	3:00 PM	5	1315	422	1	23	26	0	5	19	0	0	0	0
4/28/2022	3:15 PM	5	1341	479	0	19	28	0	4	18	0	0	0	0
4/28/2022	3:30 PM	4	1343	532	1	19	26	0	2	13	0	0	0	0
4/28/2022	3:45 PM	1	1400	568	1	22	20	0	1	12	0	0	0	0
4/28/2022	4:00 PM	0	1445	562	1	15	18	0	1	10	0	0	0	0
4/28/2022	4:15 PM	2	1476	544	1	15	15	0	0	9	0	0	0	0
4/28/2022	4:30 PM	6	1485	513	0	19	14	0	0	8	0	0	0	0
4/28/2022	4:45 PM	7	1494	523	0	21	17	0	0	6	0	0	0	0
4/28/2022	5:00 PM	8	1528	516	1	21	20	0	0	4	0	0	0	0
4/28/2022	5:15 PM	6	1501	481	1	26	20	0	0	3	0	0	0	0
4/28/2022	5:30 PM	3	1534	476	1	19	15	0	0	5	0	0	0	0
4/28/2022	5:45 PM	4	1471	454	1	15	10	1	0	5	0	0	0	0
4/28/2022	6:00 PM	7	1339	397	0	14	5	1	0	5	0	0	0	0
4/28/2022	6:15 PM	7	1241	354	0	9	1	1	0	5	0	0	0	0
4/28/2022	6:30 PM	6	1125	285	0	10	1	1	1	5	0	0	0	0
4/28/2022	6:45 PM	6	1032	215	0	5	0	0	4	5	1	0	0	0
4/28/2022	7:00 PM	2	953	194	0	4	0	0	5	6	1	0	0	0
4/28/2022	7:15 PM	2	925	181	0	6	0	0	5	5	1	0	0	0
4/28/2022	7:30 PM	4	852	171	0	6	0	0	4	2	1	0	0	0
4/28/2022	7:45 PM	2	794	148	0	11	0	0	1	3	0	0	0	0
4/28/2022	8:00 PM	2	776	130	0	11	0	0	1	2	0	0	0	0
4/28/2022	8:15 PM	2	716	108	0	8	0	0	1	2	0	0	0	0
4/28/2022	8:30 PM	0	651	94	0	6	0	0	1	2	0	0	0	0
4/28/2022	8:45 PM	0	617	86	0	1	0	0	2	0	0	0	0	0
4/28/2022	9:00 PM	0	568	87	0	1	1	0	1	1	0	0	0	0
4/28/2022	9:15 PM	0	514	87	0	2	1	0	1	3	0	0	0	0
4/28/2022	9:30 PM	0	471	81	0	2	1	0	1	4	0	0	0	0
4/28/2022	9:45 PM	0	410	71	0	2	2	0	0	9	0	0	0	0
4/28/2022	10:00 PM	0	360	64	0	1	1	0	0	9	0	0	0	0
4/28/2022	10:15 PM	0	316	54	0	0	1	0	0	7	0	0	0	0
4/28/2022	10:30 PM	0	291	51	0	0	1	0	0	6	0	0	0	0
4/28/2022	10:45 PM	0	277	57	0	0	0	0	0	1	0	0	0	0
4/28/2022	11:00 PM	0	236	50	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:15 PM	0	169	40	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:30 PM	0	95	27	0	0	0	0	0	0	0	0	0	0
4/28/2022	11:45 PM	0	40	11	0	0	0	0	0	0	0	0	0	0

SB

File Name:

Start Date: 4/28/2022

Start Time: 0

Site Code: 4

Station ID: 1

Location 1: GA-400 Georgia 400 S (North), north of Bottoms Rd

Location 2:

Date	Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13
4/28/2022	12:00 AM	0	35	2	0	0	1	0	0	2	0	0	0	0
4/28/2022	12:15 AM	0	40	3	0	0	1	0	0	3	0	0	0	0
4/28/2022	12:30 AM	0	39	3	0	1	1	0	0	3	0	0	0	0
4/28/2022	12:45 AM	0	36	4	0	1	1	0	0	4	0	0	0	0
4/28/2022	1:00 AM	0	39	4	0	2	0	0	0	5	0	0	0	0
4/28/2022	1:15 AM	0	31	2	0	2	0	0	0	5	0	0	0	0
4/28/2022	1:30 AM	0	25	3	0	2	0	0	0	5	0	0	0	0
4/28/2022	1:45 AM	0	22	3	0	3	1	0	0	5	0	0	0	0
4/28/2022	2:00 AM	0	19	4	0	2	2	0	0	3	0	0	0	0
4/28/2022	2:15 AM	0	26	5	0	3	3	0	0	2	0	0	0	0
4/28/2022	2:30 AM	0	44	6	0	2	3	0	0	3	0	0	0	0
4/28/2022	2:45 AM	1	64	12	0	2	2	0	0	3	0	0	0	0
4/28/2022	3:00 AM	1	101	17	0	4	1	0	0	6	0	0	0	0
4/28/2022	3:15 AM	1	120	21	0	6	0	0	0	6	0	0	0	0
4/28/2022	3:30 AM	1	145	32	0	8	1	0	0	6	0	0	0	0
4/28/2022	3:45 AM	0	189	35	0	8	2	0	2	5	0	0	0	0
4/28/2022	4:00 AM	0	205	39	0	7	2	0	2	5	0	0	0	0
4/28/2022	4:15 AM	0	285	57	1	6	2	0	2	6	0	0	0	0
4/28/2022	4:30 AM	0	403	71	1	4	2	0	2	8	0	0	0	0
4/28/2022	4:45 AM	0	514	129	1	4	3	0	0	11	0	0	0	0
4/28/2022	5:00 AM	0	666	188	1	3	9	0	0	12	0	0	0	0
4/28/2022	5:15 AM	0	827	265	0	4	11	0	0	15	0	0	0	0
4/28/2022	5:30 AM	1	1013	368	0	12	16	0	0	14	0	0	0	0
4/28/2022	5:45 AM	5	1174	459	0	21	31	0	1	12	0	0	0	0
4/28/2022	6:00 AM	6	1358	538	1	28	32	0	2	11	0	0	0	0
4/28/2022	6:15 AM	8	1526	593	1	37	41	0	3	10	0	0	0	0
4/28/2022	6:30 AM	7	1586	599	1	43	40	0	3	11	0	0	0	0
4/28/2022	6:45 AM	3	1570	576	2	34	29	1	2	16	0	0	0	0
4/28/2022	7:00 AM	4	1529	551	2	36	26	1	1	18	0	0	0	0
4/28/2022	7:15 AM	2	1382	489	2	32	16	1	3	22	0	0	0	0
4/28/2022	7:30 AM	2	1252	477	3	29	16	1	7	24	0	0	0	0
4/28/2022	7:45 AM	2	1213	430	3	31	16	0	8	22	0	0	0	0
4/28/2022	8:00 AM	0	1104	362	2	28	19	0	10	22	0	0	0	0
4/28/2022	8:15 AM	0	1038	351	3	26	23	0	7	19	0	0	0	0
4/28/2022	8:30 AM	0	995	304	2	22	27	0	4	18	0	0	0	0
4/28/2022	8:45 AM	1	971	299	1	25	30	0	3	19	0	0	0	0
4/28/2022	9:00 AM	2	1007	342	1	28	36	0	1	21	0	0	0	0
4/28/2022	9:15 AM	3	983	323	0	27	38	0	2	28	0	0	0	0
4/28/2022	9:30 AM	8	999	316	0	27	33	0	1	29	0	0	0	0
4/28/2022	9:45 AM	8	966	314	1	34	29	0	1	28	0	0	0	0
4/28/2022	10:00 AM	9	888	284	1	33	24	0	2	32	0	0	0	0
4/28/2022	10:15 AM	12	904	295	1	37	28	0	2	30	0	0	0	0
4/28/2022	10:30 AM	7	854	304	2	33	32	0	3	34	0	0	0	0
4/28/2022	10:45 AM	8	851	295	1	33	34	0	4	39	0	0	0	0
4/28/2022	11:00 AM	8	832	301	1	33	35	0	4	33	0	0	0	0
4/28/2022	11:15 AM	4	823	309	1	30	32	0	4	30	0	0	0	0
4/28/2022	11:30 AM	4	843	305	1	31	32	0	3	21	0	0	0	0
4/28/2022	11:45 AM	6	833	298	1	24	31	0	3	17	0	0	0	0
4/28/2022	12:00 PM	5	888	281	1	21	29	0	2	16	0	0	0	0
4/28/2022	12:15 PM	6	914	264	1	22	28	1	1	15	0	0	0	0
4/28/2022	12:30 PM	8	935	251	0	25	28	3	1	22	0	0	0	0
4/28/2022	12:45 PM	9	972	256	3	27	28	6	0	22	0	0	0	0
4/28/2022	1:00 PM	8	975	256	4	28	28	8	1	23	0	0	0	0
4/28/2022	1:15 PM	9	955	237	5	28	24	7	2	24	0	0	0	0
4/28/2022	1:30 PM	8	936	233	6	32	27	5	5	20	0	0	0	0
4/28/2022	1:45 PM	4	920	234	5	29	28	2	6	20	0	0	0	0
4/28/2022	2:00 PM	6	897	238	4	27	29	0	6	22	0	0	0	0
4/28/2022	2:15 PM	5	914	243	3	36	30	0	10	20	0	0	0	0
4/28/2022	2:30 PM	5	920	259	3	31	25	0	9	23	0	0	0	0
4/28/2022	2:45 PM	5	922	257	3	31	25	0	10	24	0	0	0	0
4/28/2022	3:00 PM	3	909	243	5	30	21	0	10	22	0	0	0	0
4/28/2022	3:15 PM	2	945	270	5	25	20	0	6	22	0	0	0	0
4/28/2022	3:30 PM	1	956	249	5	28	14	0	5	18	0	0	0	0
4/28/2022	3:45 PM	1	955	228	5	29	8	0	3	15	0	0	0	0
4/28/2022	4:00 PM	1	995	235	4	37	8	0	3	12	0	0	0	0
4/28/2022	4:15 PM	2	994	206	4	30	11	0	3	8	0	0	0	0
4/28/2022	4:30 PM	2	976	217	3	30	14	0	2	6	0	0	0	0
4/28/2022	4:45 PM	1	989	238	1	30	15	0	2	3	0	0	0	0
4/28/2022	5:00 PM	1	999	254	0	25	14	0	2	3	0	0	0	0
4/28/2022	5:15 PM	1	956	254	0	23	8	0	1	4	0	0	0	0
4/28/2022	5:30 PM	2	967	245	0	18	5	0	1	8	0	0	0	0
4/28/2022	5:45 PM	2	918	225	0	14	6	1	3	10	0	0	0	0
4/28/2022	6:00 PM	2	867	198	0	11	5	1	2	9	0	0	0	0
4/28/2022	6:15 PM	2	800	207	0	9	6	1	5	9	0	0	0	0
4/28/2022	6:30 PM	1	734	219	0	5	6	1	5	8	0	0	0	0
4/28/2022	6:45 PM	2	673	230	0	4	4	0	3	7	0	0	0	0
4/28/2022	7:00 PM	2	601	233	0	4	3	0	3	7	0	0	0	0
4/28/2022	7:15 PM	2	604	209	0	6	2	0	0	7	0	0	0	0
4/28/2022	7:30 PM	2	573	180	0	7	2	0	0	3	0	0	0	0
4/28/2022	7:45 PM	2	556	148	0	7	2	0	0	2	0	0	0	0
4/28/2022	8:00 PM	2	535	122	0	6	1	0	1	2	0	0	0	0
4/28/2022	8:15 PM	1	482	109	0	4	1	0	1	1	0	0	0	0
4/28/2022	8:30 PM	1	411	86	0	4	1	0	1	3	0	0	0	0
4/28/2022	8:45 PM	0	371	71	0	3	1	0	1	3	0	0	0	0
4/28/2022	9:00 PM	0	338	67	0	2	1	0	0	3	0	0	0	0
4/28/2022	9:15 PM	0	288	61	0	3	1	0	0	3	0	0	0	0
4/28/2022	9:30 PM	0	277	56	0	2	1	0	0	1	0	0	0	0
4/28/2022	9:45 PM	0	236	51	0	2	0	0	0	3	0	0	0	0
4/28/2022	10:00 PM	0	185	41	0	1	0	0	0	2	0	0	0	0
4/28/2022	10:15 PM	0	159	34	0	1	0	0	0	2	0	0	0	0
4/28/2022	10:30 PM	0	128	31	0	1	0	0	0	5	0	0	0	0
4/28/2022	10:45 PM	0	105	28	0	1	0	0	0	3	0	0	0	0
4/28/2022	11:00 PM	0	97	25	0	1	0	0	0	4	0	0	0	0
4/28/2022	11:15 PM	0	65	17	0	0	0	0	0	4	0	0	0	0
4/28/2022	11:30 PM	0	40	10	0	0	0	0	0	1	0	0	0	0
4/28/2022	11:45 PM	0	22	4	0	0	0	0	0	1	0	0	0	0



[Click here for Map](#)

Peak Hour Turning Movement Count

Cumming, GA



www.marrtraffic.com

Thursday, April 28, 2022	
Period	0600 - 1900
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

GA-400 Georgia 400 S (North)

Southbound

(1-3)	27	1211	0	10	1248	2049	(1-3)
(4-7)	3	34	2	0	39	42	(4-7)
(8-13)	1	4	0	0	5	4	(8-13)

Total	31	1249	2	10	1292	2095	Total
-------	----	------	---	----	------	------	-------



0

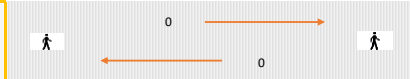
0

(1-3)	(4-7)	(8-13)	Total
36	3	1	40
38	1	0	39
0	0	0	0
18	0	0	18
5	1	0	6
15	0	0	15
(1-3)	(4-7)	(8-13)	Total



Classes	(1-3)	(4-7)	(8-13)	Total
Volume	3316	82	9	3407
PHF				0.9624

Total	(8-13)	(4-7)	(1-3)
1	0	0	1
4	0	0	4
0	0	0	0
0	0	0	0
5	0	0	5
8	0	3	5
Total	(8-13)	(4-7)	(1-3)



Total	1264	2071	0	5	2066	0	Total
-------	------	------	---	---	------	---	-------

(8-13)	4	4	0	0	4	0	(8-13)
(4-7)	34	42	0	0	42	0	(4-7)
(1-3)	1226	2025	0	5	2020	0	(1-3)

Northbound

GA-400 Georgia 400 S (South)

Settingdown Cir

Eastbound

Westbound

Bottoms Rd

Classified Turn Movement Count || All vehicles

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 1 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Cir

Bottoms Rd

Date

Thursday, April 28, 2022

Lat/Long

34.292889°, -84.074441°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

All vehicles

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Cir					Bottoms Rd					
	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	
0600 - 0615	0	62	1	0	63	0	381	5	0	386	0	0	5	0	5	0	0	0	0	0	454
0615 - 0630	0	82	0	0	82	0	488	8	2	498	0	0	1	0	1	0	0	0	0	0	581
0630 - 0645	2	128	0	0	130	0	522	9	2	533	2	0	4	0	6	1	0	0	0	1	670
0645 - 0700	0	147	0	0	147	0	543	16	3	562	1	0	8	0	9	0	1	0	0	1	719
Hourly Total	2	419	1	0	422	0	1934	38	7	1979	3	0	18	0	21	1	1	0	0	2	2424
0700 - 0715	0	169	0	0	169	1	600	13	4	618	1	0	5	0	6	0	0	0	0	0	793
0715 - 0730	0	174	0	0	174	2	530	34	3	569	1	0	5	0	6	0	0	0	0	0	749
0730 - 0745	1	243	0	0	244	11	392	63	6	472	0	1	4	0	5	0	1	0	0	1	722
0745 - 0800	0	295	0	0	295	18	392	83	8	501	0	0	2	0	2	0	0	0	0	0	798
Hourly Total	1	881	0	0	882	32	1914	193	21	2160	2	1	16	0	19	0	1	0	0	1	3062
0800 - 0815	1	243	0	0	244	5	367	26	4	402	1	2	2	0	5	0	1	0	0	1	652
0815 - 0830	0	232	0	0	232	0	408	22	3	433	4	1	5	0	10	0	1	0	0	1	676
0830 - 0845	0	245	0	0	245	0	379	10	1	390	0	0	4	0	4	0	1	0	0	1	640
0845 - 0900	2	241	0	0	243	0	315	9	2	326	3	0	3	0	6	0	1	0	0	1	576
Hourly Total	3	961	0	0	964	5	1469	67	10	1551	8	3	14	0	25	0	4	0	0	4	2544
0900 - 0915	1	250	0	0	251	0	319	6	7	332	2	0	4	0	6	0	1	0	1	2	591
0915 - 0930	2	235	0	1	238	0	332	4	3	339	0	0	4	0	4	0	0	0	0	0	581
0930 - 0945	3	225	1	0	229	1	359	6	3	369	6	0	4	0	10	0	0	1	0	1	609
0945 - 1000	0	284	1	0	285	0	405	3	4	412	1	1	2	0	4	0	0	0	0	0	701
Hourly Total	6	994	2	1	1003	1	1415	19	17	1452	9	1	14	0	24	0	1	1	1	3	2482
1000 - 1015	0	273	0	0	273	1	282	7	2	292	1	0	1	0	2	0	0	0	0	0	567
1015 - 1030	0	308	0	1	309	2	340	2	3	347	1	0	3	0	4	0	0	0	0	0	660
1030 - 1045	2	308	1	1	312	2	318	3	4	327	0	0	1	0	1	0	1	1	0	2	642
1045 - 1100	1	286	0	0	287	0	294	4	3	301	1	1	5	0	7	0	0	0	0	0	595
Hourly Total	3	1175	1	2	1181	5	1234	16	12	1267	3	1	10	0	14	0	1	1	0	2	2464
1100 - 1115	3	328	0	0	331	1	311	6	5	323	1	2	1	0	4	0	0	0	0	0	658
1115 - 1130	2	371	1	0	374	0	305	3	5	313	3	0	1	0	4	0	0	1	0	1	692
1130 - 1145	0	338	0	0	338	3	318	5	3	329	3	0	1	0	4	0	0	0	0	0	671
1145 - 1200	1	356	0	0	357	2	266	7	5	280	1	0	4	0	5	1	0	0	0	1	643
Hourly Total	6	1393	1	0	1400	6	1200	21	18	1245	8	2	7	0	17	1	0	1	0	2	2664
1200 - 1215	0	323	0	0	323	0	303	10	2	315	1	0	5	0	6	0	0	0	0	0	644
1215 - 1230	0	371	0	0	371	1	301	6	8	316	5	0	1	0	6	0	0	0	0	0	693
1230 - 1245	1	374	0	0	375	2	289	5	2	298	2	1	2	0	5	0	0	0	0	0	678
1245 - 1300	0	318	0	0	318	0	310	4	2	316	5	2	2	0	9	0	2	1	0	3	646
Hourly Total	1	1386	0	0	1387	3	1203	25	14	1245	13	3	10	0	26	0	2	1	0	3	2661
1300 - 1315	2	339	0	1	342	0	320	4	1	325	1	1	3	0	5	0	2	0	0	2	674
1315 - 1330	2	396	0	0	398	1	321	5	6	333	3	3	2	0	8	0	0	0	0	0	739
1330 - 1345	0	351	0	0	351	0	346	6	2	354	1	1	4	0	6	0	1	0	0	1	712
1345 - 1400	2	352	1	0	355	0	320	2	2	324	1	0	1	0	2	0	0	0	0	0	681
Hourly Total	6	1438	1	1	1446	1	1307	17	11	1336	6	5	10	0	21	0	3	0	0	3	2806
1400 - 1415	0	371	0	0	371	1	282	5	1	289	1	0	3	0	4	0	0	0	0	0	664
1415 - 1430	1	348	1	1	351	0	308	4	3	315	2	1	3	0	6	1	0	0	1	2	674
1430 - 1445	2	403	0	0	405	1	321	7	1	330	0	0	2	0	2	0	0	0	0	0	737
1445 - 1500	0	437	0	0	437	0	298	4	5	307	4	0	5	0	9	0	0	0	0	0	753
Hourly Total	3	1559	1	1	1564	2	1209	20	10	1241	7	1	13	0	21	1	0	0	1	2	2828
1500 - 1515	1	432	0	0	433	0	304	1	5	310	0	0	0	0	0	0	2	1	0	3	746
1515 - 1530	2	467	0	0	469	1	314	7	3	325	6	1	3	0	10	0	1	0	0	1	805
1530 - 1545	0	427	0	1	428	0	323	5	2	330	4	1	2	0	7	0	1	0	0	1	766
1545 - 1600	0	473	0	0	473	0	263	4	4	271	5	0	3	0	8	0	0	0	0	0	752
Hourly Total	3	1799	0	1	1803	1	1204	17	14	1236	15	2	8	0	25	0	4	1	0	5	3069
1600 - 1615	0	497	0	1	498	2	348	8	5	363	4	0	4	0	8	0	0	0	0	0	869
1615 - 1630	0	513	0	0	513	1	303	4	2	310	3	0	1	0	4	0	1	0	0	1	828
1630 - 1645	1	501	0	0	502	0	284	4	7	295	4	2	1	0	7	1	0	1	0	2	806
1645 - 1700	0	502	0	0	502	0	309	6	5	320	3	1	4	0	8	0	0	0	0	0	830
Hourly Total	1	2013	0	1	2015	3	1244	22	19	1288	14	3	10	0	27	1	1	1	0	3	3333
1700 - 1715	2	509	0	0	511	0	321	5	3	329	6	1	2	0	9	0	2	0	0	2	851
1715 - 1730	0	490	0	0	490	0	286	11	2	299	4	2	5	0	11	0	0	0	0	0	800
1730 - 1745	0	531	0	0	531	2	316	6	3	327	6	2	4	0	12	0	1	0	0	1	871
1745 - 1800	3	536	0	0	539	0	326	9	2	337	2	1	4	0	7	0	1	1	0	2	885
Hourly Total	5	2066	0	0	2071	2	1249	31	10	1292	18	6	15	0	39	0	4	1	0	5	3407
1800 - 1815	1	462	0	0	463	0	277	3	1	281	1	0	3	0	4	0	1	0	0	1	749
1815 - 1830	0	506	0	0	506	0	289	4	7	300	3	1	4	0	8	0	0	0	0	0	814
1830 - 1845	0	435	1	0	436	0	241	10	5	256	2	0	0	0	2	0	0	0	0	0	694
1845 - 1900	0	343	0	0	343	0	245	7	3	255	2	2	5	0	9	0	1	0	0	1	608
Hourly Total	1	1746	1	0	1748	0	1052	24	16	1092	8	3	12	0	23	0	2	0	0	2	2865
Grand Total	41	17830	8	7	17886	61	17634	510	179	18384	114	31	157	0	302	4	24	7	2	37	36609
Approach %	0.23	99.69	0.04	0.04	-	0.33	95.92	2.77	0.97	-	37.75	10.26	51.99	0.00	-	10.81	64.86	18.92	5.41	-	
Intersection %	0.11	48.70	0.02	0.02	48.86	0.17	48.17	1.39	0.49	50.22	0.31	0.08	0.43	0.00	0.82	0.01	0.07	0.02	0.01	0.10	
PHF	0.42	0.96	0.00	0.00	0.96	0.25	0.96	0.70	0.83	0.96	0.75	0.75	0.75	0.00	0.81	0.00	0.50	0.25	0.00	0.63	0.96

Classified Turn Movement Count || Passenger Vehicles (1-3)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 1 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Cir

Bottoms Rd

Date

Thursday, April 28, 2022

Lat/Long

34.292889°, -84.074441°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Passenger Vehicles (1-3)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Cir					Bottoms Rd					
	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	
0600 - 0615	0	55	1	0	56	0	371	5	0	376	0	0	5	0	5	0	0	0	0	0	437
0615 - 0630	0	75	0	0	75	0	473	6	2	481	0	0	1	0	1	0	0	0	0	0	557
0630 - 0645	2	114	0	0	116	0	494	9	2	505	2	0	4	0	6	1	0	0	0	1	628
0645 - 0700	0	135	0	0	135	0	524	16	3	543	1	0	6	0	7	0	1	0	0	1	686
Hourly Total	2	379	1	0	382	0	1862	36	7	1905	3	0	16	0	19	1	1	0	0	2	2308
0700 - 0715	0	154	0	0	154	1	575	13	4	593	1	0	4	0	5	0	0	0	0	0	752
0715 - 0730	0	162	0	0	162	2	507	34	3	546	0	0	5	0	5	0	0	0	0	0	713
0730 - 0745	1	226	0	0	227	11	378	60	6	455	0	1	4	0	5	0	1	0	0	1	688
0745 - 0800	0	271	0	0	271	18	375	81	8	482	0	0	1	0	1	0	0	0	0	0	754
Hourly Total	1	813	0	0	814	32	1835	188	21	2076	1	1	14	0	16	0	1	0	0	1	2907
0800 - 0815	1	219	0	0	220	5	350	24	4	383	1	2	2	0	5	0	1	0	0	1	609
0815 - 0830	0	212	0	0	212	0	383	22	3	408	4	1	2	0	7	0	1	0	0	1	628
0830 - 0845	0	228	0	0	228	0	364	8	1	373	0	0	4	0	4	0	1	0	0	1	606
0845 - 0900	1	225	0	0	226	0	296	8	2	306	2	0	3	0	5	0	1	0	0	1	538
Hourly Total	2	884	0	0	886	5	1393	62	10	1470	7	3	11	0	21	0	4	0	0	4	2381
0900 - 0915	1	225	0	0	226	0	303	6	7	316	2	0	4	0	6	0	1	0	1	2	550
0915 - 0930	2	207	0	1	210	0	310	4	3	317	0	0	4	0	4	0	0	0	0	0	531
0930 - 0945	3	203	1	0	207	1	340	5	3	349	5	0	3	0	8	0	0	1	0	1	565
0945 - 1000	0	262	1	0	263	0	376	3	4	383	1	1	2	0	4	0	0	0	0	0	650
Hourly Total	6	897	2	1	906	1	1329	18	17	1365	8	1	13	0	22	0	1	1	1	3	2296
1000 - 1015	0	248	0	0	248	1	258	7	2	268	1	0	1	0	2	0	0	0	0	0	518
1015 - 1030	0	276	0	1	277	2	321	2	3	328	1	0	3	0	4	0	0	0	0	0	609
1030 - 1045	2	278	0	1	281	2	297	3	4	306	0	0	1	0	1	0	1	0	0	1	589
1045 - 1100	1	264	0	0	265	0	266	4	3	273	1	1	5	0	7	0	0	0	0	0	545
Hourly Total	3	1066	0	2	1071	5	1142	16	12	1175	3	1	10	0	14	0	1	0	0	1	2261
1100 - 1115	3	310	0	0	313	1	281	6	5	293	1	2	1	0	4	0	0	0	0	0	610
1115 - 1130	2	347	1	0	350	0	278	3	5	286	3	0	1	0	4	0	0	1	0	1	641
1130 - 1145	0	323	0	0	323	3	293	4	3	303	2	0	1	0	3	0	0	0	0	0	629
1145 - 1200	1	328	0	0	329	1	245	6	5	257	1	0	4	0	5	1	0	0	0	1	592
Hourly Total	6	1308	1	0	1315	5	1097	19	18	1139	7	2	7	0	16	1	0	1	0	2	2472
1200 - 1215	0	303	0	0	303	0	282	10	2	294	1	0	5	0	6	0	0	0	0	0	603
1215 - 1230	0	349	0	0	349	1	288	5	8	302	5	0	0	0	5	0	0	0	0	0	656
1230 - 1245	1	345	0	0	346	2	271	5	2	280	2	1	2	0	5	0	0	0	0	0	631
1245 - 1300	0	293	0	0	293	0	294	4	2	300	4	1	2	0	7	0	2	1	0	3	603
Hourly Total	1	1290	0	0	1291	3	1135	24	14	1176	12	2	9	0	23	0	2	1	0	3	2493
1300 - 1315	2	315	0	1	318	0	297	4	1	302	1	1	3	0	5	0	2	0	0	2	627
1315 - 1330	2	376	0	0	378	1	296	5	6	308	3	3	2	0	8	0	0	0	0	0	694
1330 - 1345	0	333	0	0	333	0	324	6	2	332	1	1	4	0	6	0	1	0	0	1	672
1345 - 1400	1	328	1	0	330	0	298	2	2	302	1	0	1	0	2	0	0	0	0	0	634
Hourly Total	5	1352	1	1	1359	1	1215	17	11	1244	6	5	10	0	21	0	3	0	0	3	2627
1400 - 1415	0	359	0	0	359	1	260	5	1	267	1	0	3	0	4	0	0	0	0	0	630
1415 - 1430	1	331	1	1	334	0	284	4	3	291	2	1	3	0	6	1	0	0	1	2	633
1430 - 1445	1	381	0	0	382	1	302	6	1	310	0	0	2	0	2	0	0	0	0	0	694
1445 - 1500	0	414	0	0	414	0	276	4	5	285	4	0	5	0	9	0	0	0	0	0	708
Hourly Total	2	1485	1	1	1489	2	1122	19	10	1153	7	1	13	0	21	1	0	0	1	2	2665
1500 - 1515	1	411	0	0	412	0	275	1	5	281	0	0	0	0	0	0	2	1	0	3	696
1515 - 1530	2	446	0	0	448	1	293	6	3	303	6	1	2	0	9	0	1	0	0	1	761
1530 - 1545	0	409	0	1	410	0	301	5	2	308	4	1	2	0	7	0	1	0	0	1	726
1545 - 1600	0	459	0	0	459	0	249	3	4	256	5	0	3	0	8	0	0	0	0	0	723
Hourly Total	3	1725	0	1	1729	1	1118	15	14	1148	15	2	7	0	24	0	4	1	0	5	2906
1600 - 1615	0	485	0	1	486	2	330	7	5	344	4	0	4	0	8	0	0	0	0	0	838
1615 - 1630	0	504	0	0	504	1	290	4	1	296	3	0	1	0	4	0	1	0	0	1	805
1630 - 1645	1	488	0	0	489	0	272	4	7	283	4	2	1	0	7	1	0	1	0	2	781
1645 - 1700	0	492	0	0	492	0	291	5	5	301	3	1	4	0	8	0	0	0	0	0	801
Hourly Total	1	1969	0	1	1971	3	1183	20	18	1224	14	3	10	0	27	1	1	1	0	3	3225
1700 - 1715	2	502	0	0	504	0	311	4	3	318	6	1	2	0	9	0	2	0	0	2	833
1715 - 1730	0	476	0	0	476	0	275	9	2	286	4	2	5	0	11	0	0	0	0	0	773
1730 - 1745	0	517	0	0	517	0	311	5	3	319	6	1	4	0	11	0	1	0	0	1	848
1745 - 1800	3	525	0	0	528	0	314	9	2	325	2	1	4	0	7	0	1	1	0	2	862
Hourly Total	5	2020	0	0	2025	0	1211	27	10	1248	18	5	15	0	38	0	4	1	0	5	3316
1800 - 1815	1	459	0	0	460	0	274	3	1	278	1	0	3	0	4	0	1	0	0	1	743
1815 - 1830	0	498	0	0	498	0	280	4	7	291	3	1	4	0	8	0	0	0	0	0	797
1830 - 1845	0	428	1	0	429	0	232	10	4	246	2	0	0	0	2	0	0	0	0	0	677
1845 - 1900	0	338	0	0	338	0	239	7	3	249	1	2	5	0	8	0	1	0	0	1	596
Hourly Total	1	1723	1	0	1725	0	1025	24	15	1064	7	3	12	0	22	0	2	0	0	2	2813
Grand Total	38	16911	7	7	16963	58	16667	485	177	17387	108	29	147	0	284	4	24	6	2	36	34670
Approach %	0.22	99.69	0.04	0.04	-	0.33	95.86	2.79	1.02	-	38.03	10.21	51.76	0.00	-	11.11	66.67	16.67	5.56	-	-
Intersection %	0.11	48.78	0.02	0.02	48.93	0.17	48.07	1.40	0.51	50.15	0.31	0.08	0.42	0.00	0.82	0.01	0.07	0.02	0.01	0.10	-

Classified Turn Movement Count || Single Unit Trucks (4-7)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 1 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Cir

