



Buffington Farm Road Tract

Traffic Impact Study

Prepared for:

Arabella Capital, LLC

Prepared by:

KCI Technologies Inc.

2160 Satellite Boulevard, Suite 130

Duluth, GA 30097

www.kci.com

678.990.6200

June 2023

KCI Project #242200426.01

RISE TO THE
CHALLENGE





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Executive Summary

The purpose of this study is to evaluate the potential traffic impacts of the proposed *Buffington Farm Road Tract* development. The site is in Hall County and located along the west and east side of Buffington Farm Road, an existing public road. Based on the concept plan (dated 03/27/2023), the +/-171.99-acre development will include a total of 337 detached single-family homes. The concept plan (see Appendix B) for the development illustrates the conditions in the study area, including the three phases of the proposed development and proposed access. Vehicular traffic access to the site is proposed via the existing intersection of Buffington Farm Road at Cagle Road. Access from the three phases of development is proposed at two driveways along Buffington Farm Road and extending Buffington Farm Road (into phase 2 of the development).

Cagle Road is a two-lane roadway with a 35-mph posted speed limit in the area of the proposed development. White Sulphur Road is a two-lane roadway with a 35-mph posted speed limit near the site. Buffington Farm Road is a two-lane dead-end roadway with residential land use along its length. The existing site is undeveloped.

For the purposes of the traffic study, the analysis included the expected completion (build-out) of the development by year 2025. This study performed an analysis of existing traffic conditions and future traffic conditions. The future conditions analysis was performed for the year 2025 No-Build Conditions and the year 2025 Build Conditions (with the Buffington Farm Road Tract development).

The traffic impact study network consisted of two intersections. The study intersections were Cagle Road at Buffington Farm Road and White Sulphur Road at Cagle Road. It is important to note a Hall County roadway project is programmed for White Sulphur Road and involves shifting White Sulphur Road to the south side of the railroad tracks which would cut off White Sulphur from intersecting with Cagle Road. Therefore, future conditions analyses were not performed for Cagle Road at White Sulphur Road (the intersection is removed).

The results of the traffic analysis indicate the intersections of Cagle Road at Buffington Farm Road and White Sulphur Road at Cagle Road currently operate at level of service A during both the AM and PM peak hours.

In the future year 2025 No-Build conditions (without the Buffington Farm Road Tract development traffic volumes) the study intersection of Buffington Farm Road at Cagle Road is expected to operate at acceptable levels of service during both the AM and PM peak hours.

In the future year 2025 Build Conditions (with the Buffington Farm Road Tract development traffic volumes), the study intersection of Buffington Farm Road at Cagle Road is expected to operate at acceptable levels of service during the AM and PM peak hours. Additionally, the two driveways on Buffington Farm Road are expected to operate at acceptable levels of service during the AM and PM peak hours.

Due to overall low traffic volumes in the vicinity of the project site, the existing roadway capacity and lane configuration is expected to be sufficient to accommodate future traffic volumes in the area. No roadway improvements are recommended along Buffington Farm Road or at the study intersections.

Based on estimated traffic volumes in the year 2025 Build year conditions, and Buffington Farm Road is a dead-end road, the following driveway geometric recommendations are provided at the site access driveways:

- Buffington Farm Road at Driveway #1 (Access to Phase 1)
 - Driveway (two lane: one entry lane and one exit); driveway to be stop-control
- Buffington Farm Road at Driveway #3 (Access to Phase 3)
 - Driveway (two lane: one entry lane and one exit); driveway to be stop-control

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- Figure 3 – Existing Traffic Conditions
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B: Concept Plan

C: Traffic Count Data

D: GDOT Traffic Data

E: Intersection Volume Development

F: Capacity Analysis Reports

G: Hall County Roadway Plan

1. Existing Conditions

1.1 Site Conditions

The proposed development is located on undeveloped property. **Figure 1** provides a general location map. **Figure 2** is an aerial that shows the site location and the proposed site driveways (Figures included in Appendix A). Access to the property is proposed to be provided at three locations along Buffington Farm Road (The concept plan is included in Appendix B). Nearby land uses are predominantly residential homes. The development is also located along Lake Lanier.

1.2 Roadway Conditions

Cagle Road is a two-lane roadway, with a 35mph posted speed limit in the area of the proposed development. Cagle Road is a northeast-southwest oriented roadway in the vicinity of the development. GDOT classifies Cagle Road as a Local Road. The roadway has grassed, rural shoulders on both the east and west side, with no sidewalks.

White Sulphur Road is a two-lane roadway, with a 35mph posted speed limit in the area of the proposed development. White Sulphur Road is an east-west oriented roadway in the vicinity of its intersection with Cagle Road. GDOT classifies White Sulphur Road as a Major Collector to the east and Minor Arterial to the west. The roadway has grassed, rural shoulders on both the north and south side, with no sidewalks.

Buffington Farm Road is a narrow two-lane dead-end public roadway. It is classified as a Local Road. The roadway has grassed, rural shoulders on both the east and west side, with no sidewalks.

Cagle Road at Buffington Farm Road and White Sulphur Road at Cagle Road are both side-street stop-controlled intersections. Buffington Farm Road is the side-street at its intersection with Cagle Road while Cagle Road is the side-street at its intersection with White Sulphur Road.

1.3 Traffic Volumes

Traffic counts were collected on Tuesday, May 16, 2023, for use in the traffic analysis. Hall County public schools were in session. Two 24-hour volume counts were collected, one on Cagle Rd south of Buffington Farm Rd and one on Buffington Farm Rd, west of Cagle Rd. The existing Average Daily Traffic (ADT) on Cagle Road is 1,459 vehicles and the existing ADT on Buffington Farm Road is 88 vehicles. Additionally, the traffic data collected included intersection turning movement counts at the following locations during the 7-9AM and 4-6PM peak periods.

1. Cagle Road at Buffington Farm Road
2. White Sulphur Road at Cagle Road

Historical traffic volume data available from the GDOT TADA source were utilized to inform the annual growth factor. The two locations are indicated in Appendix D. The two locations are:

- GDOT Count Station #139-0538 located on White Sulphur Road, east of Harrington Road.
- GDOT Count Station #139-0536 located on White Sulphur Road, between Ramsey Circle.

2. Future Conditions

2.1 Future No-Build Traffic Volumes

Future No-Build traffic volumes were developed by reviewing the historical traffic volumes roadways within the vicinity of the project and historic population growth in the county. Two GDOT count stations in the area were reviewed. The annual historic compound growth rate at the GDOT count stations averaged to 1.9% per year. Hall County's population growth rate was most recently reported as 1.2% per year in 2020. The Governor's Office of Planning and Budget developed population projections which indicates an estimated growth of 1.5% per year by 2025 in Hall County.

Considering this data, a 1.6% per year growth rate to account for background traffic volume growth was used in the traffic study. For the purposes of this study the proposed development is expected to be completed and opened by 2025. A 1.6% per year growth rate was applied to the 2023 existing volumes to calculate year 2025 No-Build traffic volumes. The 2025 No-Build traffic volumes are indicated in the Intersection Volume Development tables included in the Appendix E.

Additionally, the roadway network modification due to the Hall County project (explained in next section), resulted in re-routing existing vehicles crossing the railroad and traveling on White Sulphur Road. Based on the Hall County in-progress plans, and a review of the road network, the existing volume was redirected to White Sulphur Road to the south. This would provide access towards Gainesville and to I-985.

2.2 Future Roadway Conditions

A review of Georgia DOT and Gainesville-Hall Metropolitan Planning Organization planned and programmed transportation projects was performed. Hall County has two planned projects near the proposed development:

- PI 1162100: White Sulphur Road Realignment involves realigning White Sulphur Road to be on the south side of the railroad tracks and will remove the intersection of White Sulphur Road at Cagle Road near the development. This project is expected to be completed in 2024. A PDF of the in-progress roadway plan (cover sheet only) indicating the modification is included in Appendix G.
- Cagle Road Improvements
 - This project is a repaving project of Cagle Road just north of the proposed development.

3. Proposed Development Traffic

Project traffic was calculated for the proposed development. Project traffic is defined as the vehicular trips expected to be generated by the development and distributed over the roadway network.

3.1 Trip Generation

The project driveway volumes were calculated based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Eleventh Edition. The development proposes a total of 337 detached single-family homes for all three phases of development. The most applicable ITE land use (LU) codes is LU 210 (Single-Family Detached). Due to the development type, pass-by reductions and internal capture reductions were not included for the traffic analysis. **Table 1** below summarizes the trips expected daily, during the AM peak hour and during the PM peak hour for the development.

Land Use (ITE Code)	Units	Daily Trips	AM Peak Hour			PM Peak Hour		
		Two-Way Total	Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached (210)	337	3,179	61	183	244	205	121	326

3.2 Trip Distribution and Assignment

An overall trip distribution and assignment of project trips was based on existing traffic patterns and a review of land uses and the street network in the area. This information was used to apply the project traffic volumes at the study intersections. Additionally, the roadway network modification due to the Hall County project was considered. The directional distribution for the proposed development is estimated to be:

- 10% to/from the northeast along Cagle Road
- 90% to/from the southwest along White Sulphur Road

Figure 4 (in Appendix A) illustrates the residential trip distribution in the study area. All site generated trips will access the roadway network through Buffington Farm Road.

3.3 Future Build Traffic Volumes

The 2025 future Build traffic volumes were calculated by adding the proposed development (Buffington Farm Road Tract) traffic volumes to the projected year 2025 No-Build traffic volumes. **Figure 5** (in Appendix A) illustrates the year 2025 Build traffic volumes.

4. Capacity Analysis

Capacity analysis was performed at the study intersections for the weekday AM and PM peak hours. Intersection Level of Service (LOS) was calculated based on the methodologies contained in the Highway Capacity Manual, 6th Edition. The Synchro Studio software, which utilizes the HCM 6th Edition methodology, was utilized to perform the analyses.

Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a specified period under prevailing roadway, traffic, and control conditions. Level of service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorist's perceptions. The Highway Capacity Manual defines six levels of service, LOS A through LOS F. Level of service A indicates excellent operations with little delay to motorists, while level of service F indicates extremely long delay.

Level of service for unsignalized intersections is calculated for the average control delay incurred for vehicles on the stop control approach, compared to the average control delay per vehicle for all approaches at a signalized intersection. Control delay for vehicles include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 2** below indicates the relationship between delay and LOS for signalized and unsignalized intersections, respectively. Level-of-service "E" is typically considered to be the limit of acceptable delay.

Several factors affect the controlled delay for unsignalized intersections, including the availability of gaps in the cross-street traffic, and acceptable gap time to make the movement from the stop position. For stop-control intersections, LOS E and F exist when there are insufficient gaps in traffic, resulting in long delays. Low level of service for stop-control approaches are not uncommon at major cross-streets.

Table 2: Level of Service Criteria		
Level of Service	Average Control Delay Per Vehicle (sec)	
	Signalized Intersection	Unsignalized Intersection
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

4.1 Existing Conditions Capacity Analysis

Capacity analysis was performed for the year 2023 traffic volumes and the existing roadway conditions. The existing traffic conditions are illustrated in **Figure 3**. **Table 3** summarizes the results of the capacity analysis.

Table 3: Existing Year (2023) Level of Service				
Intersection	Intersection Control	Approach	AM Peak Hour LOS (Delay*)	PM Peak Hour LOS (Delay*)
Cagle Road at Buffington Farm Road	Stop-control	EB	A (9)	A (9)
White Sulphur Road at Cagle Road	Stop-control	SB	B (11)	B (11)

**Average vehicle delay in seconds*

Both study intersections are currently operating at an acceptable level of service in both the AM and PM peak hours.

4.2 Future No-Build Conditions Capacity Analysis

Capacity analysis was performed for the year 2025 Future Conditions and includes the No-Build traffic volumes (without the Buffington Farm Road Tract development traffic) and the existing roadway conditions for one intersection. Since the intersection of White Sulphur Road at Cagle Road is expected to be removed by year 2025, the intersection was not analyzed in future year conditions. **Table 4** summarizes the results of the capacity analysis for the Future No-Build Conditions.

Table 4: Future Year (2025) No-Build Level of Service				
Intersection	Intersection Control	Approach	AM Peak Hour LOS (Delay*)	PM Peak Hour LOS (Delay*)
Cagle Road at Buffington Farm Road	Stop-control	EB	A (9)	A (9)

**Average vehicle delay in seconds*

The study intersection is expected to continue operating at an acceptable level of service during both the AM and PM peak hours.

4.3 Future Build Conditions Capacity Analysis

Capacity analysis was performed for the year 2025 Future Conditions and includes the No-Build traffic volumes plus the Buffington Farm Road Tract development volumes. The Build traffic conditions and volumes are illustrated in **Figure 5**. **Table 5** summarizes the results of the capacity analysis.

Table 5: Future Year (2025) Build Level of Service				
Intersection	Intersection Control	Approach	AM Peak Hour LOS (Delay*)	PM Peak Hour LOS (Delay*)
Cagle Road at Buffington Farm Road	Stop-control	EB	B (10)	B (10)
Buffington Farm Road at Driveway #1 (Access to Phase #1)	Stop-control	NB	B (10)	B (10)
Buffington Farm Road at Driveway #3 (Access to Phase #3)	Stop-Control	SB	A (9)	A (9)

**Average vehicle delay in seconds*

The study intersection is expected to operate at an acceptable level of service during both the AM and PM peak hours. Additionally, both driveways are expected to operate at acceptable levels of service during both the AM and PM peak hours.

