

**TRAFFIC IMPACT STUDY
FOR
PROPOSED SOMERSET AT HICKORY FARMS
AT 4841 CAGLE ROAD**

HALL COUNTY, GEORGIA



Prepared for:

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A & R Project # 24-237

TABLE OF CONTENTS

Item	Page
1.0 Introduction	1
2.0 Existing Facilities / Conditions	3
2.1 Roadway Facilities	3
2.1.1 US 23/SR 365 (Cornelia Highway).....	3
2.1.2 SR 52 (Lula Road).....	3
2.1.3 Cagle Road	3
2.1.4 Burton Drive	3
3.0 Study Methodology	4
3.1 Unsignalized Intersections.....	4
3.2 Signalized Intersections.....	5
4.0 Existing 2024 Traffic Analysis.....	6
4.1 Existing Traffic Volumes.....	6
4.2 Existing Traffic Operations.....	9
5.0 Proposed Development.....	10
5.1 Trip Generation	12
5.2 Trip Distribution.....	12
6.0 Future 2026 Traffic Analysis	14
6.1 Future “No-Build” Conditions.....	14
6.1.1 Annual Traffic Growth	14
6.2 Future “Build” Conditions.....	14
6.3 Auxiliary Lane Analysis.....	17
6.3.1 Left Turn Lane Analysis.....	17
6.3.2 Deceleration Turn Lane Analysis	18
6.4 Future Traffic Operations	19
7.0 Conclusions and Recommendations.....	21
7.1 Recommendations for Site Access Configuration	21
Appendix	

LIST OF TABLES

Item	Page
Table 1 – Level of Service Criteria for Unsignalized Intersections	4
Table 2 – Level of Service Criteria for Signalized Intersections	5
Table 3 – Existing Intersection Operations	9
Table 4 – Trip Generation	12
Table 5 – GDOT Requirements for Left Turn Lanes	17
Table 6 – GDOT Requirements for Deceleration Lanes	18
Table 7 – Future Intersection Operations	19

LIST OF FIGURES

Item	Page
Figure 1 – Location Map.....	2
Figure 2 – Existing Weekday Peak Hour Volumes.....	7
Figure 3 – Existing Traffic Control and Lane Geometry	8
Figure 4 – Site Plan.....	11
Figure 5 – Trip Distribution and New Site-Generated Peak Hour Volumes.....	13
Figure 6 – Future (No-Build) Peak Hour Volumes.....	15
Figure 7 – Future (Build) Peak Hour Volumes.....	16
Figure 8 – Future Traffic Control and Lane Geometry.....	20

1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed residential development that will be located at 4841 Cagle Road in Hall County, Georgia. The traffic analysis evaluates the current operations and future conditions with the traffic generated by the development. The residential development will consist of 242 detached single-family houses and proposes three full access driveways on Cagle Road.



The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

- US 23/SR 365 (Cornelia Highway) at Cagle Road
- SR 52 (Lula Road) at Cagle Road
- SR 52 (Lula Road) at Burton Drive

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network are shown in Figure 1.



2.17.2025 Item 6
3/17/2025 Item 4



LOCATION MAP

FIGURE 1

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2.0 EXISTING FACILITIES / CONDITIONS

2.1 Roadway Facilities

The following is a brief description of each of the roadway facilities located in proximity to the site:

2.1.1 US 23/SR 365 (Cornelia Highway)

US 23/SR 365 (Cornelia Highway) is a north-south, four-lane, median-divided roadway with a posted speed limit of 65 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID: 139-0214) indicate that the daily traffic volume on US 23/SR 365 (Cornelia Highway) in 2023 was 36,600 vehicles per day south of Cagle Road. GDOT classifies US 23/SR 365 (Cornelia Highway) as a principal arterial roadway.

2.1.2 SR 52 (Lula Road)

SR 52 (Lula Road) is a two-lane undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID: 139-0249) indicate that the daily traffic volume on SR 52 (Lula Road) in 2023 was 2,410 vehicles per day east of Cagle Road. GDOT classifies SR 52 (Lula Road) as a minor arterial roadway.

2.1.3 Cagle Road

Cagle Road is a two-lane undivided roadway with a posted speed limit of 35 mph in the vicinity of the site.

2.1.4 Burton Drive

Burton Drive is a two-lane undivided roadway with a posted speed limit of 45 mph in the vicinity of the site.

3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level of service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume-to-capacity ratio greater than 1 is designated as “F” regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level of service is assigned a letter designation from “A” through “F”. Level of service “A” indicates excellent operations with little delay to motorists, while level of service “F” exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 — LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6th edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio of greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersection.

TABLE 2 – LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle) *	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6th edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

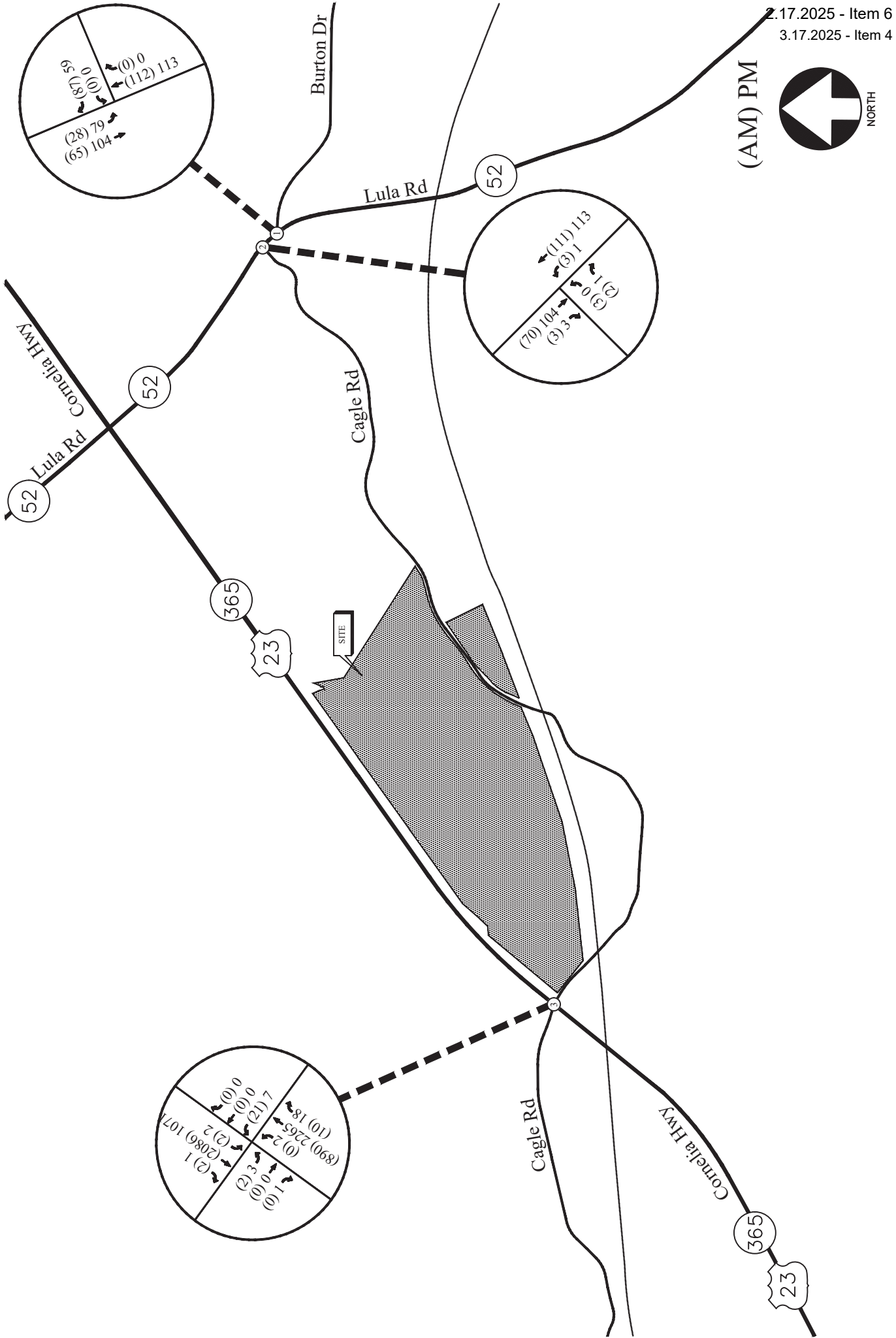
4.0 EXISTING 2024 TRAFFIC ANALYSIS

4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

- US 23/ SR 365 (Cornelia Highway) at Cagle Road
- SR 52 (Lula Road) at Cagle Road
- SR 52 (Lula Road) at Burton Drive

Turning movement counts were collected on Tuesday, December 10, 2024. All turning movement counts were recorded during the AM and PM peak hours between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.




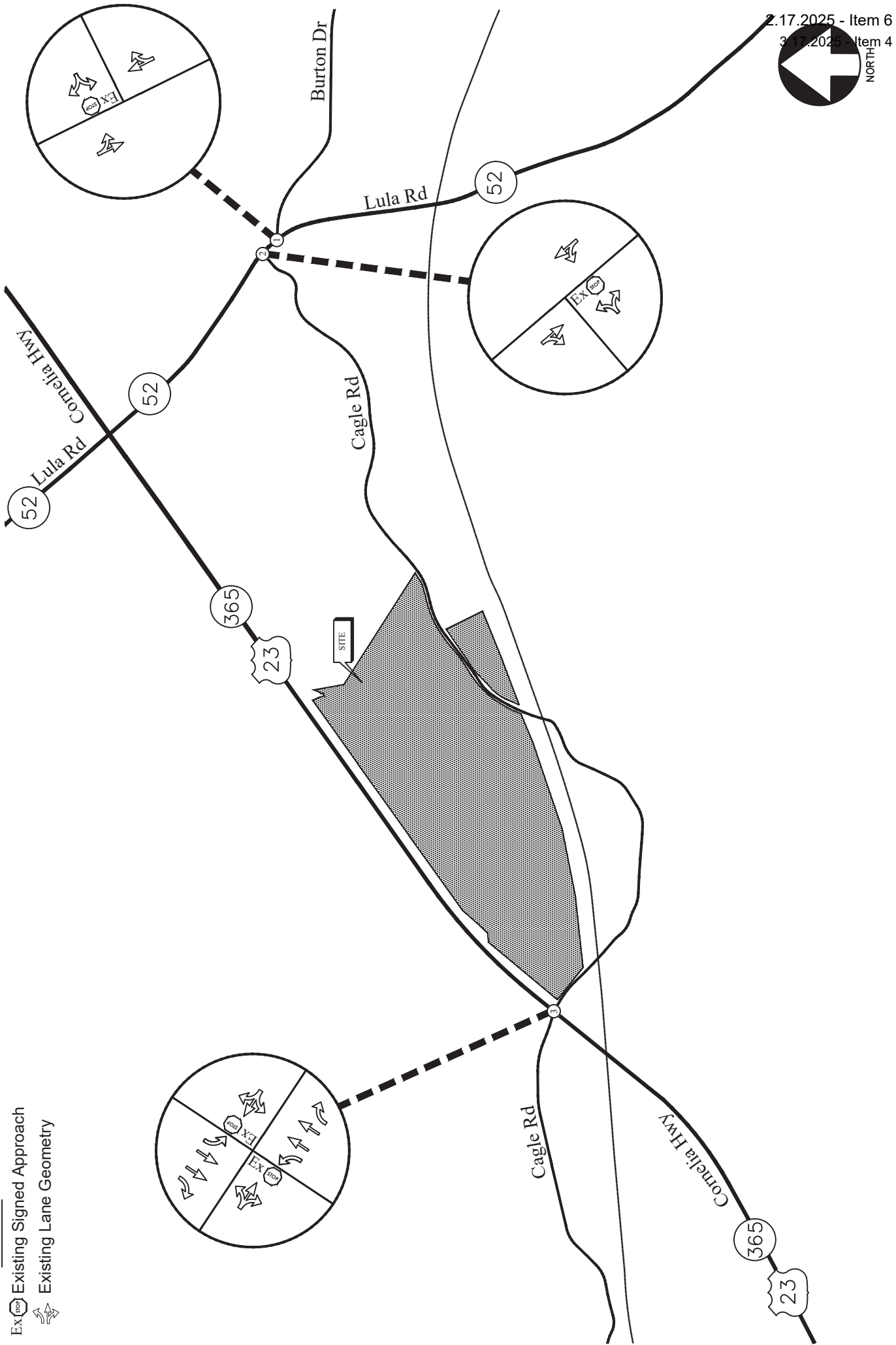
EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2

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LEGEND

- Ex  Existing Signed Approach
-  Existing Lane Geometry



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

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4.2 Existing Traffic Operations

Existing 2024 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

TABLE 3 – EXISTING INTERSECTION OPERATIONS				
Intersection		Traffic Control	LOS (Delay)	
			AM Peak Hour	PM Peak Hour
1	<u>SR 52 (Lula Road) @ Burton Drive</u>	Stop Controlled on WB Approach	A (9.4)	A (9.2)
	-Westbound Approach -Southbound Left		A (7.5)	A (7.6)
2	<u>SR 52 (Lula Road) @ Cagle Road</u>	Stop Controlled on EB Approach	A (9.3)	A (8.9)
	-Eastbound Approach -Northbound Left		A (7.4)	A (7.5)
3	<u>US 23/SR 365 (Cornelia Highway) @ Cagle Road</u>	Stop Controlled on NB and SB Approaches	F (108.2)	D (34.1)
	-Eastbound Approach		E (40.4)	F (184.2)
	-Westbound Approach		C (20.9)	B (11.1)
	-Northbound Left -Southbound Left		B (10.1)	D (25.0)

The results of the existing traffic operations analysis indicate that the stop-controlled approaches at the study intersections are operating at a level of service “D” or better in both the AM and PM peak hours, except for the eastbound and westbound (Cagle Road) approaches at intersection 3, which are operating at a level of service “E-F” in with peak hour traffic.