Bottoms Rd

Date

Thursday, April 28, 2022

Lat/Long

34.292889°, -84.074441°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Single Unit Trucks (4-7)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Cir					Bottoms Rd					
	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	
0600 - 0615	0	5	0	0	5	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	11
0615 - 0630	0	5	0	0	5	0	12	2	0	14	0	0	0	0	0	0	0	0	0	0	19
0630 - 0645	0	7	0	0	7	0	26	0	0	26	0	0	0	0	0	0	0	0	0	0	33
0645 - 0700	0	8	0	0	8	0	15	0	0	15	0	0	2	0	2	0	0	0	0	0	25
Hourly Total	0	25	0	0	25	0	59	2	0	61	0	0	2	0	2	0	0	0	0	0	88
0700 - 0715	0	8	0	0	8	0	21	0	0	21	0	0	1	0	1	0	0	0	0	0	30
0715 - 0730	0	9	0	0	9	0	19	0	0	19	1	0	0	0	1	0	0	0	0	0	29
0730 - 0745	0	12	0	0	12	0	8	3	0	11	0	0	0	0	0	0	0	0	0	0	23
0745 - 0800	0	15	0	0	15	0	12	2	0	14	0	0	1	0	1	0	0	0	0	0	30
Hourly Total	0	44	0	0	44	0	60	5	0	65	1	0	2	0	3	0	0	0	0	0	112
0800 - 0815	0	17	0	0	17	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0	26
0815 - 0830	0	15	0	0	15	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	30
0830 - 0845	0	11	0	0	11	0	11	1	0	12	0	0	0	0	0	0	0	0	0	0	23
0845 - 0900	0	8	0	0	8	0	12	1	0	13	0	0	0	0	0	0	0	0	0	0	21
Hourly Total	0	51	0	0	51	0	46	3	0	49	0	0	0	0	0	0	0	0	0	0	100
0900 - 0915	0	19	0	0	19	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	31
0915 - 0930	0	18	0	0	18	0	16	0	0	16	0	0	0	0	0	0	0	0	0	0	34
0930 - 0945	0	13	0	0	13	0	14	1	0	15	1	0	1	0	2	0	0	0	0	0	30
0945 - 1000	0	14	0	0	14	0	22	0	0	22	0	0	0	0	0	0	0	0	0	0	36
Hourly Total	0	64	0	0	64	0	64	1	0	65	1	0	1	0	2	0	0	0	0	0	131
1000 - 1015	0	16	0	0	16	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	28
1015 - 1030	0	20	0	0	20	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	33
1030 - 1045	0	20	1	0	21	0	17	0	0	17	0	0	0	0	0	0	0	1	0	1	39
1045 - 1100	0	13	0	0	13	0	16	0	0	16	0	0	0	0	0	0	0	0	0	0	29
Hourly Total	0	69	1	0	70	0	58	0	0	58	0	0	0	0	0	0	0	1	0	1	129
1100 - 1115	0	11	0	0	11	0	20	0	0	20	0	0	0	0	0	0	0	0	0	0	31
1115 - 1130	0	14	0	0	14	0	16	0	0	16	0	0	0	0	0	0	0	0	0	0	30
1130 - 1145	0	9	0	0	9	0	16	0	0	16	1	0	0	0	1	0	0	0	0	0	26
1145 - 1200	0	21	0	0	21	1	15	1	0	17	0	0	0	0	0	0	0	0	0	0	38
Hourly Total	0	55	0	0	55	1	67	1	0	69	1	0	0	0	1	0	0	0	0	0	125
1200 - 1215	0	14	0	0	14	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	28
1215 - 1230	0	15	0	0	15	0	12	1	0	13	0	0	1	0	1	0	0	0	0	0	29
1230 - 1245	0	22	0	0	22	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	34
1245 - 1300	0	19	0	0	19	0	12	0	0	12	1	1	0	0	2	0	0	0	0	0	33
Hourly Total	0	70	0	0	70	0	50	1	0	51	1	1	1	0	3	0	0	0	0	0	124
1300 - 1315	0	15	0	0	15	0	18	0	0	18	0	0	0	0	0	0	0	0	0	0	33
1315 - 1330	0	11	0	0	11	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	28
1330 - 1345	0	12	0	0	12	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	29
1345 - 1400	0	15	0	0	15	0	16	0	0	16	0	0	0	0	0	0	0	0	0	0	31
Hourly Total	0	53	0	0	53	0	68	0	0	68	0	0	0	0	0	0	0	0	0	0	121
1400 - 1415	0	8	0	0	8	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	23
1415 - 1430	0	13	0	0	13	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	30
1430 - 1445	1	14	0	0	15	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	29
1445 - 1500	0	18	0	0	18	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	32
Hourly Total	1	53	0	0	54	0	60	0	0	60	0	0	0	0	0	0	0	0	0	0	114
1500 - 1515	0	15	0	0	15	0	20	0	0	20	0	0	0	0	0	0	0	0	0	0	35
1515 - 1530	0	12	0	0	12	0	12	1	0	13	0	0	1	0	1	0	0	0	0	0	26
1530 - 1545	0	13	0	0	13	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	27
1545 - 1600	0	10	0	0	10	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0	19
Hourly Total	0	50	0	0	50	0	54	2	0	56	0	0	1	0	1	0	0	0	0	0	107
1600 - 1615	0	8	0	0	8	0	13	1	0	14	0	0	0	0	0	0	0	0	0	0	22
1615 - 1630	0	7	0	0	7	0	9	0	1	10	0	0	0	0	0	0	0	0	0	0	17
1630 - 1645	0	10	0	0	10	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	19
1645 - 1700	0	8	0	0	8	0	15	1	0	16	0	0	0	0	0	0	0	0	0	0	24
Hourly Total	0	33	0	0	33	0	46	2	1	49	0	0	0	0	0	0	0	0	0	0	82
1700 - 1715	0	5	0	0	5	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	15
1715 - 1730	0	13	0	0	13	0	10	2	0	12	0	0	0	0	0	0	0	0	0	0	25
1730 - 1745	0	13	0	0	13	2	5	1	0	8	0	1	0	0	1	0	0	0	0	0	22
1745 - 1800	0	11	0	0	11	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	20
Hourly Total	0	42	0	0	42	2	34	3	0	39	0	1	0	0	1	0	0	0	0	0	82
1800 - 1815	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
1815 - 1830	0	5	0	0	5	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	9
1830 - 1845	0	6	0	0	6	0	5	0	1	6	0	0	0	0	0	0	0	0	0	0	12
1845 - 1900	0	5	0	0	5	0	5	0	0	5	1	0	0	0	1	0	0	0	0	0	11
Hourly Total	0	18	0	0	18	0	16	0	1	17	1	0	0	0	1	0	0	0	0	0	36
Grand Total	1	627	1	0	629	3	682	20	2	707	5	2	7	0	14	0	0	1	0	1	1351
Approach %	0.16	99.68	0.16	0.00	-	0.42	96.46	2.83	0.28	-	35.71	14.29	50.00	0.00	-	0.00	0.00	100.00	0.00	-	
Intersection %	0.07	46.41	0.07	0.00	46.56	0.22	50.48	1.48	0.15	52.33	0.37	0.15	0.52	0.00	1.04	0.00	0.00	0.07	0.00	0.07	

Classified Turn Movement Count || Combination Trucks (8-13)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 1 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Cir

Bottoms Rd

Date

Thursday, April 28, 2022

Lat/Long

34.292889°, -84.074441°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Combination Trucks (8-13)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Cir					Bottoms Rd					
	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	
0600 - 0615	0	2	0	0	2	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	6
0615 - 0630	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
0630 - 0645	0	7	0	0	7	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	9
0645 - 0700	0	4	0	0	4	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	0	15	0	0	15	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	28
0700 - 0715	0	7	0	0	7	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	11
0715 - 0730	0	3	0	0	3	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	7
0730 - 0745	0	5	0	0	5	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	11
0745 - 0800	0	9	0	0	9	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	14
Hourly Total	0	24	0	0	24	0	19	0	0	19	0	0	0	0	0	0	0	0	0	0	43
0800 - 0815	0	7	0	0	7	0	9	1	0	10	0	0	0	0	0	0	0	0	0	0	17
0815 - 0830	0	5	0	0	5	0	10	0	0	10	0	0	3	0	3	0	0	0	0	0	18
0830 - 0845	0	6	0	0	6	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	11
0845 - 0900	1	8	0	0	9	0	7	0	0	7	1	0	0	0	1	0	0	0	0	0	17
Hourly Total	1	26	0	0	27	0	30	2	0	32	1	0	3	0	4	0	0	0	0	0	63
0900 - 0915	0	6	0	0	6	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	10
0915 - 0930	0	10	0	0	10	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	16
0930 - 0945	0	9	0	0	9	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	14
0945 - 1000	0	8	0	0	8	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	15
Hourly Total	0	33	0	0	33	0	22	0	0	22	0	0	0	0	0	0	0	0	0	0	55
1000 - 1015	0	9	0	0	9	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	21
1015 - 1030	0	12	0	0	12	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	18
1030 - 1045	0	10	0	0	10	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	14
1045 - 1100	0	9	0	0	9	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	21
Hourly Total	0	40	0	0	40	0	34	0	0	34	0	0	0	0	0	0	0	0	0	0	74
1100 - 1115	0	7	0	0	7	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	17
1115 - 1130	0	10	0	0	10	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	21
1130 - 1145	0	6	0	0	6	0	9	1	0	10	0	0	0	0	0	0	0	0	0	0	16
1145 - 1200	0	7	0	0	7	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	13
Hourly Total	0	30	0	0	30	0	36	1	0	37	0	0	0	0	0	0	0	0	0	0	67
1200 - 1215	0	6	0	0	6	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	13
1215 - 1230	0	7	0	0	7	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	8
1230 - 1245	0	7	0	0	7	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	13
1245 - 1300	0	6	0	0	6	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	10
Hourly Total	0	26	0	0	26	0	18	0	0	18	0	0	0	0	0	0	0	0	0	0	44
1300 - 1315	0	9	0	0	9	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	14
1315 - 1330	0	9	0	0	9	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	17
1330 - 1345	0	6	0	0	6	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	11
1345 - 1400	1	9	0	0	10	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	16
Hourly Total	1	33	0	0	34	0	24	0	0	24	0	0	0	0	0	0	0	0	0	0	58
1400 - 1415	0	4	0	0	4	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	11
1415 - 1430	0	4	0	0	4	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	11
1430 - 1445	0	8	0	0	8	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	14
1445 - 1500	0	5	0	0	5	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	13
Hourly Total	0	21	0	0	21	0	27	1	0	28	0	0	0	0	0	0	0	0	0	0	49
1500 - 1515	0	6	0	0	6	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	15
1515 - 1530	0	9	0	0	9	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	18
1530 - 1545	0	5	0	0	5	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	13
1545 - 1600	0	4	0	0	4	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	10
Hourly Total	0	24	0	0	24	0	32	0	0	32	0	0	0	0	0	0	0	0	0	0	56
1600 - 1615	0	4	0	0	4	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	9
1615 - 1630	0	2	0	0	2	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	6
1630 - 1645	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
1645 - 1700	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	11	0	0	11	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	26
1700 - 1715	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
1715 - 1730	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
1730 - 1745	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1745 - 1800	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	4	0	0	4	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	9
1800 - 1815	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
1815 - 1830	0	3	0	0	3	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	8
1830 - 1845	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	5
1845 - 1900	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	5	0	0	5	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	16
Grand Total	2	292	0	0	294	0	285	5	0	290	1	0	3	0	4	0	0	0	0	0	588
Approach %	0.68	99.32	0.00	0.00	-	0.00	98.28	1.72	0.00	-	25.00	0.00	75.00	0.00	-	0.00	0.00	0.00	0.00	0.00	-
Intersection %	0.34	49.66	0.00	0.00	50.00	0.00	48.47	0.85	0.00	49.32	0.17	0.00	0.51	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00

Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Weather

Fair

66°F

Lat/Long

34.292889°, -84.074441°

Bikes

[illegible]

Marr Traffic
DATA COLLECTION
www.marrtraffic.com

www.marrtraffic.com

Weather

Fair

66°F

34.292889°, -84.074441°

Pedestrians

TIME	Northbound			Southbound			Eastbound			Westbound			
	GA-400 Georgia 400 S (South)			GA-400 Georgia 400 S (North)			Settingdown Cir			Bottoms Rd			
	EB 1a	WB 1b	App Total	EB 1c	WB 1d	App Total	NB 1e	SB 1f	App Total	NB 1g	SB 1h	App Total	Int Total
0600 - 0615	0	0	0	0	0	0	0	0	0	0	0	0	0
0615 - 0630	0	0	0	0	0	0	0	0	0	0	0	0	0
0630 - 0645	0	0	0	0	0	0	0	0	0	0	0	0	0
0645 - 0700	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
0700 - 0715	0	0	0	0	0	0	0	0	0	0	0	0	0
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	0
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
0900 - 0915	0	0	0	0	0	0	0	0	0	0	0	0	0
0915 - 0930	0	0	0	0	0	0	0	0	0	0	0	0	0
0930 - 0945	0	0	0	0	0	0	0	0	0	0	0	0	0
0945 - 1000	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1000 - 1015	0	0	0	0	0	0	0	0	0	0	0	0	0
1015 - 1030	0	0	0	0	0	0	0	0	0	0	0	0	0
1030 - 1045	0	0	0	0	0	0	0	0	0	0	0	0	0
1045 - 1100	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 - 1115	0	0	0	0	0	0	0	0	0	0	0	0	0
1115 - 1130	0	0	0	0	0	0	0	0	0	0	0	0	0
1130 - 1145	0	0	0	0	0	0	0	0	0	0	0	0	0
1145 - 1200	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1200 - 1215	0	0	0	0	0	0	0	0	0	0	0	0	0
1215 - 1230	0	0	0	0	0	0	0	0	0	0	0	0	0
1230 - 1245	0	0	0	0	0	0	0	0	0	0	0	0	0
1245 - 1300	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1300 - 1315	0	0	0	0	0	0	0	0	0	0	0	0	0
1315 - 1330	0	0	0	0	0	0	0	0	0	0	0	0	0
1330 - 1345	0	0	0	0	0	0	0	0	0	0	0	0	0
1345 - 1400	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1400 - 1415	0	0	0	0	0	0	0	0	0	0	0	0	0
1415 - 1430	0	0	0	0	0	0	0	0	0	0	0	0	0
1430 - 1445	0	0	0	0	0	0	0	0	0	0	0	0	0
1445 - 1500	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1500 - 1515	0	0	0	0	0	0	0	0	0	0	0	0	0
1515 - 1530	0	0	0	0	0	0	0	0	0	0	0	0	0
1530 - 1545	0	0	0	0	0	0	0	0	0	0	0	0	0
1545 - 1600	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0
1830 - 1845	0	0	0	0	0	0	0	0	0	0	0	0	0
1845 - 1900	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00	0.00	-	
Intersection %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Start Date: 4/28/2022	GA-400 Georgia 400 S (South)			GA-400 Georgia 400 S (North)			Settingdown Cir			Bottoms Rd			Total
Time	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
15 Minute Totals													
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM - 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM - 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM - 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM - 02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM - 03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM - 03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM - 04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM - 04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM - 04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM - 04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM - 05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM - 05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM - 05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM - 05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM - 06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM - 06:15 AM	0	62	1	0	381	5	0	0	5	0	0	0	454
06:15 AM - 06:30 AM	0	82	0	0	488	8	0	0	1	0	0	0	581
06:30 AM - 06:45 AM	2	128	0	0	522	9	2	0	4	1	0	0	670
06:45 AM - 07:00 AM	0	147	0	0	543	16	1	0	8	0	1	0	719
07:00 AM - 07:15 AM	0	169	0	1	600	13	1	0	5	0	0	0	793
07:15 AM - 07:30 AM	0	174	0	2	530	34	1	0	5	0	0	0	749
07:30 AM - 07:45 AM	1	243	0	11	392	63	0	1	4	0	1	0	722
07:45 AM - 08:00 AM	0	295	0	18	392	83	0	0	2	0	0	0	798
08:00 AM - 08:15 AM	1	243	0	5	367	26	1	2	2	0	1	0	652
08:15 AM - 08:30 AM	0	232	0	0	408	22	4	1	5	0	1	0	676
08:30 AM - 08:45 AM	0	245	0	0	379	10	0	0	4	0	1	0	640
08:45 AM - 09:00 AM	2	241	0	0	315	9	3	0	3	0	1	0	576
09:00 AM - 09:15 AM	1	250	0	0	319	6	2	0	4	0	1	0	591
09:15 AM - 09:30 AM	2	235	0	0	332	4	0	0	4	0	0	0	581
09:30 AM - 09:45 AM	3	225	1	1	359	6	6	0	4	0	0	1	609
09:45 AM - 10:00 AM	0	284	1	0	405	3	1	1	2	0	0	0	701
10:00 AM - 10:15 AM	0	273	0	1	282	7	1	0	1	0	0	0	567
10:15 AM - 10:30 AM	0	308	0	2	340	2	1	0	3	0	0	0	660
10:30 AM - 10:45 AM	2	308	1	2	318	3	0	0	1	0	1	1	642
10:45 AM - 11:00 AM	1	286	0	0	294	4	1	1	5	0	0	0	595
11:00 AM - 11:15 AM	3	328	0	1	311	6	1	2	1	0	0	0	658
11:15 AM - 11:30 AM	2	371	1	0	305	3	3	0	1	0	0	1	692
11:30 AM - 11:45 AM	0	338	0	3	318	5	3	0	1	0	0	0	671
11:45 AM - 12:00 PM	1	356	0	2	266	7	1	0	4	1	0	0	643
12:00 PM - 12:15 PM	0	323	0	0	303	10	1	0	5	0	0	0	644
12:15 PM - 12:30 PM	0	371	0	1	301	6	5	0	1	0	0	0	693
12:30 PM - 12:45 PM	1	374	0	2	289	5	2	1	2	0	0	0	678
12:45 PM - 01:00 PM	0	318	0	0	310	4	5	2	2	0	2	1	646
01:00 PM - 01:15 PM	2	339	0	0	320	4	1	1	3	0	2	0	674
01:15 PM - 01:30 PM	2	396	0	1	321	5	3	3	2	0	0	0	739
01:30 PM - 01:45 PM	0	351	0	0	346	6	1	1	4	0	1	0	712
01:45 PM - 02:00 PM	2	352	1	0	320	2	1	0	1	0	0	0	681
02:00 PM - 02:15 PM	0	371	0	1	282	5	1	0	3	0	0	0	664
02:15 PM - 02:30 PM	1	348	1	0	308	4	2	1	3	1	0	0	674
02:30 PM - 02:45 PM	2	403	0	1	321	7	0	0	2	0	0	0	737
02:45 PM - 03:00 PM	0	437	0	0	298	4	4	0	5	0	0	0	753
03:00 PM - 03:15 PM	1	432	0	0	304	1	0	0	0	0	2	1	746
03:15 PM - 03:30 PM	2	467	0	1	314	7	6	1	3	0	1	0	805
03:30 PM - 03:45 PM	0	427	0	0	323	5	4	1	2	0	1	0	766
03:45 PM - 04:00 PM	0	473	0	0	263	4	5	0	3	0	0	0	752
04:00 PM - 04:15 PM	0	497	0	2	348	8	4	0	4	0	0	0	869
04:15 PM - 04:30 PM	0	513	0	1	303	4	3	0	1	0	1	0	828
04:30 PM - 04:45 PM	1	501	0	0	284	4	4	2	1	1	0	1	806
04:45 PM - 05:00 PM	0	502	0	0	309	6	3	1	4	0	0	0	830
05:00 PM - 05:15 PM	2	509	0	0	321	5	6	1	2	0	2	0	851
05:15 PM - 05:30 PM	0	490	0	0	286	11	4	2	5	0	0	0	800
05:30 PM - 05:45 PM	0	531	0	2	316	6	6	2	4	0	1	0	871
05:45 PM - 06:00 PM	3	536	0	0	326	9	2	1	4	0	1	1	885
06:00 PM - 06:15 PM	1	462	0	0	277	3	1	0	3	0	1	0	749
06:15 PM - 06:30 PM	0	506	0	0	289	4	3	1	4	0	0	0	814
06:30 PM - 06:45 PM	0	435	1	0	241	10	2	0	0	0	0	0	694
06:45 PM - 07:00 PM	0	343	0	0	245	7	2	2	5	0	1	0	608
07:00 PM - 07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 PM - 07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 PM - 07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 PM - 08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 PM - 08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 PM - 08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 PM - 08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 PM - 09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 PM - 09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 PM - 09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 PM - 09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0



[Click here for Map](#)

Peak Hour Turning Movement Count

Cumming, GA



www.marrtraffic.com

Thursday, April 28, 2022	
Period	0600 - 1900
Peak Hour	0730 - 0830

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

Settingdown Rd (North)

Southbound

(1-3)	1	229	0	0	230	38	(1-3)
(4-7)	0	3	0	0	3	3	(4-7)
(8-13)	0	1	0	0	1	0	(8-13)

Total	1	233	0	0	234	41	Total
-------	---	-----	---	---	-----	----	-------



0

0

(1-3)	(4-7)	(8-13)	Total
3	0	0	3
41	0	0	41

0	0	0	0
3	0	0	3
0	0	0	0
38	0	0	38

(1-3)	(4-7)	(8-13)	Total
-------	-------	--------	-------

Classes	(1-3)	(4-7)	(8-13)	Total
Volume	308	6	1	315
PHF				0.8119

Total	(8-13)	(4-7)	(1-3)
1	0	0	1
2	0	0	2
0	0	0	0
0	0	0	0

3	0	0	3
0	0	0	0

Total	(8-13)	(4-7)	(1-3)
-------	--------	-------	-------

0	0
0	0

Total	271	37	0	0	37	0	Total
-------	-----	----	---	---	----	---	-------

(8-13)	1	0	0	0	0	0	(8-13)
(4-7)	3	3	0	0	3	0	(4-7)
(1-3)	267	34	0	0	34	0	(1-3)

Northbound

Settingdown Rd (South)

Bottoms Rd

Eastbound

Westbound

Smith Dr

Time	Northbound					Southbound					Eastbound					Westbound					Int Total
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	
0730 - 0745	0	6	0	0	6	0	69	0	0	69	1	0	12	0	13	0	1	0	0	1	89
0745 - 0800	0	7	0	0	7	0	72	0	0	72	0	0	18	0	18	0	0	0	0	0	97
0800 - 0815	0	12	0	0	12	0	53	1	0	54	2	0	7	0	9	0	0	0	0	0	75
0815 - 0830	0	12	0	0	12	0	39	0	0	39	0	0	1	0	1	0	1	1	0	2	54
Total	0	37	0	0	37	0	233	1	0	234	3	0	38	0	41	0	2	1	0	3	315
Approach %	0.00	100.00	0.00	0.00	-	0.00	99.57	0.43	0.00	-	7.32	0.00	92.68	0.00	-	0.00	66.67	33.33	0.00	-	
PHF	0.00	0.77	0.00	0.00	0.77	0.00	0.81	0.25	0.00	0.81	0.38	0.00	0.53	0.00	0.57	0.00	0.50	0.25	0.00	0.38	0.81

Time	Northbound					Southbound					Eastbound					Westbound					Int Total
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	
0730 - 0745	0	4	0	0	4	0	68	0	0	68	1	0	12	0	13	0	1	0	0	1	86
0745 - 0800	0	7	0	0	7	0	71	0	0	71	0	0	18	0	18	0	0	0	0	0	96
0800 - 0815	0	11	0	0	11	0	52	1	0	53	2	0	7	0	9	0	0	0	0	0	73
0815 - 0830	0	12	0	0	12	0	38	0	0	38	0	0	1	0	1	0	1	1	0	2	53
Total	0	34	0	0	34	0	229	1	0	230	3	0	38	0	41	0	2	1	0	3	308
Approach %	0.00	100.00	0.00	0.00	-	0.00	99.57	0.43	0.00	-	7.32	0.00	92.68	0.00	-	0.00	66.67	33.33	0.00	-	
PHF	0.00	0.71	0.00	0.00	0.71	0.00	0.81	0.25	0.00	0.81	0.38	0.00	0.53	0.00	0.57	0.00	0.50	0.25	0.00	0.38	0.80

[illegible][illegible][illegible]

Classified Turn Movement Count || All vehicles

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 2 of 3

Settingdown Rd (South)

Settingdown Rd (North)

Bottoms Rd

Smith Dr

Date

Thursday, April 28, 2022

Lat/Long

34.291387°, -84.066745°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

All vehicles

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	
0600 - 0615	0	1	0	0	1	0	3	0	0	3	1	0	0	0	1	1	0	0	0	1	6
0615 - 0630	0	3	0	0	3	0	18	0	0	18	0	0	0	0	0	1	0	0	0	1	22
0630 - 0645	0	1	0	0	1	0	5	1	0	6	0	0	0	0	0	0	0	1	0	1	8
0645 - 0700	0	8	0	0	8	0	26	0	0	26	0	0	0	0	0	0	0	1	0	1	35
Hourly Total	0	13	0	0	13	0	52	1	0	53	1	0	0	0	1	2	0	2	0	4	71
0700 - 0715	0	1	0	0	1	0	36	0	1	37	1	0	0	0	1	0	0	1	0	1	40
0715 - 0730	0	5	0	0	5	0	41	0	0	41	0	0	1	0	1	0	0	1	0	1	48
0730 - 0745	0	6	0	0	6	0	69	0	0	69	1	0	12	0	13	0	1	0	0	1	89
0745 - 0800	0	7	0	0	7	0	72	0	0	72	0	0	18	0	18	0	0	0	0	0	97
Hourly Total	0	19	0	0	19	0	218	0	1	219	2	0	31	0	33	0	1	2	0	3	274
0800 - 0815	0	12	0	0	12	0	53	1	0	54	2	0	7	0	9	0	0	0	0	0	75
0815 - 0830	0	12	0	0	12	0	39	0	0	39	0	0	1	0	1	0	1	1	0	2	54
0830 - 0845	0	13	1	0	14	0	24	0	0	24	0	0	1	0	1	0	1	0	0	1	40
0845 - 0900	0	12	1	0	13	0	20	2	0	22	0	1	0	0	1	1	0	0	0	1	37
Hourly Total	0	49	2	0	51	0	136	3	0	139	2	1	9	0	12	1	2	1	0	4	206
0900 - 0915	0	6	2	0	8	0	14	1	0	15	0	0	0	0	0	0	0	1	0	1	24
0915 - 0930	0	13	0	0	13	0	17	0	0	17	0	0	2	0	2	0	0	0	0	0	32
0930 - 0945	0	6	0	0	6	0	13	0	0	13	1	1	0	0	2	2	1	0	0	3	24
0945 - 1000	0	17	0	0	17	0	22	0	0	22	1	0	0	0	1	1	0	0	0	1	41
Hourly Total	0	42	2	0	44	0	66	1	0	67	2	1	2	0	5	3	1	1	0	5	121
1000 - 1015	0	8	0	0	8	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	20
1015 - 1030	0	12	1	0	13	0	22	0	0	22	2	0	0	0	2	1	0	0	0	1	38
1030 - 1045	0	8	2	0	10	0	22	1	0	23	0	0	1	0	1	0	0	0	0	0	34
1045 - 1100	0	15	0	0	15	0	19	0	0	19	1	0	0	0	1	0	0	1	0	1	36
Hourly Total	0	43	3	0	46	0	75	1	0	76	3	0	1	0	4	1	0	1	0	2	128
1100 - 1115	0	17	0	0	17	0	18	0	0	18	1	0	2	0	3	0	0	0	0	0	38
1115 - 1130	0	13	1	0	14	0	17	0	0	17	0	1	0	0	1	0	2	0	0	2	34
1130 - 1145	0	10	0	0	10	0	16	0	0	16	0	1	0	0	1	0	0	0	0	0	27
1145 - 1200	1	16	1	0	18	1	16	1	0	18	0	1	1	0	2	0	0	0	0	0	38
Hourly Total	1	56	2	0	59	1	67	1	0	69	1	3	3	0	7	0	2	0	0	2	137
1200 - 1215	0	18	1	0	19	0	18	0	0	18	0	0	1	0	1	2	0	0	0	2	40
1215 - 1230	0	13	0	0	13	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	30
1230 - 1245	0	20	1	0	21	0	27	0	0	27	0	0	2	0	2	0	1	0	0	1	51
1245 - 1300	0	17	0	0	17	0	18	1	0	19	1	1	0	0	2	1	1	1	0	3	41
Hourly Total	0	68	2	0	70	0	80	1	0	81	1	1	3	0	5	3	2	1	0	6	162
1300 - 1315	0	20	1	0	21	0	16	0	0	16	0	2	0	0	2	1	1	0	0	2	41
1315 - 1330	0	14	1	0	15	0	13	0	0	13	3	1	0	0	4	0	0	1	0	1	33
1330 - 1345	0	24	2	0	26	0	24	1	0	25	0	0	2	0	2	0	0	1	0	1	54
1345 - 1400	0	12	0	0	12	0	11	0	0	11	0	0	0	0	0	1	0	0	0	1	24
Hourly Total	0	70	4	0	74	0	64	1	0	65	3	3	2	0	8	2	1	2	0	5	152
1400 - 1415	0	19	0	0	19	1	17	0	0	18	0	0	0	0	0	1	0	0	0	1	38
1415 - 1430	0	18	0	0	18	1	23	1	1	26	1	0	1	0	2	0	0	0	0	0	46
1430 - 1445	0	18	0	0	18	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	35
1445 - 1500	0	24	0	0	24	0	20	0	0	20	0	0	0	0	0	0	0	0	0	0	44
Hourly Total	0	79	0	0	79	2	77	1	1	81	1	0	1	0	2	1	0	0	0	1	163
1500 - 1515	0	19	0	0	19	1	10	2	0	13	0	0	0	0	0	1	0	0	0	1	33
1515 - 1530	0	18	2	0	20	0	20	1	0	21	1	0	0	0	1	0	0	0	0	0	42
1530 - 1545	0	14	0	0	14	1	17	0	0	18	1	0	0	0	1	1	1	0	0	2	35
1545 - 1600	0	29	0	0	29	0	19	0	0	19	0	1	0	0	1	0	0	0	0	0	49
Hourly Total	0	80	2	0	82	2	66	3	0	71	2	1	0	0	3	2	1	0	0	3	159
1600 - 1615	0	29	0	0	29	1	21	0	0	22	0	0	0	0	0	0	0	1	0	1	52
1615 - 1630	1	17	0	0	18	0	17	0	0	17	1	0	0	0	1	0	1	1	0	2	38
1630 - 1645	0	35	0	0	35	1	25	2	0	28	2	0	1	0	3	0	0	0	0	0	66
1645 - 1700	0	33	2	0	35	0	24	0	0	24	1	1	0	0	2	0	0	1	0	1	62
Hourly Total	1	114	2	0	117	2	87	2	0	91	4	1	1	0	6	0	1	3	0	4	218
1700 - 1715	1	36	0	0	37	0	17	2	0	19	0	0	0	0	0	0	0	0	0	0	56
1715 - 1730	0	32	1	0	33	2	23	0	0	25	2	0	1	0	3	1	0	1	0	2	63
1730 - 1745	0	29	1	0	30	0	17	1	0	18	2	0	0	0	2	0	0	3	0	3	53
1745 - 1800	2	10	0	0	12	0	16	0	0	16	0	0	1	0	1	1	0	0	0	1	30
Hourly Total	3	107	2	0	112	2	73	3	0	78	4	0	2	0	6	2	0	4	0	6	202
1800 - 1815	0	22	0	0	22	0	27	1	0	28	0	0	0	0	0	0	0	0	0	0	50
1815 - 1830	0	21	1	0	22	0	16	0	0	16	0	2	0	0	2	0	0	0	0	0	40
1830 - 1845	0	19	0	0	19	0	15	0	0	15	0	0	1	0	1	0	0	0	0	0	35
1845 - 1900	0	10	1	0	11	0	13	1	0	14	2	0	0	0	2	0	0	0	0	0	27
Hourly Total	0	72	2	0	74	0	71	2	0	73	2	2	1	0	5	0	0	0	0	0	152
Grand Total	5	812	23	0	840	9	1132	20	2	1163	28	13	56	0	97	17	11	17	0	45	2145
Approach %	0.60	96.67	2.74	0.00	-	0.77	97.33	1.72	0.17	-	28.87	13.40	57.73	0.00	-	37.78	24.44	37.78	0.00	-	-
Intersection %	0.23	37.86	1.07	0.00	39.16	0.42	52.77	0.93	0.09	54.22	1.31	0.61	2.61	0.00	4.52	0.79	0.51	0.79	0.00	2.10	-
PHF	0.00	0.77	0.00	0.00	0.77	0.00	0.81	0.25	0.00	0.81	0.38	0.00	0.53	0.00	0.57	0.00	0.50	0.25	0.00	0.38	0.81

Classified Turn Movement Count || Passenger Vehicles (1-3)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 2 of 3

Settingdown Rd (South)

Settingdown Rd (North)