The existing intersection is not expected to need any geometric modifications due to the low volume on both Cagle and Buffington Farm Road.

5. Recommendations

Recommendations for access for the proposed development are based on existing conditions, the proposed development use, and expected traffic volumes. The need for dedicated turn lanes at the study intersections and appropriate traffic control (i.e. stop control) were reviewed. Recommendations included reviewing Hall County Code of Ordinances requirements, knowledge of general transportation standards, and engineering judgment.

Hall County Code of Ordinance 16.60.290 identifies when deceleration and turn lanes are required at development driveways, which is primarily based on roadway ADT and number of proposed residential lots. The Ordinance states the Hall County Traffic Engineer determines if any improvements are required.

The estimated daily traffic volumes along the study roadways and at the proposed development driveways is illustrated in **Figure 6**. Due to the low volumes on Buffington Farm Road, the volumes generated by the development are not expected to have a major impact on operations of the existing intersection of Buffington Farm Road at Cagle Road. The existing roadway capacity and lane configuration is expected to be sufficient to accommodate future traffic volumes at the intersection. No roadway improvements are recommended along Buffington Farm Road or at the intersection.

5.1 Recommended Driveway Geometry

Vehicular traffic access to the site is proposed via the existing intersection of Buffington Farm Road at Cagle Road. Access from the three phases of development is proposed at two driveways along Buffington Farm Road and extending Buffington Farm Road (into phase 2 of the development).

Based on estimated traffic volumes in the year 2025 Build year conditions, and Buffington Farm Road is a dead-end road, the following driveway geometric recommendations are provided at the site access driveways:

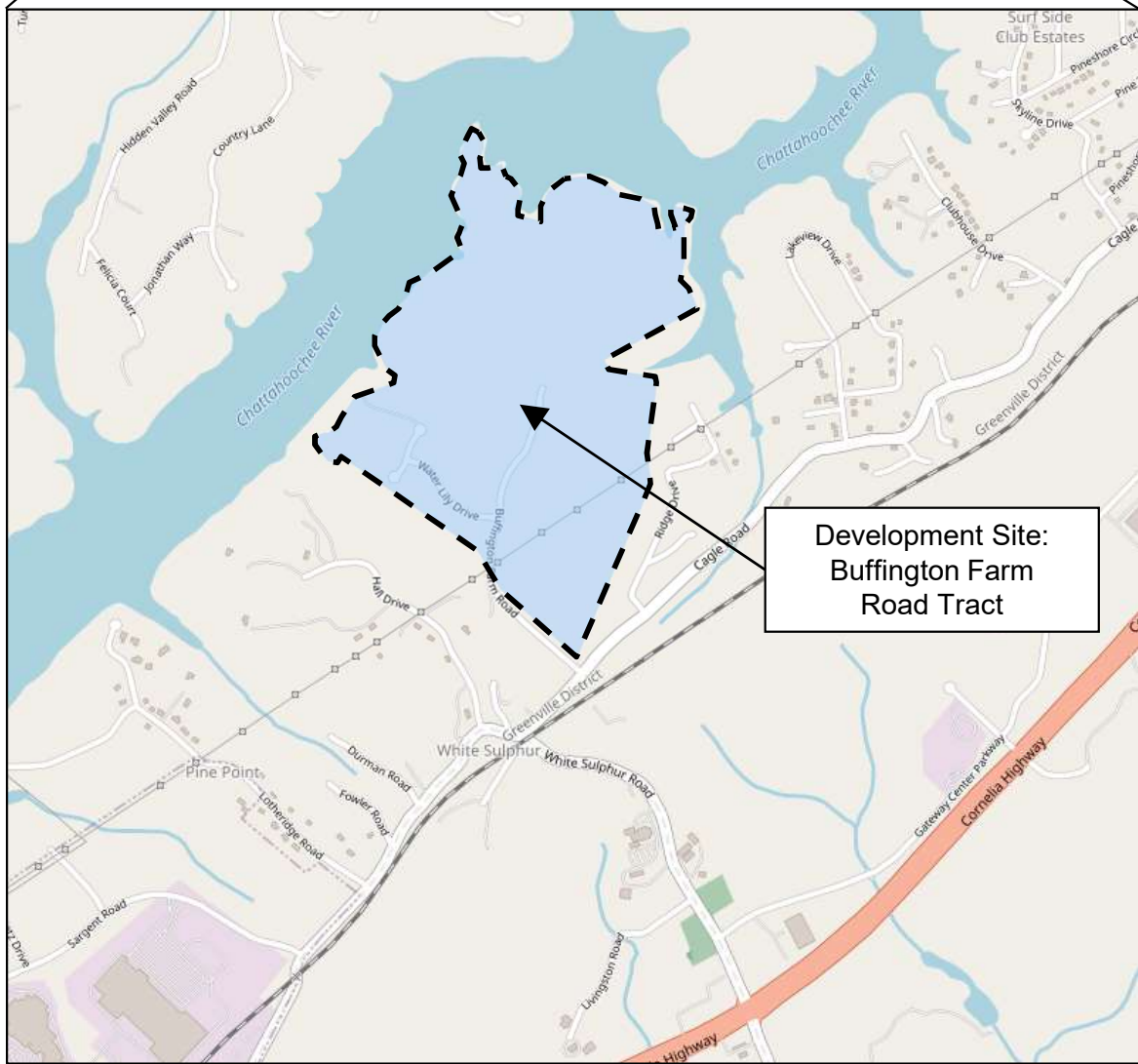
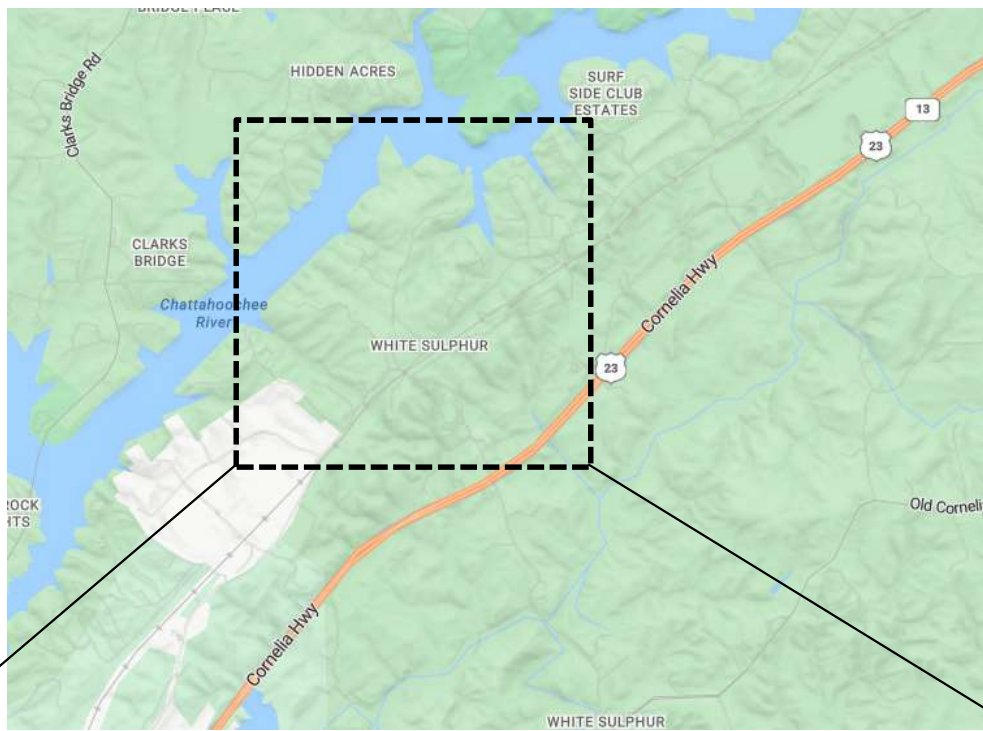
- Buffington Farm Road at Driveway #1 (Access to Phase 1)
 - Driveway (two lane: one entry lane and one exit); driveway to be stop-control
- Buffington Farm Road at Driveway #3 (Access to Phase 3)
 - Driveway (two lane: one entry lane and one exit); driveway to be stop-control

Appendices

- Appendix A
 - Figures
- Appendix B
 - Concept Plan
- Appendix C
 - Traffic Count Data
- Appendix D
 - GDOT Traffic Data
- Appendix E
 - Intersection Volume Development
- Appendix F
 - Capacity Analysis Reports
- Appendix G
 - Hall County Project