5.0 PROPOSED DEVELOPMENT

The residential development will be located at 4841 Cagle Road in Hall County and will consist of 242 single-family detached houses.



The development proposes three full access driveways on Cagle Road.

A site plan is shown in Figure 4.

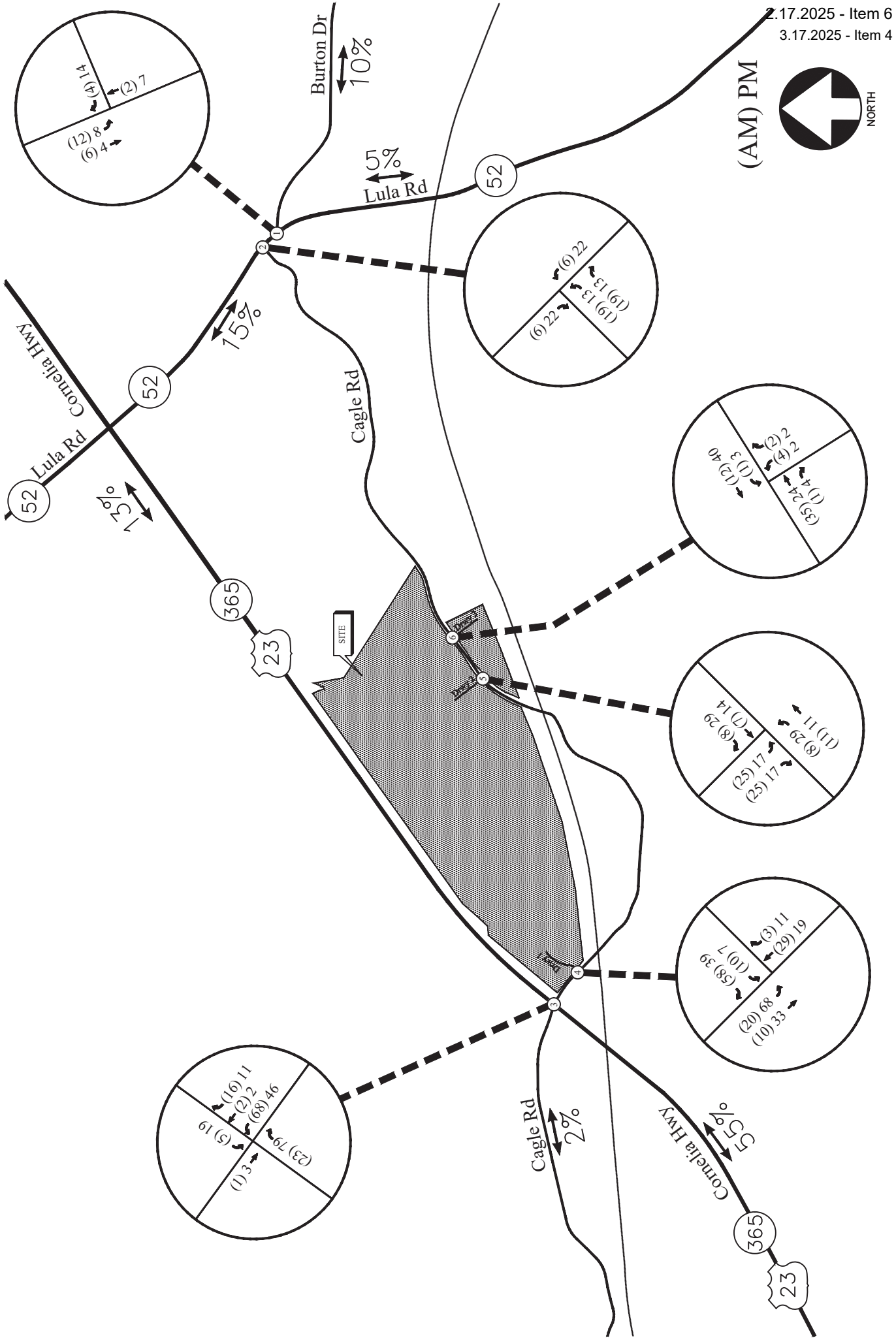
5.1 Trip Generation

Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the ITE land use category 210 – *Single-Family Detached Housing*. The calculated trip generation volumes for the proposed development are shown in Table 4.

TABLE 4 – TRIP GENERATION								
Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-Way
ITE 210 – Single-Family Detached Housing	242 Units	42	124	166	144	84	228	2,275

5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM and PM peak hour new traffic generated by the site are shown in Figure 5.



2.17.2025 - Item 6
 3.17.2025 - Item 4
 (AM) PM
 NORTH

TRIP DISTRIBUTION AND NEW SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES (ATTACHED HOMES) **FIGURE 5**
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6.0 FUTURE 2026 TRAFFIC ANALYSIS

The future 2026 traffic operations are analyzed for the “Build” and “No-Build” conditions.

6.1 Future “No-Build” Conditions

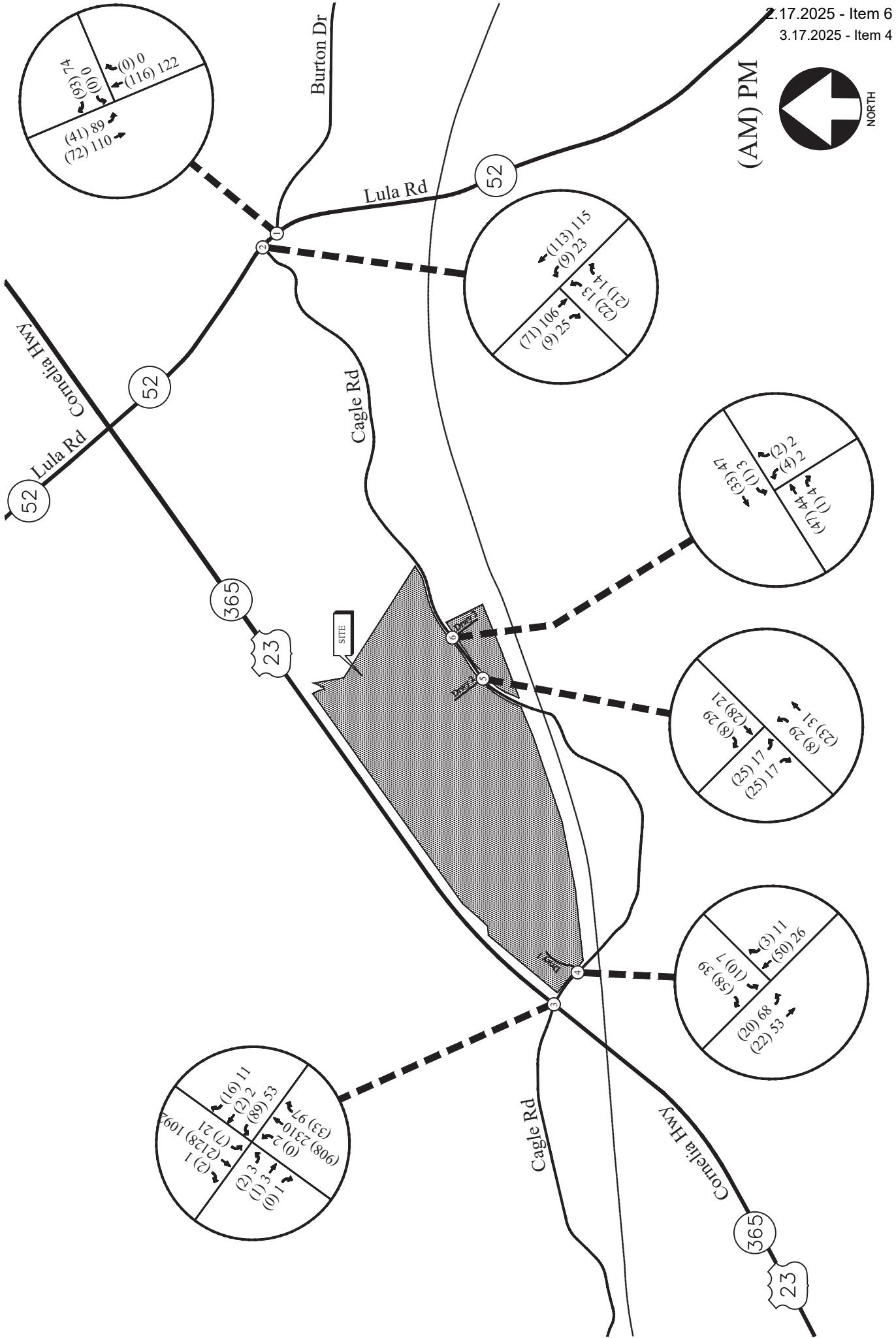
The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The future “No-Build” volumes consist of the existing traffic volumes (Figure 2) plus increases from the annual growth of through traffic.

6.1.1 Annual Traffic Growth

To evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last five years (2018-2019 & 2021-2023) revealed a traffic volume increase of approximately 1% in the area. This growth factor was applied to the existing traffic volumes between collector and arterial roadways to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting future “No-Build” volumes on the roadway are shown in Figure 6.

6.2 Future “Build” Conditions

The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus the added traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future “Build” traffic volumes are shown in Figure 7.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 7

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6.3 Auxiliary Lane Analysis

Included below are analyses for turn lanes at the proposed site driveways as per GDOT standards. According to the projected ITE site trip generation, the 24-hour two-way volume for traffic entering and exiting the site is 2,275 vehicles. The AADT on Cagle Road was assumed to be less than 6,000 vehicles per day based on historic GDOT volumes for similar roadways in the surrounding network.

6.3.1 Left Turn Lane Analysis

For a two-lane roadway with an AADT of under 6,000 vehicles and a posted speed limit of 35 mph, the daily site-generated left turn movements threshold to warrant a turn lane is 300 left-turning vehicles. The projected daily left turn volumes at each of the site driveways are shown in Table 5 below.

TABLE 5 – GDOT REQUIREMENTS FOR LEFT TURN LANES					
Intersection	Left Turn Traffic (% total entering)	Left Turn Volume (vehicles/day)	Roadway Speed / # Lanes / AADT	GDOT Threshold (vehicles/day)	Warrants Met?
Cagle Road @ Site Driveway 1	47% (Eastbound)	535 (Total Trips) ÷ 2 × 0.47 = (2,275) ÷ 2 × 0.47 = 535	35 mph / 2-Lane / < 6,000	300	Yes
Cosby Road @ Site Driveway 2	20% (Eastbound)	228 (Total Trips) ÷ 2 × 0.2 = (2,275) ÷ 2 × 0.2 = 228	35 mph / 2-Lane / < 6,000	300	No
Cosby Road @ Site Driveway 3	2% (Westbound)	23 (Total Trips) ÷ 2 × 0.02 = (2,275) ÷ 2 × 0.02 = 23	35 mph / 2-Lane / < 6,000	300	No

A left turn lane is warranted at site driveway 1 on Cagle Road as per GDOT standards.