Bottoms Rd

Smith Dr

Date

Thursday, April 28, 2022

Lat/Long

34.291387°, -84.066745°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Passenger Vehicles (1-3)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	
0600 - 0615	0	1	0	0	1	0	3	0	0	3	1	0	0	0	1	1	0	0	0	1	6
0615 - 0630	0	2	0	0	2	0	18	0	0	18	0	0	0	0	0	1	0	0	0	1	21
0630 - 0645	0	1	0	0	1	0	5	1	0	6	0	0	0	0	0	0	0	1	0	1	8
0645 - 0700	0	8	0	0	8	0	25	0	0	25	0	0	0	0	0	0	0	1	0	1	34
Hourly Total	0	12	0	0	12	0	51	1	0	52	1	0	0	0	1	2	0	2	0	4	69
0700 - 0715	0	1	0	0	1	0	36	0	1	37	1	0	0	0	1	0	0	1	0	1	40
0715 - 0730	0	5	0	0	5	0	41	0	0	41	0	0	1	0	1	0	0	1	0	1	48
0730 - 0745	0	4	0	0	4	0	68	0	0	68	1	0	12	0	13	0	1	0	0	1	86
0745 - 0800	0	7	0	0	7	0	71	0	0	71	0	0	18	0	18	0	0	0	0	0	96
Hourly Total	0	17	0	0	17	0	216	0	1	217	2	0	31	0	33	0	1	2	0	3	270
0800 - 0815	0	11	0	0	11	0	52	1	0	53	2	0	7	0	9	0	0	0	0	0	73
0815 - 0830	0	12	0	0	12	0	38	0	0	38	0	0	1	0	1	0	1	1	0	2	53
0830 - 0845	0	13	1	0	14	0	23	0	0	23	0	0	1	0	1	0	1	0	0	1	39
0845 - 0900	0	12	1	0	13	0	20	2	0	22	0	1	0	0	1	1	0	0	0	1	37
Hourly Total	0	48	2	0	50	0	133	3	0	136	2	1	9	0	12	1	2	1	0	4	202
0900 - 0915	0	5	2	0	7	0	14	1	0	15	0	0	0	0	0	0	0	1	0	1	23
0915 - 0930	0	13	0	0	13	0	17	0	0	17	0	0	2	0	2	0	0	0	0	0	32
0930 - 0945	0	5	0	0	5	0	13	0	0	13	1	1	0	0	2	2	1	0	0	3	23
0945 - 1000	0	16	0	0	16	0	21	0	0	21	1	0	0	0	1	1	0	0	0	1	39
Hourly Total	0	39	2	0	41	0	65	1	0	66	2	1	2	0	5	3	1	1	0	5	117
1000 - 1015	0	8	0	0	8	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	19
1015 - 1030	0	10	1	0	11	0	21	0	0	21	2	0	0	0	2	1	0	0	0	1	35
1030 - 1045	0	8	2	0	10	0	21	0	0	21	0	0	0	0	0	0	0	0	0	0	31
1045 - 1100	0	15	0	0	15	0	18	0	0	18	1	0	0	0	1	0	0	1	0	1	35
Hourly Total	0	41	3	0	44	0	71	0	0	71	3	0	0	0	3	1	0	1	0	2	120
1100 - 1115	0	16	0	0	16	0	18	0	0	18	1	0	2	0	3	0	0	0	0	0	37
1115 - 1130	0	13	1	0	14	0	17	0	0	17	0	1	0	0	1	0	2	0	0	2	34
1130 - 1145	0	10	0	0	10	0	16	0	0	16	0	1	0	0	1	0	0	0	0	0	27
1145 - 1200	1	15	1	0	17	1	15	1	0	17	0	0	1	0	1	0	0	0	0	0	35
Hourly Total	1	54	2	0	57	1	66	1	0	68	1	2	3	0	6	0	2	0	0	2	133
1200 - 1215	0	16	1	0	17	0	18	0	0	18	0	0	1	0	1	1	0	0	0	1	37
1215 - 1230	0	13	0	0	13	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	28
1230 - 1245	0	19	1	0	20	0	26	0	0	26	0	0	1	0	1	0	1	0	0	1	48
1245 - 1300	0	16	0	0	16	0	16	1	0	17	1	1	0	0	2	1	1	1	0	3	38
Hourly Total	0	64	2	0	66	0	75	1	0	76	1	1	2	0	4	2	2	1	0	5	151
1300 - 1315	0	20	1	0	21	0	15	0	0	15	0	2	0	0	2	1	1	0	0	2	40
1315 - 1330	0	14	1	0	15	0	11	0	0	11	3	1	0	0	4	0	0	0	0	0	30
1330 - 1345	0	24	1	0	25	0	24	1	0	25	0	0	2	0	2	0	0	1	0	1	53
1345 - 1400	0	11	0	0	11	0	11	0	0	11	0	0	0	0	0	1	0	0	0	1	23
Hourly Total	0	69	3	0	72	0	61	1	0	62	3	3	2	0	8	2	1	1	0	4	146
1400 - 1415	0	19	0	0	19	1	17	0	0	18	0	0	0	0	0	0	0	0	0	0	37
1415 - 1430	0	17	0	0	17	1	23	1	1	26	1	0	1	0	2	0	0	0	0	0	45
1430 - 1445	0	17	0	0	17	0	16	0	0	16	0	0	0	0	0	0	0	0	0	0	33
1445 - 1500	0	24	0	0	24	0	20	0	0	20	0	0	0	0	0	0	0	0	0	0	44
Hourly Total	0	77	0	0	77	2	76	1	1	80	1	0	1	0	2	0	0	0	0	0	159
1500 - 1515	0	16	0	0	16	1	10	2	0	13	0	0	0	0	0	1	0	0	0	1	30
1515 - 1530	0	17	2	0	19	0	18	1	0	19	1	0	0	0	1	0	0	0	0	0	39
1530 - 1545	0	13	0	0	13	1	16	0	0	17	1	0	0	0	1	1	1	0	0	2	33
1545 - 1600	0	29	0	0	29	0	16	0	0	16	0	1	0	0	1	0	0	0	0	0	46
Hourly Total	0	75	2	0	77	2	60	3	0	65	2	1	0	0	3	2	1	0	0	3	148
1600 - 1615	0	29	0	0	29	1	21	0	0	22	0	0	0	0	0	0	0	1	0	1	52
1615 - 1630	1	16	0	0	17	0	15	0	0	15	1	0	0	0	1	0	1	1	0	2	35
1630 - 1645	0	33	0	0	33	1	24	2	0	27	2	0	1	0	3	0	0	0	0	0	63
1645 - 1700	0	33	2	0	35	0	23	0	0	23	1	1	0	0	2	0	0	1	0	1	61
Hourly Total	1	111	2	0	114	2	83	2	0	87	4	1	1	0	6	0	1	3	0	4	211
1700 - 1715	1	36	0	0	37	0	17	2	0	19	0	0	0	0	0	0	0	0	0	0	56
1715 - 1730	0	32	1	0	33	2	23	0	0	25	1	0	0	0	1	1	0	1	0	2	61
1730 - 1745	0	29	1	0	30	0	17	1	0	18	1	0	0	0	1	0	0	3	0	3	52
1745 - 1800	2	10	0	0	12	0	15	0	0	15	0	0	1	0	1	1	0	0	0	1	29
Hourly Total	3	107	2	0	112	2	72	3	0	77	2	0	1	0	3	2	0	4	0	6	198
1800 - 1815	0	22	0	0	22	0	27	1	0	28	0	0	0	0	0	0	0	0	0	0	50
1815 - 1830	0	21	1	0	22	0	16	0	0	16	0	2	0	0	2	0	0	0	0	0	40
1830 - 1845	0	19	0	0	19	0	15	0	0	15	0	0	1	0	1	0	0	0	0	0	35
1845 - 1900	0	10	1	0	11	0	13	1	0	14	2	0	0	0	2	0	0	0	0	0	27
Hourly Total	0	72	2	0	74	0	71	2	0	73	2	2	1	0	5	0	0	0	0	0	152
Grand Total	5	786	22	0	813	9	1100	19	2	1130	26	12	53	0	91	15	11	16	0	42	2076
Approach %	0.62	96.68	2.71	0.00	-	0.80	97.35	1.68	0.18	-	28.57	13.19	58.24	0.00	-	35.71	26.19	38.10	0.00	-	-
Intersection %	0.24	37.86	1.06	0.00	39.16	0.43	52.99	0.92	0.10	54.43	1.25	0.58	2.55	0.00	4.38	0.72	0.53	0.77	0.00	2.02	-

Classified Turn Movement Count || Single Unit Trucks (4-7)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 2 of 3

Settingdown Rd (South)

Settingdown Rd (North)

Bottoms Rd

Smith Dr

Date

Thursday, April 28, 2022

Lat/Long

34.291387°, -84.066745°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Single Unit Trucks (4-7)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	
0600 - 0615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0615 - 0630	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0630 - 0645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0645 - 0700	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	
0700 - 0715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0730 - 0745	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
0745 - 0800	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	4	
0800 - 0815	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0815 - 0830	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
0830 - 0845	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	3	
0900 - 0915	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0915 - 0930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0930 - 0945	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0945 - 1000	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
1000 - 1015	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
1015 - 1030	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
1030 - 1045	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	
1045 - 1100	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	2	0	0	2	0	3	1	0	4	0	0	1	0	1	0	0	0	0	7	
1100 - 1115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1115 - 1130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1130 - 1145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1145 - 1200	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	
Hourly Total	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	0	0	3	
1200 - 1215	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
1215 - 1230	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	
1230 - 1245	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	
1245 - 1300	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	4	0	0	4	0	5	0	0	5	0	0	1	0	1	1	0	0	0	11	
1300 - 1315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1315 - 1330	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	
1330 - 1345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1345 - 1400	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	3	
1400 - 1415	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1415 - 1430	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1430 - 1445	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
1445 - 1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	3	
1500 - 1515	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1515 - 1530	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	
1530 - 1545	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
1545 - 1600	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	3	0	0	3	0	5	0	0	5	0	0	0	0	0	0	0	0	0	8	
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1615 - 1630	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	
1630 - 1645	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
1645 - 1700	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	2	0	0	2	0	4	0	0	4	0	0	0	0	0	0	0	0	0	6	
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1715 - 1730	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	
1730 - 1745	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	
1745 - 1800	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	1	0	0	1	2	0	1	0	3	0	0	0	0	4	
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1830 - 1845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1845 - 1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	22	0	0	22	0	26	1	0	27	2	1	3	0	6	1	0	1	0	2	
Approach %	0.00	100.00	0.00	0.00	-	0.00	96.30	3.70	0.00	-	33.33	16.67	50.00	0.00	-	50.00	0.00	50.00	0.00	-	
Intersection %	0.00	38.60	0.00	0.00	38.60	0.00	45.61	1.75	0.00	47.37	3.51	1.75	5.26	0.00	10.53	1.75	0.00	1.75	0.00	3.51	

Classified Turn Movement Count || Combination Trucks (8-13)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 2 of 3

Settingdown Rd (South)

Settingdown Rd (North)

Bottoms Rd

Smith Dr

Date

Thursday, April 28, 2022

Lat/Long

34.291387°, -84.066745°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total
TIME																					
0600 - 0615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0615 - 0630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0630 - 0645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0645 - 0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700 - 0715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0900 - 0915	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0915 - 0930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0930 - 0945	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0945 - 1000	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1000 - 1015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1015 - 1030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1030 - 1045	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1045 - 1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1100 - 1115	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1115 - 1130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1130 - 1145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1145 - 1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1200 - 1215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1215 - 1230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1230 - 1245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1245 - 1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300 - 1315	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1315 - 1330	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1330 - 1345	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1345 - 1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
1400 - 1415	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
1415 - 1430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1430 - 1445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1445 - 1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
1500 - 1515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1515 - 1530	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1530 - 1545	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1545 - 1600	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1830 - 1845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1845 - 1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	3	1	0	4	0	6	0	0	6	0	0	0	0	0	1	0	0	0	1	11
Approach %	0.00	75.00	25.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	100.00	0.00	0.00	0.00	-	-
Intersection %	0.00	27.27	9.09	0.00	36.36	0.00	54.55	0.00	0.00	54.55	0.00	0.00	0.00	0.00	0.00	9.09	0.00	0.00	0.00	9.09	-

Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Weather

Fair

66°F

34.291387°, -84.066745°

Bikes

	Northbound					Southbound					Eastbound					Westbound					Int Total
	Settingdown Rd (South)					Settingdown Rd (North)					Bottoms Rd					Smith Dr					
TIME	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	
0600 - 0615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0615 - 0630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0630 - 0645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0645 - 0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0700 - 0715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0900 - 0915	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0915 - 0930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0930 - 0945	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0945 - 1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1000 - 1015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1015 - 1030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1030 - 1045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1045 - 1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1100 - 1115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1115 - 1130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1130 - 1145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1145 - 1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1200 - 1215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1215 - 1230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1230 - 1245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1245 - 1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1300 - 1315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1315 - 1330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1330 - 1345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1345 - 1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1400 - 1415	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1415 - 1430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1430 - 1445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1445 - 1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1500 - 1515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1515 - 1530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1530 - 1545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1545 - 1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1630 - 1645	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1830 - 1845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1845 - 1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Approach %	0.00	100.00	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	-	
Intersection %	0.00	100.00	0.00	0.00	100.00	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	

Pedestrian Count || All vehicles

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 2 of 3

Settingdown Rd (South)

Settingdown Rd (North)

Bottoms Rd

Smith Dr

Date

Thursday, April 28, 2022

Lat/Long

34.291387°, -84.066745°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Pedestrians

	Northbound					Southbound					Eastbound					Westbound			
	Settingdown Rd (South)		App Total	Settingdown Rd (North)		App Total	NB 2e	SB 2f	Bottoms Rd		App Total	NB 2g	SB 2h	Smith Dr		App Total	Int Total		
TIME	EB 2a	WB 2b		EB 2c	WB 2d														
0600 - 0615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0615 - 0630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0630 - 0645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0645 - 0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0700 - 0715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0900 - 0915	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0915 - 0930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0930 - 0945	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0945 - 1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1000 - 1015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1015 - 1030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1030 - 1045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1045 - 1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1100 - 1115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1115 - 1130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1130 - 1145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1145 - 1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1200 - 1215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1215 - 1230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1230 - 1245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1245 - 1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1300 - 1315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1315 - 1330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1330 - 1345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1345 - 1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1400 - 1415	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1415 - 1430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1430 - 1445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1445 - 1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1500 - 1515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1515 - 1530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1530 - 1545	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1		
1545 - 1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1		
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1830 - 1845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1845 - 1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1		
Approach %	0.00	0.00	-	0.00	0.00	-	0.00	0.00	-	100.00	0.00	-	-	-	-	-	-		
Intersection %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	100.00	100.00	100.00	100.00	100.00		

Start Date: 4/28/2022	Settingdown Rd (South)			Settingdown Rd (North)			Bottoms Rd			Smith Dr			Total
Time	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
15 Minute Totals													
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM - 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM - 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM - 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM - 02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM - 03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM - 03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM - 04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM - 04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM - 04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM - 04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM - 05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM - 05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM - 05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM - 05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM - 06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM - 06:15 AM	0	1	0	0	3	0	1	0	0	1	0	0	6
06:15 AM - 06:30 AM	0	3	0	0	18	0	0	0	0	1	0	0	22
06:30 AM - 06:45 AM	0	1	0	0	5	1	0	0	0	0	0	1	8
06:45 AM - 07:00 AM	0	8	0	0	26	0	0	0	0	0	0	1	35
07:00 AM - 07:15 AM	0	1	0	0	36	0	1	0	0	0	0	1	40
07:15 AM - 07:30 AM	0	5	0	0	41	0	0	0	1	0	0	1	48
07:30 AM - 07:45 AM	0	6	0	0	69	0	1	0	12	0	1	0	89
07:45 AM - 08:00 AM	0	7	0	0	72	0	0	0	18	0	0	0	97
08:00 AM - 08:15 AM	0	12	0	0	53	1	2	0	7	0	0	0	75
08:15 AM - 08:30 AM	0	12	0	0	39	0	0	0	1	0	1	1	54
08:30 AM - 08:45 AM	0	13	1	0	24	0	0	0	1	0	1	0	40
08:45 AM - 09:00 AM	0	12	1	0	20	2	0	1	0	1	0	0	37
09:00 AM - 09:15 AM	0	6	2	0	14	1	0	0	0	0	0	1	24
09:15 AM - 09:30 AM	0	13	0	0	17	0	0	0	2	0	0	0	32
09:30 AM - 09:45 AM	0	6	0	0	13	0	1	1	0	2	1	0	24
09:45 AM - 10:00 AM	0	17	0	0	22	0	1	0	0	1	0	0	41
10:00 AM - 10:15 AM	0	8	0	0	12	0	0	0	0	0	0	0	20
10:15 AM - 10:30 AM	0	12	1	0	22	0	2	0	0	1	0	0	38
10:30 AM - 10:45 AM	0	8	2	0	22	1	0	0	1	0	0	0	34
10:45 AM - 11:00 AM	0	15	0	0	19	0	1	0	0	0	0	1	36
11:00 AM - 11:15 AM	0	17	0	0	18	0	1	0	2	0	0	0	38
11:15 AM - 11:30 AM	0	13	1	0	17	0	0	1	0	0	2	0	34
11:30 AM - 11:45 AM	0	10	0	0	16	0	0	1	0	0	0	0	27
11:45 AM - 12:00 PM	1	16	1	1	16	1	0	1	1	0	0	0	38
12:00 PM - 12:15 PM	0	18	1	0	18	0	0	0	1	2	0	0	40
12:15 PM - 12:30 PM	0	13	0	0	17	0	0	0	0	0	0	0	30
12:30 PM - 12:45 PM	0	20	1	0	27	0	0	0	2	0	1	0	51
12:45 PM - 01:00 PM	0	17	0	0	18	1	1	1	0	1	1	1	41
01:00 PM - 01:15 PM	0	20	1	0	16	0	0	2	0	1	1	0	41
01:15 PM - 01:30 PM	0	14	1	0	13	0	3	1	0	0	0	1	33
01:30 PM - 01:45 PM	0	24	2	0	24	1	0	0	2	0	0	1	54
01:45 PM - 02:00 PM	0	12	0	0	11	0	0	0	0	1	0	0	24
02:00 PM - 02:15 PM	0	19	0	1	17	0	0	0	0	1	0	0	38
02:15 PM - 02:30 PM	0	18	0	1	23	1	1	0	1	0	0	0	46
02:30 PM - 02:45 PM	0	18	0	0	17	0	0	0	0	0	0	0	35
02:45 PM - 03:00 PM	0	24	0	0	20	0	0	0	0	0	0	0	44
03:00 PM - 03:15 PM	0	19	0	1	10	2	0	0	0	1	0	0	33
03:15 PM - 03:30 PM	0	18	2	0	20	1	1	0	0	0	0	0	42
03:30 PM - 03:45 PM	0	14	0	1	17	0	1	0	0	1	1	0	36
03:45 PM - 04:00 PM	0	29	0	0	19	0	0	1	0	0	0	0	49
04:00 PM - 04:15 PM	0	29	0	1	21	0	0	0	0	0	0	1	52
04:15 PM - 04:30 PM	1	17	0	0	17	0	1	0	0	0	1	1	38
04:30 PM - 04:45 PM	0	35	0	1	25	2	2	0	1	0	0	0	66
04:45 PM - 05:00 PM	0	33	2	0	24	0	1	1	0	0	0	1	62
05:00 PM - 05:15 PM	1	36	0	0	17	2	0	0	0	0	0	0	56
05:15 PM - 05:30 PM	0	32	1	2	23	0	2	0	1	1	0	1	63
05:30 PM - 05:45 PM	0	29	1	0	17	1	2	0	0	0	0	3	53
05:45 PM - 06:00 PM	2	10	0	0	16	0	0	0	1	1	0	0	30
06:00 PM - 06:15 PM	0	22	0	0	27	1	0	0	0	0	0	0	50
06:15 PM - 06:30 PM	0	21	1	0	16	0	0	2	0	0	0	0	40
06:30 PM - 06:45 PM	0	19	0	0	15	0	0	0	1	0	0	0	35
06:45 PM - 07:00 PM	0	10	1	0	13	1	2	0	0	0	0	0	27
07:00 PM - 07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 PM - 07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 PM - 07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 PM - 08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 PM - 08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 PM - 08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 PM - 08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 PM - 09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 PM - 09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 PM - 09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 PM - 09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0



[Click here for Map](#)

Peak Hour Turning Movement Count

Cumming, GA



www.marrtraffic.com

Thursday, April 28, 2022	
Period	0600 - 1900
Peak Hour	1615 - 1715

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

GA-400 Georgia 400 S (North)

Southbound

(1-3)	75	1092	9	0	1176	2086	(1-3)
(4-7)	3	43	0	0	46	45	(4-7)
(8-13)	0	10	0	0	10	10	(8-13)

Total	78	1145	9	0	1232	2141	Total
-------	----	------	---	---	------	------	-------



0

0

(1-3)	(4-7)	(8-13)	Total
199	7	0	206
245	6	1	252

0	0	0	0
120	0	0	120
43	2	0	45
82	4	1	87

(1-3)	(4-7)	(8-13)	Total
-------	-------	--------	-------

Classes	(1-3)	(4-7)	(8-13)	Total
Volume	3617	102	21	3740
PHF				0.9551

Total	(8-13)	(4-7)	(1-3)
29	0	3	26
38	0	2	36
49	0	1	48
0	0	0	0

116	0	6	110
107	0	2	105

Total	(8-13)	(4-7)	(1-3)
-------	--------	-------	-------

0	0
0	0

Total	1286	2140	5	90	1992	53	Total
-------	------	------	---	----	------	----	-------

(8-13)	11	10	0	0	10	0	(8-13)
(4-7)	48	44	0	2	42	0	(4-7)
(1-3)	1227	2086	5	88	1940	53	(1-3)

Northbound

GA-400 Georgia 400 S (South)

Settingdown Rd (West)

Eastbound

Settingdown Rd (East)

Westbound

Time	Northbound						Southbound					Eastbound					Westbound					Int Total	
	GA-400 Georgia 400 S (South)						GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)						
	Left 3.1	Thru 3.2	Right 3.3	U-Turn 3.4	App Total		Left 3.5	Thru 3.6	Right 3.7	U-Turn 3.8	App Total		Left 3.9	Thru 3.10	Right 3.11	U-Turn 3.12	App Total		Left 3.13	Thru 3.14	Right 3.15		U-Turn 3.16
1615 - 1630	13	472	13	2	500		0	283	26	0	309		25	15	17	0	57		13	15	7	0	35
1630 - 1645	30	534	14	2	580		4	269	19	0	292		28	13	17	0	58		12	8	7	0	27
1645 - 1700	29	476	13	0	518		3	278	11	0	292		36	10	23	0	69		11	9	4	0	24
1700 - 1715	18	510	13	1	542		2	315	22	0	339		31	7	30	0	68		13	6	11	0	30
Total	90	1992	53	5	2140		9	1145	78	0	1232		120	45	87	0	252		49	38	29	0	116
Approach %	4.21	93.08	2.48	0.23	-		0.73	92.94	6.33	0.00	-		47.62	17.86	34.52	0.00	-		42.24	32.76	25.00	0.00	-
PHF	0.75	0.93	0.95	0.63	0.92		0.56	0.91	0.75	0.00	0.91		0.83	0.75	0.73	0.00	0.91		0.94	0.63	0.66	0.00	0.83

Time	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)					
	Left 3.1	Thru 3.2	Right 3.3	U-Turn 3.4	App Total	Left 3.5	Thru 3.6	Right 3.7	U-Turn 3.8	App Total	Left 3.9	Thru 3.10	Right 3.11	U-Turn 3.12	App Total	Left 3.13	Thru 3.14	Right 3.15	U-Turn 3.16	App Total	
1615 - 1630	13	460	13	2	488	0	269	26	0	295	25	15	16	0	56	13	14	6	0	33	872
1630 - 1645	29	523	14	2	568	4	256	17	0	277	28	11	15	0	54	12	7	7	0	26	925
1645 - 1700	28	469	13	0	510	3	261	11	0	275	36	10	21	0	67	10	9	4	0	23	875
1700 - 1715	18	488	13	1	520	2	306	21	0	329	31	7	30	0	68	13	6	9	0	28	945
Total	88	1940	53	5	2086	9	1092	75	0	1176	120	43	82	0	245	48	36	26	0	110	3617
Average %	4.22	93.00	2.54	0.24	-	0.77	92.86	6.38	0.00	-	48.98	17.55	33.47	0.00	-	43.64	32.73	23.64	0.00	-	
PHF	0.76	0.93	0.95	0.63	0.92	0.56	0.89	0.72	0.00	0.89	0.83	0.72	0.68	0.00	0.90	0.92	0.64	0.72	0.00	0.83	0.96

	Northbound					Southbound					Eastbound					Westbound					
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)					
Time	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Int Total
	3.1	3.2	3.3	3.4		3.5	3.6	3.7	3.8		3.9	3.10	3.11	3.12		3.13	3.14	3.15	3.16		
1615 - 1630	0	7	0	0	7	0	10	0	0	10	0	0	1	0	1	0	1	1	0	2	20
1630 - 1645	1	9	0	0	10	0	9	2	0	11	0	2	1	0	3	0	1	0	0	1	25
1645 - 1700	1	6	0	0	7	0	15	0	0	15	0	0	2	0	2	1	0	0	0	1	25
1700 - 1715	0	20	0	0	20	0	9	1	0	10	0	0	0	0	0	0	0	2	0	2	32
Total	2	42	0	0	44	0	43	3	0	46	0	2	4	0	6	1	2	3	0	6	102
Approach %	4.55	95.45	0.00	0.00	-	0.00	93.48	6.52	0.00	-	0.00	33.33	66.67	0.00	-	16.67	33.33	50.00	0.00	-	
PHF	0.50	0.53	0.00	0.00	0.55	0.00	0.72	0.38	0.00	0.77	0.00	0.25	0.50	0.00	0.50	0.25	0.50	0.38	0.00	0.75	0.80

	Northbound					Southbound					Eastbound					Westbound					
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)					
Time	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Int Total
	3.1	3.2	3.3	3.4		3.5	3.6	3.7	3.8		3.9	3.10	3.11	3.12		3.13	3.14	3.15	3.16		
1615 - 1630	0	5	0	0	5	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	9
1630 - 1645	0	2	0	0	2	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	7
1645 - 1700	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
1700 - 1715	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	10	0	0	10	0	10	0	0	10	0	0	1	0	1	0	0	0	0	0	21
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.50	0.00	0.00	0.50	0.00	0.63	0.00	0.00	0.63	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.58

[illegible]

Classified Turn Movement Count || All vehicles

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 3 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Rd (West)

Settingdown Rd (East)

Date

Thursday, April 28, 2022

Lat/Long

34.282107°, -84.076151°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

All vehicles

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)					
	Left 3.1	Thru 3.2	Right 3.3	U-Turn 3.4	App Total	Left 3.5	Thru 3.6	Right 3.7	U-Turn 3.8	App Total	Left 3.9	Thru 3.10	Right 3.11	U-Turn 3.12	App Total	Left 3.13	Thru 3.14	Right 3.15	U-Turn 3.16	App Total	
0600 - 0615	3	65	0	0	68	1	337	12	0	350	2	0	25	0	27	2	2	0	0	4	449
0615 - 0630	4	84	1	2	91	2	471	18	0	491	6	0	23	0	29	12	4	0	0	16	627
0630 - 0645	12	123	2	0	137	1	496	21	1	519	11	1	36	0	48	7	1	3	0	11	715
0645 - 0700	6	139	5	0	150	4	533	24	0	561	10	1	33	0	44	20	5	1	0	26	781
Hourly Total	25	411	8	2	446	8	1837	75	1	1921	29	2	117	0	148	41	12	4	0	57	2572
0700 - 0715	6	150	2	1	159	4	498	26	0	528	11	4	34	0	49	19	7	2	0	28	764
0715 - 0730	9	210	0	0	219	6	441	35	0	482	16	5	28	0	49	19	14	1	1	35	785
0730 - 0745	9	238	1	0	248	3	375	24	1	403	17	5	49	0	71	37	15	0	0	52	774
0745 - 0800	17	261	6	1	285	2	366	16	0	384	15	6	42	0	63	30	28	0	0	58	790
Hourly Total	41	859	9	2	911	15	1680	101	1	1797	59	20	153	0	232	105	64	3	1	173	3113
0800 - 0815	15	212	1	1	229	4	372	24	0	400	11	10	38	0	59	21	20	0	0	41	729
0815 - 0830	16	210	5	1	232	12	399	30	0	441	18	8	34	0	60	18	10	1	0	29	762
0830 - 0845	8	226	10	1	245	3	342	37	0	382	21	5	27	0	53	12	7	1	0	20	700
0845 - 0900	14	242	1	1	258	0	288	21	0	309	18	11	21	0	50	11	4	0	0	15	632
Hourly Total	53	890	17	4	964	19	1401	112	0	1532	68	34	120	0	222	62	41	2	0	105	2823
0900 - 0915	8	243	5	0	256	3	324	14	0	341	24	1	16	0	41	7	5	1	0	13	651
0915 - 0930	4	207	6	0	217	5	306	11	0	322	10	3	16	0	29	9	2	1	0	12	580
0930 - 0945	11	237	5	0	253	1	315	16	0	332	16	5	34	0	55	11	0	1	0	12	652
0945 - 1000	13	244	10	1	268	1	401	10	0	412	19	6	15	0	40	16	5	0	0	21	741
Hourly Total	36	931	26	1	994	10	1346	51	0	1407	69	15	81	0	165	43	12	3	0	58	2624
1000 - 1015	6	262	8	1	277	2	267	16	1	286	11	4	16	0	31	10	4	1	0	15	609
1015 - 1030	8	298	7	2	315	2	324	9	0	335	12	4	9	0	25	18	3	1	0	22	697
1030 - 1045	11	279	7	0	297	2	303	15	0	320	18	2	10	0	30	19	5	0	0	24	671
1045 - 1100	6	285	12	0	303	1	281	17	0	299	20	3	12	0	35	16	6	0	0	22	659
Hourly Total	31	1124	34	3	1192	7	1175	57	1	1240	61	13	47	0	121	63	18	2	0	83	2636
1100 - 1115	12	296	11	1	320	2	289	12	0	303	18	5	12	0	35	11	1	1	0	13	671
1115 - 1130	10	362	7	0	379	3	274	18	0	295	12	4	20	0	36	12	1	4	0	17	727
1130 - 1145	13	319	8	0	340	4	287	13	2	306	21	1	20	0	42	10	7	3	0	20	708
1145 - 1200	11	334	9	2	356	3	214	15	0	232	13	11	23	0	47	13	4	2	0	19	654
Hourly Total	46	1311	35	3	1395	12	1064	58	2	1136	64	21	75	0	160	46	13	10	0	69	2760
1200 - 1215	14	324	10	0	348	6	283	19	0	308	21	7	19	0	47	12	8	2	0	22	725
1215 - 1230	11	358	5	0	374	1	255	19	3	278	13	5	22	0	40	12	1	3	0	16	708
1230 - 1245	11	345	8	0	364	2	265	21	0	288	14	7	11	0	32	20	6	2	0	28	712
1245 - 1300	13	221	9	1	244	2	289	8	0	299	9	3	7	0	19	8	3	0	0	11	573
Hourly Total	49	1248	32	1	1330	11	1092	67	3	1173	57	22	59	0	138	52	18	7	0	77	2718
1300 - 1315	16	299	11	0	326	2	271	25	1	299	18	4	12	0	34	9	4	1	0	14	673
1315 - 1330	13	326	11	1	351	2	327	17	0	346	11	5	10	0	26	8	5	1	0	14	737
1330 - 1345	14	311	17	0	342	1	305	11	0	317	15	6	15	0	36	13	3	3	0	19	714
1345 - 1400	14	336	13	1	364	0	270	18	0	288	15	6	10	0	31	14	2	2	0	18	701
Hourly Total	57	1272	52	2	1383	5	1173	71	1	1250	59	21	47	0	127	44	14	7	0	65	2825
1400 - 1415	11	381	12	1	405	4	260	13	0	277	18	4	18	0	40	10	6	7	0	23	745
1415 - 1430	18	408	10	1	437	2	295	17	0	314	20	4	17	0	41	11	2	5	0	18	810
1430 - 1445	14	363	8	1	386	1	286	16	0	303	19	5	13	0	37	14	1	2	0	17	743
1445 - 1500	22	395	15	1	433	4	276	15	0	295	13	3	12	0	28	12	3	2	0	17	773
Hourly Total	65	1547	45	4	1661	11	1117	61	0	1189	70	16	60	0	146	47	12	16	0	75	3071
1500 - 1515	25	430	18	1	474	6	301	20	0	327	13	6	11	0	30	11	7	4	0	22	853
1515 - 1530	30	403	14	2	449	4	267	18	0	289	21	2	11	0	34	7	6	7	0	20	792
1530 - 1545	22	477	10	1	510	2	311	12	0	325	18	7	10	0	35	11	5	4	0	20	890
1545 - 1600	18	444	10	2	474	3	251	14	0	268	31	14	11	0	56	15	7	3	0	25	823
Hourly Total	95	1754	52	6	1907	15	1130	64	0	1209	83	29	43	0	155	44	25	18	0	87	3358
1600 - 1615	27	500	15	0	542	6	311	18	0	335	25	9	33	0	67	14	12	4	0	30	974
1615 - 1630	13	472	13	2	500	0	283	26	0	309	25	15	17	0	57	13	15	7	0	35	901
1630 - 1645	30	534	14	2	580	4	269	19	0	292	28	13	17	0	58	12	8	7	0	27	957
1645 - 1700	29	476	13	0	518	3	278	11	0	292	36	10	23	0	69	11	9	4	0	24	903
Hourly Total	99	1982	55	4	2140	13	1141	74	0	1228	114	47	90	0	251	50	44	22	0	116	3735
1700 - 1715	18	510	13	1	542	2	315	22	0	339	31	7	30	0	68	13	6	11	0	30	979
1715 - 1730	17	488	6	1	512	2	260	19	0	281	27	5	26	0	58	17	17	7	0	41	892
1730 - 1745	34	506	24	0	564	1	283	23	0	307	30	7	20	0	57	12	5	2	0	19	947
1745 - 1800	30	465	12	0	507	3	270	19	1	293	31	6	11	0	48	16	8	1	0	25	873
Hourly Total	99	1969	55	2	2125	8	1128	83	1	1220	119	25	87	0	231	58	36	21	0	115	3691
1800 - 1815	27	507	18	0	552	1	259	19	1	280	20	6	17	0	43	13	4	6	0	23	898
1815 - 1830	22	424	9	0	455	1	279	26	1	307	26	4	15	0	45	11	1	2	0	14	821
1830 - 1845	21	451	16	1	489	1	268	19	0	288	17	2	10	0	29	11	3	2	0	16	822
1845 - 1900	18	279	20	0	317	4	206	15	0	225	25	3	10	0	38	11	7	1	0	19	599
Hourly Total	88	1661	63	1	1813	7	1012	79	2	1100	88	15	52	0	155	46	15	11	0	72	3140
Grand Total	784	16959	483	35	18261	141	16296	953	12	17402	940	280	1031	0	2251	701	324	126	1	1152	39066
Approach %	4.29	92.87	2.64	0.19	-	0.81	93.64	5.48	0.07	-	41.76	12.44	45.80	0.00	-	60.85	28.13	10.94	0.09	-	
Intersection %	2.01	43.41	1.24	0.09	46.74	0.36	41.71	2.44	0.03	44.55	2.41	0.72	2.64	0.00	5.76	1.79	0.83	0.32	0.00	2.95	
PHF	0.75	0.93	0.95	0.63	0.92	0.56	0.91	0.75	0.00	0.91	0.83	0.									