Appendix A

Figures



Development Site:
Buffington Farm
Road Tract



Not to Scale

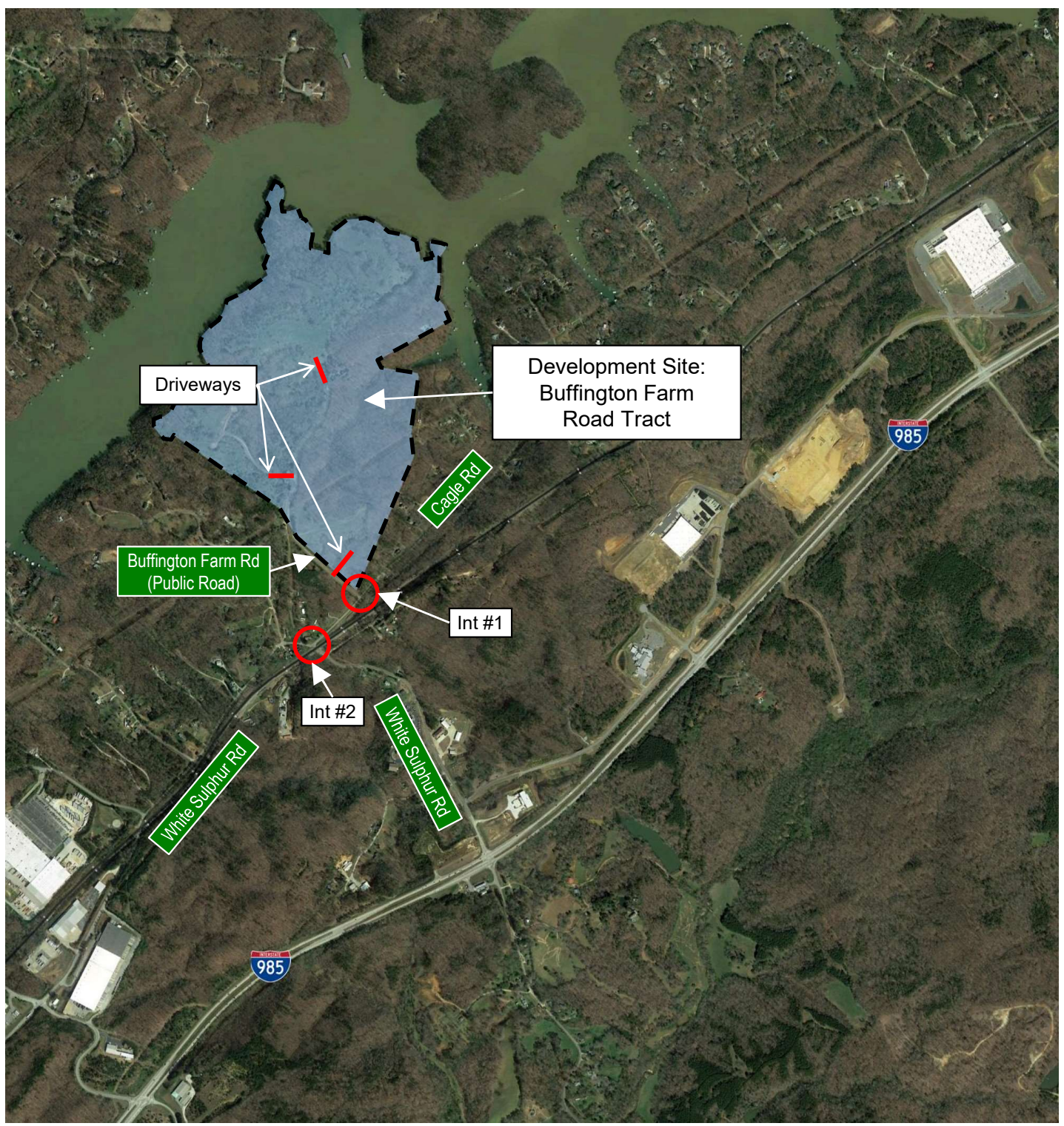


**Traffic Impact Study
Buffington Farm Road Tract
Hall County, Georgia**

**Location
Map**

**Figure
1**

Legend:
○ Study Intersection



Not to Scale



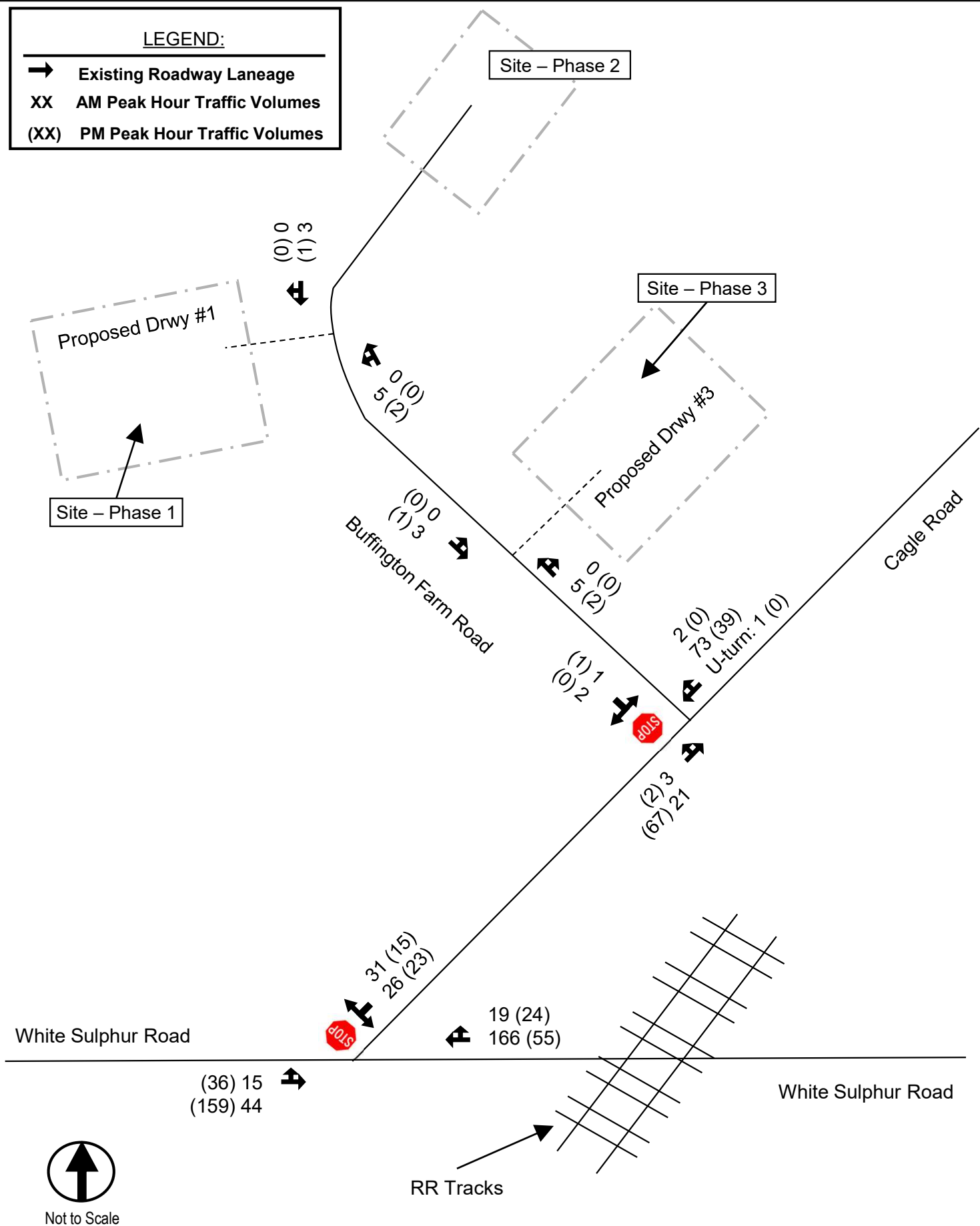
**Traffic Impact Study
Buffington Farm Road Tract
Hall County, Georgia**

**Aerial &
Intersection
Locations**

**Figure
2**

LEGEND:

- ➔ Existing Roadway Laneage
- XX AM Peak Hour Traffic Volumes
- (XX) PM Peak Hour Traffic Volumes



Not to Scale

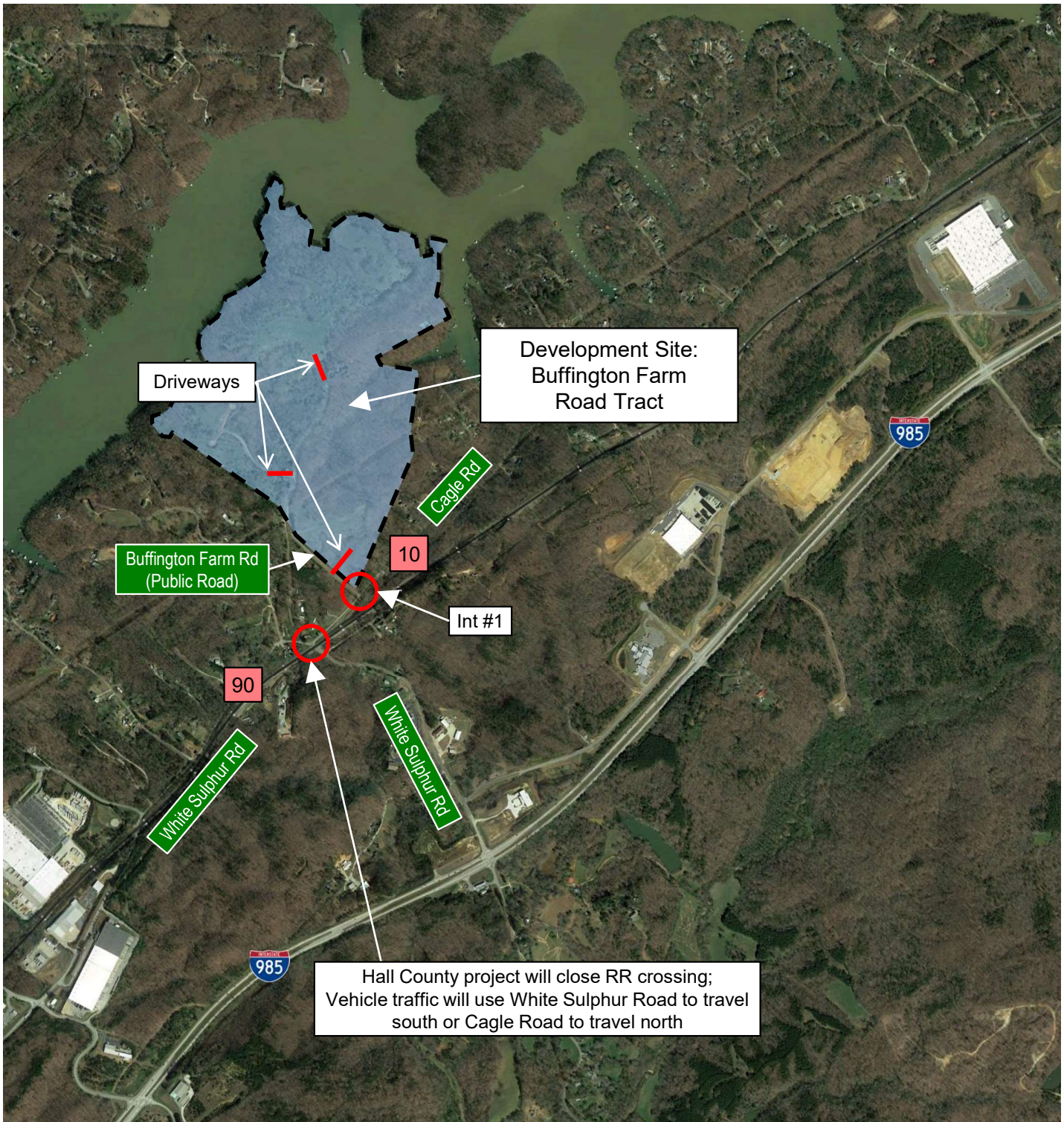


**Traffic Impact Study
Buffington Farm Road Tract
Hall County, Georgia**

**Existing Traffic
Conditions**

**Figure
3**

Legend:
100 Residential %



Not to Scale



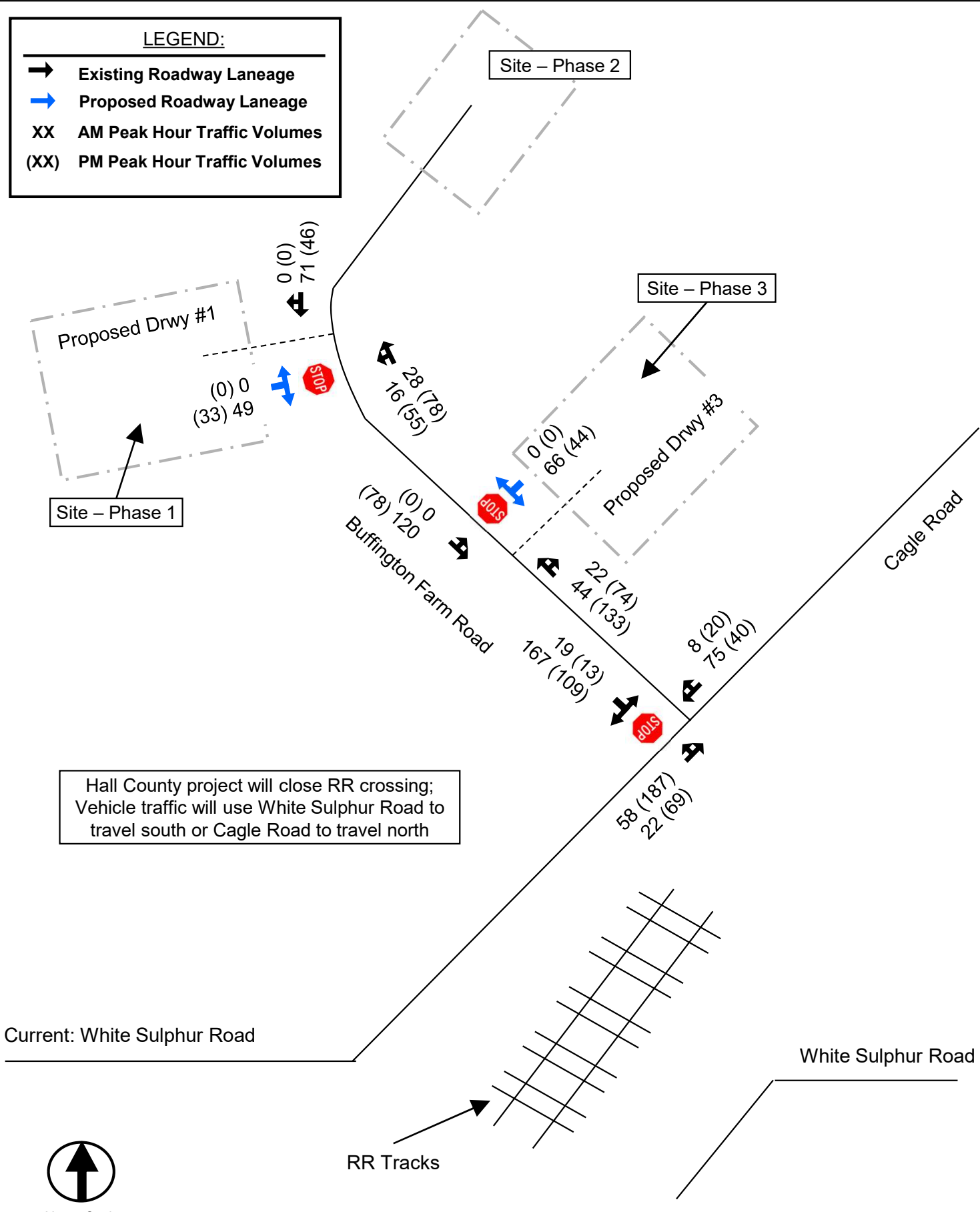
**Traffic Impact Study
 Buffington Farm Road Tract
 Hall County, Georgia**

**Project Trip
 Distribution**

**Figure
 4**

LEGEND:

- Existing Roadway Laneage
- Proposed Roadway Laneage
- XX AM Peak Hour Traffic Volumes
- (XX) PM Peak Hour Traffic Volumes



Hall County project will close RR crossing; Vehicle traffic will use White Sulphur Road to travel south or Cagle Road to travel north