6.3.2 Deceleration Turn Lane Analysis

For a two-lane roadway with an AADT of under 6,000 vehicles and a posted speed limit of 35 mph, the daily site-generated right turn movements threshold to warrant a deceleration lane is 200 right-turning vehicles. The projected daily right turn volumes at each of the site driveways are shown in Table 6.

TABLE 6 – GDOT REQUIREMENTS FOR DECELERATION LANES					
Intersection	Right Turn Traffic (% total entering)	Right Turn Volume (vehicles/day)	Roadway Speed / # Lanes / AADT	GDOT Threshold (vehicles/ day)	Warrants Met?
Cagle Road @ Site Driveway 1	8% (Westbound)	91 (Total Trips) ÷ 2 × 0.08 = (2,275) ÷ 2 × 0.08 = 91	35 mph / 2-Lane / < 6,000	200	No
Cosby Road @ Site Driveway 2	20% (Westbound)	228 (Total Trips) ÷ 2 × 0.2 = (2,275) ÷ 2 × 0.2 = 228	35 mph / 2-Lane / < 6,000	200	Yes
Cosby Road @ Site Driveway 3	3% (Eastbound)	34 (Total Trips) ÷ 2 × 0.03 = (2,275) ÷ 2 × 0.03 = 34	35 mph / 2-Lane / < 6,000	200	No

A right turn lane is warranted at site driveway 2 on Cagle Road as per GDOT standards.

6.4 Future Traffic Operations

The future “No-Build” and “Build” traffic operations were analysed using the volumes in Figures 6 and 7, respectively. The results of the future traffic operations analyses are shown below in Table 7. Recommendations on traffic control and lane geometry are shown in Figure 8.

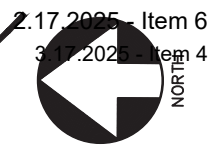
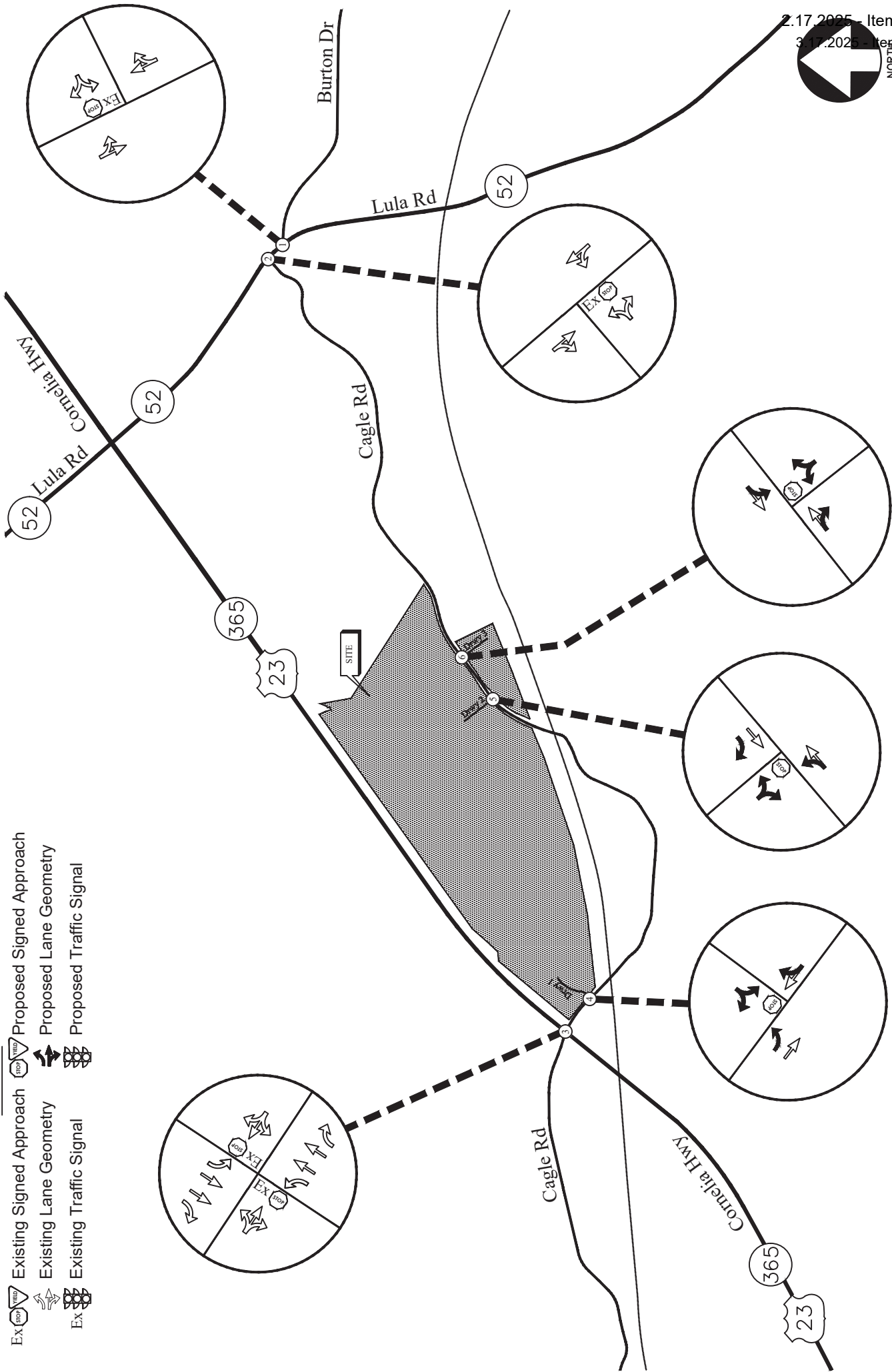
TABLE 7 – FUTURE INTERSECTION OPERATIONS					
Intersection		Future Condition: LOS (Delay)			
		NO-BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	<u>SR 52 (Lula Road) @ Burton Drive</u>				
	-Westbound Approach	A (9.5)	A (9.2)	A (9.5)	A (9.3)
	-Southbound Left	A (7.5)	A (7.6)	A (7.6)	A (7.7)
2	<u>SR 52 (Lula Road) @ Cagle Road</u>				
	-Eastbound Approach	A (9.3)	A (8.9)	A (9.5)	A (9.9)
	-Northbound Left	A (7.4)	A (7.5)	A (7.4)	A (7.6)
3	<u>US 23/SR 365 (Cornelia Highway) @ Cagle Road</u>				
	-Eastbound Approach	F (114.5)	E (35.1)	F (105.5)	F (115.0)
	-Westbound Approach	E (41.8)	F (202.8)	F (108.8)	F (*)
	-Northbound Left	C (21.7)	B (11.2)	C (21.7)	B (11.2)
	-Southbound Left	B (10.2)	D (26.0)	B (10.3)	D (31.0)
4	<u>Cagle Road @ Site Driveway 1</u>				
	-Eastbound Left	-	-	A (7.4)	A (7.4)
	-Southbound Approach			A (9.0)	A (8.9)
5	<u>Cagle Road @ Site Driveway 2</u>				
	-Eastbound Left	-	-	A (7.3)	A (7.4)
	-Southbound Approach			A (8.9)	A (9.0)
6	<u>Cagle Road @ Site Driveway 3</u>				
	-Westbound Left	-	-	A (7.3)	A (7.3)
	-Northbound Approach			A (8.8)	A (8.8)

* Delay exceeds 300 secs

The results of the future “No-Build” and “Build” conditions traffic analyses indicate that the stop-controlled approaches at the study intersections will continue to operate at a level of service “D” or better in both the AM and PM peak hours, except for the eastbound and westbound (Cagle Road) approaches at intersection 3, which will operate at a level of service “E-F” in with peak hour traffic. It is not unusual for minor side streets that are stop sign controlled to experience higher delays during peak hours due to the time gap needed for vehicles to make turning movements on busy multilane arterial highways.

LEGEND

- Ex  Existing Signed Approach
-  Existing Lane Geometry
- Ex  Existing Traffic Signal
-  Proposed Signed Approach
-  Proposed Lane Geometry
-  Proposed Traffic Signal



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 8

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7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed residential development that will be located at 4841 Cagle Road in Hall County, Georgia. The residential development will consist of 242 detached single-family houses and proposes three full access driveways on Cagle Road.

Existing and future operations after completion of the project were analysed at the intersections of:

- US 23/SR 365 (Cornelia Highway) at Cagle Road
- SR 52 (Lula Road) at Cagle Road
- SR 52 (Lula Road) at Burton Drive
- Cagle Road at Site Driveway 1
- Cagle Road at Site Driveway 2
- Cagle Road at Site Driveway 3

The analysis included the evaluation of future operations for “No-Build” and “Build” conditions, both of which account for increases due to the annual growth of through traffic. The results of the future “No-Build” and “Build” conditions traffic analyses indicate that the stop-controlled approaches at the study intersections will continue to operate at a level of service “D” or better in both the AM and PM peak hours, except for the eastbound and westbound (Cagle Road) approaches at intersection 3, which will operate at a level of service “E-F” in with peak hour traffic. It is not unusual for minor side streets that are stop sign controlled to experience higher delays during peak hours due to the time gap needed for vehicles to make turning movements on busy multilane arterial highways.

7.1 Recommendations for Site Access Configuration

The following access configurations are recommended for the proposed site driveway intersections:

- Site Driveway 1: Full Access Driveway on Cagle Road
 - One entering lane and one exiting lane
 - Stop-sign controlled on the driveway approach with Cagle Road remaining free flow
 - A left turn lane for entering traffic
 - Provide/confirm adequate sight distance per AASHTO standards
- Site Driveway 2: Full Access Driveway on Cagle Road
 - One entering lane and one exiting lane
 - Stop-sign controlled on the driveway approach with Cagle Road remaining free flow
 - A right turn lane for entering traffic
 - Provide/confirm adequate sight distance per AASHTO standards
- Site Driveway 3: Full Access Driveway on Cagle Road
 - One entering lane and one exiting lane
 - Stop-sign controlled on the driveway approach with Cagle Road remaining free flow
 - Provide/confirm adequate sight distance per AASHTO standards

Appendix

Existing Intersection Traffic Counts	
Linear Regression of Daily Traffic.....	
Existing Intersection Analysis.....	
Future “No-Build” Intersection Analysis	
Future “Build” Intersection Analysis	
Traffic Volume Worksheets	

EXISTING INTERSECTION TRAFFIC COUNTS

A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
 Marietta, GA 30067

TMC Data
 SR 52 @ Burton Dr
 7-9 am | 4-6 pm

File Name : 20240461
 Site Code : 20240461
 Start Date : 12-10-2024
 Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	SR 52 (Lula Rd) Northbound				SR 52 (Lula Rd) Southbound				Eastbound				Burton Dr Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	29	0	29	6	9	0	15	0	0	0	0	0	0	19	19	63
07:15 AM	0	33	0	33	6	19	0	25	0	0	0	0	0	0	29	29	87
07:30 AM	0	22	0	22	6	22	0	28	0	0	0	0	0	0	21	21	71
07:45 AM	0	28	0	28	10	15	0	25	0	0	0	0	0	0	18	18	71
Total	0	112	0	112	28	65	0	93	0	0	0	0	0	0	87	87	292
08:00 AM	0	28	0	28	5	14	0	19	0	0	0	0	0	0	14	14	61
08:15 AM	0	19	0	19	7	9	0	16	0	0	0	0	0	0	11	11	46
08:30 AM	0	18	0	18	12	13	0	25	0	0	0	0	0	0	16	16	59
08:45 AM	0	15	0	15	6	11	0	17	0	0	0	0	0	0	18	18	50
Total	0	80	0	80	30	47	0	77	0	0	0	0	0	0	59	59	216
*** BREAK ***																	
04:00 PM	0	25	0	25	12	17	0	29	0	0	0	0	0	0	7	7	61
04:15 PM	0	28	0	28	19	22	0	41	0	0	0	0	0	0	20	20	89
04:30 PM	0	22	0	22	17	24	0	41	0	0	0	0	0	0	19	19	82
04:45 PM	0	29	0	29	18	28	0	46	0	0	0	0	0	0	16	16	91
Total	0	104	0	104	66	91	0	157	0	0	0	0	0	0	62	62	323
05:00 PM	0	23	0	23	15	24	0	39	0	0	0	0	0	0	12	12	74
05:15 PM	0	35	0	35	24	27	0	51	0	0	0	0	0	0	12	12	98
05:30 PM	0	26	0	26	22	25	0	47	0	0	0	0	0	0	19	19	92
05:45 PM	0	24	0	24	18	31	0	49	0	0	0	0	0	0	12	12	85
Total	0	108	0	108	79	107	0	186	0	0	0	0	0	0	55	55	349
Grand Total	0	404	0	404	203	310	0	513	0	0	0	0	0	0	263	263	1180
Apprch %	0	100	0		39.6	60.4	0		0	0	0	0	0	0	100		
Total %	0	34.2	0	34.2	17.2	26.3	0	43.5	0	0	0	0	0	0	22.3	22.3	