Classified Turn Movement Count || Passenger Vehicles (1-3)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 3 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Rd (West)

Settingdown Rd (East)

Date

Thursday, April 28, 2022

Lat/Long

34.282107°, -84.076151°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Passenger Vehicles (1-3)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)					
	Left 3.1	Thru 3.2	Right 3.3	U-Turn 3.4	App Total	Left 3.5	Thru 3.6	Right 3.7	U-Turn 3.8	App Total	Left 3.9	Thru 3.10	Right 3.11	U-Turn 3.12	App Total	Left 3.13	Thru 3.14	Right 3.15	U-Turn 3.16	App Total	
0600 - 0615	2	54	0	0	56	1	322	12	0	335	2	0	25	0	27	2	2	0	0	4	422
0615 - 0630	2	76	1	2	81	2	457	18	0	477	6	0	22	0	28	12	4	0	0	16	602
0630 - 0645	11	117	2	0	130	1	470	21	1	493	11	1	36	0	48	6	1	3	0	10	681
0645 - 0700	6	124	4	0	134	4	515	24	0	543	10	1	33	0	44	20	5	1	0	26	747
Hourly Total	21	371	7	2	401	8	1764	75	1	1848	29	2	116	0	147	40	12	4	0	56	2452
0700 - 0715	6	135	2	1	144	4	470	26	0	500	11	4	34	0	49	19	7	2	0	28	721
0715 - 0730	9	195	0	0	204	5	419	35	0	459	16	5	27	0	48	19	14	1	1	35	746
0730 - 0745	9	220	1	0	230	3	362	23	0	388	16	5	48	0	69	37	15	0	0	52	739
0745 - 0800	17	243	5	1	266	2	354	16	0	372	14	5	42	0	61	30	28	0	0	58	757
Hourly Total	41	793	8	2	844	14	1605	100	0	1719	57	19	151	0	227	105	64	3	1	173	2963
0800 - 0815	14	188	1	1	204	4	355	24	0	383	9	10	37	0	56	21	20	0	0	41	684
0815 - 0830	15	193	5	1	214	12	379	25	0	416	17	8	32	0	57	18	9	1	0	28	715
0830 - 0845	8	212	9	1	230	3	327	35	0	365	20	5	25	0	50	12	6	1	0	19	664
0845 - 0900	13	224	1	1	239	0	270	18	0	288	17	11	21	0	49	11	4	0	0	15	591
Hourly Total	50	817	16	4	887	19	1331	102	0	1452	63	34	115	0	212	62	39	2	0	103	2654
0900 - 0915	6	226	5	0	237	3	303	14	0	320	21	1	15	0	37	7	5	1	0	13	607
0915 - 0930	4	183	6	0	193	5	288	10	0	303	9	3	15	0	27	9	2	1	0	12	535
0930 - 0945	10	210	5	0	225	1	295	16	0	312	16	5	33	0	54	11	0	1	0	12	603
0945 - 1000	11	220	9	0	240	0	375	10	0	385	18	5	15	0	38	15	5	0	0	20	683
Hourly Total	31	839	25	0	895	9	1261	50	0	1320	64	14	78	0	156	42	12	3	0	57	2428
1000 - 1015	4	242	8	0	254	2	245	15	1	263	9	3	15	0	27	10	4	1	0	15	559
1015 - 1030	8	267	7	1	283	2	306	8	0	316	11	4	9	0	24	16	3	1	0	20	643
1030 - 1045	10	244	7	0	261	1	284	14	0	299	18	2	10	0	30	17	5	0	0	22	612
1045 - 1100	6	265	12	0	283	1	252	17	0	270	19	3	10	0	32	15	6	0	0	21	606
Hourly Total	28	1018	34	1	1081	6	1087	54	1	1148	57	12	44	0	113	58	18	2	0	78	2420
1100 - 1115	10	277	11	1	299	2	261	10	0	273	18	5	12	0	35	11	1	1	0	13	620
1115 - 1130	9	337	6	0	352	3	252	18	0	273	12	4	18	0	34	12	1	3	0	16	675
1130 - 1145	13	303	8	0	324	4	262	13	1	280	21	1	19	0	41	10	7	3	0	20	665
1145 - 1200	11	311	9	2	333	3	190	15	0	208	13	10	20	0	43	13	4	2	0	19	603
Hourly Total	43	1228	34	3	1308	12	965	56	1	1034	64	20	69	0	153	46	13	9	0	68	2563
1200 - 1215	12	301	9	0	322	5	267	19	0	291	21	7	18	0	46	11	7	2	0	20	679
1215 - 1230	10	337	5	0	352	1	245	19	2	267	13	5	22	0	40	10	0	2	0	12	671
1230 - 1245	11	321	8	0	340	2	247	21	0	270	13	6	10	0	29	19	6	2	0	27	666
1245 - 1300	13	197	8	1	219	2	267	8	0	277	9	3	7	0	19	8	3	0	0	11	526
Hourly Total	46	1156	30	1	1233	10	1026	67	2	1105	56	21	57	0	134	48	16	6	0	70	2542
1300 - 1315	16	280	11	0	307	2	248	23	1	274	18	3	12	0	33	9	3	1	0	13	627
1315 - 1330	11	302	11	1	325	2	306	14	0	322	11	5	9	0	25	8	4	1	0	13	685
1330 - 1345	13	290	16	0	319	1	281	11	0	293	15	6	14	0	35	13	3	3	0	19	666
1345 - 1400	13	318	13	1	345	0	252	18	0	270	13	6	8	0	27	14	2	1	0	17	659
Hourly Total	53	1190	51	2	1296	5	1087	66	1	1159	57	20	43	0	120	44	12	6	0	62	2637
1400 - 1415	10	362	12	1	385	4	237	12	0	253	18	4	18	0	40	10	5	7	0	22	700
1415 - 1430	18	390	10	1	419	2	277	15	0	294	19	4	17	0	40	10	2	5	0	17	770
1430 - 1445	13	343	8	1	365	1	271	16	0	288	19	5	13	0	37	14	1	2	0	17	707
1445 - 1500	21	377	15	1	414	4	249	15	0	268	13	1	12	0	26	12	3	2	0	17	725
Hourly Total	62	1472	45	4	1583	11	1034	58	0	1103	69	14	60	0	143	46	11	16	0	73	2902
1500 - 1515	23	409	17	1	450	6	275	20	0	301	13	6	10	0	29	8	7	4	0	19	799
1515 - 1530	25	389	12	2	428	4	243	18	0	265	21	2	11	0	34	7	5	6	0	18	745
1530 - 1545	21	451	9	1	482	2	289	12	0	303	17	7	10	0	34	11	5	4	0	20	839
1545 - 1600	17	433	9	2	461	3	236	14	0	253	30	14	10	0	54	15	6	3	0	24	792
Hourly Total	86	1682	47	6	1821	15	1043	64	0	1122	81	29	41	0	151	41	23	17	0	81	3175
1600 - 1615	26	487	15	0	528	6	297	18	0	321	23	9	32	0	64	14	11	4	0	29	942
1615 - 1630	13	460	13	2	488	0	269	26	0	295	25	15	16	0	56	13	14	6	0	33	872
1630 - 1645	29	523	14	2	568	4	256	17	0	277	28	11	15	0	54	12	7	7	0	26	925
1645 - 1700	28	469	13	0	510	3	261	11	0	275	36	10	21	0	67	10	9	4	0	23	875
Hourly Total	96	1939	55	4	2094	13	1083	72	0	1168	112	45	84	0	241	49	41	21	0	111	3614
1700 - 1715	18	488	13	1	520	2	306	21	0	329	31	7	30	0	68	13	6	9	0	28	945
1715 - 1730	17	478	6	1	502	2	249	19	0	270	27	5	26	0	58	17	17	6	0	40	870
1730 - 1745	34	502	24	0	560	1	278	23	0	302	29	7	19	0	55	12	5	2	0	19	936
1745 - 1800	30	458	12	0	500	3	260	18	1	282	31	6	11	0	48	16	8	1	0	25	855
Hourly Total	99	1926	55	2	2082	8	1093	81	1	1183	118	25	86	0	229	58	36	18	0	112	3606
1800 - 1815	27	500	18	0	545	1	252	19	1	273	20	6	17	0	43	13	4	6	0	23	884
1815 - 1830	22	420	9	0	451	1	275	26	1	303	26	4	15	0	45	11	1	2	0	14	813
1830 - 1845	21	441	16	1	479	1	262	19	0	282	17	2	10	0	29	11	3	2	0	16	806
1845 - 1900	18	277	20	0	315	4	196	14	0	214	25	3	10	0	38	11	7	1	0	19	586
Hourly Total	88	1638	63	1	1790	7	985	78	2	1072	88	15	52	0	155	46	15	11	0	72	3089
Grand Total	744	16069	470	32	17315	137	15364	923	9	16433	915	270	996	0	2181	685	312	118	1	1116	37045
Approach %	4.30	92.80	2.71	0.18	-	0.83	93.49	5.62	0.05	-	41.95	12.38	45.67	0.00	-	61.38	27.96	10.57	0.09	-	
Intersection %	2.01	43.38	1.27	0.09	46.74	0.37	41.47	2.49	0.02	44.36	2.47	0.73	2.69	0.00	5.89	1.85	0.84	0.32	0.09	3.01	

Classified Turn Movement Count || Single Unit Trucks (4-7)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 3 of 3

GA-400 Georgia 400 S (South)
GA-400 Georgia 400 S (North)
Settingdown Rd (West)
Settingdown Rd (East)

Date

Thursday, April 28, 2022

Lat/Long

34.282107°, -84.076151°

Weather

Fair
66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Single Unit Trucks (4-7)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total	
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)						
	Left 3.1	Thru 3.2	Right 3.3	U-Turn 3.4	App Total	Left 3.5	Thru 3.6	Right 3.7	U-Turn 3.8	App Total	Left 3.9	Thru 3.10	Right 3.11	U-Turn 3.12	App Total	Left 3.13	Thru 3.14	Right 3.15	U-Turn 3.16	App Total		
0600 - 0615	1	8	0	0	9	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	20	
0615 - 0630	2	4	0	0	6	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	17	
0630 - 0645	1	3	0	0	4	0	23	0	0	23	0	0	0	0	0	1	0	0	0	1	28	
0645 - 0700	0	10	1	0	11	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	26	
Hourly Total	4	25	1	0	30	0	60	0	0	60	0	0	0	0	0	1	0	0	0	1	91	
0700 - 0715	0	9	0	0	9	0	24	0	0	24	0	0	0	0	0	0	0	0	0	0	33	
0715 - 0730	0	12	0	0	12	1	16	0	0	17	0	0	1	0	1	0	0	0	0	0	30	
0730 - 0745	0	12	0	0	12	0	8	1	0	9	0	0	1	0	1	0	0	0	0	0	22	
0745 - 0800	0	11	1	0	12	0	9	0	0	9	1	1	0	0	2	0	0	0	0	0	23	
Hourly Total	0	44	1	0	45	1	57	1	0	59	1	1	2	0	4	0	0	0	0	0	108	
0800 - 0815	0	16	0	0	16	0	8	0	0	8	2	0	1	0	3	0	0	0	0	0	27	
0815 - 0830	0	12	0	0	12	0	11	5	0	16	1	0	1	0	2	0	1	0	0	1	31	
0830 - 0845	0	8	1	0	9	0	9	2	0	11	0	0	2	0	2	0	0	0	0	0	22	
0845 - 0900	1	11	0	0	12	0	11	1	0	12	1	0	0	0	1	0	0	0	0	0	25	
Hourly Total	1	47	1	0	49	0	39	8	0	47	4	0	4	0	8	0	1	0	0	1	105	
0900 - 0915	2	12	0	0	14	0	14	0	0	14	3	0	1	0	4	0	0	0	0	0	32	
0915 - 0930	0	12	0	0	12	0	13	1	0	14	1	0	1	0	2	0	0	0	0	0	28	
0930 - 0945	1	20	0	0	21	0	15	0	0	15	0	0	1	0	1	0	0	0	0	0	37	
0945 - 1000	1	16	1	1	19	1	21	0	0	22	0	1	0	0	1	0	0	0	0	0	42	
Hourly Total	4	60	1	1	66	1	63	1	0	65	4	1	3	0	8	0	0	0	0	0	139	
1000 - 1015	0	11	0	1	12	0	12	1	0	13	2	1	1	0	4	0	0	0	0	0	29	
1015 - 1030	0	21	0	1	22	0	11	1	0	12	0	0	0	0	0	1	0	0	0	1	35	
1030 - 1045	1	21	0	0	22	1	14	1	0	16	0	0	0	0	0	2	0	0	0	2	40	
1045 - 1100	0	14	0	0	14	0	17	0	0	17	1	0	1	0	2	1	0	0	0	1	34	
Hourly Total	1	67	0	2	70	1	54	3	0	58	3	1	2	0	6	4	0	0	0	4	138	
1100 - 1115	1	12	0	0	13	0	15	2	0	17	0	0	0	0	0	0	0	0	0	0	30	
1115 - 1130	0	14	0	0	14	0	13	0	0	13	0	0	2	0	2	0	0	1	0	1	30	
1130 - 1145	0	13	0	0	13	0	16	0	1	17	0	0	0	0	0	0	0	0	0	0	30	
1145 - 1200	0	14	0	0	14	0	19	0	0	19	0	1	1	0	2	0	0	0	0	0	35	
Hourly Total	1	53	0	0	54	0	63	2	1	66	0	1	3	0	4	0	0	1	0	1	125	
1200 - 1215	2	18	1	0	21	1	9	0	0	10	0	0	0	0	0	1	1	0	0	2	33	
1215 - 1230	1	15	0	0	16	0	9	0	1	10	0	0	0	0	0	2	1	1	0	4	30	
1230 - 1245	0	20	0	0	20	0	11	0	0	11	1	1	1	0	3	1	0	0	0	1	35	
1245 - 1300	0	13	1	0	14	0	19	0	0	19	0	0	0	0	0	0	0	0	0	0	33	
Hourly Total	3	66	2	0	71	1	48	0	1	50	1	1	1	0	3	4	2	1	0	7	131	
1300 - 1315	0	10	0	0	10	0	18	2	0	20	0	1	0	0	1	0	0	0	0	0	31	
1315 - 1330	0	12	0	0	12	0	15	3	0	18	0	0	1	0	1	0	0	0	0	0	31	
1330 - 1345	0	14	0	0	14	0	16	0	0	16	0	0	1	0	1	0	0	0	0	0	31	
1345 - 1400	0	12	0	0	12	0	13	0	0	13	2	0	0	0	2	0	0	1	0	1	28	
Hourly Total	0	48	0	0	48	0	62	5	0	67	2	1	2	0	5	0	0	1	0	1	121	
1400 - 1415	0	13	0	0	13	0	14	1	0	15	0	0	0	0	0	0	0	0	0	0	28	
1415 - 1430	0	15	0	0	15	0	12	1	0	13	1	0	0	0	1	1	0	0	0	1	30	
1430 - 1445	1	12	0	0	13	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	25	
1445 - 1500	0	14	0	0	14	0	19	0	0	19	0	2	0	0	2	0	0	0	0	0	35	
Hourly Total	1	54	0	0	55	0	57	2	0	59	1	2	0	0	3	1	0	0	0	1	118	
1500 - 1515	1	16	1	0	18	0	17	0	0	17	0	0	0	0	0	3	0	0	0	3	38	
1515 - 1530	5	10	2	0	17	0	14	0	0	14	0	0	0	0	0	0	0	1	0	1	32	
1530 - 1545	1	16	0	0	17	0	16	0	0	16	1	0	0	0	1	0	0	0	0	0	34	
1545 - 1600	0	6	0	0	6	0	8	0	0	8	1	0	1	0	2	0	1	0	0	1	17	
Hourly Total	7	48	3	0	58	0	55	0	0	55	2	0	1	0	3	3	1	1	0	5	121	
1600 - 1615	0	10	0	0	10	0	9	0	0	9	2	0	0	0	2	0	1	0	0	1	22	
1615 - 1630	0	7	0	0	7	0	10	0	0	10	0	0	1	0	1	0	1	1	0	2	20	
1630 - 1645	1	9	0	0	10	0	9	2	0	11	0	2	1	0	3	0	1	0	0	1	25	
1645 - 1700	1	6	0	0	7	0	15	0	0	15	0	0	2	0	2	1	0	0	0	1	25	
Hourly Total	2	32	0	0	34	0	43	2	0	45	2	2	4	0	8	1	3	1	0	5	92	
1700 - 1715	0	20	0	0	20	0	9	1	0	10	0	0	0	0	0	0	0	2	0	2	32	
1715 - 1730	0	9	0	0	9	0	10	0	0	10	0	0	0	0	0	0	0	1	0	1	20	
1730 - 1745	0	4	0	0	4	0	5	0	0	5	1	0	1	0	2	0	0	0	0	0	11	
1745 - 1800	0	6	0	0	6	0	7	1	0	8	0	0	0	0	0	0	0	0	0	0	14	
Hourly Total	0	39	0	0	39	0	31	2	0	33	1	0	1	0	2	0	0	3	0	3	77	
1800 - 1815	0	7	0	0	7	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	11	
1815 - 1830	0	4	0	0	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	6	
1830 - 1845	0	7	0	0	7	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	9	
1845 - 1900	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0	9	
Hourly Total	0	18	0	0	18	0	16	1	0	17	0	0	0	0	0	0	0	0	0	0	35	
Grand Total	24	601	9	3	637	4	648	27	2	681	21	10	23	0	54	-	14	7	28.59	0	29	1401
Approach %	3.77	94.35	1.41	0.47	-	0.59	95.15	3.96	0.29	-	38.89	18.52	42.59	0.00	-	48.28	24.14	27.59	0.00	-	-	
Intersection %	1.71	42.90	0.64	0.21	45.47	0.29	46.25	1.93	0.14	48.61	1.50	0.71	1.64	0.00	3.85	1.00	0.50	0.57	0.00	2.07	-	

Classified Turn Movement Count || Combination Trucks (8-13)

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 3 of 3

GA-400 Georgia 400 S (South)
GA-400 Georgia 400 S (North)
Settingdown Rd (West)
Settingdown Rd (East)

Date

Thursday, April 28, 2022

Weather

Fair
66°F

Lat/Long

34.282107°, -84.076151°

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Combination Trucks (8-13)

TIME	Northbound					Southbound					Eastbound					Westbound					Int Total
	GA-400 Georgia 400 S (South)					GA-400 Georgia 400 S (North)					Settingdown Rd (West)					Settingdown Rd (East)					
	Left 3.1	Thru 3.2	Right 3.3	U-Turn 3.4	App Total	Left 3.5	Thru 3.6	Right 3.7	U-Turn 3.8	App Total	Left 3.9	Thru 3.10	Right 3.11	U-Turn 3.12	App Total	Left 3.13	Thru 3.14	Right 3.15	U-Turn 3.16	App Total	
0600 - 0615	0	3	0	0	3	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	7
0615 - 0630	0	4	0	0	4	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	8
0630 - 0645	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
0645 - 0700	0	5	0	0	5	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	0	15	0	0	15	0	13	0	0	13	0	0	1	0	1	0	0	0	0	0	29
0700 - 0715	0	6	0	0	6	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	10
0715 - 0730	0	3	0	0	3	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	9
0730 - 0745	0	6	0	0	6	0	5	0	1	6	1	0	0	0	1	0	0	0	0	0	13
0745 - 0800	0	7	0	0	7	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	10
Hourly Total	0	22	0	0	22	0	18	0	1	19	1	0	0	0	1	0	0	0	0	0	42
0800 - 0815	1	8	0	0	9	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	18
0815 - 0830	1	5	0	0	6	0	9	0	0	9	0	0	1	0	1	0	0	0	0	0	16
0830 - 0845	0	6	0	0	6	0	6	0	0	6	1	0	0	0	1	0	1	0	0	1	14
0845 - 0900	0	7	0	0	7	0	7	2	0	9	0	0	0	0	0	0	0	0	0	0	16
Hourly Total	2	26	0	0	28	0	31	2	0	33	1	0	1	0	2	0	1	0	0	1	64
0900 - 0915	0	5	0	0	5	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	12
0915 - 0930	0	12	0	0	12	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	17
0930 - 0945	0	7	0	0	7	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	12
0945 - 1000	1	8	0	0	9	0	5	0	0	5	1	0	0	0	1	1	0	0	0	1	16
Hourly Total	1	32	0	0	33	0	22	0	0	22	1	0	0	0	1	1	0	0	0	1	57
1000 - 1015	2	9	0	0	11	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	21
1015 - 1030	0	10	0	0	10	0	7	0	0	7	1	0	0	0	1	1	0	0	0	1	19
1030 - 1045	0	14	0	0	14	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	19
1045 - 1100	0	6	0	0	6	0	12	0	0	12	0	0	1	0	1	0	0	0	0	0	19
Hourly Total	2	39	0	0	41	0	34	0	0	34	1	0	1	0	2	1	0	0	0	1	78
1100 - 1115	1	7	0	0	8	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	21
1115 - 1130	1	11	1	0	13	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	22
1130 - 1145	0	3	0	0	3	0	9	0	0	9	0	0	1	0	1	0	0	0	0	0	13
1145 - 1200	0	9	0	0	9	0	5	0	0	5	0	0	2	0	2	0	0	0	0	0	16
Hourly Total	2	30	1	0	33	0	36	0	0	36	0	0	3	0	3	0	0	0	0	0	72
1200 - 1215	0	5	0	0	5	0	7	0	0	7	0	0	1	0	1	0	0	0	0	0	13
1215 - 1230	0	6	0	0	6	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	7
1230 - 1245	0	4	0	0	4	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	11
1245 - 1300	0	11	0	0	11	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	14
Hourly Total	0	26	0	0	26	0	18	0	0	18	0	0	1	0	1	0	0	0	0	0	45
1300 - 1315	0	9	0	0	9	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	15
1315 - 1330	2	12	0	0	14	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	21
1330 - 1345	1	7	1	0	9	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	17
1345 - 1400	1	6	0	0	7	0	5	0	0	5	0	0	2	0	2	0	0	0	0	0	14
Hourly Total	4	34	1	0	39	0	24	0	0	24	0	0	2	0	2	0	2	0	0	2	67
1400 - 1415	1	6	0	0	7	0	9	0	0	9	0	0	0	0	0	0	1	0	0	1	17
1415 - 1430	0	3	0	0	3	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	10
1430 - 1445	0	8	0	0	8	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	11
1445 - 1500	1	4	0	0	5	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	13
Hourly Total	2	21	0	0	23	0	26	1	0	27	0	0	0	0	0	0	1	0	0	1	51
1500 - 1515	1	5	0	0	6	0	9	0	0	9	0	0	1	0	1	0	0	0	0	0	16
1515 - 1530	0	4	0	0	4	0	10	0	0	10	0	0	0	0	0	0	1	0	0	1	15
1530 - 1545	0	10	1	0	11	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	17
1545 - 1600	1	5	1	0	7	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	14
Hourly Total	2	24	2	0	28	0	32	0	0	32	0	0	1	0	1	0	1	0	0	1	62
1600 - 1615	1	3	0	0	4	0	5	0	0	5	0	0	1	0	1	0	0	0	0	0	10
1615 - 1630	0	5	0	0	5	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	9
1630 - 1645	0	2	0	0	2	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	7
1645 - 1700	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	1	11	0	0	12	0	15	0	0	15	0	0	2	0	2	0	0	0	0	0	29
1700 - 1715	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1715 - 1730	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	4	0	0	4	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	8
1800 - 1815	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
1815 - 1830	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
1830 - 1845	0	3	0	0	3	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	7
1845 - 1900	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	5	0	0	5	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	16
Grand Total	16	289	4	0	309	0	284	3	1	288	4	0	12	0	16	2	5	0	0	7	620
Approach %	5.18	93.53	1.29	0.00		0.00	98.61	1.04	0.35		25.00	0.00	75.00	0.00		28.57	71.43	0.00	0.00		
Intersection %	2.58	46.61	0.65	0.00	49.84	0.00	45.81	0.48	0.16	46.45	0.65	0.00	1.94	0.00	2.58	0.32	0.81	0.00	0.00	1.13	

Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Weather

Fair
66°F

Bikes

[illegible]

Pedestrian Count || All vehicles

Cumming, GA



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 3 of 3

GA-400 Georgia 400 S (South)

GA-400 Georgia 400 S (North)

Settingdown Rd (West)

Settingdown Rd (East)

Date

Thursday, April 28, 2022

Lat/Long

34.282107°, -84.076151°

Weather

Fair

66°F

0600 - 1900 (Weekday 13h Session) (04-28-2022)

Pedestrians

TIME	Northbound			Southbound			Eastbound			Westbound			App Total	Int Total			
	GA-400 Georgia 400 S (South)			GA-400 Georgia 400 S (North)			Settingdown Rd (West)			Settingdown Rd (East)							
	EB 3a	WB 3b		App Total	EB 3c	WB 3d		App Total	NB 3e	SB 3f		App Total			NB 3g	SB 3h	
0600 - 0615	0	0		0	0	0		0	0	0		0	0	0		0	0
0615 - 0630	0	0		0	0	0		0	0	0		0	0	0		0	0
0630 - 0645	0	0		0	0	0		0	0	0		0	0	0		0	0
0645 - 0700	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
0700 - 0715	0	0		0	0	0		0	0	0		0	0	0		0	0
0715 - 0730	0	0		0	0	0		0	0	0		0	0	0		0	0
0730 - 0745	0	0		0	0	0		0	0	0		0	0	0		0	0
0745 - 0800	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
0800 - 0815	0	0		0	0	0		0	0	0		0	0	0		0	0
0815 - 0830	0	0		0	0	0		0	0	0		0	0	0		0	0
0830 - 0845	0	0		0	0	0		0	0	0		0	0	0		0	0
0845 - 0900	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
0900 - 0915	0	0		0	0	0		0	0	0		0	0	0		0	0
0915 - 0930	0	0		0	0	0		0	0	0		0	0	0		0	0
0930 - 0945	0	0		0	0	0		0	0	0		0	0	0		0	0
0945 - 1000	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1000 - 1015	0	0		0	0	0		0	0	0		0	0	0		0	0
1015 - 1030	0	0		0	0	0		0	0	0		0	0	0		0	0
1030 - 1045	0	0		0	0	0		0	0	0		0	0	0		0	0
1045 - 1100	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1100 - 1115	0	0		0	0	0		0	0	0		0	0	0		0	0
1115 - 1130	0	0		0	0	0		0	0	0		0	0	0		0	0
1130 - 1145	0	0		0	0	0		0	0	0		0	0	0		0	0
1145 - 1200	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1200 - 1215	0	0		0	0	0		0	0	0		0	0	0		0	0
1215 - 1230	0	0		0	0	0		0	0	0		0	0	0		0	0
1230 - 1245	0	0		0	0	0		0	0	0		0	0	0		0	0
1245 - 1300	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1300 - 1315	0	0		0	0	0		0	0	0		0	0	0		0	0
1315 - 1330	0	0		0	0	0		0	0	0		0	0	0		0	0
1330 - 1345	0	0		0	0	0		0	0	0		0	0	0		0	0
1345 - 1400	0	0		0	0	0		0	0	1		1	0	0		0	1
Hourly Total	0	0		0	0	0		0	0	1		1	0	0		0	1
1400 - 1415	0	0		0	0	0		0	0	0		0	0	0		0	0
1415 - 1430	0	0		0	0	0		0	0	0		0	0	0		0	0
1430 - 1445	0	0		0	0	0		0	0	0		0	0	0		0	0
1445 - 1500	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1500 - 1515	0	0		0	0	0		0	0	0		0	0	0		0	0
1515 - 1530	0	0		0	0	0		0	0	0		0	0	0		0	0
1530 - 1545	0	0		0	0	0		0	0	0		0	0	0		0	0
1545 - 1600	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1600 - 1615	0	0		0	0	0		0	0	0		0	0	0		0	0
1615 - 1630	0	0		0	0	0		0	0	0		0	0	0		0	0
1630 - 1645	0	0		0	0	0		0	0	0		0	0	0		0	0
1645 - 1700	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1700 - 1715	0	0		0	0	0		0	0	0		0	0	0		0	0
1715 - 1730	0	0		0	0	0		0	0	0		0	0	0		0	0
1730 - 1745	0	0		0	0	0		0	0	0		0	0	0		0	0
1745 - 1800	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
1800 - 1815	0	0		0	0	0		0	0	0		0	0	0		0	0
1815 - 1830	0	0		0	0	0		0	0	0		0	0	0		0	0
1830 - 1845	0	0		0	0	0		0	0	0		0	0	0		0	0
1845 - 1900	0	0		0	0	0		0	0	0		0	0	0		0	0
Hourly Total	0	0		0	0	0		0	0	0		0	0	0		0	0
Grand Total	0	0		0	0	0		0	0	1		1	0	0		0	1
Approach %	0.00	0.00		-	0.00	0.00		-	0.00	100.00		-	0.00	0.00		-	
Intersection %	0.00	0.00		0.00	0.00	0.00		0.00	0.00	100.00		100.00	0.00	0.00		0.00	

Start Date: 4/28/2022	GA-400 Georgia 400 S (South)			GA-400 Georgia 400 S (North)			Settingdown Rd (West)			Settingdown Rd (East)			
	Northbound			Southbound			Eastbound			Westbound			
Time	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total
15 Minute Totals													
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM - 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM - 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM - 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM - 02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM - 03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM - 03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM - 04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM - 04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM - 04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM - 04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM - 05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM - 05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM - 05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM - 05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM - 06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM - 06:15 AM	3	65	0	1	337	12	2	0	25	2	2	0	449
06:15 AM - 06:30 AM	4	84	1	2	471	18	6	0	23	12	4	0	627
06:30 AM - 06:45 AM	12	123	2	1	496	21	11	1	36	7	1	3	715
06:45 AM - 07:00 AM	6	139	5	4	533	24	10	1	33	20	5	1	781
07:00 AM - 07:15 AM	6	150	2	4	498	26	11	4	34	19	7	2	764
07:15 AM - 07:30 AM	9	210	0	6	441	35	16	5	28	19	14	1	785
07:30 AM - 07:45 AM	9	238	1	3	375	24	17	5	49	37	15	0	774
07:45 AM - 08:00 AM	17	261	6	2	366	16	15	6	42	30	28	0	790
08:00 AM - 08:15 AM	15	212	1	4	372	24	11	10	38	21	20	0	729
08:15 AM - 08:30 AM	16	210	5	12	399	30	18	8	34	18	10	1	762
08:30 AM - 08:45 AM	8	226	10	3	342	37	21	5	27	12	7	1	700
08:45 AM - 09:00 AM	14	242	1	0	288	21	18	11	21	11	4	0	632
09:00 AM - 09:15 AM	8	243	5	3	324	14	24	1	16	7	5	1	651
09:15 AM - 09:30 AM	4	207	6	5	306	11	10	3	16	9	2	1	580
09:30 AM - 09:45 AM	11	237	5	1	315	16	16	5	34	11	0	1	652
09:45 AM - 10:00 AM	13	244	10	1	401	10	19	6	15	16	5	0	741
10:00 AM - 10:15 AM	6	262	8	2	267	16	11	4	16	10	4	1	609
10:15 AM - 10:30 AM	8	298	7	2	324	9	12	4	9	18	3	1	697
10:30 AM - 10:45 AM	11	279	7	2	303	15	18	2	10	19	5	0	671
10:45 AM - 11:00 AM	6	285	12	1	281	17	20	3	12	16	6	0	659
11:00 AM - 11:15 AM	12	296	11	2	289	12	18	5	12	11	1	1	671
11:15 AM - 11:30 AM	10	362	7	3	274	18	12	4	20	12	1	4	727
11:30 AM - 11:45 AM	13	319	8	4	287	13	21	1	20	10	7	3	708
11:45 AM - 12:00 PM	11	334	9	3	214	15	13	11	23	13	4	2	654
12:00 PM - 12:15 PM	14	324	10	6	283	19	21	7	19	12	8	2	725
12:15 PM - 12:30 PM	11	358	5	1	255	19	13	5	22	12	1	3	708
12:30 PM - 12:45 PM	11	345	8	2	285	21	14	7	11	20	6	2	712
12:45 PM - 01:00 PM	13	221	9	2	289	8	9	3	7	8	3	0	573
01:00 PM - 01:15 PM	16	299	11	2	271	25	18	4	12	9	4	1	673
01:15 PM - 01:30 PM	13	326	11	2	327	17	11	5	10	8	5	1	737
01:30 PM - 01:45 PM	14	311	17	1	305	11	15	6	15	13	3	3	714
01:45 PM - 02:00 PM	14	336	13	0	270	18	15	6	10	14	2	2	702
02:00 PM - 02:15 PM	11	381	12	4	260	13	18	4	18	10	6	7	745
02:15 PM - 02:30 PM	18	408	10	2	295	17	20	4	17	11	2	5	810
02:30 PM - 02:45 PM	14	363	8	1	286	16	19	5	13	14	1	2	743
02:45 PM - 03:00 PM	22	395	15	4	276	15	13	3	12	12	3	2	773
03:00 PM - 03:15 PM	25	430	18	6	301	20	13	6	11	11	7	4	853
03:15 PM - 03:30 PM	30	403	14	4	267	18	21	2	11	7	6	7	792
03:30 PM - 03:45 PM	22	477	10	2	311	12	18	7	10	11	5	4	890
03:45 PM - 04:00 PM	18	444	10	3	251	14	31	14	11	15	7	3	823
04:00 PM - 04:15 PM	27	500	15	6	311	18	25	9	33	14	12	4	974
04:15 PM - 04:30 PM	13	472	13	0	283	26	25	15	17	13	15	7	901
04:30 PM - 04:45 PM	30	534	14	4	269	19	28	13	17	12	8	7	957
04:45 PM - 05:00 PM	29	476	13	3	278	11	36	10	23	11	9	4	903
05:00 PM - 05:15 PM	18	510	13	2	315	22	31	7	30	13	6	11	979
05:15 PM - 05:30 PM	17	488	6	2	260	19	27	5	26	17	17	7	892
05:30 PM - 05:45 PM	34	506	24	1	283	23	30	7	20	12	5	2	947
05:45 PM - 06:00 PM	30	465	12	3	270	19	31	6	11	16	8	1	873
06:00 PM - 06:15 PM	27	507	18	1	259	19	20	6	17	13	4	6	898
06:15 PM - 06:30 PM	22	424	9	1	279	26	26	4	15	11	1	2	821
06:30 PM - 06:45 PM	21	451	16	1	268	19	17	2	10	11	3	2	822
06:45 PM - 07:00 PM	18	279	20	4	206	15	25	3	10	11	7	1	599
07:00 PM - 07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 PM - 07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 PM - 07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 PM - 08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 PM - 08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 PM - 08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 PM - 08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 PM - 09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 PM - 09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 PM - 09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 PM - 09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C: Synchro Reports, Signal Timing Parameters