Current: White Sulphur Road

White Sulphur Road



Not to Scale





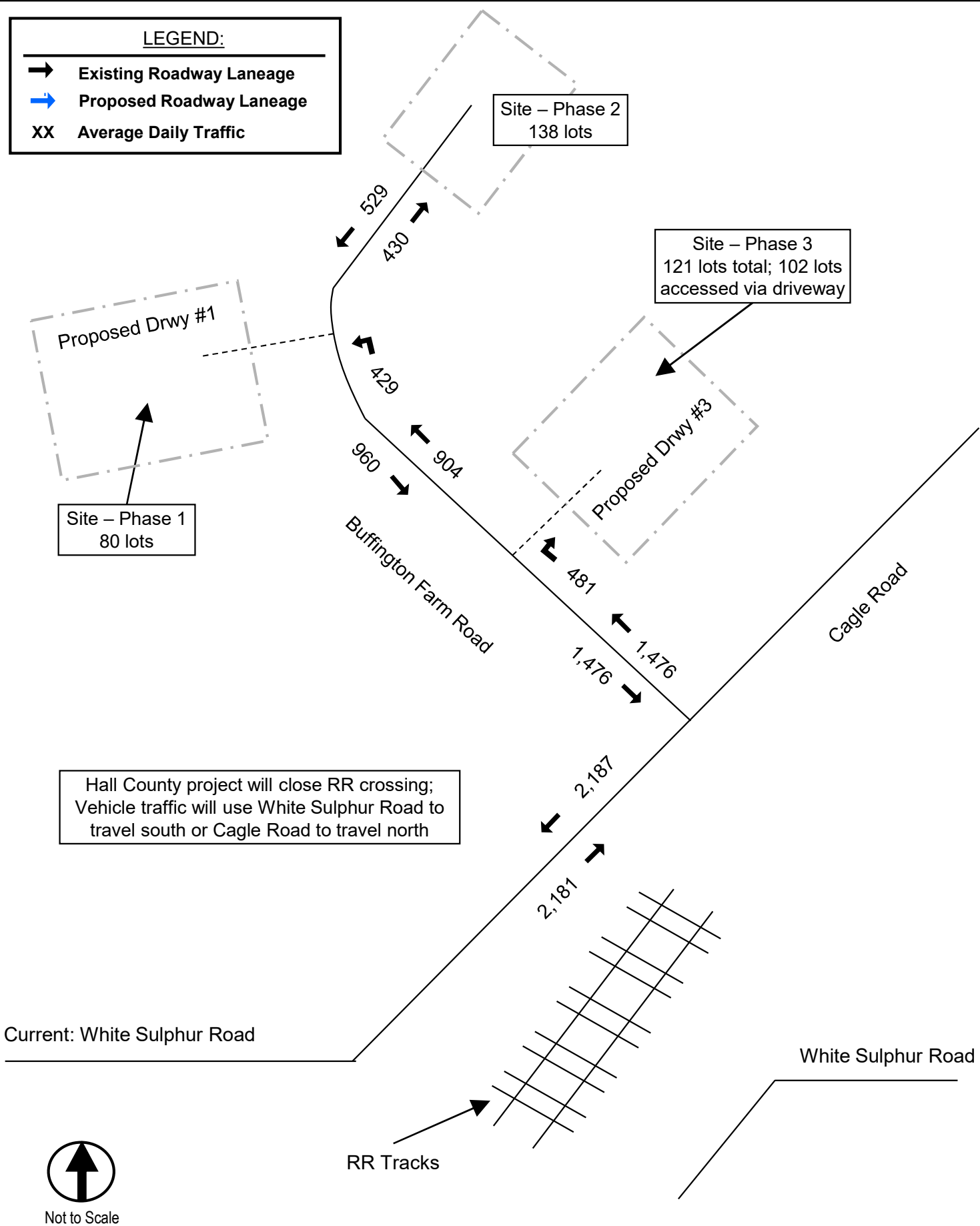
**Traffic Impact Study
Buffington Farm Road Tract
Hall County, Georgia**

**Future Build
(Year 2025)
Conditions**

**Figure
5**

LEGEND:

-  Existing Roadway Laneage
-  Proposed Roadway Laneage
- XX** Average Daily Traffic



Current: White Sulphur Road

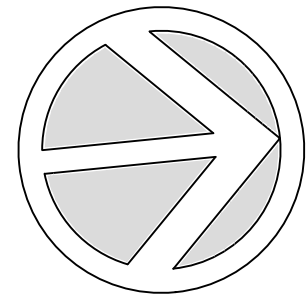
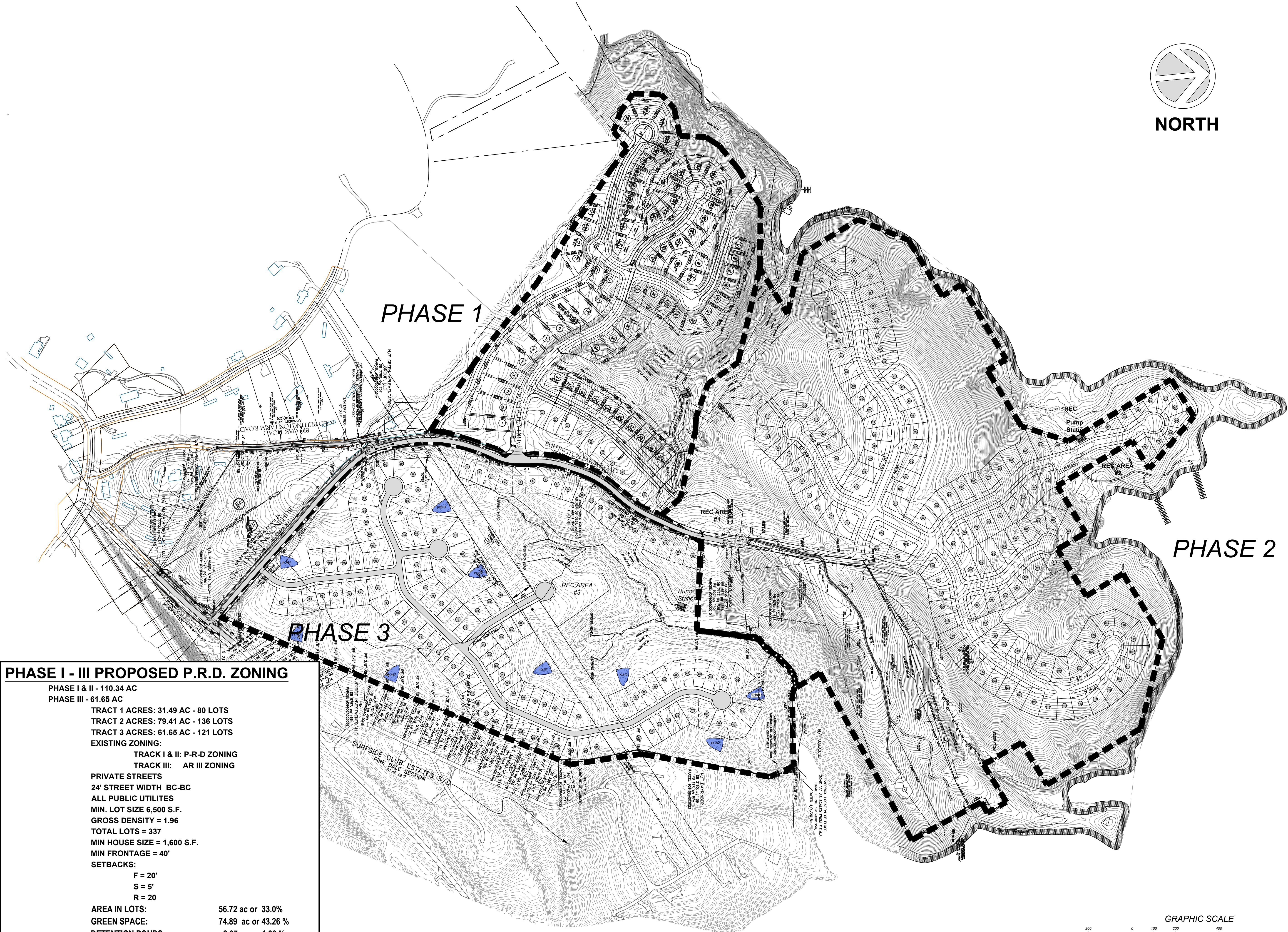
White Sulphur Road

RR Tracks



Not to Scale

Appendix B
Concept Plan



NORTH

PHASE I - III PROPOSED P.R.D. ZONING

PHASE I & II - 110.34 AC
PHASE III - 61.65 AC

TRACT 1 ACRES: 31.49 AC - 80 LOTS
TRACT 2 ACRES: 79.41 AC - 136 LOTS
TRACT 3 ACRES: 61.65 AC - 121 LOTS

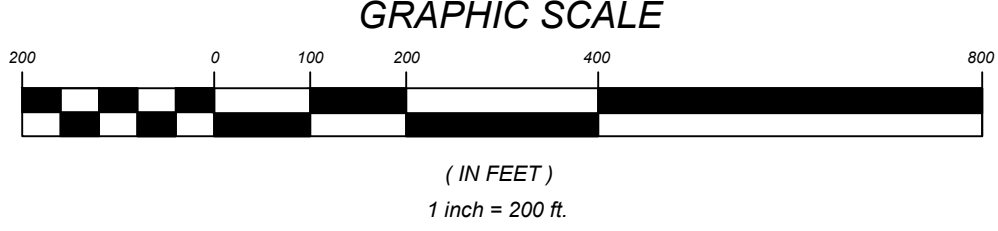
EXISTING ZONING:
TRACK I & II: P-R-D ZONING
TRACK III: AR III ZONING

PRIVATE STREETS
24' STREET WIDTH BC-BC
ALL PUBLIC UTILITIES
MIN. LOT SIZE 6,500 S.F.
GROSS DENSITY = 1.96
TOTAL LOTS = 337
MIN HOUSE SIZE = 1,600 S.F.
MIN FRONTAGE = 40'

SETBACKS:
F = 20'
S = 5'
R = 20'

AREA IN LOTS: 56.72 ac or 33.0%
GREEN SPACE: 74.89 ac or 43.26 %
DETENTION PONDS: 2.37 ac or 1.38 %
HOA REC AREAS: 16.75 ac or 10.0%
RIGHT OF WAY AREAS: 21.26 ac or 12.36%

THE PROJECT IS NOT PART OF THE NORTH OCONEE WATER SUPPLY WATERSHED DISTRICT AS DEFINED BY HALL COUNTY.S



OMNI CONSULTING SERVICES
401 Westpark Court
Suite 200
Peachtree City, Ga 30269
ph: 770.302.1701
fax: 770.818.5663
Civil Engineer

ARABELLA CAPITAL LLC
CORNELIAN WOODS MANAGEMENT LLC
255 BUFORD HIGHWAY
SUITE 250
BUFORD, GA 30518

Owner/Developer

HASELTON SUBDIVISION
BUFFINGTON FARM ROAD TRACT
HALL COUNTY
TAX PARCELS: 09105000001,
09106000001A, 3, 7, 13-25, 09106000107-9

ISSUED FOR PERMITTING 03-27-2023

PLAN SET REVISIONS:



Know what's below
Call before you dig.
Dial 811
Or Call 800-282-7411

DATED 03-27-2023



OVERALL PROPOSED REZONING PLAN
C400

PROJECT NO. 16500.01
PLOT DATE: 03.27.2023

Appendix C
Traffic Count Data



[Click here for Map](#)

Peak Hour Turning Movement Count

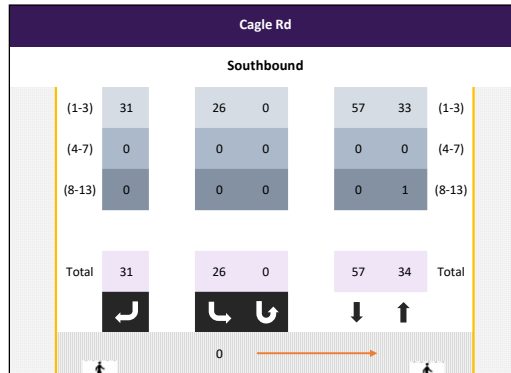
Hall County, GA



www.marrtraffic.com

Tuesday, May 16, 2023	
Period	0700 - 0900
Peak Hour	0745 - 0845

* the Peak Hour Diagram does not include Bikes

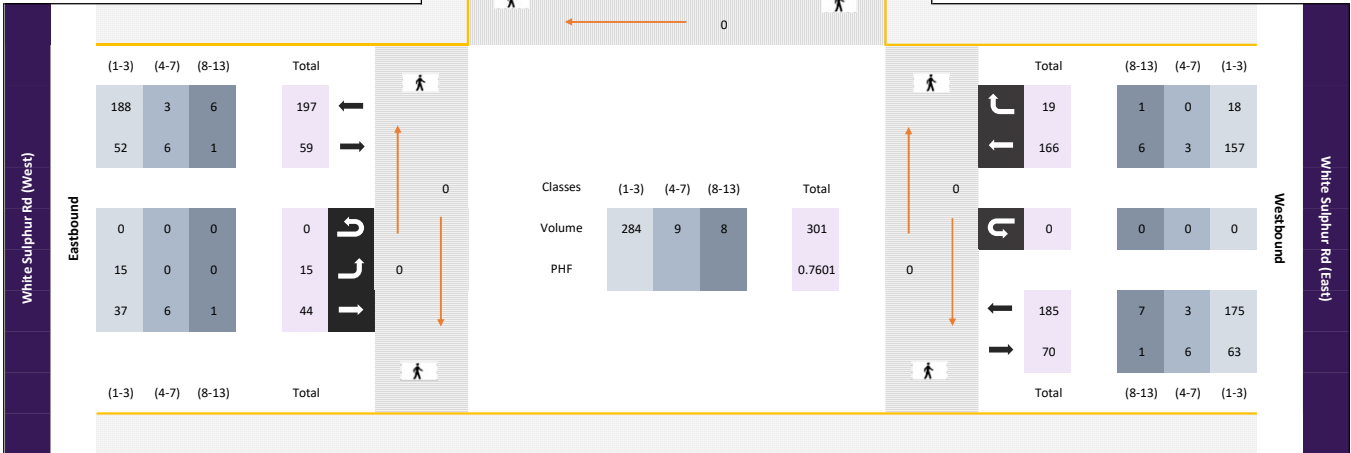


Session Parameters

(Drop Down Menu)

Peak Hour

Volume



All vehicles

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
0745 - 0800	-	-	-	-	8	4	0	12	4	16	0	20	-	22	4	0	26	58	
0800 - 0815	-	-	-	-	7	11	0	18	6	11	0	17	-	59	5	0	64	99	
0815 - 0830	-	-	-	-	6	10	0	16	2	9	0	11	-	60	4	0	64	91	
0830 - 0845	-	-	-	-	5	6	0	11	3	8	0	11	-	25	6	0	31	53	
Total	0	0	0	0	26	31	0	57	15	44	0	59	0	166	19	0	185	301	
Approach %	0.00	0.00	0.00	0.00	45.61	0.00	54.39	0.00	25.42	74.58	0.00	0.00	0.00	89.73	10.27	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.81	0.00	0.70	0.00	0.63	0.69	0.00	0.00	0.74	0.00	0.69	0.79	0.00	0.72	0.76