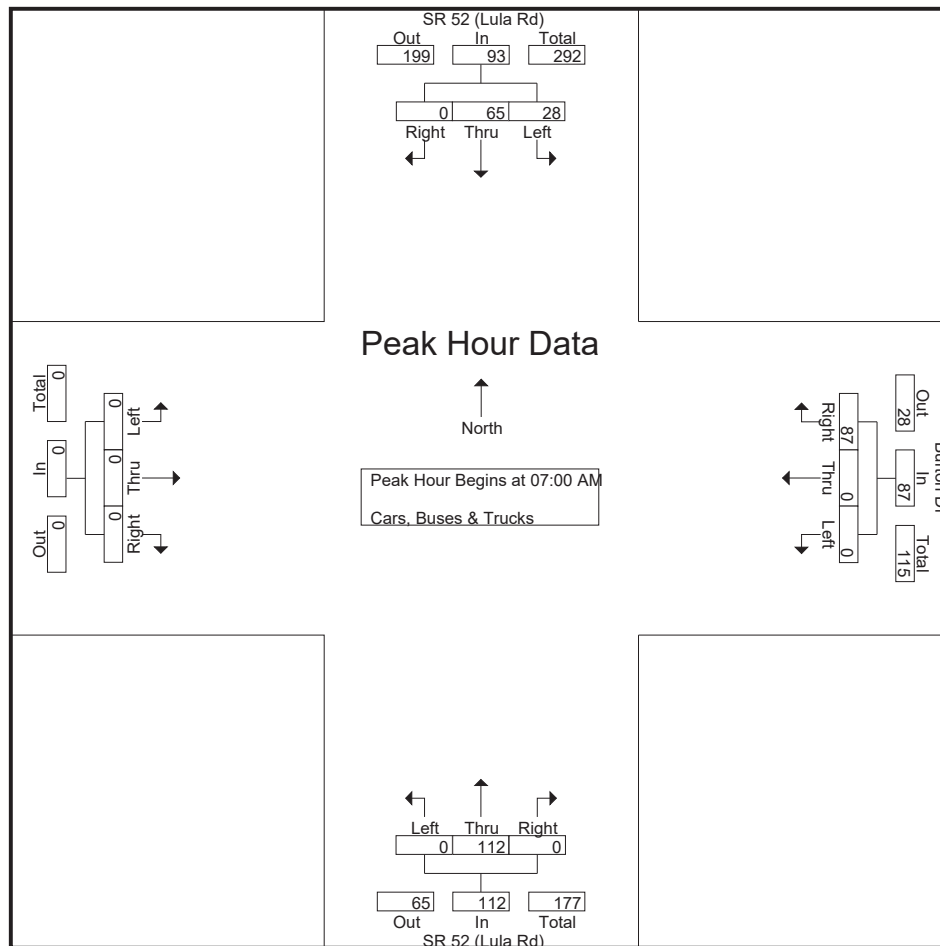
A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
Marietta, GA 30067

TMC Data
SR 52 @ Burton Dr
7-9 am | 4-6 pm

File Name : 20240461
Site Code : 20240461
Start Date : 12-10-2024
Page No : 2

Start Time	SR 52 (Lula Rd) Northbound				SR 52 (Lula Rd) Southbound				Eastbound				Burton Dr Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	29	0	29	6	9	0	15	0	0	0	0	0	0	19	19	63
07:15 AM	0	33	0	33	6	19	0	25	0	0	0	0	0	0	29	29	87
07:30 AM	0	22	0	22	6	22	0	28	0	0	0	0	0	0	21	21	71
07:45 AM	0	28	0	28	10	15	0	25	0	0	0	0	0	0	18	18	71
Total Volume	0	112	0	112	28	65	0	93	0	0	0	0	0	0	87	87	292
% App. Total	0	100	0		30.1	69.9	0		0	0	0		0	0	100		
PHF	.000	.848	.000	.848	.700	.739	.000	.830	.000	.000	.000	.000	.000	.000	.750	.750	.839



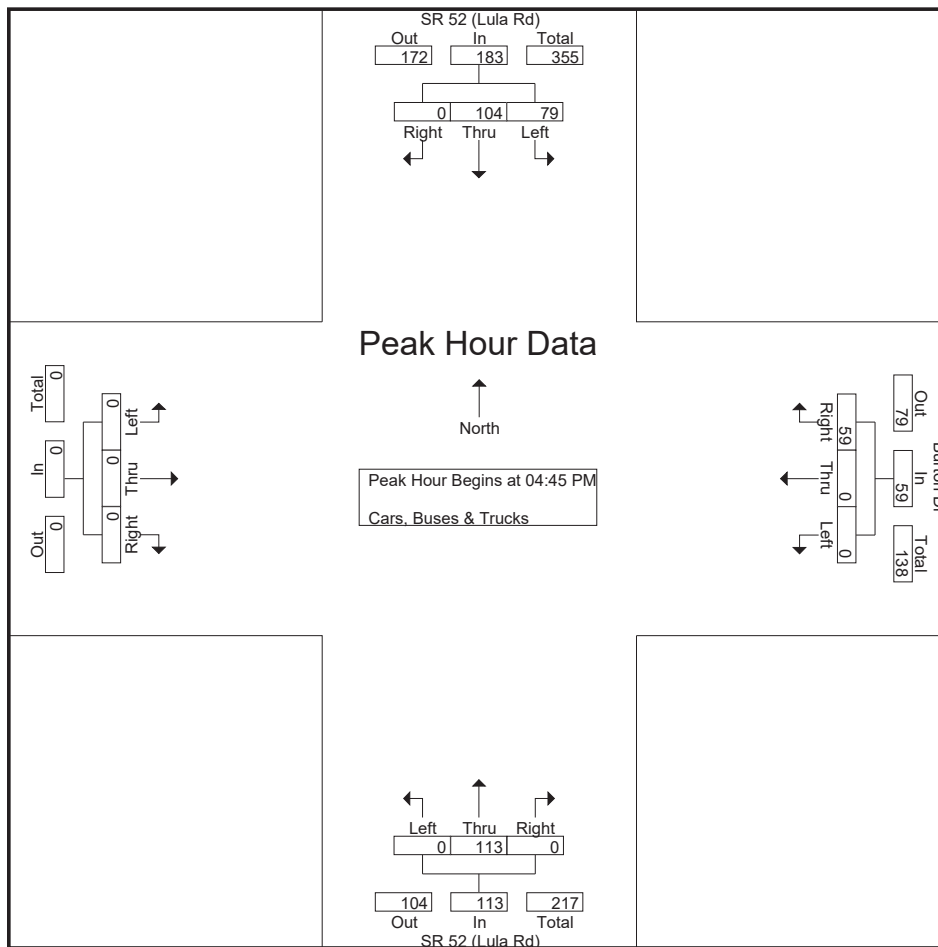
A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
Marietta, GA 30067

TMC Data
SR 52 @ Burton Dr
7-9 am | 4-6 pm

File Name : 20240461
Site Code : 20240461
Start Date : 12-10-2024
Page No : 3

Start Time	SR 52 (Lula Rd) Northbound				SR 52 (Lula Rd) Southbound				Eastbound				Burton Dr Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	29	0	29	18	28	0	46	0	0	0	0	0	0	16	16	91
05:00 PM	0	23	0	23	15	24	0	39	0	0	0	0	0	0	12	12	74
05:15 PM	0	35	0	35	24	27	0	51	0	0	0	0	0	0	12	12	98
05:30 PM	0	26	0	26	22	25	0	47	0	0	0	0	0	0	19	19	92
Total Volume	0	113	0	113	79	104	0	183	0	0	0	0	0	0	59	59	355
% App. Total	0	100	0		43.2	56.8	0		0	0	0		0	0	100		
PHF	.000	.807	.000	.807	.823	.929	.000	.897	.000	.000	.000	.000	.000	.000	.776	.776	.906



A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
Marietta, GA 30067

TMC Data
SR 52 (Lula Rd) @ Cagle Rd
7-9 am | 4-6 pm

File Name : 20240460
Site Code : 20240460
Start Date : 12-10-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	SR 52 (Lula Rd) Northbound				SR 52 (Lula Rd) Southbound				Cagle Rd Eastbound				Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	29	0	29	0	9	0	9	1	0	0	1	0	0	0	0	39
07:15 AM	0	33	0	33	0	19	0	19	2	0	1	3	0	0	0	0	55
07:30 AM	1	22	0	23	0	22	0	22	0	0	0	0	0	0	0	0	45
07:45 AM	0	28	0	28	0	15	3	18	1	0	1	2	0	0	0	0	48
Total	1	112	0	113	0	65	3	68	4	0	2	6	0	0	0	0	187
08:00 AM	2	28	0	30	0	14	0	14	0	0	0	0	0	0	0	0	44
08:15 AM	0	19	0	19	0	9	1	10	0	0	0	0	0	0	0	0	29
08:30 AM	0	18	0	18	0	13	1	14	0	0	0	0	0	0	0	0	32
08:45 AM	0	15	0	15	0	11	0	11	1	0	0	1	0	0	0	0	27
Total	2	80	0	82	0	47	2	49	1	0	0	1	0	0	0	0	132
*** BREAK ***																	
04:00 PM	0	25	0	25	0	17	0	17	2	0	1	3	0	0	0	0	45
04:15 PM	0	28	0	28	0	22	1	23	2	0	0	2	0	0	0	0	53
04:30 PM	1	22	0	23	0	24	0	24	0	0	1	1	0	0	0	0	48
04:45 PM	0	29	0	29	0	28	1	29	0	0	1	1	0	0	0	0	59
Total	1	104	0	105	0	91	2	93	4	0	3	7	0	0	0	0	205
05:00 PM	0	23	0	23	0	24	1	25	0	0	0	0	0	0	0	0	48
05:15 PM	1	35	0	36	0	27	0	27	0	0	0	0	0	0	0	0	63
05:30 PM	0	26	0	26	0	25	1	26	0	0	0	0	0	0	0	0	52
05:45 PM	0	24	0	24	0	31	1	32	0	0	2	2	0	0	0	0	58
Total	1	108	0	109	0	107	3	110	0	0	2	2	0	0	0	0	221
Grand Total	5	404	0	409	0	310	10	320	9	0	7	16	0	0	0	0	745
Apprch %	1.2	98.8	0		0	96.9	3.1		56.2	0	43.8		0	0	0		
Total %	0.7	54.2	0	54.9	0	41.6	1.3	43	1.2	0	0.9	2.1	0	0	0	0	

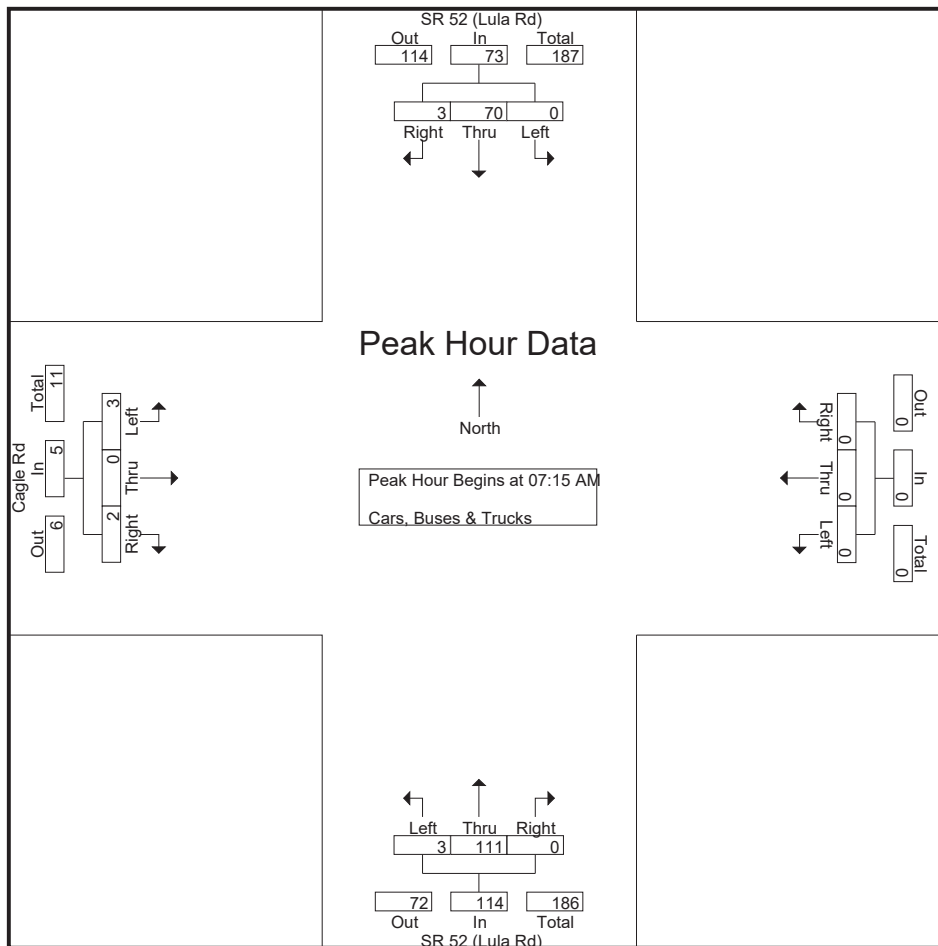
A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
 Marietta, GA 30067