Timings

1: GA 400 & Settingdown Rd

05/31/2022

												
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	20	105	64	2	41	859	9	1	15	1680	101
Future Volume (vph)	59	20	105	64	2	41	859	9	1	15	1680	101
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2				6	
Permitted Phases	4		8		2	2		2	6	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	20.0	15.0	20.0	85.0	15.0	85.0	85.0	70.0	70.0	70.0	70.0
Total Split (%)	12.5%	16.7%	12.5%	16.7%	70.8%	12.5%	70.8%	70.8%	58.3%	58.3%	58.3%	58.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	18.8	10.6	20.9	13.7		82.4	82.4	82.4		71.9	71.9	71.9
Actuated g/C Ratio	0.16	0.09	0.17	0.11		0.69	0.69	0.69		0.60	0.60	0.60
v/c Ratio	0.31	0.77	0.74	0.41		0.35	0.46	0.01		0.07	0.96	0.12
Control Delay	41.3	37.2	63.5	55.2		15.0	9.8	0.0		13.6	37.0	1.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	41.3	37.2	63.5	55.2		15.0	9.8	0.0		13.6	37.0	1.9
LOS	D	D	E	E		B	A	A		B	D	A
Approach Delay		38.3		60.3			9.9				34.8	
Approach LOS		D		E			A				C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 29.1

Intersection LOS: C

Intersection Capacity Utilization 77.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd

													
Ø2 (R)													
85 s													
													
Ø5													
15 s													
													
Ø6 (R)													
70 s													
													
Ø7													
15 s													
													
Ø8													
20 s													

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/31/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	59	20	153	105	64	3	2	41	859	9	1	15
Future Volume (veh/h)	59	20	153	105	64	3	2	41	859	9	1	15
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1900	1900		1796	1796	1796		1826
Adj Flow Rate, veh/h	72	24	0	140	85	0		51	1074	11		18
Peak Hour Factor	0.82	0.82	0.82	0.75	0.75	0.75		0.80	0.80	0.80		0.85
Percent Heavy Veh, %	2	2	2	0	0	0		7	7	7		5
Cap, veh/h	179	78		237	126			153	2503	1116		370
Arrive On Green	0.05	0.04	0.00	0.08	0.07	0.00		0.03	0.73	0.73		0.65
Sat Flow, veh/h	1781	1870	0	1810	1900	0		1711	3413	1522		508
Grp Volume(v), veh/h	72	24	0	140	85	0		51	1074	11		18
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1810	1900	0		1711	1706	1522		508
Q Serve(g_s), s	4.6	1.5	0.0	8.9	5.2	0.0		1.1	14.7	0.2		1.7
Cycle Q Clear(g_c), s	4.6	1.5	0.0	8.9	5.2	0.0		1.1	14.7	0.2		6.3
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	179	78		237	126			153	2503	1116		370
V/C Ratio(X)	0.40	0.31		0.59	0.67			0.33	0.43	0.01		0.05
Avail Cap(c_a), veh/h	223	218		237	222			223	2503	1116		370
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	51.6	55.8	0.0	50.8	54.7	0.0		24.6	6.2	4.3		9.4
Incr Delay (d2), s/veh	1.5	2.2	0.0	3.9	6.1	0.0		1.3	0.5	0.0		0.2
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
%ile BackOfQ(50%),veh/ln	2.1	0.7	0.0	4.2	2.7	0.0		0.9	4.0	0.1		0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	58.1	0.0	54.6	60.8	0.0		25.8	6.8	4.3		9.7
LnGrp LOS	D	E		D	E			C	A	A		A
Approach Vol, veh/h	96		A	225		A	1136					
Approach Delay, s/veh	54.3			57.0			7.6					
Approach LOS	D			E			A					
Timer - Assigned Phs	2		3	4		5	6		7		8	
Phs Duration (G+Y+Rc), s	94.0		15.0	11.0		10.1	83.9		12.0		14.0	
Change Period (Y+Rc), s	6.0		6.0	6.0		6.0	6.0		6.0			
Max Green Setting (Gmax), s	79.0		9.0	14.0		9.0	64.0		9.0		14.0	
Max Q Clear Time (g_c+l1), s	16.7		10.9	3.5		3.1	57.7		6.6		7.2	
Green Ext Time (p_c), s	8.4		0.0	0.0		0.0	5.4		0.0		0.1	
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/31/2022



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	1680	101
Future Volume (veh/h)	1680	101
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1826	1826
Adj Flow Rate, veh/h	1976	119
Peak Hour Factor	0.85	0.85
Percent Heavy Veh, %	5	5
Cap, veh/h	2253	1005
Arrive On Green	0.65	0.65
Sat Flow, veh/h	3469	1547
Grp Volume(v), veh/h	1976	119
Grp Sat Flow(s),veh/h/ln	1735	1547
Q Serve(g_s), s	55.7	3.5
Cycle Q Clear(g_c), s	55.7	3.5
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	2253	1005
V/C Ratio(X)	0.88	0.12
Avail Cap(c_a), veh/h	2253	1005
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	17.1	8.0
Incr Delay (d2), s/veh	5.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	1.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	22.3	8.2
LnGrp LOS	C	A
Approach Vol, veh/h	2113	
Approach Delay, s/veh	21.4	
Approach LOS	C	
Timer - Assigned Phs		

HCM 6th TWSC
2: GA 400 & Settingdown Cir/Bottoms Rd

05/31/2022

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↗↗	↗		↗	↗↗	↗
Traffic Vol, veh/h	2	1	16	0	1	0	1	881	0	21	32	1914	193
Future Vol, veh/h	2	1	16	0	1	0	1	881	0	21	32	1914	193
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	575	-	175	-	575	-	410
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	79	79	79	25	25	25	75	75	75	87	87	87	87
Heavy Vehicles, %	16	16	16	0	0	0	8	8	8	4	4	4	4
Mvmt Flow	3	1	20	0	4	0	1	1175	0	24	37	2200	222

Major/Minor	Minor2		Minor1		Major1		Major2							
Conflicting Flow All	2914	3499	1100	2400	3721	588	2422	0	0	1175	1175	0	0	
Stage 1	2322	2322	-	1177	1177	-	-	-	-	-	-	-	-	-
Stage 2	592	1177	-	1223	2544	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.82	6.82	7.22	7.5	6.5	6.9	4.26	-	-	6.48	4.18	-	-	-
Critical Hdwy Stg 1	6.82	5.82	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.82	5.82	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.66	4.16	3.46	3.5	4	3.3	2.28	-	-	2.54	2.24	-	-	-
Pot Cap-1 Maneuver	5	5	186	18	5	457	176	-	-	252	579	-	-	-
Stage 1	32	58	-	206	267	-	-	-	-	-	-	-	-	-
Stage 2	426	236	-	193	55	-	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-	-
Mov Cap-1 Maneuver	-	4	186	11	4	457	176	-	-	382	382	-	-	-
Mov Cap-2 Maneuver	-	4	-	11	4	-	-	-	-	-	-	-	-	-
Stage 1	32	49	-	205	265	-	-	-	-	-	-	-	-	-
Stage 2	417	235	-	141	46	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		\$ 1541.4	0	0.4
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	176	-	-	4	382	-
HCM Lane V/C Ratio	0.008	-	-	1	0.159	-
HCM Control Delay (s)	25.6	-	-	\$1541.4	16.2	-
HCM Lane LOS	D	-	-	F	C	-
HCM 95th %tile Q(veh)	0	-	-	1.2	0.6	-

Notes

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

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

05/31/2022

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	2	0	31	0	1	2	0	19	0	1	218	0
Future Vol, veh/h	2	0	31	0	1	2	0	19	0	1	218	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	46	46	46	75	75	75	68	68	68	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	11	11	11
Mvmt Flow	4	0	67	0	1	3	0	28	0	1	287	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	319	317	287	351	317	28	287	0	0	28	0	0
Stage 1	289	289	-	28	28	-	-	-	-	-	-	-
Stage 2	30	28	-	323	289	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.21	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.299	-	-
Pot Cap-1 Maneuver	638	602	757	608	602	1053	1281	-	-	1529	-	-
Stage 1	723	677	-	994	876	-	-	-	-	-	-	-
Stage 2	992	876	-	693	677	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	635	601	757	553	601	1053	1281	-	-	1529	-	-
Mov Cap-2 Maneuver	635	601	-	553	601	-	-	-	-	-	-	-
Stage 1	723	676	-	994	876	-	-	-	-	-	-	-
Stage 2	988	876	-	631	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	9.3	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1281	-	-	748	842	1529
HCM Lane V/C Ratio	-	-	-	0.096	0.005	0.001
HCM Control Delay (s)	0	-	-	10.3	9.3	7.4
HCM Lane LOS	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0

Timings

1: GA 400 & Settingdown Rd

05/30/2022

											
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	128	48	52	41	5	96	2131	57	10	1225	83
Future Volume (vph)	128	48	52	41	5	96	2131	57	10	1225	83
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2			6	
Permitted Phases	4		8		2	2		2	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	15.0	15.0	15.0	90.0	15.0	90.0	90.0	75.0	75.0	75.0
Total Split (%)	12.5%	12.5%	12.5%	12.5%	75.0%	12.5%	75.0%	75.0%	62.5%	62.5%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	18.8	11.6	16.4	8.3		84.7	84.7	84.7	71.0	71.0	71.0
Actuated g/C Ratio	0.16	0.10	0.14	0.07		0.71	0.71	0.71	0.59	0.59	0.59
v/c Ratio	0.65	0.72	0.35	0.62		0.44	0.94	0.05	0.18	0.66	0.09
Control Delay	58.1	51.7	46.0	58.4		11.2	24.6	0.8	21.0	18.8	0.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	51.7	46.0	58.4		11.2	24.6	0.8	21.0	18.8	0.7
LOS	E	D	D	E		B	C	A	C	B	A
Approach Delay		54.7		53.1			23.4			17.7	
Approach LOS		D		D			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 24.6

Intersection LOS: C

Intersection Capacity Utilization 95.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd

											
Ø2 (R)											
90 s											
											
Ø5											
15 s											
											
Ø6 (R)											
75 s											
											
Ø7											
15 s											
											
Ø8											
15 s											

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	128	48	93	52	41	31	5	96	2131	57	10	1225
Future Volume (veh/h)	128	48	93	52	41	31	5	96	2131	57	10	1225
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826		1856	1856	1856	1826	1826
Adj Flow Rate, veh/h	141	53	0	63	49	0		104	2316	62	11	1346
Peak Hour Factor	0.91	0.91	0.91	0.83	0.83	0.83		0.92	0.92	0.92	0.91	0.91
Percent Heavy Veh, %	3	3	3	5	5	5		3	3	3	5	5
Cap, veh/h	215	136		195	79			284	2580	1151	92	2225
Arrive On Green	0.08	0.07	0.00	0.04	0.04	0.00		0.04	0.73	0.73	0.64	0.64
Sat Flow, veh/h	1767	1856	0	1739	1826	0		1767	3526	1572	145	3469
Grp Volume(v), veh/h	141	53	0	63	49	0		104	2316	62	11	1346
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1739	1826	0		1767	1763	1572	145	1735
Q Serve(g_s), s	9.0	3.3	0.0	4.1	3.2	0.0		2.3	61.6	1.3	7.7	27.3
Cycle Q Clear(g_c), s	9.0	3.3	0.0	4.1	3.2	0.0		2.3	61.6	1.3	58.5	27.3
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	215	136		195	79			284	2580	1151	92	2225
V/C Ratio(X)	0.66	0.39		0.32	0.62			0.37	0.90	0.05	0.12	0.60
Avail Cap(c_a), veh/h	215	139		247	137			345	2580	1151	92	2225
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
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	53.0	0.0	51.8	56.4	0.0		10.8	12.6	4.5	39.7	12.6
Incr Delay (d2), s/veh	7.0	1.8	0.0	0.9	7.7	0.0		0.8	5.5	0.1	2.7	1.2
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
%ile BackOfQ(50%),veh/ln	4.4	1.6	0.0	1.8	1.6	0.0		0.7	18.6	0.4	0.3	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	54.9	0.0	52.7	64.2	0.0		11.6	18.0	4.6	42.3	13.8
LnGrp LOS	E	D		D	E			B	B	A	D	B
Approach Vol, veh/h		194	A		112	A			2482			1448
Approach Delay, s/veh		57.0			57.7				17.4			13.7
Approach LOS		E			E				B			B
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		93.8	11.4	14.8	10.8	83.0	15.0	11.2				
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		84.0	9.0	9.0	9.0	69.0	9.0	9.0				
Max Q Clear Time (g_c+l1), s		63.6	6.1	5.3	4.3	60.5	11.0	5.2				
Green Ext Time (p_c), s		16.4	0.0	0.0	0.1	5.5	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/30/2022



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	83
Future Volume (veh/h)	83
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1826
Adj Flow Rate, veh/h	91
Peak Hour Factor	0.91
Percent Heavy Veh, %	5
Cap, veh/h	993
Arrive On Green	0.64
Sat Flow, veh/h	1547
Grp Volume(v), veh/h	91
Grp Sat Flow(s),veh/h/ln	1547
Q Serve(g_s), s	2.7
Cycle Q Clear(g_c), s	2.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	993
V/C Ratio(X)	0.09
Avail Cap(c_a), veh/h	993
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	8.2
Incr Delay (d2), s/veh	0.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.9
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	8.4
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th TWSC
2: GA 400 & Settingdown Cir/Bottoms Rd

05/30/2022

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↗↗	↗		↗	↗↗	↗
Traffic Vol, veh/h	17	4	9	1	3	1	3	2167	0	18	1	1302	20
Future Vol, veh/h	17	4	9	1	3	1	3	2167	0	18	1	1302	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	575	-	175	-	575	-	410
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	78	78	78	63	63	63	99	99	99	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	4	4	4	4
Mvmt Flow	22	5	12	2	5	2	3	2189	0	19	1	1371	21

Major/Minor	Minor2		Minor1		Major1		Major2							
Conflicting Flow All	2514	3606	686	2923	3627	1095	1392	0	0	2189	2189	0	0	
Stage 1	1411	1411	-	2195	2195	-	-	-	-	-	-	-	-	
Stage 2	1103	2195	-	728	1432	-	-	-	-	-	-	-	-	
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.14	-	-	6.48	4.18	-	-	
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.22	-	-	2.54	2.24	-	-	
Pot Cap-1 Maneuver	~ 15	~ 5	395	7	5	212	487	-	-	54	232	-	-	
Stage 1	148	206	-	47	84	-	-	-	-	-	-	-	-	
Stage 2	229	84	-	386	202	-	-	-	-	-	-	-	-	
Platoon blocked, %								-	-			-	-	
Mov Cap-1 Maneuver	-	~ 3	395	-	~ 3	212	487	-	-	56	56	-	-	
Mov Cap-2 Maneuver	-	~ 3	-	-	~ 3	-	-	-	-	-	-	-	-	
Stage 1	147	133	-	47	83	-	-	-	-	-	-	-	-	
Stage 2	213	83	-	232	130	-	-	-	-	-	-	-	-	

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	1.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	487	-	-	56	-	-
HCM Lane V/C Ratio	0.006	-	-	0.357	-	-
HCM Control Delay (s)	12.4	-	-	100.8	-	-
HCM Lane LOS	B	-	-	F	-	-
HCM 95th %tile Q(veh)	0	-	-	1.3	-	-

Notes

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

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

05/30/2022

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	1	1	0	1	2	2	128	2	1	89	4
Future Vol, veh/h	4	1	1	0	1	2	2	128	2	1	89	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	38	38	38	84	84	84	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	5	5	5
Mvmt Flow	8	2	2	0	3	5	2	152	2	1	113	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	279	276	116	277	277	153	118	0	0	154	0	0
Stage 1	118	118	-	157	157	-	-	-	-	-	-	-
Stage 2	161	158	-	120	120	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	677	635	942	679	634	898	1470	-	-	1408	-	-
Stage 1	891	802	-	850	772	-	-	-	-	-	-	-
Stage 2	846	771	-	889	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	670	634	942	675	633	898	1470	-	-	1408	-	-
Mov Cap-2 Maneuver	670	634	-	675	633	-	-	-	-	-	-	-
Stage 1	890	801	-	849	771	-	-	-	-	-	-	-
Stage 2	837	770	-	884	799	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.3		9.6		0.1		0.1	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1470	-	-	697	788	1408
HCM Lane V/C Ratio	0.002	-	-	0.017	0.01	0.001
HCM Control Delay (s)	7.5	0	-	10.3	9.6	7.6
HCM Lane LOS	A	A	-	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0

Timings

1: GA 400 & Settingdown Rd

05/30/2022

												
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	28	125	83	2	58	1069	11	1	18	2077	149
Future Volume (vph)	76	28	125	83	2	58	1069	11	1	18	2077	149
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2				6	
Permitted Phases	4		8		2	2		2	6	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	20.0	15.0	20.0	85.0	15.0	85.0	85.0	70.0	70.0	70.0	70.0
Total Split (%)	12.5%	16.7%	12.5%	16.7%	70.8%	12.5%	70.8%	70.8%	58.3%	58.3%	58.3%	58.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	21.3	12.8	22.3	13.3		80.2	80.2	80.2		69.2	69.2	69.2
Actuated g/C Ratio	0.18	0.11	0.19	0.11		0.67	0.67	0.67		0.58	0.58	0.58
v/c Ratio	0.37	0.89	0.84	0.55		0.47	0.59	0.01		0.12	1.23	0.19
Control Delay	41.5	56.4	74.5	59.9		22.5	12.5	0.0		15.7	135.8	4.2
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	41.5	56.4	74.5	59.9		22.5	12.5	0.0		15.7	135.8	4.2
LOS	D	E	E	E		C	B	A		B	F	A
Approach Delay		52.4		68.5			12.9				126.0	
Approach LOS		D		E			B				F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.23

Intersection Signal Delay: 82.7

Intersection LOS: F

Intersection Capacity Utilization 92.2%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd

													
Ø2 (R)													
85 s													
													
Ø5													
15 s													
													
Ø6 (R)													
70 s													
													
Ø7													
15 s													
													
Ø8													
20 s													

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	76	28	185	125	83	4	2	58	1069	11	1	18
Future Volume (veh/h)	76	28	185	125	83	4	2	58	1069	11	1	18
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1900	1900		1796	1796	1796		1826
Adj Flow Rate, veh/h	93	34	0	167	111	0		72	1336	14		21
Peak Hour Factor	0.82	0.82	0.82	0.75	0.75	0.75		0.80	0.80	0.80		0.85
Percent Heavy Veh, %	2	2	2	0	0	0		7	7	7		5
Cap, veh/h	194	117		259	143			125	2431	1085		268
Arrive On Green	0.06	0.06	0.00	0.08	0.08	0.00		0.04	0.71	0.71		0.62
Sat Flow, veh/h	1781	1870	0	1810	1900	0		1711	3413	1522		394
Grp Volume(v), veh/h	93	34	0	167	111	0		72	1336	14		21
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1810	1900	0		1711	1706	1522		394
Q Serve(g_s), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	22.2	0.3		3.2
Cycle Q Clear(g_c), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	22.2	0.3		14.8
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	194	117		259	143			125	2431	1085		268
V/C Ratio(X)	0.48	0.29		0.65	0.77			0.58	0.55	0.01		0.08
Avail Cap(c_a), veh/h	217	218		259	222			188	2431	1085		268
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	48.6	53.7	0.0	49.5	54.5	0.0		31.1	8.2	5.0		14.2
Incr Delay (d2), s/veh	1.8	1.4	0.0	5.4	8.6	0.0		4.2	0.9	0.0		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
%ile BackOfQ(50%),veh/ln	2.6	1.0	0.0	5.2	3.6	0.0		1.4	6.4	0.1		0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	55.1	0.0	54.9	63.1	0.0		35.3	9.1	5.0		14.7
LnGrp LOS	D	E		D	E			D	A	A		B
Approach Vol, veh/h	127		A	278		A	1422					
Approach Delay, s/veh	51.7			58.2			10.3					
Approach LOS	D			E			B					
Timer - Assigned Phs	2		3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	91.5		15.0	13.5	10.5	80.9	13.5	15.1				
Change Period (Y+Rc), s	6.0		6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	79.0		9.0	14.0	9.0	64.0	9.0	14.0				
Max Q Clear Time (g_c+l1), s	24.2		11.0	4.1	3.7	76.9	7.8	8.9				
Green Ext Time (p_c), s	12.0		0.0	0.0	0.0	0.0	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay	56.3											
HCM 6th LOS	E											

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/30/2022



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	2077	149
Future Volume (veh/h)	2077	149
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1826	1826
Adj Flow Rate, veh/h	2444	175
Peak Hour Factor	0.85	0.85
Percent Heavy Veh, %	5	5
Cap, veh/h	2167	966
Arrive On Green	0.62	0.62
Sat Flow, veh/h	3469	1547
Grp Volume(v), veh/h	2444	175
Grp Sat Flow(s),veh/h/ln	1735	1547
Q Serve(g_s), s	74.9	5.7
Cycle Q Clear(g_c), s	74.9	5.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	2167	966
V/C Ratio(X)	1.13	0.18
Avail Cap(c_a), veh/h	2167	966
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	22.5	9.5
Incr Delay (d2), s/veh	64.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	43.9	1.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	86.7	9.9
LnGrp LOS	F	A
Approach Vol, veh/h	2640	
Approach Delay, s/veh	81.0	
Approach LOS	F	
Timer - Assigned Phs		

HCM 6th TWSC
2: GA 400 & Settingdown Cir/Bottoms Rd

05/30/2022

Intersection														
Int Delay, s/veh	6													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Lane Configurations		↕			↕		↙	↕	↙		↙	↕	↙	
Traffic Vol, veh/h	49	1	54	0	1	0	44	1058	0	25	38	2348	237	
Future Vol, veh/h	49	1	54	0	1	0	44	1058	0	25	38	2348	237	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	-	-	-	-	-	575	-	175	-	575	-	410	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-	
Peak Hour Factor	79	79	79	25	25	25	75	75	75	87	87	87	87	
Heavy Vehicles, %	16	16	16	0	0	0	8	8	8	4	4	4	4	
Mvmt Flow	62	1	68	0	4	0	59	1411	0	29	44	2699	272	
Major/Minor	Minor2		Minor1			Major1			Major2					
Conflicting Flow All	3671	4374	1350	3025	4646	706	2971	0	0	1411	1411	0	0	
Stage 1	2845	2845	-	1529	1529	-	-	-	-	-	-	-	-	
Stage 2	826	1529	-	1496	3117	-	-	-	-	-	-	-	-	
Critical Hdwy	7.82	6.82	7.22	7.5	6.5	6.9	4.26	-	-	6.48	4.18	-	-	
Critical Hdwy Stg 1	6.82	5.82	-	6.5	5.5	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.82	5.82	-	6.5	5.5	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.66	4.16	3.46	3.5	4	3.3	2.28	-	-	2.54	2.24	-	-	
Pot Cap-1 Maneuver	~ 1	~ 1	124	6	~ 1	383	104	-	-	177	469	-	-	
Stage 1	~ 14	30	-	125	181	-	-	-	-	-	-	-	-	
Stage 2	304	156	-	131	28	-	-	-	-	-	-	-	-	
Platoon blocked, %								-	-			-	-	
Mov Cap-1 Maneuver	0	0	124	1	0	383	104	-	-	283	283	-	-	
Mov Cap-2 Maneuver	0	0	-	1	0	-	-	-	-	-	-	-	-	
Stage 1	~ 6	22	-	54	78	-	-	-	-	-	-	-	-	
Stage 2	125	68	-	41	21	-	-	-	-	-	-	-	-	
Approach	EB		WB			NB			SB					
HCM Control Delay, s	166.5						3.1			0.5				
HCM LOS	F		-											
Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	104	-	124		-	283	-	-						
HCM Lane V/C Ratio	0.564	-	1.062		-	0.256	-	-						
HCM Control Delay (s)	77.2	-	166.5		-	22	-	-						
HCM Lane LOS	F	-	F		-	C	-	-						
HCM 95th %tile Q(veh)	2.6	-	7.5		-	1	-	-						
Notes														
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon					

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

05/30/2022

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	2	0	37	0	1	2	0	23	0	1	260	0
Future Vol, veh/h	2	0	37	0	1	2	0	23	0	1	260	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	46	46	46	75	75	75	68	68	68	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	11	11	11	1	1	1
Mvmt Flow	4	0	80	0	1	3	0	34	0	1	342	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	380	378	342	418	378	34	342	0	0	34	0	0
Stage 1	344	344	-	34	34	-	-	-	-	-	-	-
Stage 2	36	34	-	384	344	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.21	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.299	-	-	2.209	-	-
Pot Cap-1 Maneuver	581	557	705	549	557	1045	1169	-	-	1584	-	-
Stage 1	676	640	-	987	871	-	-	-	-	-	-	-
Stage 2	985	871	-	643	640	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	578	556	705	486	556	1045	1169	-	-	1584	-	-
Mov Cap-2 Maneuver	578	556	-	486	556	-	-	-	-	-	-	-
Stage 1	676	639	-	987	871	-	-	-	-	-	-	-
Stage 2	981	871	-	569	639	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	9.5	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1169	-	-	697	808	1584
HCM Lane V/C Ratio	-	-	-	0.122	0.005	0.001
HCM Control Delay (s)	0	-	-	10.9	9.5	7.3
HCM Lane LOS	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.4	0	0

Timings

1: GA 400 & Settingdown Rd

05/30/2022

											
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	64	63	54	6	118	2665	68	1	1558	112
Future Volume (vph)	181	64	63	54	6	118	2665	68	1	1558	112
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2			6	
Permitted Phases	4		8		2	2		2	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	15.0	15.0	15.0	90.0	15.0	90.0	90.0	75.0	75.0	75.0
Total Split (%)	12.5%	12.5%	12.5%	12.5%	75.0%	12.5%	75.0%	75.0%	62.5%	62.5%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	19.1	11.9	17.1	8.8		84.2	84.2	84.2	69.8	69.8	69.8
Actuated g/C Ratio	0.16	0.10	0.14	0.07		0.70	0.70	0.70	0.58	0.58	0.58
v/c Ratio	0.95	0.92	0.44	0.80		0.73	1.18	0.07	0.02	0.86	0.13
Control Delay	97.0	82.0	49.0	86.3		44.1	105.1	1.1	12.0	26.7	1.8
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.0	82.0	49.0	86.3		44.1	105.1	1.1	12.0	26.7	1.8
LOS	F	F	D	F		D	F	A	B	C	A
Approach Delay		89.4		71.0			100.0			25.0	
Approach LOS		F		E			F			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 73.3

Intersection LOS: E

Intersection Capacity Utilization 113.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd

											
Ø2 (R)								Ø3		Ø4	
90 s								15 s		15 s	
											
Ø5								Ø7		Ø8	
15 s								15 s		15 s	

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	181	64	120	63	54	37	6	118	2665	68	1	1558
Future Volume (veh/h)	181	64	120	63	54	37	6	118	2665	68	1	1558
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826		1856	1856	1856	1826	1826
Adj Flow Rate, veh/h	199	70	0	76	65	0		128	2897	74	1	1712
Peak Hour Factor	0.91	0.91	0.91	0.83	0.83	0.83		0.92	0.92	0.92	0.91	0.91
Percent Heavy Veh, %	3	3	3	5	5	5		3	3	3	5	5
Cap, veh/h	215	137		201	95			201	2549	1137	60	2192
Arrive On Green	0.08	0.07	0.00	0.05	0.05	0.00		0.04	0.72	0.72	0.63	0.63
Sat Flow, veh/h	1767	1856	0	1739	1826	0		1767	3526	1572	80	3469
Grp Volume(v), veh/h	199	70	0	76	65	0		128	2897	74	1	1712
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1739	1826	0		1767	1763	1572	80	1735
Q Serve(g_s), s	9.0	4.4	0.0	4.9	4.2	0.0		2.9	86.8	1.6	0.0	43.0
Cycle Q Clear(g_c), s	9.0	4.4	0.0	4.9	4.2	0.0		2.9	86.8	1.6	75.8	43.0
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	215	137		201	95			201	2549	1137	60	2192
V/C Ratio(X)	0.93	0.51		0.38	0.68			0.64	1.14	0.07	0.02	0.78
Avail Cap(c_a), veh/h	215	139		239	137			261	2549	1137	60	2192
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
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	53.5	0.0	50.3	55.9	0.0		22.7	16.6	4.8	60.0	16.0
Incr Delay (d2), s/veh	41.2	3.0	0.0	1.2	8.4	0.0		3.3	66.8	0.1	0.5	2.8
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
%ile BackOfQ(50%),veh/ln	4.0	2.1	0.0	2.2	2.1	0.0		2.4	47.8	0.5	0.0	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.9	56.5	0.0	51.4	64.3	0.0		26.0	83.5	4.9	60.5	18.9
LnGrp LOS	F	E		D	E			C	F	A	E	B
Approach Vol, veh/h		269	A		141	A			3099			1836
Approach Delay, s/veh		84.2			57.4				79.2			18.3
Approach LOS		F			E				E			B
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		92.8	12.4	14.9	10.9	81.8	15.0	12.2				
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		84.0	9.0	9.0	9.0	69.0	9.0	9.0				
Max Q Clear Time (g_c+l1), s		88.8	6.9	6.4	4.9	77.8	11.0	6.2				
Green Ext Time (p_c), s		0.0	0.0	0.0	0.1	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			57.9									
HCM 6th LOS			E									

Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/30/2022



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	112
Future Volume (veh/h)	112
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1826
Adj Flow Rate, veh/h	123
Peak Hour Factor	0.91
Percent Heavy Veh, %	5
Cap, veh/h	978
Arrive On Green	0.63
Sat Flow, veh/h	1547
Grp Volume(v), veh/h	123
Grp Sat Flow(s),veh/h/ln	1547
Q Serve(g_s), s	3.8
Cycle Q Clear(g_c), s	3.8
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	978
V/C Ratio(X)	0.13
Avail Cap(c_a), veh/h	978
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	8.8
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	9.1
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th TWSC

2: GA 400 & Settingdown Cir/Bottoms Rd

05/30/2022

Intersection

Int Delay, s/veh 1813.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↗↗	↗		↗	↗↗	↗
Traffic Vol, veh/h	84	5	58	1	4	1	124	2615	0	22	1	1615	44
Future Vol, veh/h	84	5	58	1	4	1	124	2615	0	22	1	1615	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	575	-	175	-	575	-	410
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	78	78	78	63	63	63	99	99	99	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	4	4	4	4
Mvmt Flow	108	6	74	2	6	2	125	2641	0	23	1	1700	46

Major/Minor	Minor2		Minor1		Major1		Major2							
Conflicting Flow All	3322	4639	850	3792	4685	1321	1746	0	0	2641	2641	0	0	
Stage 1	1748	1748	-	2891	2891	-	-	-	-	-	-	-	-	-
Stage 2	1574	2891	-	901	1794	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.14	-	-	6.48	4.18	-	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.22	-	-	2.54	2.24	-	-	-
Pot Cap-1 Maneuver	~ 3	~ 1	308	~ 1	~ 1	150	356	-	-	27	153	-	-	-
Stage 1	~ 91	141	-	17	36	-	-	-	-	-	-	-	-	-
Stage 2	117	36	-	303	134	-	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-	-
Mov Cap-1 Maneuver	~ 1	0	308	0	0	150	356	-	-	28	28	-	-	-
Mov Cap-2 Maneuver	~ 1	0	-	0	0	-	-	-	-	-	-	-	-	-
Stage 1	~ 59	20	-	11	23	-	-	-	-	-	-	-	-	-
Stage 2	~ 54	23	-	22	19	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	45505.4		30.6		0.9		4.5	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	356	-	-	2	150	28	-
HCM Lane V/C Ratio	0.352	-	-94.231	0.063	0.865	-	-
HCM Control Delay (s)	20.5	-	\$ 45505.4	30.6	328.8	-	-
HCM Lane LOS	C	-	-	F	D	F	-
HCM 95th %tile Q(veh)	1.5	-	-	26	0.2	2.8	-

Notes

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

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

05/30/2022

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	5	1	1	0	1	3	3	153	3	1	106	5
Future Vol, veh/h	5	1	1	0	1	3	3	153	3	1	106	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	38	38	38	84	84	84	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	5	5	5
Mvmt Flow	10	2	2	0	3	8	4	182	4	1	134	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	337	333	137	333	334	184	140	0	0	186	0	0
Stage 1	139	139	-	192	192	-	-	-	-	-	-	-
Stage 2	198	194	-	141	142	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	621	590	917	624	589	864	1443	-	-	1371	-	-
Stage 1	869	785	-	814	745	-	-	-	-	-	-	-
Stage 2	808	744	-	867	783	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	611	588	917	619	587	864	1443	-	-	1371	-	-
Mov Cap-2 Maneuver	611	588	-	619	587	-	-	-	-	-	-	-
Stage 1	866	784	-	812	743	-	-	-	-	-	-	-
Stage 2	795	742	-	862	782	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.8		9.7		0.1		0.1	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1443	-	-	638	773	1371
HCM Lane V/C Ratio	0.002	-	-	0.022	0.014	0.001
HCM Control Delay (s)	7.5	0	-	10.8	9.7	7.6
HCM Lane LOS	A	A	-	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0