Passenger Vehicles (1-3)

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
0745 - 0800	-	-	-	-	8	4	0	12	4	11	0	15	-	20	3	0	23	50	
0800 - 0815	-	-	-	-	7	11	0	18	6	9	0	15	-	56	5	0	61	94	
0815 - 0830	-	-	-	-	6	10	0	16	2	9	0	11	-	59	4	0	63	90	
0830 - 0845	-	-	-	-	5	6	0	11	3	8	0	11	-	22	6	0	28	50	
Total	0	0	0	0	26	31	0	57	15	37	0	52	0	157	18	0	175	284	
Approach %	0.00	0.00	0.00	0.00	45.61	0.00	54.39	0.00	28.85	71.15	0.00	0.00	0.00	89.71	10.29	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.81	0.00	0.70	0.00	0.63	0.84	0.00	0.00	0.87	0.00	0.67	0.75	0.00	0.69	0.76

Single Unit Trucks (4-7)

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
0745 - 0800	-	-	-	-	0	0	0	0	0	0	0	5	-	0	0	0	5	5	
0800 - 0815	-	-	-	-	0	0	0	0	0	1	0	1	-	1	0	0	1	2	
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	-	2	0	0	2	2	
Total	0	0	0	0	0	0	0	0	0	6	0	6	0	3	0	0	3	9	
Approach %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.30	0.00	0.38	0.00	0.00	0.38	0.45

Combination Trucks (8-13)

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
0745 - 0800	-	-	-	-	0	0	0	0	0	0	0	0	-	2	1	0	3	3	
0800 - 0815	-	-	-	-	0	0	0	0	0	1	0	1	-	2	0	0	2	3	
0815 - 0830	-	-	-	-	0	0	0	0	0	0	0	0	-	1	0	0	1	1	
0830 - 0845	-	-	-	-	0	0	0	0	0	0	0	0	-	1	0	0	1	1	
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	6	1	0	7	8	
Approach %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	85.71	14.29	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.75	0.25	0.00	0.58	0.67

Bikes

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
0745 - 0800	-	-	-	-	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	
Total	0	0	0	0	0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



[Click here for Map](#)

Peak Hour Turning Movement Count

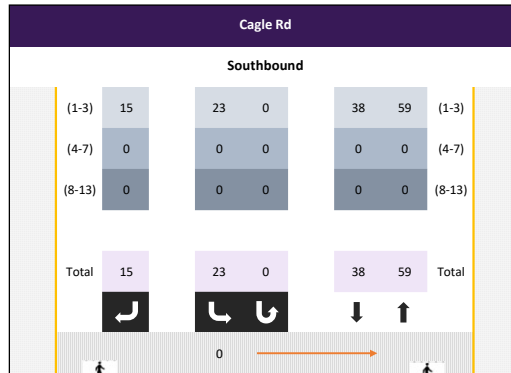
Hall County, GA



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Tuesday, May 16, 2023	
Period	1600 - 1800
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

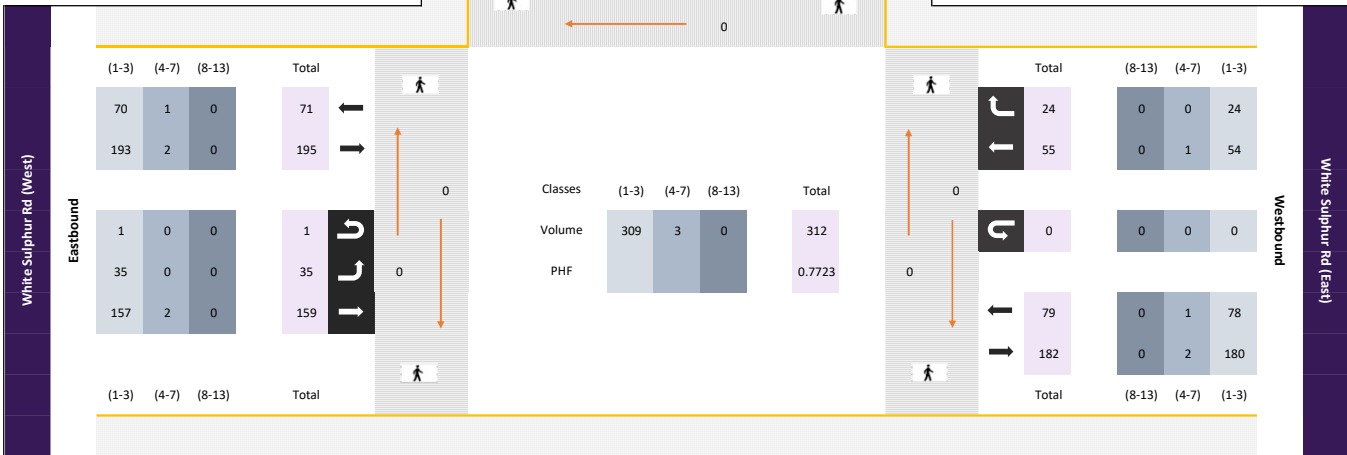


Session Parameters

(Drop Down Menu)

Peak Hour

Volume



White Sulphur Rd (West)

White Sulphur Rd (East)

All vehicles

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
1700 - 1715	-	-	-	-	8	1	0	9	8	38	1	47	12	4	0	16	72		
1715 - 1730	-	-	-	-	6	6	0	12	12	35	0	47	14	9	0	23	82		
1730 - 1745	-	-	-	-	4	7	0	11	7	60	0	67	17	6	0	23	101		
1745 - 1800	-	-	-	-	5	1	0	6	8	26	0	34	12	5	0	17	57		
Total	0	0	0	0	23	15	0	38	35	159	1	195	55	24	0	79	312		
Approach %	0.00	0.00	0.00	0.00	60.53	0.00	39.47	0.00	17.95	81.54	0.00	0.51	0.00	69.62	30.38	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.72	0.00	0.54	0.00	0.73	0.66	0.00	0.25	0.73	0.00	0.81	0.67	0.00	0.86	0.77

Passenger Vehicles (1-3)

Time					Southbound				Eastbound				Westbound				Int Total		
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total			
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9				
1700 - 1715	-	-	-	-	8	1	0	9	8	38	1	47	11	4	0	15	71		
1715 - 1730	-	-	-	-	6	6	0	12	12	33	0	45	14	9	0	23	80		
1730 - 1745	-	-	-	-	4	7	0	11	7	60	0	67	17	6	0	23	101		
1745 - 1800	-	-	-	-	5	1	0	6	8	26	0	34	12	5	0	17	57		
Total	0	0	0	0	23	15	0	38	35	157	1	193	54	24	0	78	309		
Approach %	0.00	0.00	0.00	0.00	60.53	0.00	39.47	0.00	18.13	81.35	0.00	0.52	0.00	69.23	30.77	0.00	-		
PHF	0.00	0.00	0.00	0.00	0.72	0.00	0.54	0.00	0.73	0.65	0.00	0.25	0.72	0.00	0.79	0.67	0.00	0.85	0.76

Single Unit Trucks (4-7)

Time					Southbound				Eastbound				Westbound				Int Total				
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total					
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9						
1700 - 1715	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
1715 - 1730	-	-	-	-	0	0	0	0	0	2	0	2	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
1745 - 1800	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	3	
Approach %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	-	-	
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.25	0.38	

Combination Trucks (8-13)

Time					Southbound				Eastbound				Westbound				Int Total				
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total					
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9						
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
Total	0	0	0	0	0	0	0	0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Bikes

Time					Southbound				Eastbound				Westbound				Int Total				
	App Total				Cagle Rd			App Total	White Sulphur Rd (West)			App Total	White Sulphur Rd (East)			App Total					
					Left 2.1	Right 2.2	U-Turn 2.3		Left 2.4	Thru 2.5	U-Turn 2.6		Thru 2.7	Right 2.8	U-Turn 2.9						
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
Total	0	0	0	0	0	0	0	0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Classified Turn Movement Count || All vehicles



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Hall County, GA

Site 2 of 2

Date

Tuesday, May 16, 2023

Weather

Mostly Cloudy
73°F

Cagle Rd
White Sulphur Rd (West)
White Sulphur Rd (East)

Lat/Long

34.356554°, -83.765869°

0700 - 0900 (Weekday 2h Session) (05-16-2023)

All vehicles

TIME	Southbound				Eastbound				Westbound				Int Total
	Cagle Rd				White Sulphur Rd (West)				White Sulphur Rd (East)				
	Left 2.1	Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5	U-Turn 2.6	App Total	Thru 2.7	Right 2.8	U-Turn 2.9	App Total	
0700 - 0715	12	8	0	20	1	11	0	12	0	3	0	11	43
0715 - 0730	15	8	0	23	2	4	0	6	16	3	0	19	48
0730 - 0745	6	10	0	16	4	6	0	10	13	3	0	16	42
0745 - 0800	8	4	0	12	4	16	0	20	22	4	0	26	58
Hourly Total	41	30	0	71	11	37	0	48	59	13	0	72	191
0800 - 0815	7	11	0	18	6	11	0	17	59	5	0	64	99
0815 - 0830	6	10	0	16	2	9	0	11	60	4	0	64	91
0830 - 0845	5	6	0	11	3	8	0	11	25	6	0	31	53
0845 - 0900	9	3	0	12	5	10	0	15	13	8	0	21	48
Hourly Total	27	30	0	57	16	38	0	54	157	23	0	180	291
Grand Total	68	60	0	128	27	75	0	102	216	36	0	252	482
Approach %	53.13	46.88	0.00	-	26.47	73.53	0.00	-	85.71	14.29	0.00	-	
Intersection %	14.11	12.45	0.00	26.56	5.60	15.56	0.00	21.16	44.81	7.47	0.00	52.28	
PHF	0.81	0.70	0.00	0.79	0.63	0.69	0.00	0.74	0.69	0.79	0.00	0.72	0.76

1600 - 1800 (Weekday 2h Session) (05-16-2023)

All vehicles

TIME	Southbound				Eastbound				Westbound				Int Total
	Cagle Rd				White Sulphur Rd (West)				White Sulphur Rd (East)				
	Left 2.1	Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5	U-Turn 2.6	App Total	Thru 2.7	Right 2.8	U-Turn 2.9	App Total	
1600 - 1615	9	6	0	15	8	23	0	31	17	13	0	30	76
1615 - 1630	5	4	0	9	6	13	0	19	9	14	0	23	51
1630 - 1645	4	6	0	10	6	19	0	25	10	4	0	14	49
1645 - 1700	4	1	0	5	13	21	0	34	6	11	0	17	56
Hourly Total	22	17	0	39	33	76	0	109	42	42	0	84	232
1700 - 1715	8	1	0	9	8	38	1	47	12	4	0	16	72
1715 - 1730	6	6	0	12	12	35	0	47	14	9	0	23	82
1730 - 1745	4	7	0	11	7	60	0	67	17	6	0	23	101
1745 - 1800	5	1	0	6	8	26	0	34	12	5	0	17	57
Hourly Total	23	15	0	38	35	159	1	195	55	24	0	79	312
Grand Total	45	32	0	77	68	235	1	304	97	66	0	163	544
Approach %	58.44	41.56	0.00	-	22.37	77.30	0.33	-	59.51	40.49	0.00	-	
Intersection %	8.27	5.88	0.00	14.15	12.50	43.20	0.18	55.88	17.83	12.13	0.00	29.96	
PHF	0.72	0.54	0.00	0.79	0.73	0.66	0.25	0.73	0.81	0.67	0.00	0.86	0.77



[Click here for Map](#)

Peak Hour Turning Movement Count

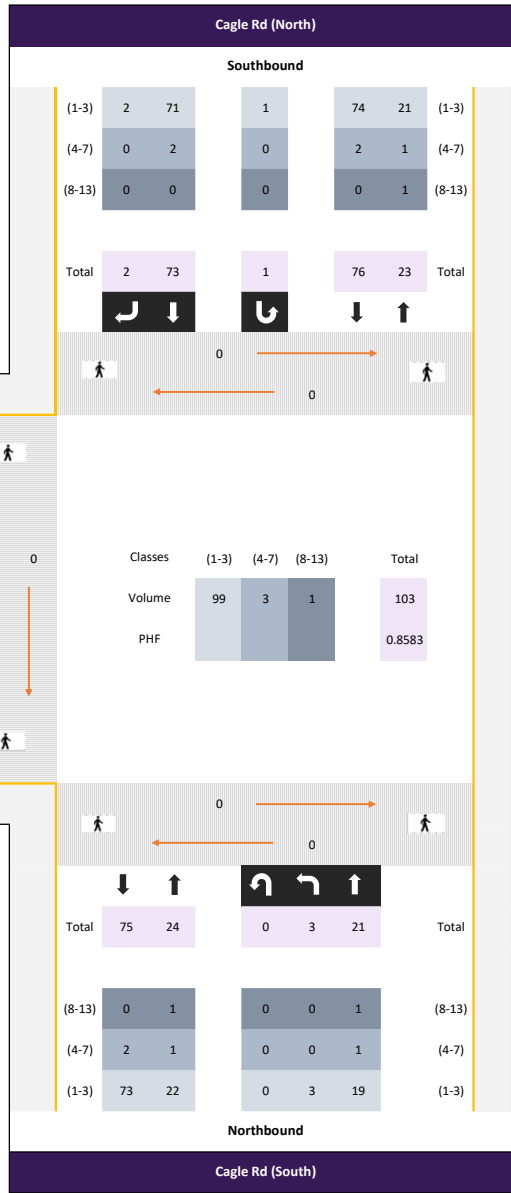
Hall County, GA



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Tuesday, May 16, 2023	
Period	0700 - 0900
Peak Hour	0700 - 0800