TMC Data
 SR 52 (Lula Rd) @ Cagle Rd
 7-9 am | 4-6 pm

File Name : 20240460
 Site Code : 20240460
 Start Date : 12-10-2024
 Page No : 2

Start Time	SR 52 (Lula Rd) Northbound				SR 52 (Lula Rd) Southbound				Cagle Rd Eastbound				Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	33	0	33	0	19	0	19	2	0	1	3	0	0	0	0	55
07:30 AM	1	22	0	23	0	22	0	22	0	0	0	0	0	0	0	0	45
07:45 AM	0	28	0	28	0	15	3	18	1	0	1	2	0	0	0	0	48
08:00 AM	2	28	0	30	0	14	0	14	0	0	0	0	0	0	0	0	44
Total Volume	3	111	0	114	0	70	3	73	3	0	2	5	0	0	0	0	192
% App. Total	2.6	97.4	0		0	95.9	4.1		60	0	40		0	0	0		
PHF	.375	.841	.000	.864	.000	.795	.250	.830	.375	.000	.500	.417	.000	.000	.000	.000	.873



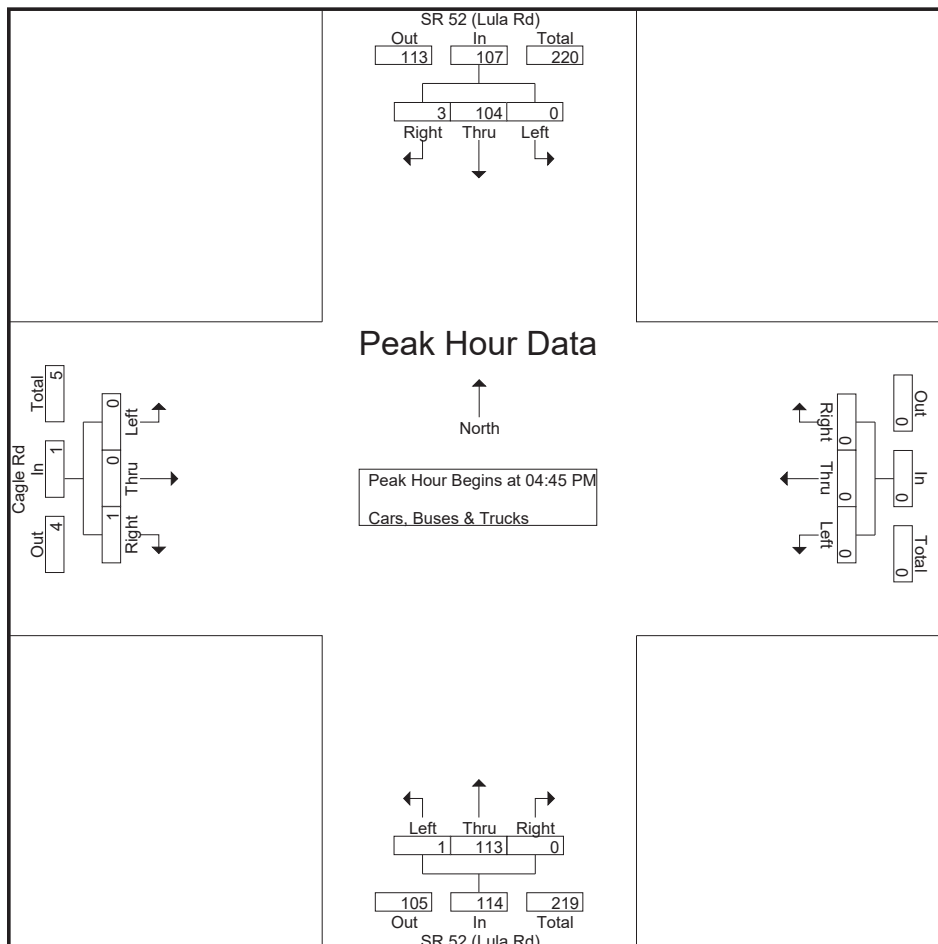
A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
Marietta, GA 30067

TMC Data
SR 52 (Lula Rd) @ Cagle Rd
7-9 am | 4-6 pm

File Name : 20240460
Site Code : 20240460
Start Date : 12-10-2024
Page No : 3

Start Time	SR 52 (Lula Rd) Northbound				SR 52 (Lula Rd) Southbound				Cagle Rd Eastbound				Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	29	0	29	0	28	1	29	0	0	1	1	0	0	0	0	59
05:00 PM	0	23	0	23	0	24	1	25	0	0	0	0	0	0	0	0	48
05:15 PM	1	35	0	36	0	27	0	27	0	0	0	0	0	0	0	0	63
05:30 PM	0	26	0	26	0	25	1	26	0	0	0	0	0	0	0	0	52
Total Volume	1	113	0	114	0	104	3	107	0	0	1	1	0	0	0	0	222
% App. Total	0.9	99.1	0		0	97.2	2.8		0	0	100		0	0	0		
PHF	.250	.807	.000	.792	.000	.929	.750	.922	.000	.000	.250	.250	.000	.000	.000	.000	.881



A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
Marietta, GA 30067

TMC Data
SR 365 (Cornelia Hwy) @ Cagle Road
7-9 am | 4-6 pm

File Name : 20240462
Site Code : 20240462
Start Date : 12-10-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	US 23 / SR 365 (Cornelia Hwy) Northbound				US 23 / SR 365 (Cornelia Hwy) Southbound				Cagle Rd Eastbound				Cagle Rd Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	157	2	159	0	458	0	458	1	0	0	1	2	0	0	2	620
07:15 AM	0	206	1	207	0	498	0	498	0	0	0	0	3	0	0	3	708
07:30 AM	0	225	1	226	0	574	0	574	2	0	0	2	6	0	0	6	808
07:45 AM	0	232	5	237	1	514	1	516	0	0	0	0	5	0	0	5	758
Total	0	820	9	829	1	2044	1	2046	3	0	0	3	16	0	0	16	2894
08:00 AM	0	227	3	230	1	500	1	502	0	0	0	0	7	0	0	7	739
08:15 AM	0	210	0	210	0	478	1	479	0	0	0	0	4	0	1	5	694
08:30 AM	0	222	2	224	0	374	0	374	1	0	1	2	2	0	0	2	602
08:45 AM	0	197	1	198	0	330	1	331	0	0	0	0	4	0	0	4	533
Total	0	856	6	862	1	1682	3	1686	1	0	1	2	17	0	1	18	2568
*** BREAK ***																	
04:00 PM	0	399	5	404	0	216	0	216	1	0	0	1	0	0	0	0	621
04:15 PM	2	530	2	534	1	234	2	237	1	0	0	1	4	0	0	4	776
04:30 PM	1	513	6	520	2	224	1	227	0	0	0	0	4	1	1	6	753
04:45 PM	0	519	5	524	0	239	0	239	0	0	0	0	1	0	0	1	764
Total	3	1961	18	1982	3	913	3	919	2	0	0	2	9	1	1	11	2914
05:00 PM	0	534	5	539	0	253	1	254	0	0	1	1	2	0	0	2	796
05:15 PM	0	615	5	620	2	265	0	267	3	0	0	3	2	0	0	2	892
05:30 PM	2	597	3	602	0	314	0	314	0	0	0	0	2	0	0	2	918
05:45 PM	0	457	5	462	0	215	1	216	0	0	0	0	0	0	1	1	679
Total	2	2203	18	2223	2	1047	2	1051	3	0	1	4	6	0	1	7	3285
Grand Total	5	5840	51	5896	7	5686	9	5702	9	0	2	11	48	1	3	52	11661
Apprch %	0.1	99.1	0.9		0.1	99.7	0.2		81.8	0	18.2		92.3	1.9	5.8		
Total %	0	50.1	0.4	50.6	0.1	48.8	0.1	48.9	0.1	0	0	0.1	0.4	0	0	0.4	

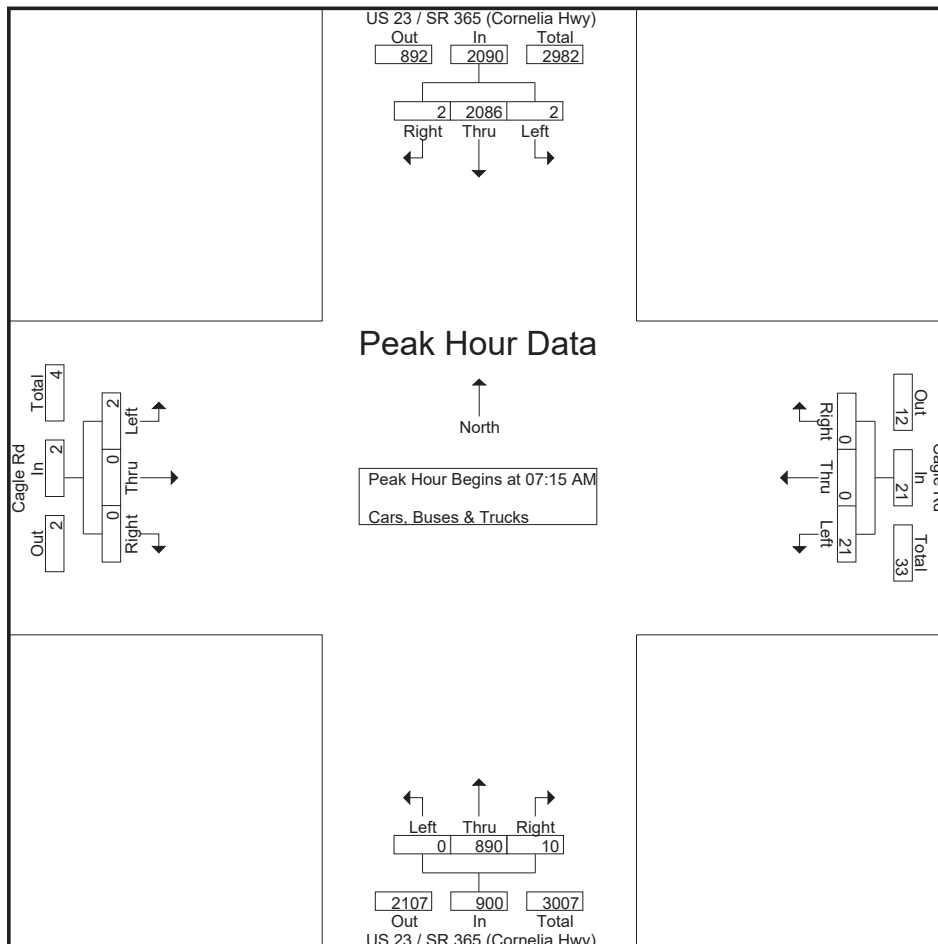
A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
 Marietta, GA 30067

TMC Data
 SR 365 (Cornelia Hwy) @ Cagle Road
 7-9 am | 4-6 pm

File Name : 20240462
 Site Code : 20240462
 Start Date : 12-10-2024
 Page No : 2

Start Time	US 23 / SR 365 (Cornelia Hwy) Northbound				US 23 / SR 365 (Cornelia Hwy) Southbound				Cagle Rd Eastbound				Cagle Rd Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	206	1	207	0	498	0	498	0	0	0	0	3	0	0	3	708
07:30 AM	0	225	1	226	0	574	0	574	2	0	0	2	6	0	0	6	808
07:45 AM	0	232	5	237	1	514	1	516	0	0	0	0	5	0	0	5	758
08:00 AM	0	227	3	230	1	500	1	502	0	0	0	0	7	0	0	7	739
Total Volume	0	890	10	900	2	2086	2	2090	2	0	0	2	21	0	0	21	3013
% App. Total	0	98.9	1.1		0.1	99.8	0.1		100	0	0		100	0	0		
PHF	.000	.959	.500	.949	.500	.909	.500	.910	.250	.000	.000	.250	.750	.000	.000	.750	.932