Timings

1: GA 400 & Settingdown Rd

05/31/2022

												
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	28	125	83	2	58	1069	11	1	18	2077	149
Future Volume (vph)	76	28	125	83	2	58	1069	11	1	18	2077	149
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2				6	
Permitted Phases	4		8		2	2		2	6	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	20.0	15.0	20.0	85.0	15.0	85.0	85.0	70.0	70.0	70.0	70.0
Total Split (%)	12.5%	16.7%	12.5%	16.7%	70.8%	12.5%	70.8%	70.8%	58.3%	58.3%	58.3%	58.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 1: GA 400 & Settingdown Rd

													
Ø2 (R)													
85 s													
													
Ø5													
15 s													
													
Ø6 (R)													
70 s													
													
Ø7													
15 s													
													
Ø8													
20 s													

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/31/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations									  			
Traffic Volume (veh/h)	76	28	185	125	83	4	2	58	1069	11	1	18
Future Volume (veh/h)	76	28	185	125	83	4	2	58	1069	11	1	18
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Work Zone On Approach	No			No				No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1900	1900		1796	1796	1796		1826
Adj Flow Rate, veh/h	93	34	0	167	111	0		72	1336	14		21
Peak Hour Factor	0.82	0.82	0.82	0.75	0.75	0.75		0.80	0.80	0.80		0.85
Percent Heavy Veh, %	2	2	2	0	0	0		7	7	7		5
Cap, veh/h	194	117		259	143			154	3494	1085		299
Arrive On Green	0.06	0.06	0.00	0.08	0.08	0.00		0.04	0.71	0.71		0.62
Sat Flow, veh/h	1781	1870	0	1810	1900	0		1711	4904	1522		394
Grp Volume(v), veh/h	93	34	0	167	111	0		72	1336	14		21
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1810	1900	0		1711	1635	1522		394
Q Serve(g_s), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	12.9	0.3		2.7
Cycle Q Clear(g_c), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	12.9	0.3		5.0
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	194	117		259	143			154	3494	1085		299
V/C Ratio(X)	0.48	0.29		0.65	0.77			0.47	0.38	0.01		0.07
Avail Cap(c_a), veh/h	217	218		259	222			218	3494	1085		299
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	48.6	53.7	0.0	49.5	54.5	0.0		24.7	6.8	5.0		9.9
Incr Delay (d2), s/veh	1.8	1.4	0.0	5.4	8.6	0.0		2.2	0.3	0.0		0.5
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
%ile BackOfQ(50%),veh/ln	2.6	1.0	0.0	5.2	3.6	0.0		1.3	3.5	0.1		0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	55.1	0.0	54.9	63.1	0.0		26.8	7.1	5.0		10.4
LnGrp LOS	D	E		D	E			C	A	A		B
Approach Vol, veh/h	127			278				1422				
Approach Delay, s/veh	51.7			58.2				8.1				
Approach LOS	D			E				A				
Timer - Assigned Phs	2			3			4			5		
Phs Duration (G+Y+Rc), s	91.5			15.0			13.5			10.5		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	79.0			9.0			64.0			9.0		
Max Q Clear Time (g_c+I1), s	14.9			11.0			4.1			3.7		
Green Ext Time (p_c), s	11.5			0.0			0.0			15.5		
Intersection Summary												
HCM 6th Ctrl Delay	18.3											
HCM 6th LOS	B											
Notes												
User approved ignoring U-Turning movement.												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/31/2022



Movement	SBT	SBR
Lane Configurations	↑↑↑	↑
Traffic Volume (veh/h)	2077	149
Future Volume (veh/h)	2077	149
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1826	1826
Adj Flow Rate, veh/h	2444	175
Peak Hour Factor	0.85	0.85
Percent Heavy Veh, %	5	5
Cap, veh/h	3113	966
Arrive On Green	0.62	0.62
Sat Flow, veh/h	4985	1547
Grp Volume(v), veh/h	2444	175
Grp Sat Flow(s),veh/h/ln	1662	1547
Q Serve(g_s), s	43.3	5.7
Cycle Q Clear(g_c), s	43.3	5.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	3113	966
V/C Ratio(X)	0.79	0.18
Avail Cap(c_a), veh/h	3113	966
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	16.6	9.5
Incr Delay (d2), s/veh	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	1.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	18.7	9.9
LnGrp LOS	B	A
Approach Vol, veh/h	2640	
Approach Delay, s/veh	18.0	
Approach LOS	B	
Timer - Assigned Phs		

Timings

1: GA 400 & Settingdown Rd

05/31/2022

											
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	64	63	54	6	118	2665	68	1	1558	112
Future Volume (vph)	181	64	63	54	6	118	2665	68	1	1558	112
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2			6	
Permitted Phases	4		8		2	2		2	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	20.0	19.0	20.0	19.0	81.0	15.0	81.0	81.0	66.0	66.0	66.0
Total Split (%)	16.7%	15.8%	16.7%	15.8%	67.5%	12.5%	67.5%	67.5%	55.0%	55.0%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 1: GA 400 & Settingdown Rd



HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/31/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	181	64	120	63	54	37	6	118	2665	68	1	1558
Future Volume (veh/h)	181	64	120	63	54	37	6	118	2665	68	1	1558
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826		1856	1856	1856	1826	1826
Adj Flow Rate, veh/h	199	70	0	76	65	0		128	2897	74	1	1712
Peak Hour Factor	0.91	0.91	0.91	0.83	0.83	0.83		0.92	0.92	0.92	0.91	0.91
Percent Heavy Veh, %	3	3	3	5	5	5		3	3	3	5	5
Cap, veh/h	289	214		221	96			231	3449	1071	80	2924
Arrive On Green	0.12	0.12	0.00	0.05	0.05	0.00		0.04	0.68	0.68	0.59	0.59
Sat Flow, veh/h	1767	1856	0	1739	1826	0		1767	5066	1572	80	4985
Grp Volume(v), veh/h	199	70	0	76	65	0		128	2897	74	1	1712
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1739	1826	0		1767	1689	1572	80	1662
Q Serve(g_s), s	12.4	4.2	0.0	4.9	4.2	0.0		3.3	51.1	1.9	1.1	25.9
Cycle Q Clear(g_c), s	12.4	4.2	0.0	4.9	4.2	0.0		3.3	51.1	1.9	41.0	25.9
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	289	214		221	96			231	3449	1071	80	2924
V/C Ratio(X)	0.69	0.33		0.34	0.68			0.55	0.84	0.07	0.01	0.59
Avail Cap(c_a), veh/h	289	214		331	198			286	3449	1071	80	2924
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
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	48.8	0.0	50.2	55.9	0.0		14.7	14.3	6.4	33.8	15.6
Incr Delay (d2), s/veh	6.7	0.9	0.0	0.9	8.1	0.0		2.1	2.6	0.1	0.3	0.9
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
%ile BackOfQ(50%),veh/ln	5.9	2.0	0.0	2.2	2.1	0.0		1.2	15.8	0.6	0.0	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	49.7	0.0	51.1	64.0	0.0		16.7	16.9	6.5	34.0	16.5
LnGrp LOS	D	D		D	E			B	B	A	C	B
Approach Vol, veh/h		269			141				3099			1836
Approach Delay, s/veh		51.2			57.0				16.7			16.2
Approach LOS		D			E				B			B
Timer - Assigned Phs	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s		87.7	12.4	19.9	11.3	76.4	20.0	12.3				
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		75.0	14.0	13.0	9.0	60.0	14.0	13.0				
Max Q Clear Time (g_c+I1), s		53.1	6.9	6.2	5.3	43.0	14.4	6.2				
Green Ext Time (p_c), s		19.5	0.1	0.1	0.1	10.6	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			19.3									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved ignoring U-Turning movement.												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

05/31/2022



Movement	SBR
Left-Through Configurations	
Traffic Volume (veh/h)	112
Future Volume (veh/h)	112
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1826
Adj Flow Rate, veh/h	123
Peak Hour Factor	0.91
Percent Heavy Veh, %	5
Cap, veh/h	908
Arrive On Green	0.59
Sat Flow, veh/h	1547
Grp Volume(v), veh/h	123
Grp Sat Flow(s),veh/h/ln	1547
Q Serve(g_s), s	4.3
Cycle Q Clear(g_c), s	4.3
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	908
V/C Ratio(X)	0.14
Avail Cap(c_a), veh/h	908
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	11.1
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	11.4
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

1: GA 400 & Settingdown Rd

06/02/2022

												
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	28	125	83	2	58	1306	11	1	18	2133	149
Future Volume (vph)	76	28	125	83	2	58	1306	11	1	18	2133	149
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2				6	
Permitted Phases	4		8		2	2		2	6	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	20.0	15.0	20.0	85.0	15.0	85.0	85.0	70.0	70.0	70.0	70.0
Total Split (%)	12.5%	16.7%	12.5%	16.7%	70.8%	12.5%	70.8%	70.8%	58.3%	58.3%	58.3%	58.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	21.3	12.8	22.3	13.3		80.2	80.2	80.2		69.2	69.2	69.2
Actuated g/C Ratio	0.18	0.11	0.19	0.11		0.67	0.67	0.67		0.58	0.58	0.58
v/c Ratio	0.37	0.89	0.84	0.55		0.46	0.71	0.01		0.19	1.25	0.18
Control Delay	41.5	56.4	74.5	59.9		21.6	15.0	0.0		19.5	144.2	4.3
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	41.5	56.4	74.5	59.9		21.6	15.0	0.0		19.5	144.2	4.3
LOS	D	E	E	E		C	B	A		B	F	A
Approach Delay		52.4		68.5			15.2				134.2	
Approach LOS		D		E			B				F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.25

Intersection Signal Delay: 84.3

Intersection LOS: F

Intersection Capacity Utilization 93.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd



HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	76	28	185	125	83	4	2	58	1306	11	1	18
Future Volume (veh/h)	76	28	185	125	83	4	2	58	1306	11	1	18
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Work Zone On Approach	No			No				No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1900	1900		1826	1826	1826		1841
Adj Flow Rate, veh/h	93	34	0	167	111	0		72	1632	14		21
Peak Hour Factor	0.82	0.82	0.82	0.75	0.75	0.75		0.80	0.80	0.80		0.85
Percent Heavy Veh, %	2	2	2	0	0	0		5	5	5		4
Cap, veh/h	194	117		259	143			126	2472	1102		197
Arrive On Green	0.06	0.06	0.00	0.08	0.08	0.00		0.04	0.71	0.71		0.62
Sat Flow, veh/h	1781	1870	0	1810	1900	0		1739	3469	1547		299
Grp Volume(v), veh/h	93	34	0	167	111	0		72	1632	14		21
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1810	1900	0		1739	1735	1547		299
Q Serve(g_s), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	30.7	0.3		4.9
Cycle Q Clear(g_c), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	30.7	0.3		25.0
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	194	117		259	143			126	2472	1102		197
V/C Ratio(X)	0.48	0.29		0.65	0.77			0.57	0.66	0.01		0.11
Avail Cap(c_a), veh/h	217	218		259	222			190	2472	1102		197
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	48.6	53.7	0.0	49.5	54.5	0.0		31.1	9.4	5.0		19.0
Incr Delay (d2), s/veh	1.8	1.4	0.0	5.4	8.6	0.0		4.0	1.4	0.0		1.1
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
%ile BackOfQ(50%),veh/ln	2.6	1.0	0.0	5.2	3.6	0.0		1.4	9.1	0.1		0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	55.1	0.0	54.9	63.1	0.0		35.2	10.8	5.0		20.1
LnGrp LOS	D	E		D	E			D	B	A		C
Approach Vol, veh/h	127		A	278		A	1718					
Approach Delay, s/veh	51.7			58.2			11.7					
Approach LOS	D			E			B					
Timer - Assigned Phs	2		3	4		5	6		7		8	
Phs Duration (G+Y+Rc), s	91.5		15.0	13.5		10.5	80.9		13.5		15.1	
Change Period (Y+Rc), s	6.0		6.0	6.0		6.0	6.0		6.0			
Max Green Setting (Gmax), s	79.0		9.0	14.0		9.0	64.0		9.0		14.0	
Max Q Clear Time (g_c+l1), s	32.7		11.0	4.1		3.7	76.9		7.8		8.9	
Green Ext Time (p_c), s	16.4		0.0	0.0		0.0	0.0		0.0		0.2	
Intersection Summary												
HCM 6th Ctrl Delay	58.9											
HCM 6th LOS	E											

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	2133	149
Future Volume (veh/h)	2133	149
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1841	1841
Adj Flow Rate, veh/h	2509	175
Peak Hour Factor	0.85	0.85
Percent Heavy Veh, %	4	4
Cap, veh/h	2184	974
Arrive On Green	0.62	0.62
Sat Flow, veh/h	3497	1560
Grp Volume(v), veh/h	2509	175
Grp Sat Flow(s),veh/h/ln	1749	1560
Q Serve(g_s), s	74.9	5.7
Cycle Q Clear(g_c), s	74.9	5.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	2184	974
V/C Ratio(X)	1.15	0.18
Avail Cap(c_a), veh/h	2184	974
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	22.5	9.5
Incr Delay (d2), s/veh	72.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.8	1.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	95.3	9.9
LnGrp LOS	F	A
Approach Vol, veh/h	2705	
Approach Delay, s/veh	89.2	
Approach LOS	F	
Timer - Assigned Phs		

HCM 6th TWSC

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022

Intersection													
Int Delay, s/veh	6.9												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↗	↗		↗	↗	↗
Traffic Vol, veh/h	49	1	54	56	1	6	44	1200	95	25	147	2348	237
Future Vol, veh/h	49	1	54	56	1	6	44	1200	95	25	147	2348	237
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	575	-	175	-	575	-	410
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	79	79	79	92	92	92	75	75	75	87	87	87	87
Heavy Vehicles, %	16	16	16	13	13	13	6	6	6	3	3	3	3
Mvmt Flow	62	1	68	61	1	7	59	1600	127	29	169	2699	272
Major/Minor	Minor2		Minor1			Major1		Major2					
Conflicting Flow All	4014	4940	1350	3464	5085	800	2971	0	0	1600	1727	0	0
Stage 1	3095	3095	-	1718	1718	-	-	-	-	-	-	-	-
Stage 2	919	1845	-	1746	3367	-	-	-	-	-	-	-	-
Critical Hdwy	7.82	6.82	7.22	7.76	6.76	7.16	4.22	-	-	6.46	4.16	-	-
Critical Hdwy Stg 1	6.82	5.82	-	6.76	5.76	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.82	5.82	-	6.76	5.76	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.66	4.16	3.46	3.63	4.13	3.43	2.26	-	-	2.53	2.23	-	-
Pot Cap-1 Maneuver	~ 1	0	124	~ 2	0	306	108	-	-	134	357	-	-
Stage 1	~ 9	21	-	83	128	-	-	-	-	-	-	-	-
Stage 2	265	106	-	79	16	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	0	0	124	0	0	306	108	-	-	285	285	-	-
Mov Cap-2 Maneuver	0	0	-	0	0	-	-	-	-	-	-	-	-
Stage 1	~ 4	6	-	~ 38	58	-	-	-	-	-	-	-	-
Stage 2	115	48	-	~ 9	5	-	-	-	-	-	-	-	-
Approach	EB		WB			NB		SB					
HCM Control Delay, s	166.5		20.1			2.4		2.6					
HCM LOS	F		C										
Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1	WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	108	-	-	124	306	285	-	-					
HCM Lane V/C Ratio	0.543	-	-	1.062	0.224	0.694	-	-					
HCM Control Delay (s)	72.3	-	-	166.5	20.1	41.8	-	-					
HCM Lane LOS	F	-	-	F	C	E	-	-					
HCM 95th %tile Q(veh)	2.5	-	-	7.5	0.8	4.7	-	-					
Notes													
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon				

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

06/02/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	6	0	37	0	1	2	0	23	0	1	260	18
Future Vol, veh/h	6	0	37	0	1	2	0	23	0	1	260	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	68	68	68	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	11	11	11	1	1	1
Mvmt Flow	7	0	40	0	1	3	0	34	0	1	342	24

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	392	390	354	410	402	34	366	0	0	34	0	0
Stage 1	356	356	-	34	34	-	-	-	-	-	-	-
Stage 2	36	34	-	376	368	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.21	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.299	-	-	2.209	-	-
Pot Cap-1 Maneuver	571	548	694	556	540	1045	1145	-	-	1584	-	-
Stage 1	666	633	-	987	871	-	-	-	-	-	-	-
Stage 2	985	871	-	649	625	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	568	547	694	523	539	1045	1145	-	-	1584	-	-
Mov Cap-2 Maneuver	568	547	-	523	539	-	-	-	-	-	-	-
Stage 1	666	632	-	987	871	-	-	-	-	-	-	-
Stage 2	981	871	-	611	624	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	9.5	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1145	-	-	673	796	1584
HCM Lane V/C Ratio	-	-	-	0.069	0.005	0.001
HCM Control Delay (s)	0	-	-	10.7	9.5	7.3
HCM Lane LOS	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	19	1138	142	0	2723
Future Vol, veh/h	0	19	1138	142	0	2723
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	410	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	5	3	3
Mvmt Flow	0	21	1237	154	0	2960

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	619	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	432	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	432	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	432
HCM Lane V/C Ratio	-	-	0.048
HCM Control Delay (s)	-	-	13.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

HCM 6th TWSC
5: Bottoms Rd & Drwy 2

06/02/2022

Intersection

Int Delay, s/veh 6.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	204	39	1	18	4	62
Future Vol, veh/h	204	39	1	18	4	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	13	2	2	2	13	13
Mvmt Flow	222	42	1	20	4	67

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	21	0	0 497 11
Stage 1	-	-	- 11 -
Stage 2	-	-	- 486 -
Critical Hdwy	4.23	-	- 6.53 6.33
Critical Hdwy Stg 1	-	-	- 5.53 -
Critical Hdwy Stg 2	-	-	- 5.53 -
Follow-up Hdwy	2.317	-	- 3.617 3.417
Pot Cap-1 Maneuver	1526	-	- 513 1039
Stage 1	-	-	- 984 -
Stage 2	-	-	- 596 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1526	-	- 439 1039
Mov Cap-2 Maneuver	-	-	- 439 -
Stage 1	-	-	- 841 -
Stage 2	-	-	- 596 -

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1526	-	-	-	960
HCM Lane V/C Ratio	0.145	-	-	-	0.075
HCM Control Delay (s)	7.8	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.2

Timings

1: GA 400 & Settingdown Rd

06/02/2022

											
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	64	63	54	6	118	2822	68	11	1804	112
Future Volume (vph)	181	64	63	54	6	118	2822	68	11	1804	112
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2			6	
Permitted Phases	4		8		2	2		2	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	15.0	15.0	15.0	15.0	90.0	15.0	90.0	90.0	75.0	75.0	75.0
Total Split (%)	12.5%	12.5%	12.5%	12.5%	75.0%	12.5%	75.0%	75.0%	62.5%	62.5%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	19.1	11.9	17.1	8.8		84.2	84.2	84.2	69.8	69.8	69.8
Actuated g/C Ratio	0.16	0.10	0.14	0.07		0.70	0.70	0.70	0.58	0.58	0.58
v/c Ratio	0.95	0.92	0.44	0.81		0.72	1.24	0.07	0.19	0.97	0.13
Control Delay	96.7	81.8	49.0	87.6		43.3	130.4	1.1	21.5	39.3	1.8
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	81.8	49.0	87.6		43.3	130.4	1.1	21.5	39.3	1.8
LOS	F	F	D	F		D	F	A	C	D	A
Approach Delay		89.2		71.8			123.9			37.0	
Approach LOS		F		E			F			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 89.2

Intersection LOS: F

Intersection Capacity Utilization 117.3%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd

											
Ø2 (R)						Ø3				Ø4	
90 s						15 s				15 s	
											
Ø5						Ø6 (R)				Ø7	
15 s						75 s				15 s	

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	181	64	120	63	54	37	6	118	2822	68	11	1804
Future Volume (veh/h)	181	64	120	63	54	37	6	118	2822	68	11	1804
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826		1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	199	70	0	76	65	0		128	3067	74	12	1982
Peak Hour Factor	0.91	0.91	0.91	0.83	0.83	0.83		0.92	0.92	0.92	0.91	0.91
Percent Heavy Veh, %	3	3	3	5	5	5		2	2	2	3	3
Cap, veh/h	215	137		201	95			164	2569	1146	60	2228
Arrive On Green	0.08	0.07	0.00	0.05	0.05	0.00		0.04	0.72	0.72	0.63	0.63
Sat Flow, veh/h	1767	1856	0	1739	1826	0		1781	3554	1585	68	3526
Grp Volume(v), veh/h	199	70	0	76	65	0		128	3067	74	12	1982
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1739	1826	0		1781	1777	1585	68	1763
Q Serve(g_s), s	9.0	4.4	0.0	4.9	4.2	0.0		2.9	86.8	1.6	0.0	56.7
Cycle Q Clear(g_c), s	9.0	4.4	0.0	4.9	4.2	0.0		2.9	86.8	1.6	75.8	56.7
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	215	137		201	95			164	2569	1146	60	2228
V/C Ratio(X)	0.93	0.51		0.38	0.68			0.78	1.19	0.06	0.20	0.89
Avail Cap(c_a), veh/h	215	139		239	137			225	2569	1146	60	2228
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
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	53.5	0.0	50.3	55.9	0.0		29.2	16.6	4.8	60.0	18.6
Incr Delay (d2), s/veh	41.2	3.0	0.0	1.2	8.4	0.0		11.4	91.3	0.1	7.3	5.8
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
%ile BackOfQ(50%),veh/ln	4.0	2.1	0.0	2.2	2.1	0.0		2.8	56.9	0.5	0.5	20.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.9	56.5	0.0	51.4	64.3	0.0		40.5	107.9	4.9	67.3	24.4
LnGrp LOS	F	E		D	E			D	F	A	E	C
Approach Vol, veh/h		269	A		141	A			3269			2117
Approach Delay, s/veh		84.2			57.4				102.9			23.7
Approach LOS		F			E				F			C
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		92.8	12.4	14.9	10.9	81.8	15.0	12.2				
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		84.0	9.0	9.0	9.0	69.0	9.0	9.0				
Max Q Clear Time (g_c+l1), s		88.8	6.9	6.4	4.9	77.8	11.0	6.2				
Green Ext Time (p_c), s		0.0	0.0	0.0	0.1	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			72.0									
HCM 6th LOS			E									

Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	112
Future Volume (veh/h)	112
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1856
Adj Flow Rate, veh/h	123
Peak Hour Factor	0.91
Percent Heavy Veh, %	3
Cap, veh/h	994
Arrive On Green	0.63
Sat Flow, veh/h	1572
Grp Volume(v), veh/h	123
Grp Sat Flow(s),veh/h/ln	1572
Q Serve(g_s), s	3.7
Cycle Q Clear(g_c), s	3.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	994
V/C Ratio(X)	0.12
Avail Cap(c_a), veh/h	994
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	8.8
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	9.1
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th TWSC

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022

Intersection

Int Delay, s/veh 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔	↔		↔	↔	↔
Traffic Vol, veh/h	84	5	58	247	4	22	124	2708	64	22	74	1615	44
Future Vol, veh/h	84	5	58	247	4	22	124	2708	64	22	74	1615	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	575	-	175	-	575	-	410
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	78	78	78	92	92	92	99	99	99	95	95	95	95
Heavy Vehicles, %	0	0	0	3	3	3	1	1	1	4	4	4	4
Mvmt Flow	108	6	74	268	4	24	125	2735	65	23	78	1700	46

Major/Minor	Minor2		Minor1		Major1		Major2							
Conflicting Flow All	3522	4952	850	4040	4933	1368	1746	0	0	2735	2800	0	0	
Stage 1	1902	1902	-	2985	2985	-	-	-	-	-	-	-	-	
Stage 2	1620	3050	-	1055	1948	-	-	-	-	-	-	-	-	
Critical Hdwy	7.5	6.5	6.9	7.56	6.56	6.96	4.12	-	-	6.48	4.18	-	-	
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3	3.53	4.03	3.33	2.21	-	-	2.54	2.24	-	-	
Pot Cap-1 Maneuver	~ 2	~ 1	308	~ 1	~ 1	135	360	-	-	~ 23	131	-	-	
Stage 1	~ 73	118	-	~ 14	31	-	-	-	-	-	-	-	-	
Stage 2	110	30	-	~ 239	108	-	-	-	-	-	-	-	-	
Platoon blocked, %								-	-			-	-	
Mov Cap-1 Maneuver	-	0	308	-	0	135	360	-	-	56	~ 56	-	-	
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-	-	
Stage 1	~ 48	0	-	~ 9	20	-	-	-	-	-	-	-	-	
Stage 2	~ 46	20	-	-	0	-	-	-	-	-	-	-	-	

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.9	29.9
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	360	-	-	-	~ 56	-
HCM Lane V/C Ratio	0.348	-	-	-	1.805	-
HCM Control Delay (s)	20.2	-	-	-	\$ 546.3	-
HCM Lane LOS	C	-	-	-	F	-
HCM 95th %tile Q(veh)	1.5	-	-	-	9.6	-

Notes

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

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

06/02/2022

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	1	1	0	1	3	3	153	3	1	106	17
Future Vol, veh/h	23	1	1	0	1	3	3	153	3	1	106	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	38	38	38	84	84	84	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	5	5	5
Mvmt Flow	46	2	2	0	3	8	4	182	4	1	134	22
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	345	341	145	341	350	184	156	0	0	186	0	0
Stage 1	147	147	-	192	192	-	-	-	-	-	-	-
Stage 2	198	194	-	149	158	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	613	584	908	617	577	864	1424	-	-	1371	-	-
Stage 1	860	779	-	814	745	-	-	-	-	-	-	-
Stage 2	808	744	-	858	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	603	582	908	612	575	864	1424	-	-	1371	-	-
Mov Cap-2 Maneuver	603	582	-	612	575	-	-	-	-	-	-	-
Stage 1	857	778	-	812	743	-	-	-	-	-	-	-
Stage 2	795	742	-	853	770	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	11.4		9.8			0.1			0.1			
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1424	-	-	610	768	1371	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.082	0.014	0.001	-	-				
HCM Control Delay (s)	7.5	0	-	11.4	9.8	7.6	0	-				
HCM Lane LOS	A	A	-	B	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0	-	-				

Intersection

Int Delay, s/veh 2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	92	2744	93	0	1707
Future Vol, veh/h	0	92	2744	93	0	1707
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	410	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	100	2983	101	0	1855

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	- 1492	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	- 6.94	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	- 3.32	-	-
Pot Cap-1 Maneuver	0 112	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	- 112	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s 129.2		0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 112	-
HCM Lane V/C Ratio	-	- 0.893	-
HCM Control Delay (s)	-	- 129.2	-
HCM Lane LOS	-	- F	-
HCM 95th %tile Q(veh)	-	- 5.4	-

HCM 6th TWSC
5: Bottoms Rd & Drwy 2

06/02/2022

Intersection

Int Delay, s/veh 8.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	137	8	9	12	18	268
Future Vol, veh/h	137	8	9	12	18	268
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	2	3	3
Mvmt Flow	149	9	10	13	20	291

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	23	0	0 324 17
Stage 1	-	-	- 17 -
Stage 2	-	-	- 307 -
Critical Hdwy	4.13	-	- 6.43 6.23
Critical Hdwy Stg 1	-	-	- 5.43 -
Critical Hdwy Stg 2	-	-	- 5.43 -
Follow-up Hdwy	2.227	-	- 3.527 3.327
Pot Cap-1 Maneuver	1586	-	- 668 1059
Stage 1	-	-	- 1003 -
Stage 2	-	-	- 744 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1586	-	- 605 1059
Mov Cap-2 Maneuver	-	-	- 605 -
Stage 1	-	-	- 909 -
Stage 2	-	-	- 744 -

Approach	EB	WB	SB
HCM Control Delay, s	7.1	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1586	-	-	-	1011
HCM Lane V/C Ratio	0.094	-	-	-	0.307
HCM Control Delay (s)	7.5	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.3

1: GA 400 & Settingdown Rd

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 84.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: GA 400 & Settingdown Rd



HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	76	28	185	125	83	4	2	58	1306	11	1	18
Future Volume (veh/h)	76	28	185	125	83	4	2	58	1306	11	1	18
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Work Zone On Approach	No			No				No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1900	1900		1826	1826	1826		1841
Adj Flow Rate, veh/h	93	34	0	167	111	0		72	1632	14		21
Peak Hour Factor	0.82	0.82	0.82	0.75	0.75	0.75		0.80	0.80	0.80		0.85
Percent Heavy Veh, %	2	2	2	0	0	0		5	5	5		4
Cap, veh/h	194	117		259	143			153	3551	1102		231
Arrive On Green	0.06	0.06	0.00	0.08	0.08	0.00		0.04	0.71	0.71		0.62
Sat Flow, veh/h	1781	1870	0	1810	1900	0		1739	4985	1547		299
Grp Volume(v), veh/h	93	34	0	167	111	0		72	1632	14		21
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1810	1900	0		1739	1662	1547		299
Q Serve(g_s), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	16.8	0.3		3.9
Cycle Q Clear(g_c), s	5.8	2.1	0.0	9.0	6.9	0.0		1.7	16.8	0.3		10.1
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	194	117		259	143			153	3551	1102		231
V/C Ratio(X)	0.48	0.29		0.65	0.77			0.47	0.46	0.01		0.09
Avail Cap(c_a), veh/h	217	218		259	222			217	3551	1102		231
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	48.6	53.7	0.0	49.5	54.5	0.0		25.6	7.4	5.0		11.8
Incr Delay (d2), s/veh	1.8	1.4	0.0	5.4	8.6	0.0		2.3	0.4	0.0		0.8
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
%ile BackOfQ(50%),veh/ln	2.6	1.0	0.0	5.2	3.6	0.0		1.3	4.7	0.1		0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	55.1	0.0	54.9	63.1	0.0		27.8	7.8	5.0		12.6
LnGrp LOS	D	E		D	E			C	A	A		B
Approach Vol, veh/h	127		A	278		A	1718					
Approach Delay, s/veh	51.7			58.2			8.6					
Approach LOS	D			E			A					
Timer - Assigned Phs	2		3	4		5	6		7		8	
Phs Duration (G+Y+Rc), s	91.5		15.0	13.5		10.5	80.9		13.5		15.1	
Change Period (Y+Rc), s	6.0		6.0	6.0		6.0	6.0		6.0			
Max Green Setting (Gmax), s	79.0		9.0	14.0		9.0	64.0		9.0		14.0	
Max Q Clear Time (g_c+l1), s	18.8		11.0	4.1		3.7	46.9		7.8		8.9	
Green Ext Time (p_c), s	16.1		0.0	0.0		0.0	14.7		0.0		0.2	
Intersection Summary												
HCM 6th Ctrl Delay	18.1											
HCM 6th LOS	B											

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022



Movement	SBT	SBR
Lane Configurations	↑↑↑	↑
Traffic Volume (veh/h)	2133	149
Future Volume (veh/h)	2133	149
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1841	1841
Adj Flow Rate, veh/h	2509	175
Peak Hour Factor	0.85	0.85
Percent Heavy Veh, %	4	4
Cap, veh/h	3138	974
Arrive On Green	0.62	0.62
Sat Flow, veh/h	5025	1560
Grp Volume(v), veh/h	2509	175
Grp Sat Flow(s),veh/h/ln	1675	1560
Q Serve(g_s), s	44.9	5.7
Cycle Q Clear(g_c), s	44.9	5.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	3138	974
V/C Ratio(X)	0.80	0.18
Avail Cap(c_a), veh/h	3138	974
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	16.9	9.5
Incr Delay (d2), s/veh	2.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	1.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	19.1	9.9
LnGrp LOS	B	A
Approach Vol, veh/h	2705	
Approach Delay, s/veh	18.5	
Approach LOS	B	
Timer - Assigned Phs		

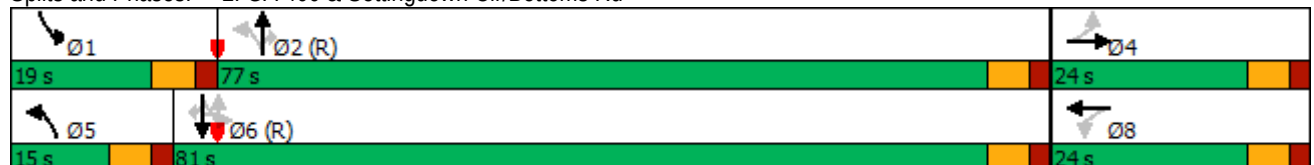
Timings

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022

											
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	49	1	56	1	44	1200	95	25	147	2348	237
Future Volume (vph)	49	1	56	1	44	1200	95	25	147	2348	237
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2			1	6	
Permitted Phases	4		8		2		2	6	6		6
Detector Phase	4	4	8	8	5	2	2	6	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	11.0	24.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	15.0	77.0	77.0	81.0	19.0	81.0	81.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	12.5%	64.2%	64.2%	67.5%	15.8%	67.5%	67.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0		6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Efect Green (s)		13.5		13.5	83.6	76.9	76.9		93.9	84.0	84.0
Actuated g/C Ratio		0.11		0.11	0.70	0.64	0.64		0.78	0.70	0.70
v/c Ratio		0.74		0.59	0.38	0.73	0.13		0.71	1.10	0.23
Control Delay		59.3		67.3	21.3	26.3	6.0		31.8	72.8	1.6
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		59.3		67.3	21.3	26.3	6.0		31.8	72.8	1.6
LOS		E		E	C	C	A		C	E	A
Approach Delay		59.3		67.3		24.6				64.1	
Approach LOS		E		E		C				E	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green											
Natural Cycle: 150											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 1.10											
Intersection Signal Delay: 50.4											
Intersection LOS: D											
Intersection Capacity Utilization 90.2%											
ICU Level of Service E											
Analysis Period (min) 15											