* the Peak Hour Diagram does not include Bikes



Session Parameters

(Drop Down Menu)

Peak Hour

Volume



[Click here for Map](#)

Peak Hour Turning Movement Count

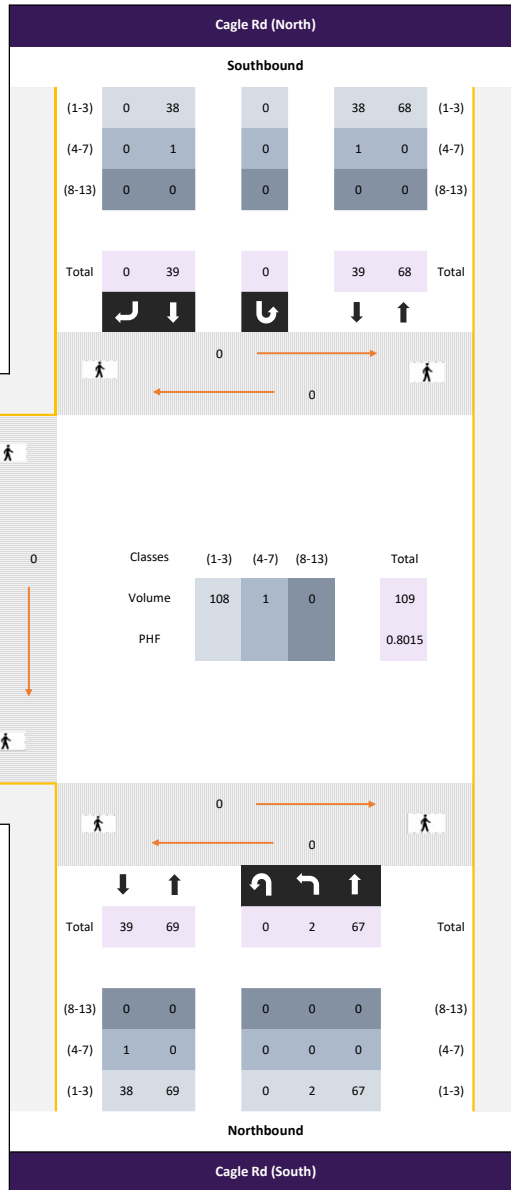
Hall County, GA



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Tuesday, May 16, 2023	
Period	1600 - 1800
Peak Hour	1600 - 1700

* the Peak Hour Diagram does not include Bikes



Session Parameters

(Drop Down Menu)

Peak Hour

Volume

Classified Turn Movement Count || All vehicles



www.marrtraffic.com

Hall County, GA

Site 1 of 2

Cagle Rd (South)
Cagle Rd (North)
Buffington Farm Rd

Date

Tuesday, May 16, 2023

Weather

Mostly Cloudy
73°F

Lat/Long

34.358128°, -83.764044°

0700 - 0900 (Weekday 2h Session) (05-16-2023)

All vehicles

TIME	Northbound Cagle Rd (South)				Southbound Cagle Rd (North)				Eastbound Buffington Farm Rd				Int Total
	Left 1.1	Thru 1.2	U-Turn 1.3	App Total	Thru 1.4	Right 1.5	U-Turn 1.6	App Total	Left 1.7	Right 1.8	U-Turn 1.9	App Total	
	0700 - 0715	0	3	0	3	23	1	0	24	0	0	0	
0715 - 0730	0	6	0	6	19	1	0	20	0	1	0	1	27
0730 - 0745	2	6	0	8	19	0	1	20	1	1	0	2	30
0745 - 0800	1	6	0	7	12	0	0	12	0	0	0	0	19
Hourly Total	3	21	0	24	73	2	1	76	1	2	0	3	103
0800 - 0815	1	9	0	10	14	1	0	15	0	2	0	2	27
0815 - 0830	0	7	0	7	15	0	0	15	0	1	0	1	23
0830 - 0845	0	10	0	10	11	0	0	11	0	0	0	0	21
0845 - 0900	2	10	1	13	11	0	0	11	0	0	0	0	24
Hourly Total	3	36	1	40	51	1	0	52	0	3	0	3	95
Grand Total	6	57	1	64	124	3	1	128	1	5	0	6	198
Approach %	9.38	89.06	1.56	-	96.88	2.34	0.78	-	16.67	83.33	0.00	-	
Intersection %	3.03	28.79	0.51	32.32	62.63	1.52	0.51	64.65	0.51	2.53	0.00	3.03	
PHF	0.38	0.88	0.00	0.75	0.79	0.50	0.25	0.79	0.25	0.50	0.00	0.38	0.86

1600 - 1800 (Weekday 2h Session) (05-16-2023)

All vehicles

TIME	Northbound Cagle Rd (South)				Southbound Cagle Rd (North)				Eastbound Buffington Farm Rd				Int Total
	Left 1.1	Thru 1.2	U-Turn 1.3	App Total	Thru 1.4	Right 1.5	U-Turn 1.6	App Total	Left 1.7	Right 1.8	U-Turn 1.9	App Total	
	1600 - 1615	1	18	0	19	15	0	0	15	0	0	0	
1615 - 1630	1	19	0	20	10	0	0	10	0	0	0	0	30
1630 - 1645	0	12	0	12	9	0	0	9	1	0	0	1	22
1645 - 1700	0	18	0	18	5	0	0	5	0	0	0	0	23
Hourly Total	2	67	0	69	39	0	0	39	1	0	0	1	109
1700 - 1715	0	15	0	15	7	0	0	7	0	1	0	1	23
1715 - 1730	0	18	0	18	11	0	0	11	0	0	0	0	29
1730 - 1745	1	16	0	17	10	0	0	10	0	0	0	0	27
1745 - 1800	0	12	0	12	6	0	0	6	1	0	0	1	19
Hourly Total	1	61	0	62	34	0	0	34	1	1	0	2	98
Grand Total	3	128	0	131	73	0	0	73	2	1	0	3	207
Approach %	2.29	97.71	0.00	-	100.00	0.00	0.00	-	66.67	33.33	0.00	-	
Intersection %	1.45	61.84	0.00	63.29	35.27	0.00	0.00	35.27	0.97	0.48	0.00	1.45	
PHF	0.50	0.88	0.00	0.86	0.65	0.00	0.00	0.65	0.25	0.00	0.00	0.25	0.80

Bi-Directional Class Count || Volume Summary 60min

Hall County, GA



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Site 3

Cagle Rd (South),
south of Buffington Farm Rd

Date

Tuesday, May 16, 2023

Weather

Mostly Cloudy
73°F

Lat/Long

34.357690°, -83.764453°

0000 - 2400 (24h Session) (05-16-2023)

Volume Summary 60min

Volume Summary 60min			
TIME	NB	SB	Total
0000 - 0100	7	3	10
0100 - 0200	6	3	9
0200 - 0300	2	5	7
0300 - 0400	3	2	5
0400 - 0500	5	13	18
0500 - 0600	2	20	22
0600 - 0700	13	58	71
0700 - 0800	24	75	99
0800 - 0900	40	55	95
0900 - 1000	30	36	66
1000 - 1100	36	36	72
1100 - 1200	38	43	81

Volume Summary 60min			
Time	NB	SB	Total
1200 - 1300	42	40	82
1300 - 1400	39	44	83
1400 - 1500	47	40	87
1500 - 1600	58	58	116
1600 - 1700	69	39	108
1700 - 1800	62	35	97
1800 - 1900	64	45	109
1900 - 2000	43	31	74
2000 - 2100	36	18	54
2100 - 2200	33	13	46
2200 - 2300	20	17	37
2300 - 2400	8	3	11

Session Total	727	732	1459
Session Average	30.29	30.50	60.79
Session Percentage	49.83	50.17	

Bi-Directional Class Count || Volume Summary 60min

Hall County, GA



Site 4
 Buffington Farm Rd,
 west of Cagle Rd (North)

Date
 Tuesday, May 16, 2023

Weather
 Mostly Cloudy
 73°F

Lat/Long
 34.358532°, -83.764626°

0000 - 2400 (24h Session) (05-16-2023)
 Volume Summary 60min

Volume Summary 60min			
TIME	EB	WB	Total
0000 - 0100	1	1	2
0100 - 0200	1	2	3
0200 - 0300	1	0	1
0300 - 0400	1	0	1
0400 - 0500	2	2	4
0500 - 0600	3	1	4
0600 - 0700	1	1	2
0700 - 0800	3	5	8
0800 - 0900	3	4	7
0900 - 1000	1	2	3
1000 - 1100	1	1	2
1100 - 1200	2	2	4

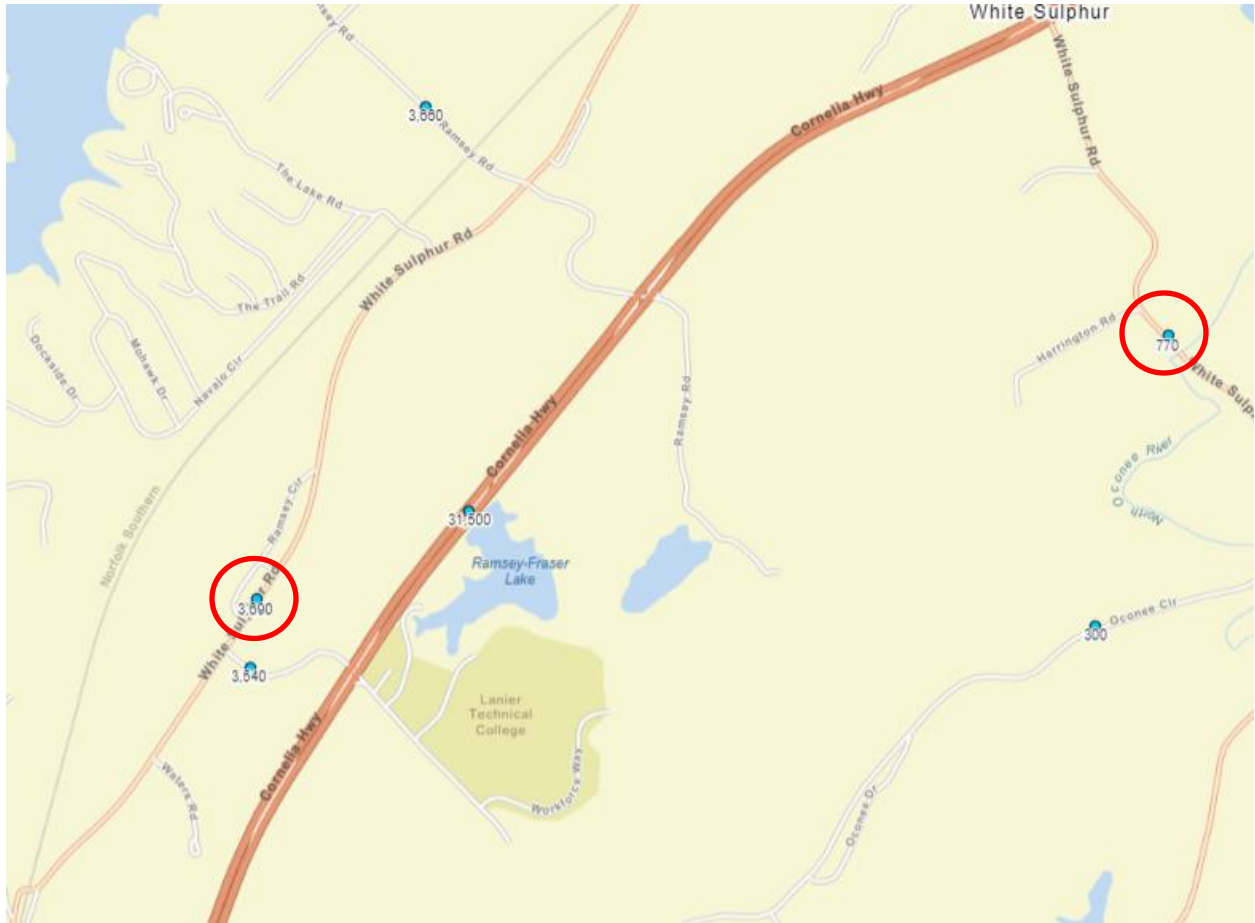
Volume Summary 60min			
Time	EB	WB	Total
1200 - 1300	1	0	1
1300 - 1400	4	5	9
1400 - 1500	2	3	5
1500 - 1600	6	3	9
1600 - 1700	1	2	3
1700 - 1800	2	1	3
1800 - 1900	1	1	2
1900 - 2000	0	0	0
2000 - 2100	1	2	3
2100 - 2200	3	3	6
2200 - 2300	2	2	4
2300 - 2400	1	1	2

Session Total	44	44	88
Session Average	1.83	1.83	3.67
Session Percentage	50.00	50.00	