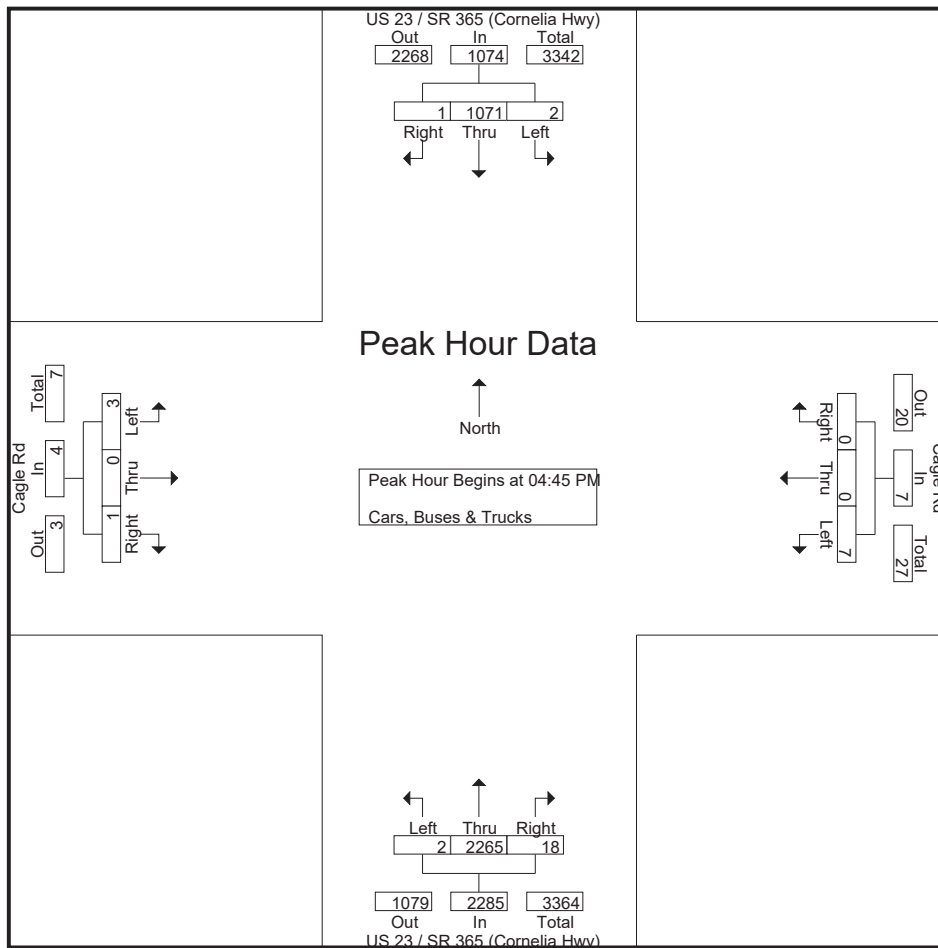
A & R Engineering, Inc.

2160 Kingston Court Suit 'O'
Marietta, GA 30067

TMC Data
SR 365 (Cornelia Hwy) @ Cagle Road
7-9 am | 4-6 pm

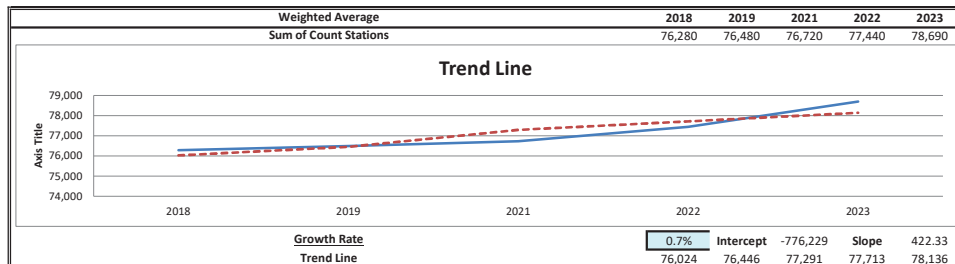
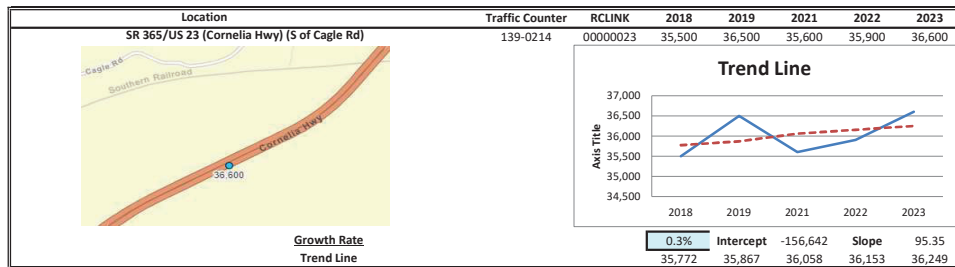
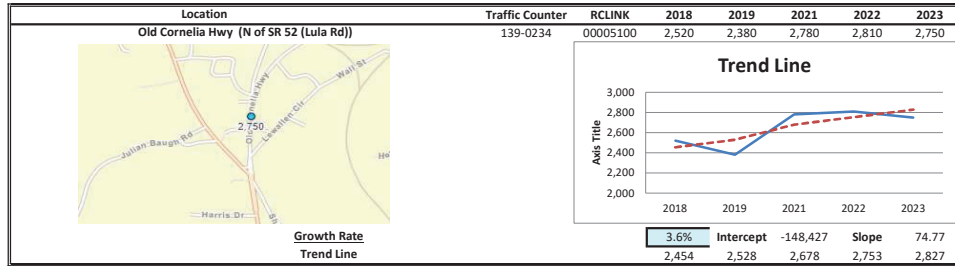
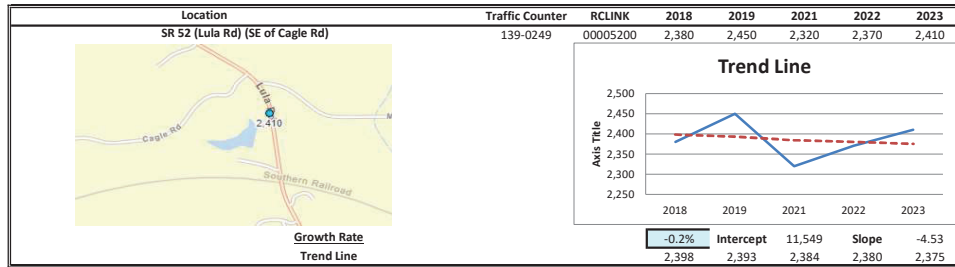
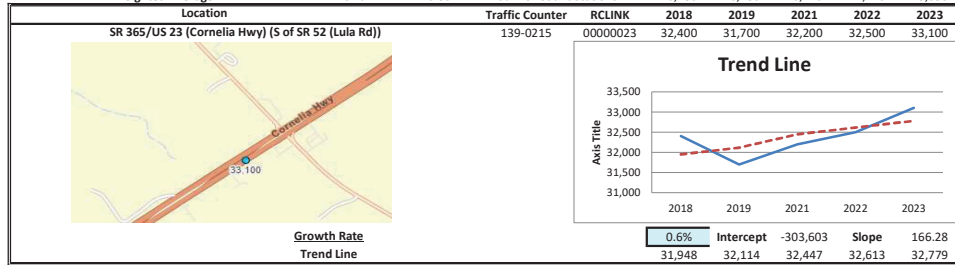
File Name : 20240462
Site Code : 20240462
Start Date : 12-10-2024
Page No : 3

Start Time	US 23 / SR 365 (Cornelia Hwy) Northbound				US 23 / SR 365 (Cornelia Hwy) Southbound				Cagle Rd Eastbound				Cagle Rd Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	519	5	524	0	239	0	239	0	0	0	0	1	0	0	1	764
05:00 PM	0	534	5	539	0	253	1	254	0	0	1	1	2	0	0	2	796
05:15 PM	0	615	5	620	2	265	0	267	3	0	0	3	2	0	0	2	892
05:30 PM	2	597	3	602	0	314	0	314	0	0	0	0	2	0	0	2	918
Total Volume	2	2265	18	2285	2	1071	1	1074	3	0	1	4	7	0	0	7	3370
% App. Total	0.1	99.1	0.8		0.2	99.7	0.1		75	0	25		100	0	0		
PHF	.250	.921	.900	.921	.250	.853	.250	.855	.250	.000	.250	.333	.875	.000	.000	.875	.918



LINEAR REGRESSION OF DAILY TRAFFIC

Location	Growth Rate	R Squared	Station ID	Route	2018	2019	2021	2022	2023
SR 365/US 23 (Cornelia Hwy) (S of SR 52 (Lula Rd))	0.6%	0.46	139-0215	00000023	32,400	31,700	32,200	32,500	33,100
SR 52 (Lula Rd) (SE of Cagle Rd)	-0.2%	0.03	139-0249	00005200	2,380	2,450	2,320	2,370	2,410
Old Cornelia Hwy (N of SR 52 (Lula Rd))	3.6%	0.68	139-0234	00005100	2,520	2,380	2,780	2,810	2,750
SR 52 (Old Cornelia Hwy) (N of Harris Dr)	3.1%	0.84	139-0248	00005200	3,480	3,450	3,820	3,860	3,830
SR 365/US 23 (Cornelia Hwy) (S of Cagle Rd)	0.3%	0.15	139-0214	00000023	35,500	36,500	35,600	35,900	36,600
Weighted Average	0.7%	0.80	Sum of Count Stations =		76,280	76,480	76,720	77,440	78,690



EXISTING INTERSECTION ANALYSIS

HCM 6th TWSC

1: SR 52 (Lula Rd) & Burton Dr

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	87	112	0	28	65
Future Vol, veh/h	0	87	112	0	28	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	6	2	2	6
Mvmt Flow	0	104	133	0	33	77

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	276	133	0	0	133	0
Stage 1	133	-	-	-	-	-
Stage 2	143	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	714	916	-	-	1452	-
Stage 1	893	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	697	916	-	-	1452	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	863	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	2.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1452
HCM Lane V/C Ratio	-	-	0.113	0.023
HCM Control Delay (s)	-	-	9.4	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM 6th TWSC
2: SR 52 (Lula Rd) & Cagle Rd

1a. Existing 2024 AM

12/18/2024

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	3	111	70	3
Future Vol, veh/h	3	2	3	111	70	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	6	6	2
Mvmt Flow	3	2	3	128	80	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	216	82	83	0	0
Stage 1	82	-	-	-	-
Stage 2	134	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	772	978	1514	-	-
Stage 1	941	-	-	-	-
Stage 2	892	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	770	978	1514	-	-
Mov Cap-2 Maneuver	770	-	-	-	-
Stage 1	939	-	-	-	-
Stage 2	892	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1514	-	842	-	-
HCM Lane V/C Ratio	0.002	-	0.007	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
3: SR 365/ US 23 (Cornelia Hwy) & Cagle Rd

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	2	0	0	21	0	0	1	890	10	2	2086	2
Future Vol, veh/h	2	0	0	21	0	0	1	890	10	2	2086	2
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	-	-	Yield	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	305	-	250	515	-	250
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	2	0	0	23	0	0	1	957	11	2	2243	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2728	3217	1122	2085	3208	479	2245	0	0	968	0	0
Stage 1	2247	2247	-	959	959	-	-	-	-	-	-	-
Stage 2	481	970	-	1126	2249	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	10	10	200	30	10	533	227	-	-	707	-	-
Stage 1	43	77	-	276	334	-	-	-	-	-	-	-
Stage 2	535	330	-	218	77	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	10	10	200	30	10	533	227	-	-	707	-	-
Mov Cap-2 Maneuver	37	60	-	124	59	-	-	-	-	-	-	-
Stage 1	43	77	-	275	333	-	-	-	-	-	-	-
Stage 2	533	329	-	217	77	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	108.2		40.4		0		0	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	227	-	-	37	124	707	-	-
HCM Lane V/C Ratio	0.005	-	-	0.058	0.182	0.003	-	-
HCM Control Delay (s)	20.9	-	-	108.2	40.4	10.1	-	-
HCM Lane LOS	C	-	-	F	E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.6	0	-	-