Splits and Phases: 2: GA 400 & Settingdown Cir/Bottoms Rd



HCM 6th Signalized Intersection Summary

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	49	1	54	56	1	6	44	1200	95	25	147	2348
Future Volume (veh/h)	49	1	54	56	1	6	44	1200	95	25	147	2348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1663	1663	1663	1707	1707	1707	1811	1811	1811		1856	1856
Adj Flow Rate, veh/h	62	1	68	61	1	7	59	1600	127		169	2699
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.75	0.75	0.75		0.87	0.87
Percent Heavy Veh, %	16	16	16	13	13	13	6	6	6		3	3
Cap, veh/h	110	8	80	152	5	11	122	2411	1075		263	2504
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.04	0.70	0.70		0.05	0.71
Sat Flow, veh/h	630	81	767	922	47	109	1725	3441	1535		1767	3526
Grp Volume(v), veh/h	131	0	0	69	0	0	59	1600	127		169	2699
Grp Sat Flow(s),veh/h/ln	1478	0	0	1078	0	0	1725	1721	1535		1767	1763
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.0	1.1	31.2	3.2		3.2	85.2
Cycle Q Clear(g_c), s	10.2	0.0	0.0	7.6	0.0	0.0	1.1	31.2	3.2		3.2	85.2
Prop In Lane	0.47		0.52	0.88		0.10	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	198	0	0	169	0	0	122	2411	1075		263	2504
V/C Ratio(X)	0.66	0.00	0.00	0.41	0.00	0.00	0.48	0.66	0.12		0.64	1.08
Avail Cap(c_a), veh/h	259	0	0	226	0	0	189	2411	1075		374	2504
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	52.6	0.0	0.0	51.5	0.0	0.0	33.8	10.0	5.9		14.6	17.4
Incr Delay (d2), s/veh	3.9	0.0	0.0	1.6	0.0	0.0	3.0	1.5	0.2		2.6	43.2
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
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0	2.1	0.0	0.0	1.2	9.4	0.9		2.2	39.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	0.0	0.0	53.1	0.0	0.0	36.7	11.5	6.1		17.2	60.5
LnGrp LOS	E	A	A	D	A	A	D	B	A		B	F
Approach Vol, veh/h		131			69			1786				3140
Approach Delay, s/veh		56.5			53.1			12.0				53.5
Approach LOS		E			D			B				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	90.1		18.5	10.3	91.2		18.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	13.0	71.0		18.0	9.0	75.0		18.0				
Max Q Clear Time (g_c+l1), s	5.2	33.2		12.2	3.1	87.2		9.6				
Green Ext Time (p_c), s	0.2	15.6		0.3	0.0	0.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	237
Future Volume (veh/h)	237
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1856
Adj Flow Rate, veh/h	272
Peak Hour Factor	0.87
Percent Heavy Veh, %	3
Cap, veh/h	1117
Arrive On Green	0.71
Sat Flow, veh/h	1572
Grp Volume(v), veh/h	272
Grp Sat Flow(s),veh/h/ln	1572
Q Serve(g_s), s	7.3
Cycle Q Clear(g_c), s	7.3
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	1117
V/C Ratio(X)	0.24
Avail Cap(c_a), veh/h	1117
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	6.1
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	2.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	6.6
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

06/02/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	6	0	37	0	1	2	0	23	0	1	260	18
Future Vol, veh/h	6	0	37	0	1	2	0	23	0	1	260	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	68	68	68	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	11	11	11	1	1	1
Mvmt Flow	7	0	40	0	1	3	0	34	0	1	342	24

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	392	390	354	410	402	34	366	0	0	34	0	0
Stage 1	356	356	-	34	34	-	-	-	-	-	-	-
Stage 2	36	34	-	376	368	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.21	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.299	-	-	2.209	-	-
Pot Cap-1 Maneuver	571	548	694	556	540	1045	1145	-	-	1584	-	-
Stage 1	666	633	-	987	871	-	-	-	-	-	-	-
Stage 2	985	871	-	649	625	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	568	547	694	523	539	1045	1145	-	-	1584	-	-
Mov Cap-2 Maneuver	568	547	-	523	539	-	-	-	-	-	-	-
Stage 1	666	632	-	987	871	-	-	-	-	-	-	-
Stage 2	981	871	-	611	624	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	9.5	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1145	-	-	673	796	1584
HCM Lane V/C Ratio	-	-	-	0.069	0.005	0.001
HCM Control Delay (s)	0	-	-	10.7	9.5	7.3
HCM Lane LOS	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗	↗		↗
Traffic Vol, veh/h	0	19	1138	142	0	2723
Future Vol, veh/h	0	19	1138	142	0	2723
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	410	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	2	5	5	3	3
Mvmt Flow	0	21	1237	154	0	2960

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	619	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	432	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	432	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	432
HCM Lane V/C Ratio	-	-	0.048
HCM Control Delay (s)	-	-	13.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Timings

1: GA 400 & Settingdown Rd

06/02/2022

											
Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	64	63	54	6	118	2822	68	11	1804	112
Future Volume (vph)	181	64	63	54	6	118	2822	68	11	1804	112
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		5	2			6	
Permitted Phases	4		8		2	2		2	6		6
Detector Phase	7	4	3	8	2	5	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	15.0	11.0	15.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	20.0	19.0	20.0	19.0	81.0	15.0	81.0	81.0	66.0	66.0	66.0
Total Split (%)	16.7%	15.8%	16.7%	15.8%	67.5%	12.5%	67.5%	67.5%	55.0%	55.0%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	28.6	17.4	20.5	10.9		77.4	77.4	77.4	62.9	62.9	62.9
Actuated g/C Ratio	0.24	0.14	0.17	0.09		0.64	0.64	0.64	0.52	0.52	0.52
v/c Ratio	0.67	0.68	0.34	0.63		0.72	0.93	0.07	0.19	0.75	0.14
Control Delay	49.1	47.0	38.5	56.8		42.8	26.5	1.8	26.1	25.2	2.5
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	47.0	38.5	56.8		42.8	26.5	1.8	26.1	25.2	2.5
LOS	D	D	D	E		D	C	A	C	C	A
Approach Delay		48.0		49.3			26.6			23.9	
Approach LOS		D		D			C			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 27.8

Intersection LOS: C

Intersection Capacity Utilization 93.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: GA 400 & Settingdown Rd

											
Ø2 (R)						Ø3				Ø4	
81 s						20 s				19 s	
											
Ø5		Ø6 (R)				Ø7				Ø8	
15 s		66 s				20 s				19 s	

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	181	64	120	63	54	37	6	118	2822	68	11	1804
Future Volume (veh/h)	181	64	120	63	54	37	6	118	2822	68	11	1804
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826		1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	199	70	0	76	65	0		128	3067	74	12	1982
Peak Hour Factor	0.91	0.91	0.91	0.83	0.83	0.83		0.92	0.92	0.92	0.91	0.91
Percent Heavy Veh, %	3	3	3	5	5	5		2	2	2	3	3
Cap, veh/h	289	214		221	96			201	3477	1079	74	2973
Arrive On Green	0.12	0.12	0.00	0.05	0.05	0.00		0.04	0.68	0.68	0.59	0.59
Sat Flow, veh/h	1767	1856	0	1739	1826	0		1781	5106	1585	68	5066
Grp Volume(v), veh/h	199	70	0	76	65	0		128	3067	74	12	1982
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1739	1826	0		1781	1702	1585	68	1689
Q Serve(g_s), s	12.4	4.2	0.0	4.9	4.2	0.0		3.3	57.6	1.9	20.5	31.9
Cycle Q Clear(g_c), s	12.4	4.2	0.0	4.9	4.2	0.0		3.3	57.6	1.9	66.8	31.9
Prop In Lane	1.00		0.00	1.00		0.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	289	214		221	96			201	3477	1079	74	2973
V/C Ratio(X)	0.69	0.33		0.34	0.68			0.64	0.88	0.07	0.16	0.67
Avail Cap(c_a), veh/h	289	214		331	198			256	3477	1079	74	2973
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
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	48.8	0.0	50.2	55.9	0.0		20.5	15.3	6.4	46.5	16.8
Incr Delay (d2), s/veh	6.7	0.9	0.0	0.9	8.1	0.0		3.3	3.6	0.1	4.7	1.2
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
%ile BackOfQ(50%),veh/ln	5.9	2.0	0.0	2.2	2.1	0.0		2.2	18.1	0.6	0.4	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	49.7	0.0	51.1	64.0	0.0		23.8	18.9	6.5	51.2	18.0
LnGrp LOS	D	D		D	E			C	B	A	D	B
Approach Vol, veh/h		269	A		141	A			3269			2117
Approach Delay, s/veh		51.2			57.0				18.8			17.8
Approach LOS		D			E				B			B
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		87.7	12.4	19.9	11.3	76.4	20.0	12.3				
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s		75.0	14.0	13.0	9.0	60.0	14.0	13.0				
Max Q Clear Time (g_c+l1), s		59.6	6.9	6.2	5.3	68.8	14.4	6.2				
Green Ext Time (p_c), s		14.5	0.1	0.1	0.1	0.0	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: GA 400 & Settingdown Rd

06/02/2022



Movement	SBR
Left-Through Configurations	
Traffic Volume (veh/h)	112
Future Volume (veh/h)	112
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1856
Adj Flow Rate, veh/h	123
Peak Hour Factor	0.91
Percent Heavy Veh, %	3
Cap, veh/h	923
Arrive On Green	0.59
Sat Flow, veh/h	1572
Grp Volume(v), veh/h	123
Grp Sat Flow(s),veh/h/ln	1572
Q Serve(g_s), s	4.2
Cycle Q Clear(g_c), s	4.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	923
V/C Ratio(X)	0.13
Avail Cap(c_a), veh/h	923
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	11.1
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	11.4
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Timings

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕		↕	↗	↗	↗		↗	↗	↗
Traffic Volume (vph)	84	5	247	4	124	2708	64	22	74	1615	44
Future Volume (vph)	84	5	247	4	124	2708	64	22	74	1615	44
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	1	6	
Permitted Phases	4		8		2		2	6	6		6
Detector Phase	4	4	8	8	5	2	2	1	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	15.0	15.0	15.0	11.0	24.0	24.0	11.0	11.0	24.0	24.0
Total Split (s)	31.0	31.0	31.0	31.0	15.0	114.0	114.0	15.0	15.0	114.0	114.0
Total Split (%)	19.4%	19.4%	19.4%	19.4%	9.4%	71.3%	71.3%	9.4%	9.4%	71.3%	71.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0		6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	None	C-Max	C-Max
Act Effect Green (s)		25.0		25.0	116.6	108.5	108.5		117.4	108.9	108.9
Actuated g/C Ratio		0.16		0.16	0.73	0.68	0.68		0.73	0.68	0.68
v/c Ratio		0.69		1.71	0.63	1.13	0.06		0.74	0.72	0.04
Control Delay		71.7		380.6	25.7	89.9	2.3		63.1	18.3	1.1
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		71.7		380.6	25.7	89.9	2.3		63.1	18.3	1.1
LOS		E		F	C	F	A		E	B	A
Approach Delay		71.7		380.6		85.2				20.4	
Approach LOS		E		F		F				C	

Intersection Summary

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.71

Intersection Signal Delay: 78.5

Intersection LOS: E

Intersection Capacity Utilization 117.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 2: GA 400 & Settingdown Cir/Bottoms Rd

Ø1	Ø2 (R)	Ø4
15 s	114 s	31 s
Ø5	Ø6 (R)	Ø8
15 s	114 s	31 s

HCM 6th Signalized Intersection Summary

2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		↔			↔		↔	↑↑	↔		↔	↑↑
Traffic Volume (veh/h)	84	5	58	247	4	22	124	2708	64	22	74	1615
Future Volume (veh/h)	84	5	58	247	4	22	124	2708	64	22	74	1615
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1841	1841	1841	1885	1885	1885		1841	1841
Adj Flow Rate, veh/h	108	6	74	268	4	24	125	2735	65		78	1700
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.99	0.99	0.99		0.95	0.95
Percent Heavy Veh, %	0	0	0	4	4	4	1	1	1		4	4
Cap, veh/h	193	12	110	212	3	15	219	2511	1120		98	2442
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.70	0.70		0.03	0.70
Sat Flow, veh/h	1010	77	705	1085	16	97	1795	3582	1598		1753	3497
Grp Volume(v), veh/h	188	0	0	296	0	0	125	2735	65		78	1700
Grp Sat Flow(s),veh/h/ln	1792	0	0	1198	0	0	1795	1791	1598		1753	1749
Q Serve(g_s), s	0.0	0.0	0.0	9.2	0.0	0.0	3.2	112.2	2.0		2.9	45.7
Cycle Q Clear(g_c), s	15.8	0.0	0.0	25.0	0.0	0.0	3.2	112.2	2.0		2.9	45.7
Prop In Lane	0.57		0.39	0.91		0.08	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	315	0	0	230	0	0	219	2511	1120		98	2442
V/C Ratio(X)	0.60	0.00	0.00	1.29	0.00	0.00	0.57	1.09	0.06		0.80	0.70
Avail Cap(c_a), veh/h	315	0	0	230	0	0	261	2511	1120		144	2442
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	63.6	0.0	0.0	70.2	0.0	0.0	18.1	23.9	7.5		50.7	14.2
Incr Delay (d2), s/veh	3.0	0.0	0.0	157.7	0.0	0.0	2.3	47.6	0.1		17.1	1.7
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
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.0	19.6	0.0	0.0	2.1	55.6	0.7		3.6	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	0.0	0.0	227.9	0.0	0.0	20.4	71.5	7.6		67.8	15.8
LnGrp LOS	E	A	A	F	A	A	C	F	A		E	B
Approach Vol, veh/h		188			296			2925				1824
Approach Delay, s/veh		66.7			227.9			67.9				17.9
Approach LOS		E			F			E				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	118.2		31.0	11.3	117.7		31.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	108.0		25.0	9.0	108.0		25.0				
Max Q Clear Time (g_c+l1), s	4.9	114.2		17.8	5.2	47.7		27.0				
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	19.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			59.5									
HCM 6th LOS			E									
Notes												
User approved ignoring U-Turning movement.												

HCM 6th Signalized Intersection Summary 2: GA 400 & Settingdown Cir/Bottoms Rd

06/02/2022



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	44
Future Volume (veh/h)	44
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1841
Adj Flow Rate, veh/h	46
Peak Hour Factor	0.95
Percent Heavy Veh, %	4
Cap, veh/h	1089
Arrive On Green	0.70
Sat Flow, veh/h	1560
Grp Volume(v), veh/h	46
Grp Sat Flow(s),veh/h/ln	1560
Q Serve(g_s), s	1.5
Cycle Q Clear(g_c), s	1.5
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	1089
V/C Ratio(X)	0.04
Avail Cap(c_a), veh/h	1089
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	7.5
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	7.6
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th TWSC

3: Settingdown Rd & Bottoms Rd/Smith Dr

06/02/2022

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	23	1	1	0	1	3	3	153	3	1	106	17
Future Vol, veh/h	23	1	1	0	1	3	3	153	3	1	106	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	38	38	38	84	84	84	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	5	5	5
Mvmt Flow	46	2	2	0	3	8	4	182	4	1	134	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	345	341	145	341	350	184	156	0	0	186	0	0
Stage 1	147	147	-	192	192	-	-	-	-	-	-	-
Stage 2	198	194	-	149	158	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	613	584	908	617	577	864	1424	-	-	1371	-	-
Stage 1	860	779	-	814	745	-	-	-	-	-	-	-
Stage 2	808	744	-	858	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	603	582	908	612	575	864	1424	-	-	1371	-	-
Mov Cap-2 Maneuver	603	582	-	612	575	-	-	-	-	-	-	-
Stage 1	857	778	-	812	743	-	-	-	-	-	-	-
Stage 2	795	742	-	853	770	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	9.8	0.1	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBREBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1424	-	610 768	1371	-	-
HCM Lane V/C Ratio	0.003	-	0.082 0.014	0.001	-	-
HCM Control Delay (s)	7.5	0	11.4 9.8	7.6	0	-
HCM Lane LOS	A	A	B A	A	A	-
HCM 95th %tile Q(veh)	0	-	0.3 0	0	-	-

Intersection

Int Delay, s/veh 2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	92	2744	93	0	1707
Future Vol, veh/h	0	92	2744	93	0	1707
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	410	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	100	2983	101	0	1855

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	- 1492	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	- 6.94	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	- 3.32	-	-
Pot Cap-1 Maneuver	0 112	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	- 112	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s 129.2		0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 112	-
HCM Lane V/C Ratio	-	- 0.893	-
HCM Control Delay (s)	-	- 129.2	-
HCM Lane LOS	-	- F	-
HCM 95th %tile Q(veh)	-	- 5.4	-

HCM 6th TWSC
5: Bottoms Rd & Drwy 2

06/02/2022

Intersection

Int Delay, s/veh 8.7

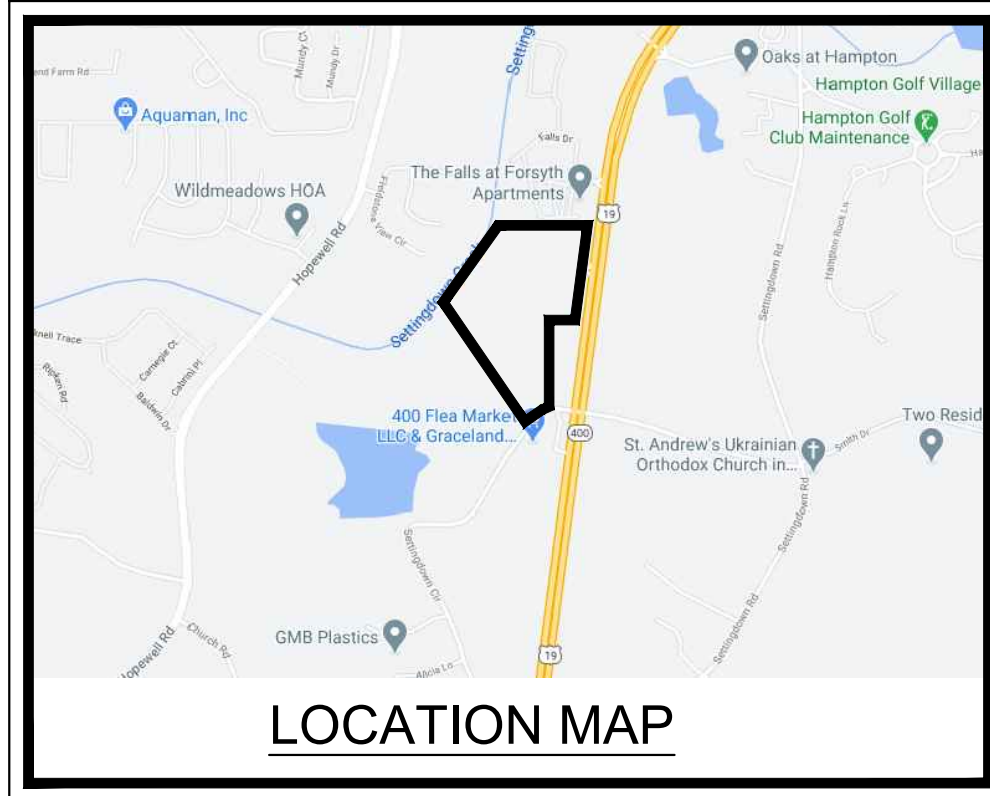
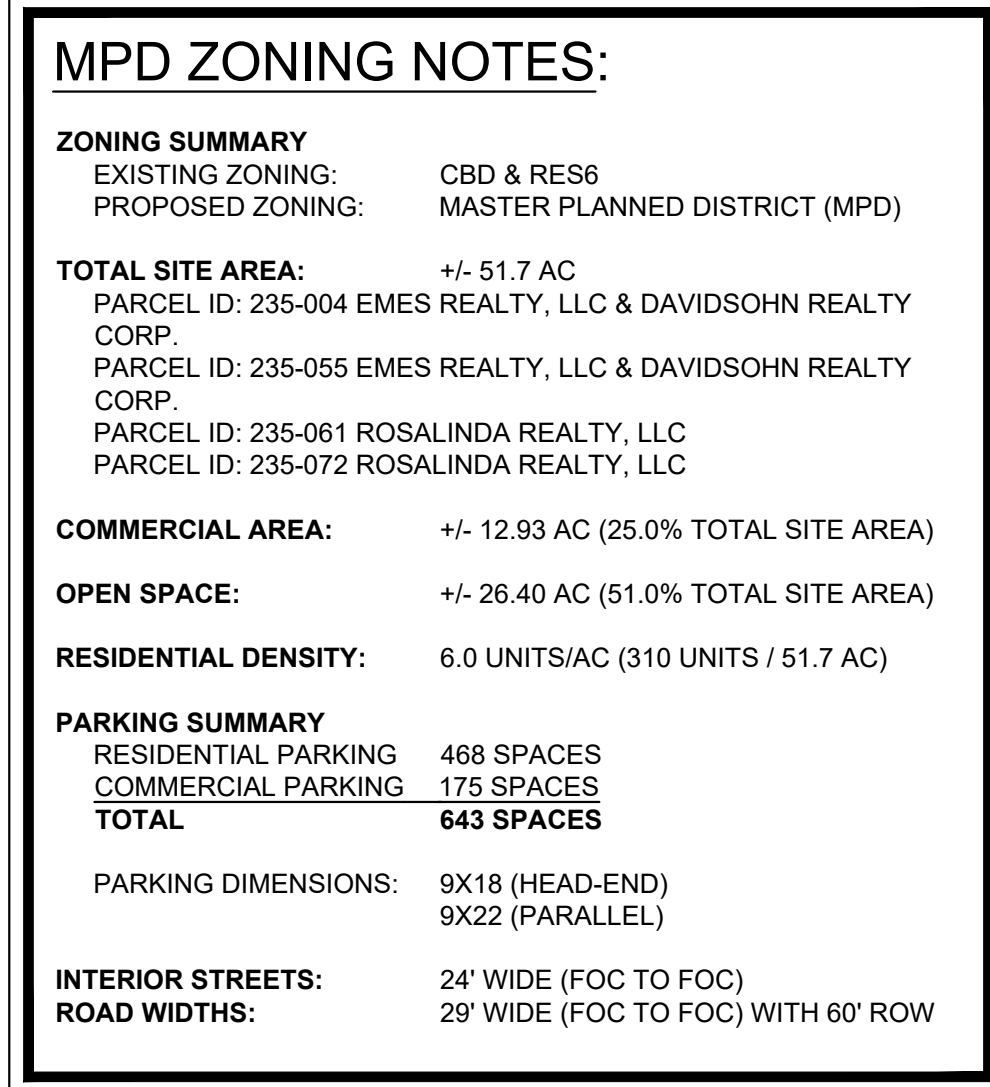
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	137	8	9	12	18	268
Future Vol, veh/h	137	8	9	12	18	268
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	2	3	3
Mvmt Flow	149	9	10	13	20	291

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	23	0	0 324 17
Stage 1	-	-	- 17 -
Stage 2	-	-	- 307 -
Critical Hdwy	4.13	-	- 6.43 6.23
Critical Hdwy Stg 1	-	-	- 5.43 -
Critical Hdwy Stg 2	-	-	- 5.43 -
Follow-up Hdwy	2.227	-	- 3.527 3.327
Pot Cap-1 Maneuver	1586	-	- 668 1059
Stage 1	-	-	- 1003 -
Stage 2	-	-	- 744 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1586	-	- 605 1059
Mov Cap-2 Maneuver	-	-	- 605 -
Stage 1	-	-	- 909 -
Stage 2	-	-	- 744 -

Approach	EB	WB	SB
HCM Control Delay, s	7.1	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1586	-	-	-	1011
HCM Lane V/C Ratio	0.094	-	-	-	0.307
HCM Control Delay (s)	7.5	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.3

Appendix D: Area Plans

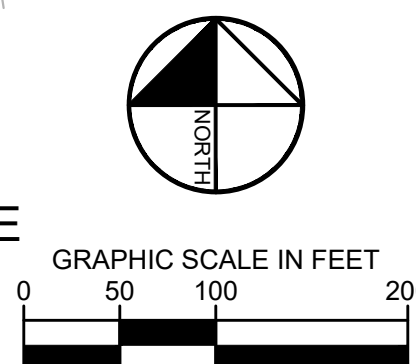


VARIANCE NOTE:	
VARIANCE #1	VARIANCE TO ALLOW 100% OF RESIDENTIAL UNITS TO BE APARTMENTS (UDC 20b-2.3(B))

PART V CRITERIA:

SUBJECT PROPERTY LOCATED WITHIN THE HAZARDOUS MATERIALS HANDLING AREA.

RECEIVED
DEC 04 2020
Forsyth County Department of
Planning & Community Development
ZA3994



Appendix E: Trip Generation Supplement

High-Cube Fulfillment Center Warehouse - Sort (155)

Truck Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 3

Avg. 1000 Sq. Ft. GFA: 1277

Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.01 - 0.04	0.02

Data Plot and Equation

Caution – Small Sample Size



High-Cube Fulfillment Center Warehouse - Sort (155)

Truck Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 3

Avg. 1000 Sq. Ft. GFA: 1277

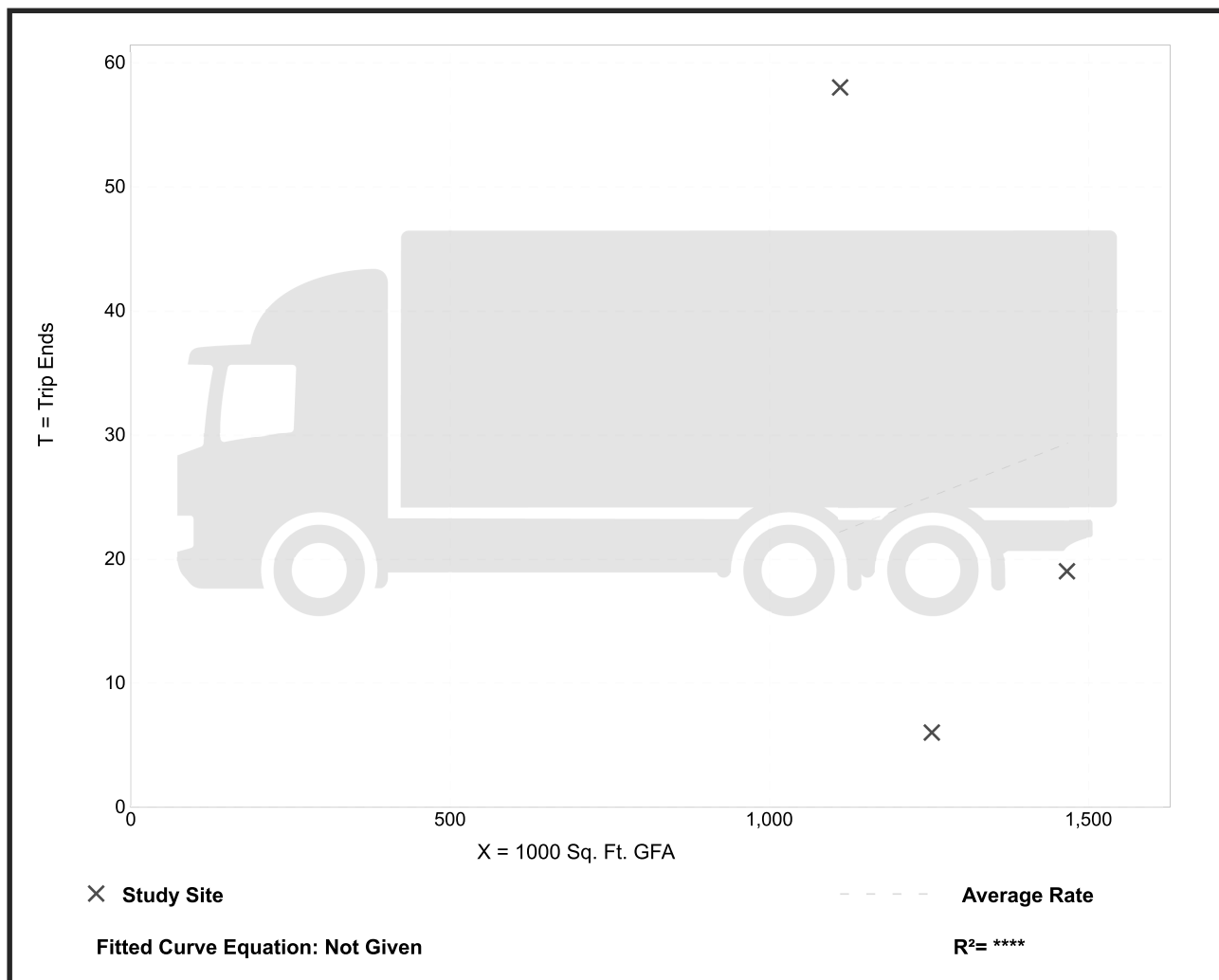
Directional Distribution: 46% entering, 54% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.05	0.02

Data Plot and Equation

Caution – Small Sample Size



High-Cube Fulfillment Center Warehouse - Sort (155)

Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

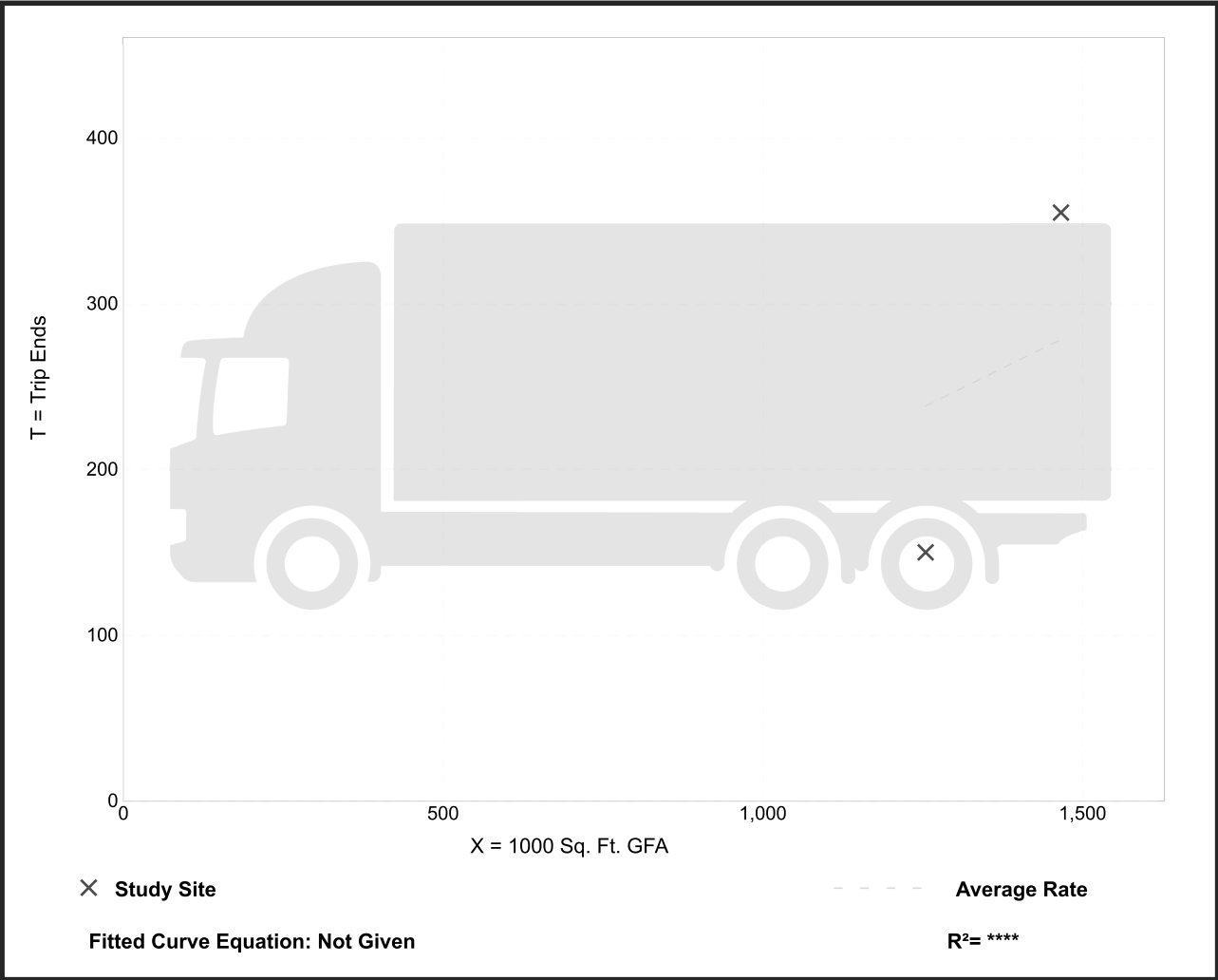
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 1360
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.19	0.12 - 0.24	*

Data Plot and Equation

Caution – Small Sample Size



Warehousing (150)