Appendix D


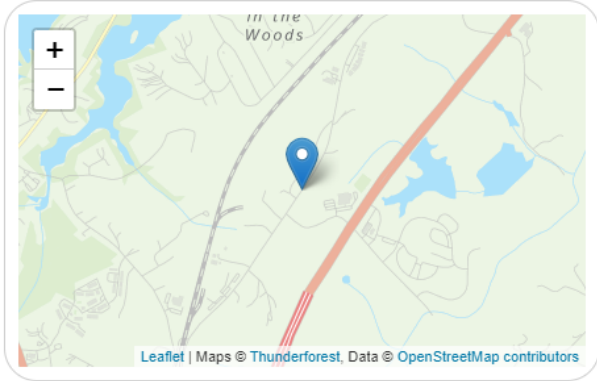
GDOT Traffic Data

Location Map of GDOT Count Stations



0000139_0536 - 139-0536
Description: CS 129807/White Sulphur Rd N of SR369
City: Gainesville **County:** Hall
Route number: 00129807
LRS section: 1393129807
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 34.33343966, -83.78557946

Site Data


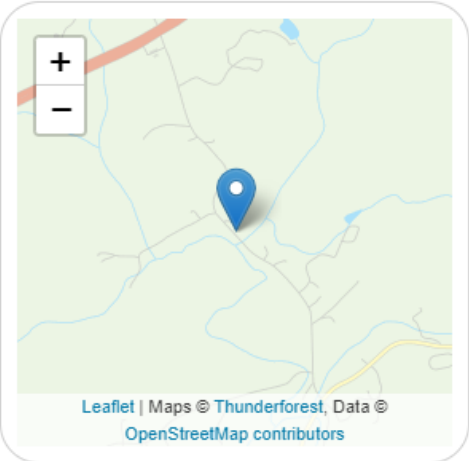



Count History

Year	Month	Count type	Duration	Count
2018	May	Volume	48 hours	4277
2015	June	Volume	48 hours	4405
2011	September	Volume	48 hours	3592

0000139_0538 - 139-0538
Description: SRX 041900
County: Hall
Route number: 00129800
LRS section: 1392129800
Functional class: 5R - Major Collector (Rural)
Coordinates: 34.34074679, -83.75488429

Site Data

Count History

Year	Month	Count type	Duration	Count
2018	July	Class	48 hours	810
2014	April	Volume	48 hours	895
2010	January	Volume	48 hours	836

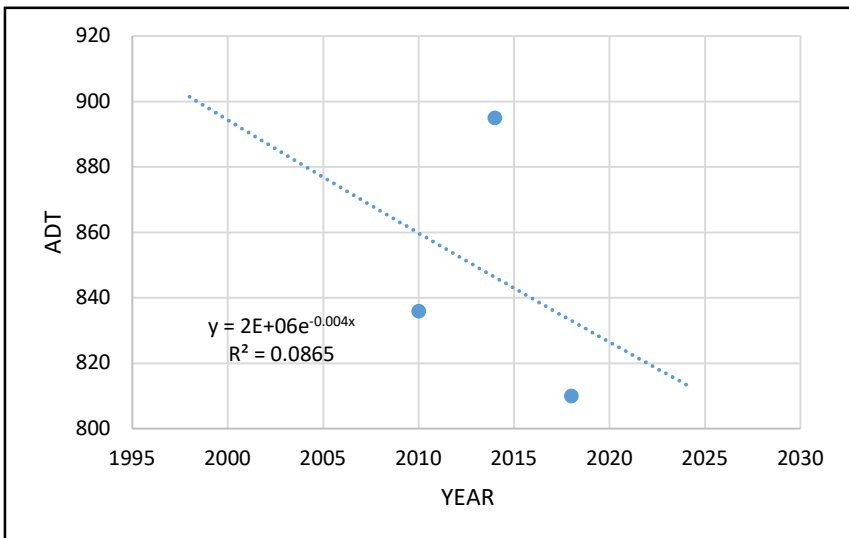
Count Station: GDOT #139-0538
 Street: White Sulphur Road
 Location: east of Harrington Road
 Source: GDOT

YEAR	ADT	TREND
1998		900
1999		900
2000		900
2001		900
2002		900
2003		900
2004		900
2005		900
2006		900
2007		900
2008		900
2009		900
2010	836	900
2011		900
2012		900
2013		800
2014	895	800
2015		800
2016		800
2017		800
2018	810	800
2019		800
2020		800
2021		800
2022		800
2023		800
2024		800

8-Years of Count Data

Trend Annual Historic Compound Growth Rate

0.00%



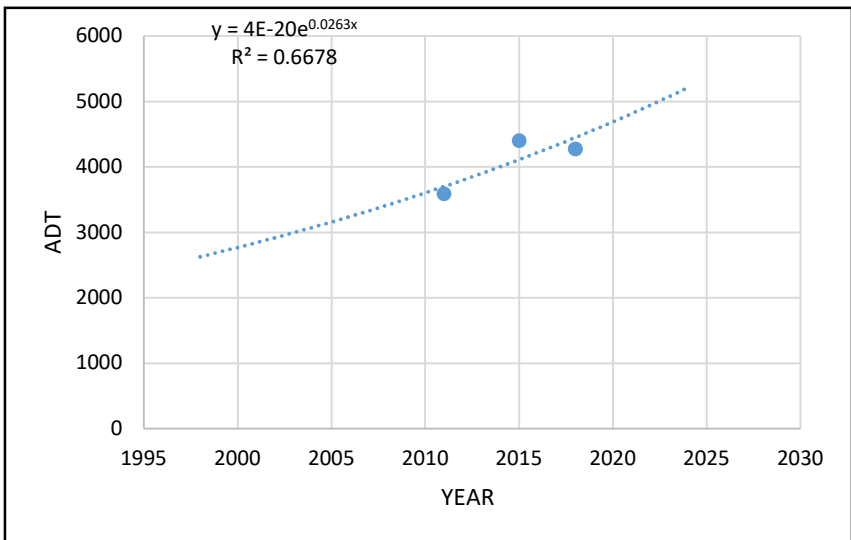
Count Station: GDOT #0139-0536
 Street: White Sulphur Road
 Location: between Ramsey Circle
 Source: GDOT

YEAR	ADT	TREND
1998		2600
1999		2700
2000		2800
2001		2800
2002		2900
2003		3000
2004		3100
2005		3200
2006		3200
2007		3300
2008		3400
2009		3500
2010		3600
2011	3592	3700
2012		3800
2013		3900
2014		4000
2015	4405	4100
2016		4200
2017		4300
2018	4277	4400
2019		4600
2020		4700
2021		4800
2022		4900
2023		5100
2024		5200

7-Years of Count Data

Trend Annual Historic Compound Growth Rate

3.72%



Appendix E

Intersection Volume Development

Traffic Impact Study
 Buffington Farm Road Tract
 Intersection Traffic Volumes

Intersection: #1 - Buffington Farm Rd at Cagle Rd

A.M. PEAK HOUR

Condition	Cagle Rd (South) Northbound			Cagle Rd (North) Southbound			Buffington Farm Rd Eastbound			N/A Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2023)	3	21	0	0	73	2	1	0	2			
Annual Growth Rate	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
No-Build Condition (2025)	3	22	0	0	75	2	1	0	2	0	0	0
Project Trips:												
Trip Distribution IN	90%					10%						
Trip Distribution OUT							10%		90%			
Residential Trips	55	0	0	0	0	6	18	0	165	0	0	0
Total Project Trips	55	0	0	0	0	6	18	0	165	0	0	0
Buildout Total (2025)	58	22	0	0	75	8	19	0	167	0	0	0

P.M. PEAK HOUR

Condition	Cagle Rd (South) Northbound			Cagle Rd (North) Southbound			Buffington Farm Rd Eastbound			N/A Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2023)	2	67	0	0	39	0	1	0	0			
Annual Growth Rate	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
No-Build Condition (2025)	2	69	0	0	40	0	1	0	0	0	0	0
Project Trips:												
Trip Distribution IN	90%					10%						
Trip Distribution OUT							10%		90%			
Residential Trips	185	0	0	0	0	20	12	0	109	0	0	0
Total Project Trips	185	0	0	0	0	20	12	0	109	0	0	0
Buildout Total (2025)	187	69	0	0	40	20	13	0	109	0	0	0

Traffic Impact Study
 Buffington Farm Road Tract
 Intersection Traffic Volumes

Intersection: #3 - Buffington Farm Road at Driveway #3 (Phase 3)

A.M. PEAK HOUR

Condition	N/A Northbound			Driveway #3 Southbound			Buffington Farm Rd Westbound			Buffington Farm Rd Eastbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2023)								5			3	
Annual Growth Rate	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
No-Build Condition (2025)	0	0	0	0	0	0	0	5	0	0	3	0
Project Trips:												
Trip Distribution IN								64%	36%			
Trip Distribution OUT						36%					64%	
Residential Trips	0	0	0	0	0	66	0	39	22	0	117	0
Total Project Trips	0	0	0	0	0	66	0	39	22	0	117	0
Buildout Total (2025)	0	0	0	0	0	66	0	44	22	0	120	0

P.M. PEAK HOUR

Condition	N/A Northbound			Driveway #3 Southbound			Buffington Farm Rd Westbound			Buffington Farm Rd Eastbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2023)								2			1	
Annual Growth Rate	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
No-Build Condition (2025)	0	0	0	0	0	0	0	2	0	0	1	0
Project Trips:												
Trip Distribution IN								64%	36%			
Trip Distribution OUT						36%					64%	
Residential Trips	0	0	0	0	0	20	0	131	74	0	77	0
Total Project Trips	0	0	0	0	0	20	0	131	74	0	77	0
Buildout Total (2025)	0	0	0	0	0	20	0	133	74	0	78	0

Traffic Impact Study
 Buffington Farm Road Tract
 Intersection Traffic Volumes

Intersection: #4 - Buffington Farm Road at Driveway #1 (Phase 1)

A.M. PEAK HOUR

Condition	Driveway #1 Northbound			N/A Southbound			Buffington Farm Rd Westbound			Buffington Farm Rd Eastbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2023)								5			3	
Annual Growth Rate	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
No-Build Condition (2025)	0	0	0	0	0	0	0	5	0	0	3	0
Project Trips:												
Trip Distribution IN							27%	37%				
Trip Distribution OUT						27%					37%	
Residential Trips	0	0	0	0	0	49	16	23	0	0	68	0
Total Project Trips	0	0	0	0	0	49	16	23	0	0	68	0
Buildout Total (2025)	0	0	0	0	0	49	16	28	0	0	71	0

P.M. PEAK HOUR

Condition	Driveway #1 Northbound			N/A Southbound			Buffington Farm Rd Westbound			Buffington Farm Rd Eastbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2023)								2			1	
Annual Growth Rate	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
No-Build Condition (2025)	0	0	0	0	0	0	0	2	0	0	1	0
Project Trips:												
Trip Distribution IN							27%	37%				
Trip Distribution OUT						27%					37%	
Residential Trips	0	0	0	0	0	20	55	76	0	0	45	0
Total Project Trips	0	0	0	0	0	20	55	76	0	0	45	0
Buildout Total (2025)	0	0	0	0	0	20	55	78	0	0	46	0

Appendix F

Capacity Analysis Reports

Existing Conditions – Year 2022

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	2	3	21	73	2
Future Vol, veh/h	1	2	3	21	73	2
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	4	25	86	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	120	87	88	0	0
Stage 1	87	-	-	-	-
Stage 2	33	-	-	-	-
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	876	971	1508	-	-
Stage 1	936	-	-	-	-
Stage 2	989	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	873	971	1508	-	-
Mov Cap-2 Maneuver	873	-	-	-	-
Stage 1	933	-	-	-	-
Stage 2	989	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1508	-	936	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↖	↗
Traffic Vol, veh/h	15	44	166	19	26	31
Future Vol, veh/h	15	44	166	19	26	31
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	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	58	218	25	34	41

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	243	0	0	329	231
Stage 1	-	-	-	231	-
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	1323	-	-	665	808
Stage 1	-	-	-	807	-
Stage 2	-	-	-	926	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1323	-	-	654	808
Mov Cap-2 Maneuver	-	-	-	654	-
Stage 1	-	-	-	794	-
Stage 2	-	-	-	926	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1323	-	-	-	730
HCM Lane V/C Ratio	0.015	-	-	-	0.103
HCM Control Delay (s)	7.8	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	0	2	67	39	0
Future Vol, veh/h	1	0	2	67	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	3	84	49	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	139	49	49	0	0
Stage 1	49	-	-	-	-
Stage 2	90	-	-	-	-
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	854	1020	1558	-	-
Stage 1	973	-	-	-	-
Stage 2	934	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	852	1020	1558	-	-
Mov Cap-2 Maneuver	852	-	-	-	-
Stage 1	971	-	-	-	-
Stage 2	934	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1558	-	852	-	-
HCM Lane V/C Ratio	0.002	-	0.001	-	-
HCM Control Delay (s)	7.3	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	36	159	55	24	23	15
Future Vol, veh/h	36	159	55	24	23	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	206	71	31	30	19

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	102	0	-	0	387 87
Stage 1	-	-	-	-	87 -
Stage 2	-	-	-	-	300 -
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	1490	-	-	-	616 971
Stage 1	-	-	-	-	936 -
Stage 2	-	-	-	-	752 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1490	-	-	-	594 971
Mov Cap-2 Maneuver	-	-	-	-	594 -
Stage 1	-	-	-	-	902 -
Stage 2	-	-	-	-	752 -