HCM 6th TWSC
1: SR 52 (Lula Rd) & Burton Dr

1b. Existing 2024 PM

12/18/2024

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		BT			BT
Traffic Vol, veh/h	0	59	113	0	79	104
Future Vol, veh/h	0	59	113	0	79	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	6	2	2	6
Mvmt Flow	0	65	124	0	87	114

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	412	124	0	0	124
Stage 1	124	-	-	-	-
Stage 2	288	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	596	927	-	-	1463
Stage 1	902	-	-	-	-
Stage 2	761	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	558	927	-	-	1463
Mov Cap-2 Maneuver	558	-	-	-	-
Stage 1	902	-	-	-	-
Stage 2	713	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	3.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	927	1463
HCM Lane V/C Ratio	-	-	0.07	0.059
HCM Control Delay (s)	-	-	9.2	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

HCM 6th TWSC
2: SR 52 (Lula Rd) & Cagle Rd

1b. Existing 2024 PM

12/18/2024

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	1	113	104	3
Future Vol, veh/h	0	1	1	113	104	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	6	6	2
Mvmt Flow	0	1	1	128	118	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	250	120	121	0	0
Stage 1	120	-	-	-	-
Stage 2	130	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	739	931	1467	-	-
Stage 1	905	-	-	-	-
Stage 2	896	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	738	931	1467	-	-
Mov Cap-2 Maneuver	738	-	-	-	-
Stage 1	904	-	-	-	-
Stage 2	896	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1467	-	931	-	-
HCM Lane V/C Ratio	0.001	-	0.001	-	-
HCM Control Delay (s)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
3: SR 365/ US 23 (Cornelia Hwy) & Cagle Rd

1b. Existing 2024 PM

12/18/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	3	0	1	7	0	0	2	2265	18	2	1071	1
Future Vol, veh/h	3	0	1	7	0	0	2	2265	18	2	1071	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	305	-	250	515	-	250
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	3	0	1	8	0	0	2	2462	20	2	1164	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2403	3654	582	3052	3635	1231	1165	0	0	2482	0	0
Stage 1	1168	1168	-	2466	2466	-	-	-	-	-	-	-
Stage 2	1235	2486	-	586	1169	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	17	5	456	~ 5	5	169	595	-	-	182	-	-
Stage 1	206	266	-	31	59	-	-	-	-	-	-	-
Stage 2	187	58	-	463	265	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	17	5	456	~ 5	5	169	595	-	-	182	-	-
Mov Cap-2 Maneuver	96	43	-	27	45	-	-	-	-	-	-	-
Stage 1	205	263	-	31	59	-	-	-	-	-	-	-
Stage 2	186	58	-	457	262	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	34.1		184.2		0			0		
HCM LOS	D		F							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	595	-	-	128	27	182	-	-
HCM Lane V/C Ratio	0.004	-	-	0.034	0.282	0.012	-	-
HCM Control Delay (s)	11.1	-	-	34.1	184.2	25	-	-
HCM Lane LOS	B	-	-	D	F	D	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0	-	-

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

**FUTURE "NO-BUILD" INTERSECTION
ANALYSIS**

HCM 6th TWSC
 1: SR 52 (Lula Rd) & Burton Dr

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	89	114	0	29	66
Future Vol, veh/h	0	89	114	0	29	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	6	2	2	6
Mvmt Flow	0	106	136	0	35	79

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	285	136	0	0	136	0
Stage 1	136	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	705	913	-	-	1448	-
Stage 1	890	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	687	913	-	-	1448	-
Mov Cap-2 Maneuver	687	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	913	1448
HCM Lane V/C Ratio	-	-	0.116	0.024
HCM Control Delay (s)	-	-	9.5	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM 6th TWSC
 2: SR 52 (Lula Rd) & Cagle Rd

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	3	113	71	3
Future Vol, veh/h	3	2	3	113	71	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	6	6	2
Mvmt Flow	3	2	3	130	82	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	220	84	85	0	0
Stage 1	84	-	-	-	-
Stage 2	136	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	768	975	1512	-	-
Stage 1	939	-	-	-	-
Stage 2	890	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	766	975	1512	-	-
Mov Cap-2 Maneuver	766	-	-	-	-
Stage 1	937	-	-	-	-
Stage 2	890	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1512	-	838	-	-
HCM Lane V/C Ratio	0.002	-	0.007	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
3: SR 365/ US 23 (Cornelia Hwy) & Cagle Rd

2a. No Build 2026 AM

12/18/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	2	0	0	21	0	0	1	908	10	2	2128	2
Future Vol, veh/h	2	0	0	21	0	0	1	908	10	2	2128	2
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	-	-	Yield	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	305	-	250	515	-	250
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	2	0	0	23	0	0	1	976	11	2	2288	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2782	3281	1144	2126	3272	488	2290	0	0	987	0	0
Stage 1	2292	2292	-	978	978	-	-	-	-	-	-	-
Stage 2	490	989	-	1148	2294	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	9	9	193	28	9	526	217	-	-	696	-	-
Stage 1	40	73	-	269	327	-	-	-	-	-	-	-
Stage 2	529	323	-	211	73	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	9	9	193	28	9	526	217	-	-	696	-	-
Mov Cap-2 Maneuver	35	57	-	120	56	-	-	-	-	-	-	-
Stage 1	40	73	-	268	325	-	-	-	-	-	-	-
Stage 2	527	321	-	210	73	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	114.5		41.8		0		0	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	217	-	-	35	120	696	-	-
HCM Lane V/C Ratio	0.005	-	-	0.061	0.188	0.003	-	-
HCM Control Delay (s)	21.7	-	-	114.5	41.8	10.2	-	-
HCM Lane LOS	C	-	-	F	E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.7	0	-	-

HCM 6th TWSC
 1: SR 52 (Lula Rd) & Burton Dr

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	0	60	115	0	81	106
Future Vol, veh/h	0	60	115	0	81	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	6	2	2	6
Mvmt Flow	0	66	126	0	89	116

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	420	126	0
Stage 1	126	-	-
Stage 2	294	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	590	924	-
Stage 1	900	-	-
Stage 2	756	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	552	924	-
Mov Cap-2 Maneuver	552	-	-
Stage 1	900	-	-
Stage 2	707	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	3.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	924	1460
HCM Lane V/C Ratio	-	-	0.071	0.061
HCM Control Delay (s)	-	-	9.2	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

HCM 6th TWSC
 2: SR 52 (Lula Rd) & Cagle Rd

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	1	115	106	3
Future Vol, veh/h	0	1	1	115	106	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	6	6	2
Mvmt Flow	0	1	1	131	120	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	255	122	123	0	0
Stage 1	122	-	-	-	-
Stage 2	133	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	734	929	1464	-	-
Stage 1	903	-	-	-	-
Stage 2	893	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	733	929	1464	-	-
Mov Cap-2 Maneuver	733	-	-	-	-
Stage 1	902	-	-	-	-
Stage 2	893	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1464	-	929	-	-
HCM Lane V/C Ratio	0.001	-	0.001	-	-
HCM Control Delay (s)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 3: SR 365/ US 23 (Cornelia Hwy) & Cagle Rd

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	3	0	1	7	0	0	2	2310	18	2	1092	1
Future Vol, veh/h	3	0	1	7	0	0	2	2310	18	2	1092	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	305	-	250	515	-	250
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	3	0	1	8	0	0	2	2511	20	2	1187	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2451	3726	594	3113	3707	1256	1188	0	0	2531	0	0
Stage 1	1191	1191	-	2515	2515	-	-	-	-	-	-	-
Stage 2	1260	2535	-	598	1192	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	16	4	448	~ 5	4	163	583	-	-	174	-	-
Stage 1	199	259	-	29	56	-	-	-	-	-	-	-
Stage 2	180	54	-	456	259	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	4	448	~ 5	4	163	583	-	-	174	-	-
Mov Cap-2 Maneuver	93	40	-	25	43	-	-	-	-	-	-	-
Stage 1	198	256	-	29	56	-	-	-	-	-	-	-
Stage 2	179	54	-	450	256	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	35.1		202.8		0		0	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	583	-	-	124	25	174	-	-
HCM Lane V/C Ratio	0.004	-	-	0.035	0.304	0.012	-	-
HCM Control Delay (s)	11.2	-	-	35.1	202.8	26	-	-
HCM Lane LOS	B	-	-	E	F	D	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0	-	-

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

FUTURE "BUILD" INTERSECTION ANALYSIS

HCM 6th TWSC
1: SR 52 (Lula Rd) & Burton Dr

3a. Future Build 2026 AM
12/18/2024

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T			T
Traffic Vol, veh/h	0	93	116	0	41	72
Future Vol, veh/h	0	93	116	0	41	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	6	2	2	6
Mvmt Flow	0	111	138	0	49	86

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	322	138	0	0	138	0
Stage 1	138	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	672	910	-	-	1446	-
Stage 1	889	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	648	910	-	-	1446	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1446
HCM Lane V/C Ratio	-	-	0.122	0.034
HCM Control Delay (s)	-	-	9.5	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM 6th TWSC
2: SR 52 (Lula Rd) & Cagle Rd

3a. Future Build 2026 AM

12/18/2024

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	21	9	113	71	9
Future Vol, veh/h	22	21	9	113	71	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	6	6	2
Mvmt Flow	25	24	10	130	82	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	237	87	92	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	751	971	1503	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	746	971	1503	-	-	-
Mov Cap-2 Maneuver	746	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1503	-	841	-	-
HCM Lane V/C Ratio	0.007	-	0.059	-	-
HCM Control Delay (s)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
3: SR 365/ US 23 (Cornelia Hwy) & Cagle Rd

3a. Future Build 2026 AM

12/18/2024

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↑↑	↔	↔	↑↑	↔
Traffic Vol, veh/h	2	1	0	89	2	16	1	908	33	7	2128	2
Future Vol, veh/h	2	1	0	89	2	16	1	908	33	7	2128	2
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	-	-	Yield	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	305	-	250	515	-	250
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	2	1	0	96	2	17	1	976	35	8	2288	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2795	3317	1144	2139	3284	488	2290	0	0	1011	0	0
Stage 1	2304	2304	-	978	978	-	-	-	-	-	-	-
Stage 2	491	1013	-	1161	2306	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	9	8	193	~28	9	526	217	-	-	681	-	-
Stage 1	39	72	-	269	327	-	-	-	-	-	-	-
Stage 2	528	315	-	208	72	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	8	8	193	~27	9	526	217	-	-	681	-	-
Mov Cap-2 Maneuver	34	55	-	117	55	-	-	-	-	-	-	-
Stage 1	39	71	-	268	325	-	-	-	-	-	-	-
Stage 2	505	313	-	202	71	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	105.5		108.8		0		0	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	217	-	-	39	133	681	-	-
HCM Lane V/C Ratio	0.005	-	-	0.083	0.865	0.011	-	-
HCM Control Delay (s)	21.7	-	-	105.5	108.8	10.3	-	-
HCM Lane LOS	C	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	5.5	0	-	-

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

HCM 6th TWSC

4: Cagle Rd & Site Drwy 1

3a. Future Build 2026 AM

12/18/2024

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	22	50	3	10	58
Future Vol, veh/h	20	22	50	3	10	58
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, %	2	2	2	2	2	2
Mvmt Flow	22	24	54	3	11	63
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	57	0	-	0	124	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1547	-	-	-	871	1011
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1547	-	-	-	859	1011
Mov Cap-2 Maneuver	-	-	-	-	859	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	955	-
Approach	EB	WB	SB			
HCM Control Delay, s	3.5	0	9			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1547	-	-	-	985	
HCM Lane V/C Ratio	0.014	-	-	-	0.075	
HCM Control Delay (s)	7.4	-	-	-	9	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC

5: Cagle Rd & Site Drwy 2

3a. Future Build 2026 AM

12/18/2024

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑	↑	↑
Traffic Vol, veh/h	8	23	28	8	25	25
Future Vol, veh/h	8	23	28	8	25	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	0	-
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	9	25	30	9	27	27
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	39	0	-	0	73	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	43	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1571	-	-	-	931	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	979	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1571	-	-	-	925	1044
Mov Cap-2 Maneuver	-	-	-	-	925	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	979	-
Approach	EB	WB	SB			
HCM Control Delay, s	1.9	0	8.9			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1571	-	-	-	981	
HCM Lane V/C Ratio	0.006	-	-	-	0.055	
HCM Control Delay (s)	7.3	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC