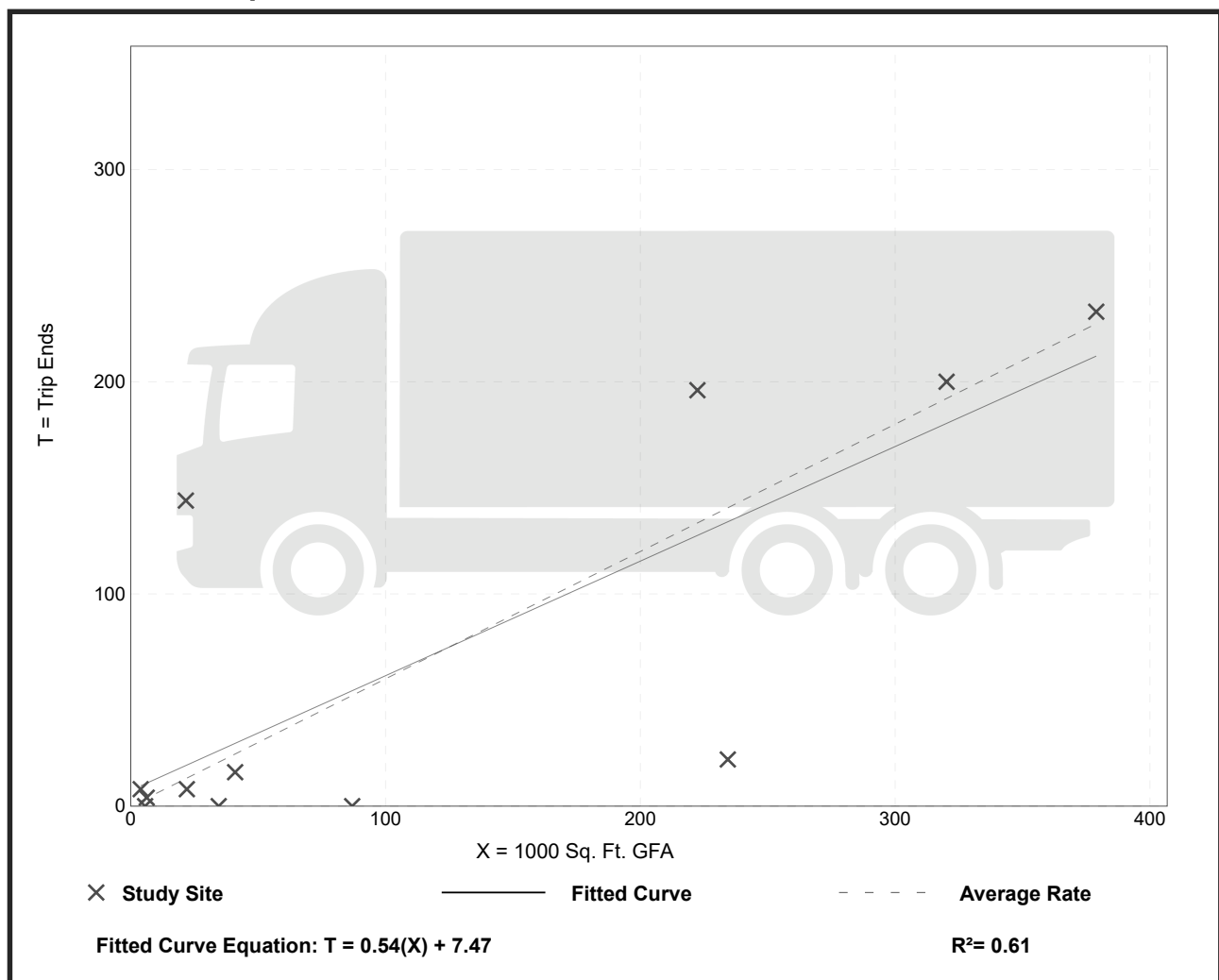
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. 1000 Sq. Ft. GFA: 115
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.60	0.00 - 6.66	0.86

Data Plot and Equation



Warehousing (150)

Truck Trip Ends vs: 1000 Sq. Ft. GFA

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 21

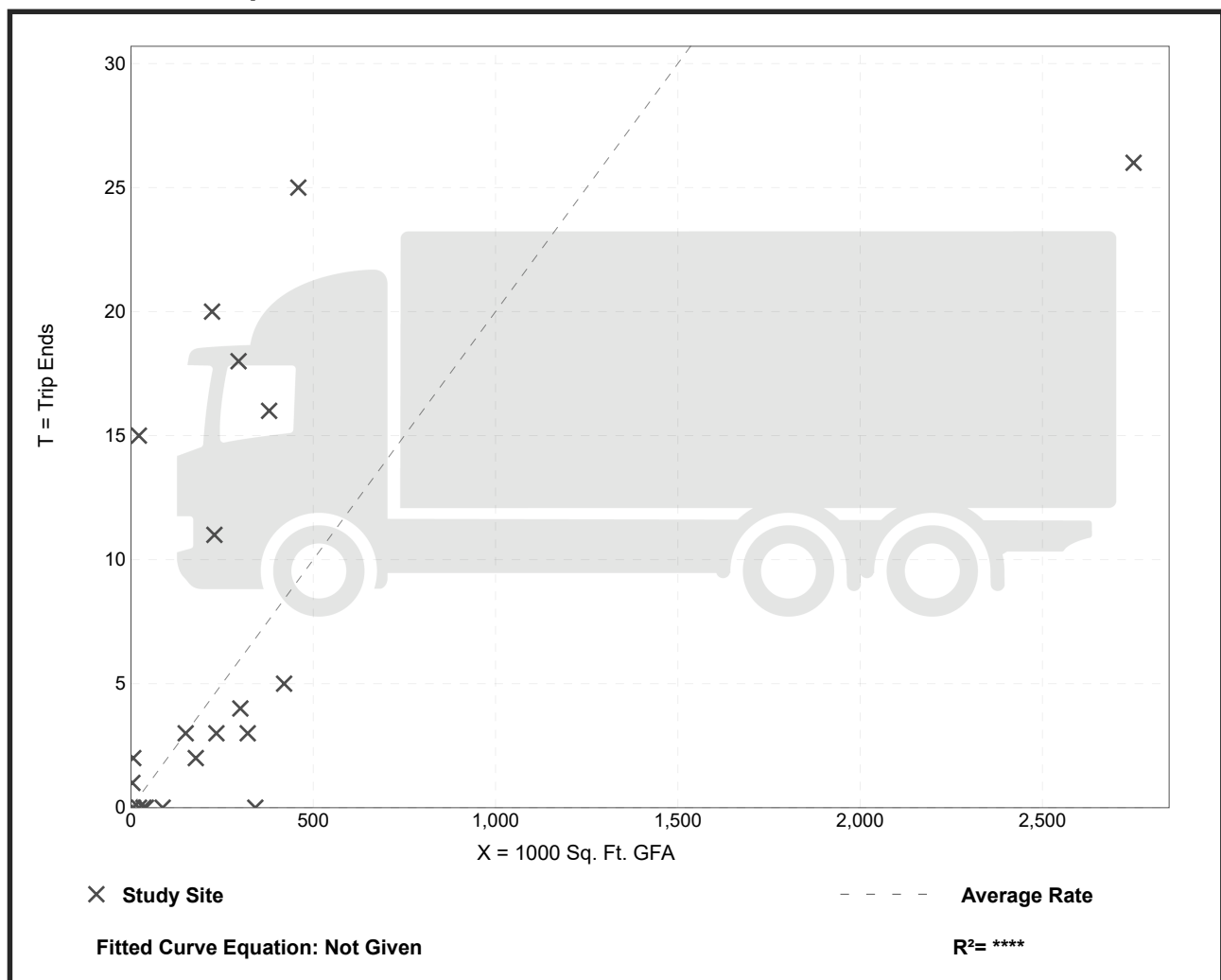
Avg. 1000 Sq. Ft. GFA: 309

Directional Distribution: 52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.69	0.05

Data Plot and Equation



Warehousing (150)

Truck Trip Ends vs: 1000 Sq. Ft. GFA

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 23

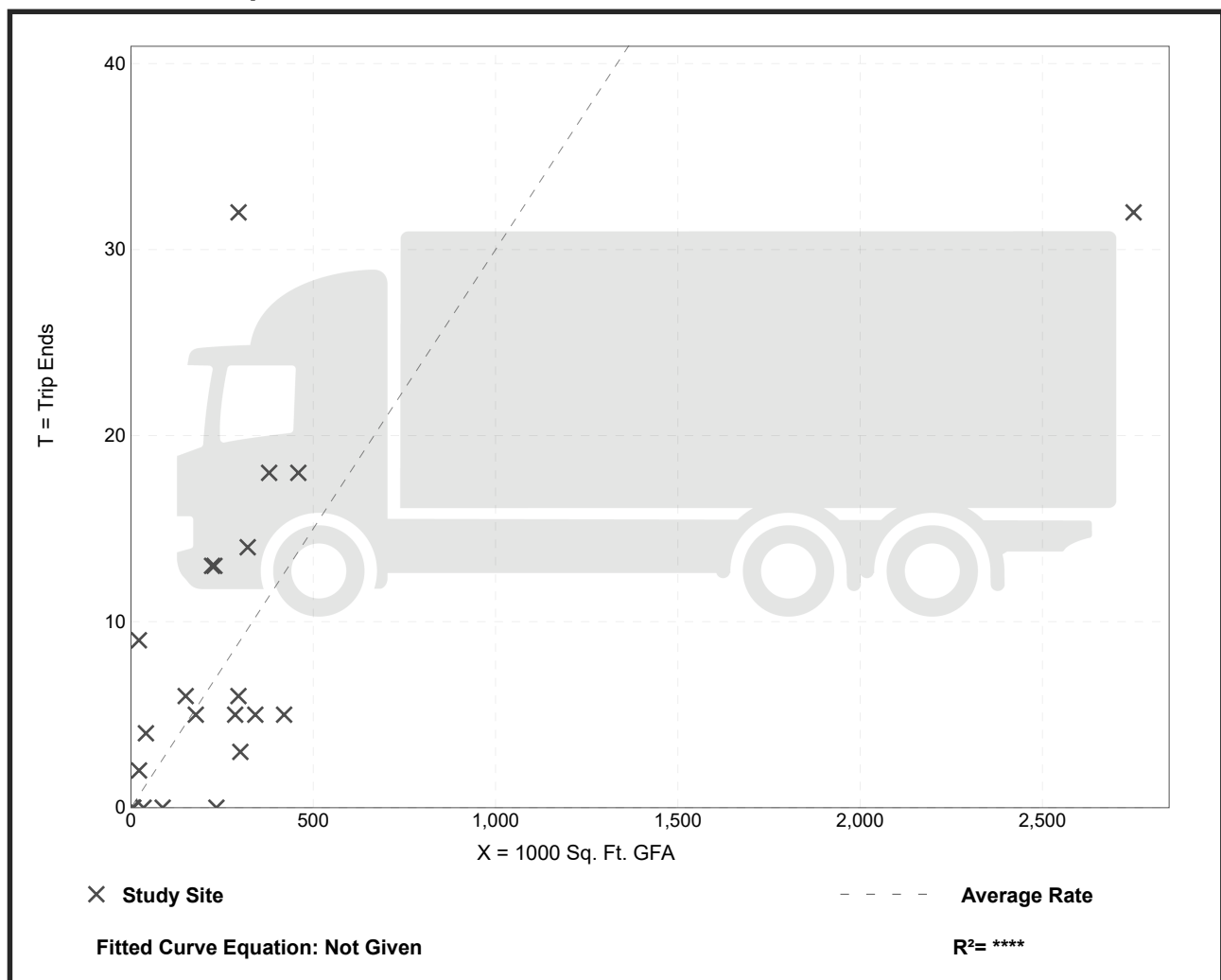
Avg. 1000 Sq. Ft. GFA: 308

Directional Distribution: 52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.42	0.03

Data Plot and Equation



Appendix F: AASHTO Turning Radius

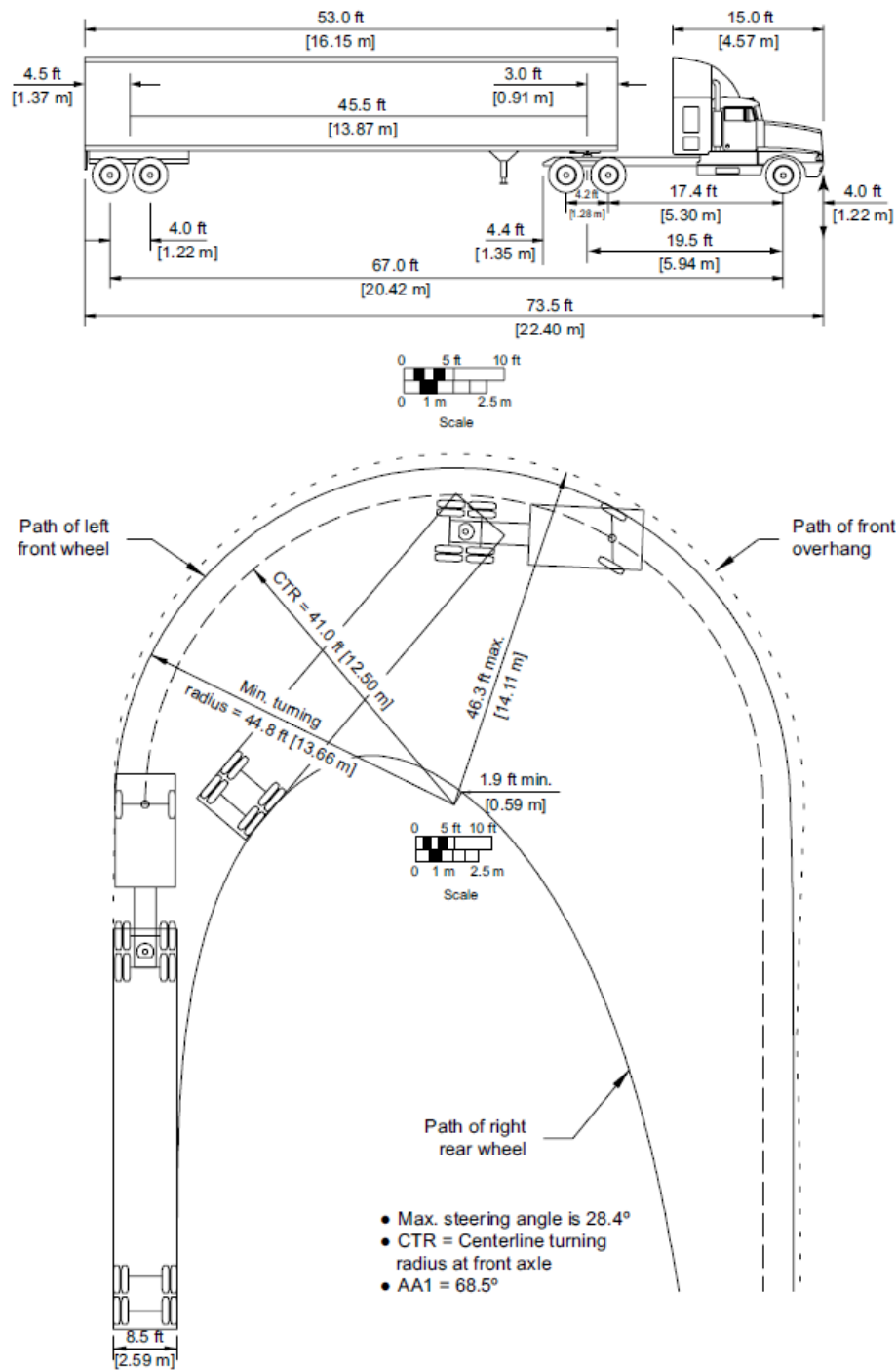


Figure 2-24. Minimum Turning Path for Interstate Semitrailer (WB-67 [WB-20]) Design Vehicle

Appendix G: Signal Warrant Analysis

Warrant 1 - Eight-Hour Vehicular Volume

Based on Section 4C.02 of the Manual on Uniform Traffic Control Devices, 2009 Edition (rev. 2)



Name	Major Road	Minor Road
	SR 400	Bottoms Rd
Number of Lanes by Approach	2	1

% of Volume	100%	Data Year	2021
Right Turn Reduction?	Yes	Future Year	2028
15 Min Interval Start	0	Growth Rate	0.00%
Mainline Left as Minor?	No		

			Warrant 1, Combination A&B							
			SR 400	Bottoms Rd	Warrant 1, Condition A		Warrant 1, Condition B		Condition A	Condition B
			Major Road Volume (vph)	Minor Road Volume (vph)	Major Road Condition Met?	Minor Road Condition Met?	Major Road Condition Met?	Minor Road Condition Met?	Major Road Condition Met?	Minor Road Condition Met?
Time Of Day			Both Approaches	Highest Approach	> 600 vph	> 150 vph	> 900 vph	> 75 vph	> 480 vph	> 120 vph
12:00 AM	to	1:00 AM	4	4	No	No	No	No	No	No
1:00 AM	to	2:00 AM	4	4	No	No	No	No	No	No
2:00 AM	to	3:00 AM	4	4	No	No	No	No	No	No
3:00 AM	to	4:00 AM	12	8	No	No	No	No	No	No
4:00 AM	to	5:00 AM	24	16	No	No	No	No	No	No
5:00 AM	to	6:00 AM	76	48	No	No	No	No	No	No
6:00 AM	to	7:00 AM	2558	114	Yes	No	Yes	Yes	Yes	Yes
7:00 AM	to	8:00 AM	3185	109	Yes	No	Yes	Yes	Yes	Yes
8:00 AM	to	9:00 AM	2657	100	Yes	No	Yes	Yes	Yes	Yes
9:00 AM	to	10:00 AM	2605	113	Yes	No	Yes	Yes	Yes	Yes
10:00 AM	to	11:00 AM	2558	77	Yes	No	Yes	Yes	Yes	Yes
11:00 AM	to	12:00 PM	2775	97	Yes	No	Yes	Yes	Yes	Yes
12:00 PM	to	1:00 PM	2806	126	Yes	No	Yes	Yes	Yes	Yes
1:00 PM	to	2:00 PM	2906	91	Yes	No	Yes	Yes	Yes	Yes
2:00 PM	to	3:00 PM	2958	105	Yes	No	Yes	Yes	Yes	Yes
3:00 PM	to	4:00 PM	3148	88	Yes	No	Yes	Yes	Yes	Yes
4:00 PM	to	5:00 PM	3387	66	Yes	No	Yes	No	Yes	Yes
5:00 PM	to	6:00 PM	3445	68	Yes	No	Yes	No	Yes	Yes
6:00 PM	to	7:00 PM	2864	30	Yes	No	Yes	No	Yes	No
7:00 PM	to	8:00 PM	20	12	No	No	No	No	No	No
8:00 PM	to	9:00 PM	16	12	No	No	No	No	No	No
9:00 PM	to	10:00 PM	12	8	No	No	No	No	No	No
10:00 PM	to	11:00 PM	28	16	No	No	No	No	No	No
11:00 PM	to	12:00 AM	12	8	No	No	No	No	No	No
Total Hours Condition is Met			0		10		10			
Meets Warrant?			No - Warrant is Not Met		Yes - Warrant is Met		Yes - Warrant is Met		Yes - Warrant is Met	

Daily Distribution
Project Volume input and Daily Distribution

	Group 1			Group 2			Group 3			Group 4			Group 5			Group 6		
Time	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Daily	1,910	1,908	3,818	70	69	139			0			0			0			0
AM			0			0			0			0			0			0
PM			0			0			0			0			0			0
ITE Codes	150 / 155			151														

	Hourly Distribution												Project Volume													
	Group 1		Group 2		Group 3		Group 4		Group 5		Group 6		Group 1		Group 2		Group 3		Group 4		Group 5		Group 6		Total	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
12:00 AM	0.20%	0.40%	0.00%	0.00%									4	8	0	0	0	0	0	0	0	0	0	0	4	8
1:00 AM	0.20%	0.80%	0.00%	0.00%									4	4	0	0	0	0	0	0	0	0	0	0	4	4
2:00 AM	0.20%	0.40%	0.00%	0.00%									4	4	0	0	0	0	0	0	0	0	0	0	4	4
3:00 AM	0.50%	0.50%	0.00%	0.00%									10	10	0	0	0	0	0	0	0	0	0	0	10	10
4:00 AM	1.20%	1.20%	0.00%	0.00%									23	23	0	0	0	0	0	0	0	0	0	0	23	23
5:00 AM	3.90%	2.20%	0.80%	0.80%									74	74	1	1	0	0	0	0	0	0	0	0	75	75
6:00 AM	9.00%	2.80%	0.00%	0.00%									172	172	0	0	0	0	0	0	0	0	0	0	172	172
7:00 AM	8.60%	4.60%	3.20%	1.60%									164	164	4	1	0	0	0	0	0	0	0	0	168	165
8:00 AM	7.60%	4.90%	11.90%	5.60%									145	145	17	4	0	0	0	0	0	0	0	0	162	149
9:00 AM	8.80%	5.70%	4.00%	6.30%									168	168	6	4	0	0	0	0	0	0	0	0	174	172
10:00 AM	6.00%	6.00%	9.50%	6.30%									115	114	13	4	0	0	0	0	0	0	0	0	128	118
11:00 AM	7.20%	7.40%	10.30%	12.70%									138	137	14	9	0	0	0	0	0	0	0	0	152	146
12:00 PM	9.60%	7.80%	8.70%	7.90%									183	183	12	5	0	0	0	0	0	0	0	0	195	188
1:00 PM	6.70%	5.60%	11.10%	11.10%									128	128	15	8	0	0	0	0	0	0	0	0	143	136
2:00 PM	7.90%	6.20%	12.70%	11.10%									151	151	18	8	0	0	0	0	0	0	0	0	169	159
3:00 PM	6.40%	11.40%	5.60%	6.30%									122	122	8	4	0	0	0	0	0	0	0	0	130	126
4:00 PM	5.00%	9.70%	10.30%	7.10%									96	95	14	5	0	0	0	0	0	0	0	0	110	100
5:00 PM	4.70%	8.80%	5.60%	15.10%									90	90	8	10	0	0	0	0	0	0	0	0	98	100
6:00 PM	1.90%	5.60%	4.00%	5.60%									36	36	6	4	0	0	0	0	0	0	0	0	42	40
7:00 PM	1.00%	1.50%	0.80%	0.80%									19	19	1	1	0	0	0	0	0	0	0	0	20	20
8:00 PM	0.80%	0.90%	1.60%	1.60%									15	15	2	1	0	0	0	0	0	0	0	0	17	16
9:00 PM	0.70%	3.80%	0.00%	0.00%									13	13	0	0	0	0	0	0	0	0	0	0	13	13
10:00 PM	1.30%	0.50%	0.00%	0.00%									25	25	0	0	0	0	0	0	0	0	0	0	25	25
11:00 PM	0.60%	1.20%	0.00%	0.00%									11	11	0	0	0	0	0	0	0	0	0	0	11	11
Total	100.00%	99.90%	100.10%	99.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,910	1,911	139	69	0	0	0	0	0	0	0	0	2,049	1,980

Hourly distribution percentages are from ITE Trip Generation Manual 11th Edition, 2021 unless otherwise noted
Due to rounding percentages may not exactly equal 100%, and volumes may not add up exactly to the total daily volume

Group Distribution	
Group 1	96%
Group 2	4%
Group 3	0%
Group 4	0%
Group 5	0%
Group 6	0%

% of total Daily Volume



Turning Movement Assignment
By Group



			New Trips											
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
Group 1	In	AM		40%	25%	30%								
		MID												
		PM		40%	25%	30%								
	Out	AM										65%		5%
		MID												
		PM										65%		5%
Group 2	In	AM		40%	25%	30%								
		MID												
		PM		40%	25%	30%								
	Out	AM										65%		5%
		MID												
		PM										65%		5%
Group 3	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 4	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 5	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 6	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Weighted Total	In	AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%
		MID	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%
		PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%
	Out	AM	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
		MID	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
		PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%

			Pass-By Trips											
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
Group 1	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 2	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 3	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 4	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 5	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Group 6	In	AM												
		MID												
		PM												
	Out	AM												
		MID												
		PM												
Weighted Total	In	AM	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
		MID	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
		PM	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Out	AM	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
		MID	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
		PM	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Turning Movement Assignment
Weighted Total Assignment



			Weighted Distribution											
New Trips	In	AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%
		MID	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%
		PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%
	Out	AM	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
		MID	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
		PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
Pass-By	In	AM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		MID	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Out	AM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		MID	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Total Volume		
In	Out	Total
1,980	1,977	3,957
0	0	0
0	0	0

	New Trips In												New Trips Out											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
12:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
1:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
2:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
3:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
4:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
5:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
6:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
7:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
8:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
9:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
10:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
11:00 AM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
12:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
1:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
2:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
3:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
4:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
5:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
6:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
7:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
8:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
9:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
10:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%
11:00 PM	0%	40%	25%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	5%

	Pass-By Trips In												Pass-By Trips Out											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
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%
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%
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%
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%
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%
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%
6:00 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%
7:00 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%
8:00 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%
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%
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%
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%
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%
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%
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%
3:00 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%
4:00 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%
5:00 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%
6:00 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%
7:00 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%
8:00 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%
9:00 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%
10:00 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%
11:00 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%

AM turning movement % is used 12:00AM-8:00AM, PM 4PM-11:00PM, MID 12:00PM, 9AM-3PM, is averaged around Mid day peak % and AM/PM peak hours.

	Hourly Project Trip Distribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
12:00 AM	0	2	1	1	0	0	0	0	0	5	0	0
1:00 AM	0	2	1	1	0	0	0	0	0	3	0	0
2:00 AM	0	2	1	1	0	0	0	0	0	3	0	0
3:00 AM	0	4	3	3	0	0	0	0	0	7	0	1
4:00 AM	0	9	6	7	0	0	0	0	0	15	0	1
5:00 AM	0	30	19	23	0	0	0	0	0	49	0	4
6:00 AM	0	69	43	52	0	0	0	0	0	112	0	9
7:00 AM	0	67	42	50	0	0	0	0	0	107	0	8
8:00 AM	0	65	41	49	0	0	0	0	0	97	0	7
9:00 AM	0	70	44	52	0	0	0	0	0	112	0	9
10:00 AM	0	51	32	38	0	0	0	0	0	77	0	6
11:00 AM	0	61	38	46	0	0	0	0	0	95	0	7
12:00 PM	0	78	49	59	0	0	0	0	0	122	0	9
1:00 PM	0	57	36	43	0	0	0	0	0	88	0	7
2:00 PM	0	68	42	51	0	0	0	0	0	103	0	8
3:00 PM	0	52	33	39	0	0	0	0	0	82	0	6
4:00 PM	0	44	28	33	0	0	0	0	0	65	0	5
5:00 PM	0	39	25	29	0	0	0	0	0	65	0	5
6:00 PM	0	17	11	13	0	0	0	0	0	26	0	2
7:00 PM	0	8	5	6	0	0	0	0	0	13	0	1
8:00 PM	0	7	4	5	0	0	0	0	0	10	0	1
9:00 PM	0	5	3	4	0	0	0	0	0	8	0	1
10:00 PM	0	10	6	8	0	0	0	0	0	16	0	1
11:00 PM	0	4	3	3	0	0	0	0	0	7	0	1

	15 Min Project Trip Distribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
12:00 AM	0	1	0	0	0	0	0	0	0	1	0	0
12:15 AM	0	1	0	0	0	0	0	0	0	1	0	0
12:30 AM	0	1	0	0	0	0	0	0	0	1	0	0
12:45 AM	0	1	0	0	0	0	0	0	0	1	0	0
1:00 AM	0	1	0	0	0	0	0	0	0	1	0	0
1:15 AM	0	1	0	0	0	0	0	0	0	1	0	0
1:30 AM	0	1	0	0	0	0	0	0	0	1	0	0
1:45 AM	0	1	0	0	0	0	0	0	0	1	0	0
2:00 AM	0	1	0	0	0	0	0	0	0	1	0	0
2:15 AM	0	1	0	0	0	0	0	0	0	1	0	0
2:30 AM	0	1	0	0	0	0	0	0	0	1	0	0
2:45 AM	0	1	0	0	0	0	0	0	0	1	0	0
3:00 AM	0	1	1	1	0	0	0	0	0	2	0	0
3:15 AM	0	1	1	1	0	0	0	0	0	2	0	0
3:30 AM	0	1	1	1	0	0	0	0	0	2	0	0
3:45 AM	0	1	1	1	0	0	0	0	0	2	0	0
4:00 AM	0	2	2	2	0	0	0	0	0	4	0	0
4:15 AM	0	2	2	2	0	0	0	0	0	4	0	0
4:30 AM	0	2	2	2	0	0	0	0	0	4	0	0
4:45 AM	0	2	2	2	0	0	0	0	0	4	0	0
5:00 AM	0	8	5	6	0	0	0	0	0	12	0	1
5:15 AM	0	8	5	6	0	0	0	0	0	12	0	1
5:30 AM	0	8	5	6	0	0	0	0	0	12	0	1
5:45 AM	0	8	5	6	0	0	0	0	0	12	0	1
6:00 AM	0	17	11	13	0	0	0	0	0	28	0	2
6:15 AM	0	17	11	13	0	0	0	0	0	28	0	2
6:30 AM	0	17	11	13	0	0	0	0	0	28	0	2
6:45 AM	0	17	11	13	0	0	0	0	0	28	0	2
7:00 AM	0	17	11	13	0	0	0	0	0	27	0	2
7:15 AM	0	17	11	13	0	0	0	0	0	27	0	2
7:30 AM	0	17	11	13	0	0	0	0	0	27	0	2
7:45 AM	0	17	11	13	0	0	0	0	0	27	0	2
8:00 AM	0	16	10	12	0	0	0	0	0	24	0	2
8:15 AM	0	16	10	12	0	0	0	0	0	24	0	2
8:30 AM	0	16	10	12	0	0	0	0	0	24	0	2
8:45 AM	0	16	10	12	0	0	0	0	0	24	0	2
9:00 AM	0	18	11	13	0	0	0	0	0	28	0	2
9:15 AM	0	18	11	13	0	0	0	0	0	28	0	2
9:30 AM	0	18	11	13	0	0	0	0	0	28	0	2
9:45 AM	0	18	11	13	0	0	0	0	0	28	0	2
10:00 AM	0	13	8	10	0	0	0	0	0	19	0	2
10:15 AM	0	13	8	10	0	0	0	0	0	19	0	2
10:30 AM	0	13	8	10	0	0	0	0	0	19	0	2
10:45 AM	0	13	8	10	0	0	0	0	0	19	0	2
11:00 AM	0	15	10	12	0	0	0	0	0	24	0	2
11:15 AM	0	15	10	12	0	0	0	0	0	24	0	2
11:30 AM	0	15	10	12	0	0	0	0	0	24	0	2
11:45 AM	0	15	10	12	0	0	0	0	0	24	0	2
12:00 PM	0	20	12	15	0	0	0	0	0	31	0	2
12:15 PM	0	20	12	15	0	0	0	0	0	31	0	2
12:30 PM	0	20	12	15	0	0	0	0	0	31	0	2
12:45 PM	0	20	12	15	0	0	0	0	0	31	0	2
1:00 PM	0	14	9	11	0	0	0	0	0	22	0	2
1:15 PM	0	14	9	11	0	0	0	0	0	22	0	2
1:30 PM	0	14	9	11	0	0	0	0	0	22	0	2
1:45 PM	0	14	9	11	0	0	0	0	0	22	0	2
2:00 PM	0	17	11	13	0	0	0	0	0	26	0	2
2:15 PM	0	17	11	13	0	0	0	0	0	26	0	2
2:30 PM	0	17	11	13	0	0	0	0	0	26	0	2
2:45 PM	0	17	11	13	0	0	0	0	0	26	0	2
3:00 PM	0	13	8	10	0	0	0	0	0	21	0	2
3:15 PM	0	13	8	10	0	0	0	0	0	21	0	2
3:30 PM	0	13	8	10	0	0	0	0	0	21	0	2
3:45 PM	0	13	8	10	0	0	0	0	0	21	0	2
4:00 PM	0	11	7	8	0	0	0	0	0	16	0	1
4:15 PM	0	11	7	8	0	0	0	0	0	16	0	1
4:30 PM	0	11	7	8	0	0	0	0	0	16	0	1
4:45 PM	0	11	7	8	0	0	0	0	0	16	0	1
5:00 PM	0	10	6	7	0	0	0	0	0	16	0	1
5:15 PM	0	10	6	7	0	0	0	0	0	16	0	1
5:30 PM	0	10	6	7	0	0	0	0	0	16	0	1
5:45 PM	0	10	6	7	0	0	0	0	0	16	0	1
6:00 PM	0	4	3	3	0	0	0	0	0	7	0	1
6:15 PM	0	4	3	3	0	0	0	0	0	7	0	1
6:30 PM	0	4	3	3	0	0	0	0	0	7	0	1
6:45 PM	0	4	3	3	0	0	0	0	0	7	0	1
7:00 PM	0	2	1	2	0	0	0	0	0	3	0	0
7:15 PM	0	2	1	2	0	0	0	0	0	3	0	0
7:30 PM	0	2	1	2	0	0	0	0	0	3	0	0
7:45 PM	0	2	1	2	0	0	0	0	0	3	0	0
8:00 PM	0	2	1	1	0	0	0	0	0	3	0	0
8:15 PM	0	2	1	1	0	0	0	0	0	3	0	0
8:30 PM	0	2	1	1	0	0	0	0	0	3	0	0
8:45 PM	0	2	1	1	0	0	0	0	0	3	0	0
9:00 PM	0	1	1	1	0	0	0	0	0	2	0	0
9:15 PM	0	1	1	1	0	0	0	0	0	2	0	0
9:30 PM	0	1	1	1	0	0	0	0	0	2	0	0
9:45 PM	0	1	1	1	0	0	0	0	0	2	0	0
10:00 PM	0	3	2	2	0	0	0	0	0	4	0	0
10:15 PM	0	3	2	2	0	0	0	0	0	4	0	0
10:30 PM	0	3	2	2	0	0	0	0	0	4	0	0
10:45 PM	0	3	2	2	0	0	0	0	0	4	0	0
11:00 PM	0	1	1	1	0	0	0	0	0	2	0	0
11:15 PM	0	1	1	1	0	0	0	0	0	2	0	0
11:30 PM	0	1	1	1	0	0	0	0	0	2	0	0
11:45 PM	0	1	1	1	0	0	0	0	0	2	0	0