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1490	-	-	-	702
HCM Lane V/C Ratio	0.031	-	-	-	0.07
HCM Control Delay (s)	7.5	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Future No-Build Conditions – Year 2025

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	2	3	22	75	2
Future Vol, veh/h	1	2	3	22	75	2
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	4	26	88	2

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	123	89	90	0	0
Stage 1	89	-	-	-	-
Stage 2	34	-	-	-	-
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	872	969	1505	-	-
Stage 1	934	-	-	-	-
Stage 2	988	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	869	969	1505	-	-
Mov Cap-2 Maneuver	869	-	-	-	-
Stage 1	931	-	-	-	-
Stage 2	988	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1505	-	933	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
1: Cagle Rd & Buffington Farm Rd

No Build 2025
PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		T
Traffic Vol, veh/h	1	0	2	69	40	0
Future Vol, veh/h	1	0	2	69	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	3	86	50	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	142	50	50	0	0
Stage 1	50	-	-	-	-
Stage 2	92	-	-	-	-
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	851	1018	1557	-	-
Stage 1	972	-	-	-	-
Stage 2	932	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	849	1018	1557	-	-
Mov Cap-2 Maneuver	849	-	-	-	-
Stage 1	970	-	-	-	-
Stage 2	932	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1557	-	849	-	-
HCM Lane V/C Ratio	0.002	-	0.001	-	-
HCM Control Delay (s)	7.3	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Future Build Conditions – Year 2025

Intersection						
Int Delay, s/veh	6.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	19	167	58	22	75	8
Future Vol, veh/h	19	167	58	22	75	8
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	196	68	26	88	9

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	255	93	97	0	0
Stage 1	93	-	-	-	-
Stage 2	162	-	-	-	-
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	964	1496	-	-
Stage 1	931	-	-	-	-
Stage 2	867	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	700	964	1496	-	-
Mov Cap-2 Maneuver	700	-	-	-	-
Stage 1	888	-	-	-	-
Stage 2	867	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	5.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1496	-	928	-	-
HCM Lane V/C Ratio	0.046	-	0.236	-	-
HCM Control Delay (s)	7.5	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

HCM 6th TWSC
3: Buffington Farm Rd & Driveway #3

Build 2025
AM Peak Hour

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	120	44	22	66	0
Future Vol, veh/h	0	120	44	22	66	0
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	0	130	48	24	72	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	190 60
Stage 1	-	-	-	-	60 -
Stage 2	-	-	-	-	130 -
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	0	-	-	-	799 1005
Stage 1	0	-	-	-	963 -
Stage 2	0	-	-	-	896 -
Platoon blocked, %	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	799 1005
Mov Cap-2 Maneuver	-	-	-	-	799 -
Stage 1	-	-	-	-	963 -
Stage 2	-	-	-	-	896 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	799
HCM Lane V/C Ratio	-	-	-	0.09
HCM Control Delay (s)	-	-	-	10
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

HCM 6th TWSC
4: Driveway #1 & Buffington Farm Rd

Build 2025
AM Peak Hour

Intersection						
Int Delay, s/veh	3.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	71	0	16	23	0	49
Future Vol, veh/h	71	0	16	23	0	49
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	77	0	17	25	0	53

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	77	0	136 77
Stage 1	-	-	-	-	77 -
Stage 2	-	-	-	-	59 -
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	-	0	1522	-	857 984
Stage 1	-	0	-	-	946 -
Stage 2	-	0	-	-	964 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1522	-	848 984
Mov Cap-2 Maneuver	-	-	-	-	848 -
Stage 1	-	-	-	-	946 -
Stage 2	-	-	-	-	953 -

Approach	EB	WB	NB
HCM Control Delay, s	0	3	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
Capacity (veh/h)	984	-	1522	-
HCM Lane V/C Ratio	0.054	-	0.011	-
HCM Control Delay (s)	8.9	-	7.4	0
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0.2	-	0	-

Intersection						
Int Delay, s/veh	6.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	13	109	187	69	40	20
Future Vol, veh/h	13	109	187	69	40	20
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	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	136	234	86	50	25

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	617	63	75	0	0
Stage 1	63	-	-	-	-
Stage 2	554	-	-	-	-
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	453	1002	1524	-	-
Stage 1	960	-	-	-	-
Stage 2	575	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	380	1002	1524	-	-
Mov Cap-2 Maneuver	380	-	-	-	-
Stage 1	805	-	-	-	-
Stage 2	575	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	5.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1524	-	853	-	-
HCM Lane V/C Ratio	0.153	-	0.179	-	-
HCM Control Delay (s)	7.8	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-

HCM 6th TWSC
3: Buffington Farm Rd & Driveway #3

Build 2025
PM Peak Hour

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	78	133	74	44	0
Future Vol, veh/h	0	78	133	74	44	0
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	0	85	145	80	48	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	270 185
Stage 1	-	-	-	-	185 -
Stage 2	-	-	-	-	85 -
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	0	-	-	-	719 857
Stage 1	0	-	-	-	847 -
Stage 2	0	-	-	-	938 -
Platoon blocked, %	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	719 857
Mov Cap-2 Maneuver	-	-	-	-	719 -
Stage 1	-	-	-	-	847 -
Stage 2	-	-	-	-	938 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	719
HCM Lane V/C Ratio	-	-	-	0.067
HCM Control Delay (s)	-	-	-	10.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

HCM 6th TWSC
4: Driveway #1 & Buffington Farm Rd

Build 2025
PM Peak Hour

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	46	0	55	76	0	33
Future Vol, veh/h	46	0	55	76	0	33
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	50	0	60	83	0	36

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	50	0	253
Stage 1	-	-	-	-	50
Stage 2	-	-	-	-	203
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	0	1557	-	736
Stage 1	-	0	-	-	972
Stage 2	-	0	-	-	831
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1557	-	707
Mov Cap-2 Maneuver	-	-	-	-	707
Stage 1	-	-	-	-	972
Stage 2	-	-	-	-	798

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	8.7
HCM LOS			A

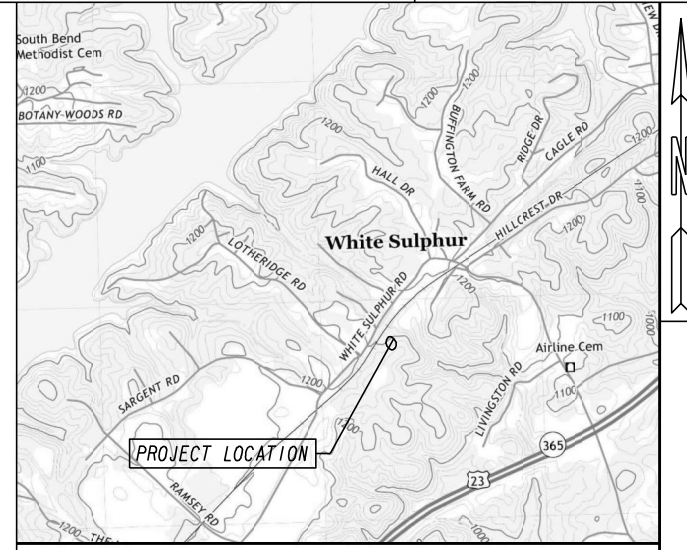
Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
Capacity (veh/h)	1018	-	1557	-
HCM Lane V/C Ratio	0.035	-	0.038	-
HCM Control Delay (s)	8.7	-	7.4	0
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0.1	-	0.1	-

Appendix G
Hall County
Roadway Project

DEPARTMENT OF PUBLIC WORKS HALL COUNTY

PLAN AND PROFILE OF PROPOSED WHITE SULPHUR ROAD REALIGNMENT

P.J. NO. 1162100



LOCATION SKETCH (N.T.S)

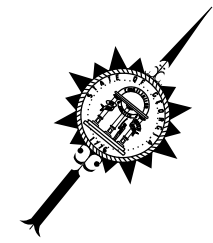
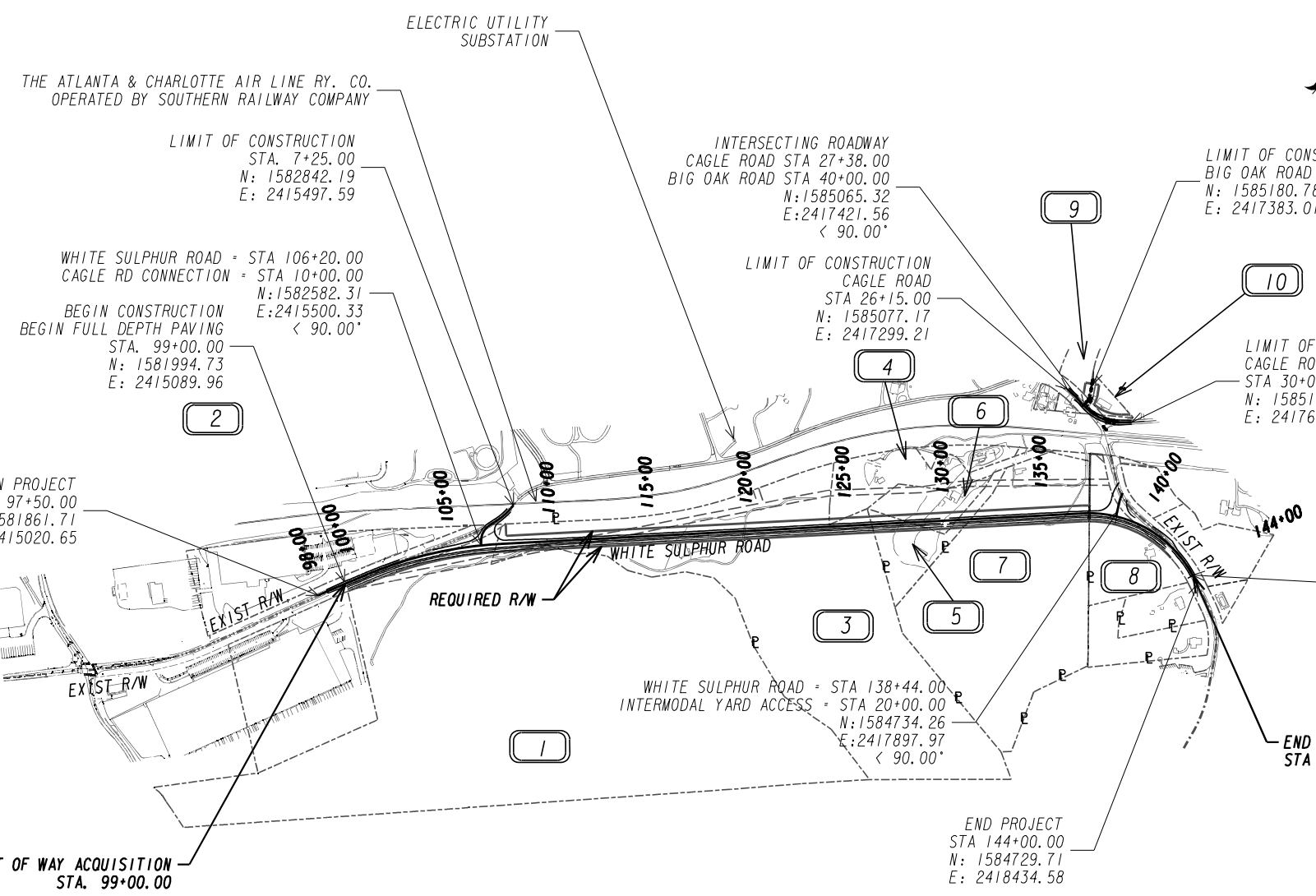
LOCATION & DESIGN APPROVAL DATE:

FUNCTIONAL CLASS:
LOCAL ROAD

THIS PROJECT IS 100% IN HALL COUNTY AND IS 100% IN CONG.DIST.NO.9.

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983/94 WEST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF PUBLIC WORKS IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.



THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE HALL COUNTY CONSTRUCTION STANDARDS AND DETAILS BOOK OR GDOT STANDARDS AND ATTACHED APPLICABLE REVISIONS. ANY REVISIONS CONTAINED WITHIN THIS PLAN SET SUPERSEDE THE HALL COUNTY CONSTRUCTION STANDARDS AND DETAILS BOOK OR GDOT STANDARDS WHICH THEY REVISE OR IN WHICH THERE IS A CONFLICT.

VOLKERT 1720 PEACHTREE STREET
SUITE 405
ATLANTA, GA 30309
TEL: (404)-239-2138

PLANS PREPARED BY:

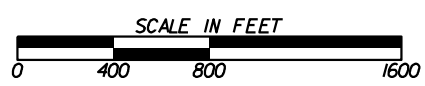
DESIGN

RECOMMENDED FOR ACCEPTANCE BY:

HALL COUNTY

DESIGN ENGINEER

LENGTH OF PROJECT	
COUNTY No. 139	
Project No. 1162100	
MILES	
NET LENGTH OF ROADWAY	0.843
NET LENGTH OF BRIDGES	0
NET LENGTH OF PROJECT	0.843
NET LENGTH OF EXCEPTIONS	0
GROSS LENGTH OF PROJECT	0.843



PLANS COMPLETED	01-27-2023
REVISIONS	

DRAWING No.
01-0001