6: Site Drwy 3 & Cagle Rd

3a. Future Build 2026 AM

12/18/2024

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	1	1	33	4	2
Future Vol, veh/h	47	1	1	33	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	1	1	36	4	2
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	52	0	90	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1554	-	910	1016
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1554	-	909	1016
Mov Cap-2 Maneuver	-	-	-	-	909	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	983	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.2	8.8			
HCM LOS				A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	942	-	-	1554	-	
HCM Lane V/C Ratio	0.007	-	-	0.001	-	
HCM Control Delay (s)	8.8	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 6th TWSC
1: SR 52 (Lula Rd) & Burton Dr

3b. Future Build 2026 PM
12/18/2024

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		T			T
Traffic Vol, veh/h	0	74	122	0	89	110
Future Vol, veh/h	0	74	122	0	89	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	6	2	2	6
Mvmt Flow	0	81	134	0	98	121

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	451	134	0	0	134	0
Stage 1	134	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	566	915	-	-	1451	-
Stage 1	892	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	525	915	-	-	1451	-
Mov Cap-2 Maneuver	525	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	685	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	915	1451
HCM Lane V/C Ratio	-	-	0.089	0.067
HCM Control Delay (s)	-	-	9.3	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

HCM 6th TWSC
2: SR 52 (Lula Rd) & Cagle Rd

3b. Future Build 2026 PM

12/18/2024

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	14	23	115	106	25
Future Vol, veh/h	13	14	23	115	106	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	6	6	2
Mvmt Flow	15	16	26	131	120	28

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	317	134	148	0	0
Stage 1	134	-	-	-	-
Stage 2	183	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	676	915	1434	-	-
Stage 1	892	-	-	-	-
Stage 2	848	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	662	915	1434	-	-
Mov Cap-2 Maneuver	662	-	-	-	-
Stage 1	874	-	-	-	-
Stage 2	848	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1434	-	773	-	-
HCM Lane V/C Ratio	0.018	-	0.04	-	-
HCM Control Delay (s)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

HCM 6th TWSC
3: SR 365/ US 23 (Cornelia Hwy) & Cagle Rd

3b. Future Build 2026 PM

12/18/2024

Intersection

Int Delay, s/veh 17.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↕	↕	↔	↕	↕
Traffic Vol, veh/h	3	3	1	53	2	11	2	2310	97	21	1092	1
Future Vol, veh/h	3	3	1	53	2	11	2	2310	97	21	1092	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	305	-	250	515	-	250
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	3	3	1	58	2	12	2	2511	105	23	1187	1

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2494	3853	594	3156	3749	1256	1188	0	0	2616	0	0
Stage 1	1233	1233	-	2515	2515	-	-	-	-	-	-	-
Stage 2	1261	2620	-	641	1234	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	15	4	448	~ 4	4	163	583	-	-	161	-	-
Stage 1	187	247	-	~ 29	56	-	-	-	-	-	-	-
Stage 2	180	49	-	430	247	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	12	~ 3	448	~ 3	3	163	583	-	-	161	-	-
Mov Cap-2 Maneuver	77	22	-	~ 25	41	-	-	-	-	-	-	-
Stage 1	186	212	-	~ 29	56	-	-	-	-	-	-	-
Stage 2	160	49	-	362	212	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	115	\$ 914.6	0	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	583	-	-	40	30	161	-	-
HCM Lane V/C Ratio	0.004	-	-	0.19	2.391	0.142	-	-
HCM Control Delay (s)	11.2	-	-	115	\$ 914.6	31	-	-
HCM Lane LOS	B	-	-	F	F	D	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	8.4	0.5	-	-

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

HCM 6th TWSC

4: Cagle Rd & Site Drwy 1

3b. Future Build 2026 PM

12/18/2024

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	68	53	26	11	7	39
Future Vol, veh/h	68	53	26	11	7	39
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, %	2	2	2	2	2	2
Mvmt Flow	74	58	28	12	8	42
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	40	0	-	0	240	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	206	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1570	-	-	-	748	1039
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	829	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1570	-	-	-	713	1039
Mov Cap-2 Maneuver	-	-	-	-	713	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	829	-
Approach	EB	WB	SB			
HCM Control Delay, s	4.2	0	8.9			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1570	-	-	-	971	
HCM Lane V/C Ratio	0.047	-	-	-	0.051	
HCM Control Delay (s)	7.4	-	-	-	8.9	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

HCM 6th TWSC

5: Cagle Rd & Site Drwy 2

3b. Future Build 2026 PM

12/18/2024

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	
Traffic Vol, veh/h	29	31	21	29	17	17
Future Vol, veh/h	29	31	21	29	17	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	0	-
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	32	34	23	32	18	18
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	55	0	-	0	121	23
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	98	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1550	-	-	-	874	1054
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	926	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1550	-	-	-	856	1054
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	926	-
Approach	EB	WB	SB			
HCM Control Delay, s	3.6	0	9			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1550	-	-	-	945	
HCM Lane V/C Ratio	0.02	-	-	-	0.039	
HCM Control Delay (s)	7.4	0	-	-	9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

HCM 6th TWSC
6: Site Drwy 3 & Cagle Rd

3b. Future Build 2026 PM

12/18/2024

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	4	3	47	2	2
Future Vol, veh/h	44	4	3	47	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	4	3	51	2	2
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	52	0	107	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	57	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1554	-	891	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1554	-	889	1018
Mov Cap-2 Maneuver	-	-	-	-	889	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	964	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.4	8.8			
HCM LOS				A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	949	-	-	1554	-	
HCM Lane V/C Ratio	0.005	-	-	0.002	-	
HCM Control Delay (s)	8.8	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

T R A F F I C V O L U M E W O R K S H E E T S

24-237 Somerset at Hickory Farms - Hall County, GA - TIS
Traffic Volumes

A&R Engineering
 December 2024

1. SR 52 @ Burton Dr
A.M. Peak Hour

Condition	SR 52 (Lula Road) Northbound			SR 52 (Lula Road) Southbound			-			Eastbound			Burton Drive Westbound				
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	
Existing 2024 Traffic Counts:	0	112	0	112	28	65	0	93	0	0	0	0	0	0	0	87	87
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	114	0	114	29	66	0	95	0	0	0	0	0	0	0	89	89
Total New Trips:	0	2	0	2	12	6	0	18	0	0	0	0	0	0	0	4	4
Future 2026 Traffic Volumes:	0	116	0	116	41	72	0	113	0	0	0	0	0	0	0	93	93

P.M. Peak Hour

Condition	SR 52 (Lula Road) Northbound			SR 52 (Lula Road) Southbound			-			Eastbound			Burton Drive Westbound				
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	
Existing 2024 Traffic Counts:	0	113	0	113	79	104	0	183	0	0	0	0	0	0	0	59	59
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	115	0	115	81	106	0	187	0	0	0	0	0	0	0	60	60
Total New Trips:	0	7	0	7	8	4	0	12	0	0	0	0	0	0	0	14	14
Future 2026 Traffic Volumes:	0	122	0	122	89	110	0	199	0	0	0	0	0	0	0	74	74

24-237 Somerset at Hickory Farms - Hall County, GA - TIS
Traffic Volumes

A&R Engineering
December 2024

2.SR 52 @ Cagle Rd
A.M. Peak Hour

Condition	SR 52 (Luila Road) Northbound			SR 52 (Luila Road) Southbound			Cagle Road Eastbound			- Westbound				
	L	T	R	L	T	R	L	T	R	L	T	R	Tot	
Existing 2024 Traffic Counts:	3	111	0	0	70	3	73	3	0	2	5	0	0	0
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	3	113	0	0	71	3	74	3	0	2	5	0	0	0
Total New Trips:	6	0	0	0	0	6	6	19	0	19	38	0	0	0
Future 2026 Traffic Volumes:	9	113	0	0	71	9	80	22	0	21	43	0	0	0

P.M. Peak Hour

Condition	SR 52 (Luila Road) Northbound			SR 52 (Luila Road) Southbound			Cagle Road Eastbound			- Westbound				
	L	T	R	L	T	R	L	T	R	L	T	R	Tot	
Existing 2024 Traffic Counts:	1	113	0	0	104	3	107	0	0	1	1	0	0	0
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	1	115	0	0	106	3	109	0	0	1	1	0	0	0
Total New Trips:	22	0	0	0	0	22	22	13	0	13	26	0	0	0
Future 2026 Traffic Volumes:	23	115	0	0	106	25	131	13	0	14	27	0	0	0

24-237 Somerset at Hickory Farms - Hall County, GA - TIS
Traffic Volumes

A&R Engineering
 December 2024

3.SR 365 @ Cagle Rd

A.M. Peak Hour

Condition	US 23/ SR 365 (Cornelia Highway) Northbound			US 23/ SR 365 (Cornelia Highway) Southbound			Cagle Road Eastbound			Cagle Road Westbound						
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot				
Existing 2024 Traffic Counts:	0	890	10	900	2	2086	2	2090	2	0	0	2	21	0	0	21
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	908	10	918	2	2128	2	2132	2	0	0	2	21	0	0	21
Total New Trips:	0	0	23	23	5	0	0	5	0	1	0	1	68	2	16	86
Future 2026 Traffic Volumes:	0	908	33	941	7	2128	2	2137	2	1	0	3	89	2	16	107

P.M. Peak Hour

Condition	US 23/ SR 365 (Cornelia Highway) Northbound			US 23/ SR 365 (Cornelia Highway) Southbound			Cagle Road Eastbound			Cagle Road Westbound						
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot				
Existing 2024 Traffic Counts:	2	2265	18	2285	2	1071	1	1074	3	0	1	4	7	0	0	7
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	2	2310	18	2330	2	1092	1	1095	3	0	1	4	7	0	0	7
Total New Trips:	0	0	79	79	19	0	0	19	0	3	0	3	46	2	11	59
Future 2026 Traffic Volumes:	2	2310	97	2409	21	1092	1	1114	3	3	1	7	53	2	11	66

24-237 Somerset at Hickory Farms - Hall County, GA - TIS
Traffic Volumes

A&R Engineering
 December 2024

4.Cagle Rd @ Site Drwy 1

A.M. Peak Hour

Condition	Northbound			Site Driveway 1 Southbound			Cagle Road Eastbound			Cagle Road Westbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
	Tot			Tot			Tot			Tot			
Existing 2024 Traffic Counts:	0	0	0	0	0	0	0	12	0	0	21	0	21
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	0	0	0	0	0	0	12	0	0	21	0	21
Total New Trips:	0	0	0	10	0	58	68	20	10	0	29	3	32
Future 2026 Traffic Volumes:	0	0	0	10	0	58	68	20	22	0	50	3	53

P.M. Peak Hour

Condition	Northbound			Site Driveway 1 Southbound			Cagle Road Eastbound			Cagle Road Westbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
	Tot			Tot			Tot			Tot			
Existing 2024 Traffic Counts:	0	0	0	0	0	0	0	20	0	0	7	0	7
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	0	0	0	0	0	0	20	0	0	7	0	7
Total New Trips:	0	0	0	7	0	39	46	68	33	0	19	11	30
Future 2026 Traffic Volumes:	0	0	0	7	0	39	46	68	53	0	26	11	37

24-237 Somerset at Hickory Farms - Hall County, GA - TIS
Traffic Volumes

A&R Engineering
 December 2024

6.Cagle Rd @ Site Drwy 3

A.M. Peak Hour

Condition	Site Driveway 3 Northbound			-			Southbound			Cagle Road Eastbound			Cagle Road Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
	Existing 2024 Traffic Counts:	0	0	0	0	0	0	0	0	0	12	0	12	0	21	0
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	0	0	0	0	0	0	0	0	12	0	12	0	21	0	21
Total New Trips:	4	0	2	6	0	0	0	0	0	35	1	36	1	12	0	13
Future 2026 Traffic Volumes:	4	0	2	6	0	0	0	0	0	47	1	48	1	33	0	34

P.M. Peak Hour

Condition	Site Driveway 3 Northbound			-			Southbound			Cagle Road Eastbound			Cagle Road Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
	Existing 2024 Traffic Counts:	0	0	0	0	0	0	0	0	0	20	0	20	0	7	0
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2026 Volumes:	0	0	0	0	0	0	0	0	0	20	0	20	0	7	0	7
Total New Trips:	2	0	2	4	0	0	0	0	0	24	4	28	4	40	0	43
Future 2026 Traffic Volumes:	2	0	2	4	0	0	0	0	0	44	4	48	4	47	0	50