



Traffic Impact Analysis - REVISED

Ridgeview

Hall County, Georgia

16 August 2024

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Ridgeview - Hall County -

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Georgia.



REV
08/16/2024

Scott P. Israelson, P.E., PTOE
License No. 39784

Executive Summary

Project Description

Ridgeview Estates is a proposed development in Hall County, Georgia. The site is on the southeast corner of Friendship Road (SR 347) & Ridge Road.

The new site plan shows 16,000 SF of retail space, a 110-room hotel, 481 units of multi-family and townhome units, and 74 single-family homes. Hall County requires a TIA for developments generating 1,000 daily trips or more. This REVISED analysis is needed due to site plan changes.

The proposed development is expected to generate 101 new entering trips and 206 new exiting trips in the AM peak hour, and 257 new entering and 172 new exiting trips in the PM peak hour. This site will also experience internal capture trips, which have been included in the driveway analysis.

Traffic Impacts

Ridge Road & Project Accesses

Hall County Access Regulations require deceleration for subdivisions with more than 24 lots. By County standards, this would require northbound right-turn lanes at Accesses C and D.

The County allows a waiver of turn lanes based on traffic operations and safety. Analysis shows that the south access (Access D) is expected to see right turns that would fall below thresholds for a right-turn lane. It is **recommended** to seek a waiver of a right-turn lane at Access D.

County Regulations would also require southbound left-turn lanes at both accesses.

Recommended Improvements

Friendship Road (SR 347) & Access A

- The site plan shows eastbound right-turn lane as part of the development.

Ridge Road & Access C

- Construct a southbound left-turn lane and northbound right-turn lane.

Ridge Road & Access D

- Construct a southbound left-turn lane.
- Seek a waiver to avoid a northbound right-turn lane.

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I. Introduction

Ridgeview Estates is a proposed development in Hall County, Georgia. The site is located on the southeast corner of Friendship Road (SR 347) & Ridge Road.

The new site plan shows 16,000 SF of retail space, a 110-room hotel, 481 units of multi-family and townhome units, and 74 single-family homes. The property will have two full-access driveways to Ridge Road and one right-in/right-out driveway to Friendship Road (SR 347).

Hall County requires a TIA for developments generating 1,000 daily trips or more. This REVISED analysis includes site plan changes.

The study area included the following intersections:

- Friendship Road (SR 347) & Ridge Road
- Friendship Road (SR 347) & project access
- Ridge Road & project accesses

The study analyzed the following scenarios:

- Existing Conditions
- Full Build Conditions

The AM peak hour and PM peak hour were analyzed.

Figure 1 shows the most recent site plan. **Figure 2** shows the project vicinity map.



27 FEBRUARY 2024

RIDGE ROAD CP
HALL COUNTY, GEORGIA 2A

Hotel, 110 rms

Central plaza framed by F&B with rooftop space, patios and outdoor seating

Multi-family residential, 3 story and 3/4 splits, 247 un

Creek buffer with trails throughout connecting residential to commercial use

Single-family residential, 40' lots, 88 lots

DEVELOPMENT SUMMARY

Food & Beverage	12,000 sf
Hotel	110 rms
Multi-family	247 un
Townhomes	114 un
Single-family	88 lots
Parking Required	617 sp
Parking Provided	625 sp
	192 sp (16/1000)
	55 sp (1/2 rms)
	370 sp (1.5/un)

NELSON

Site Plan

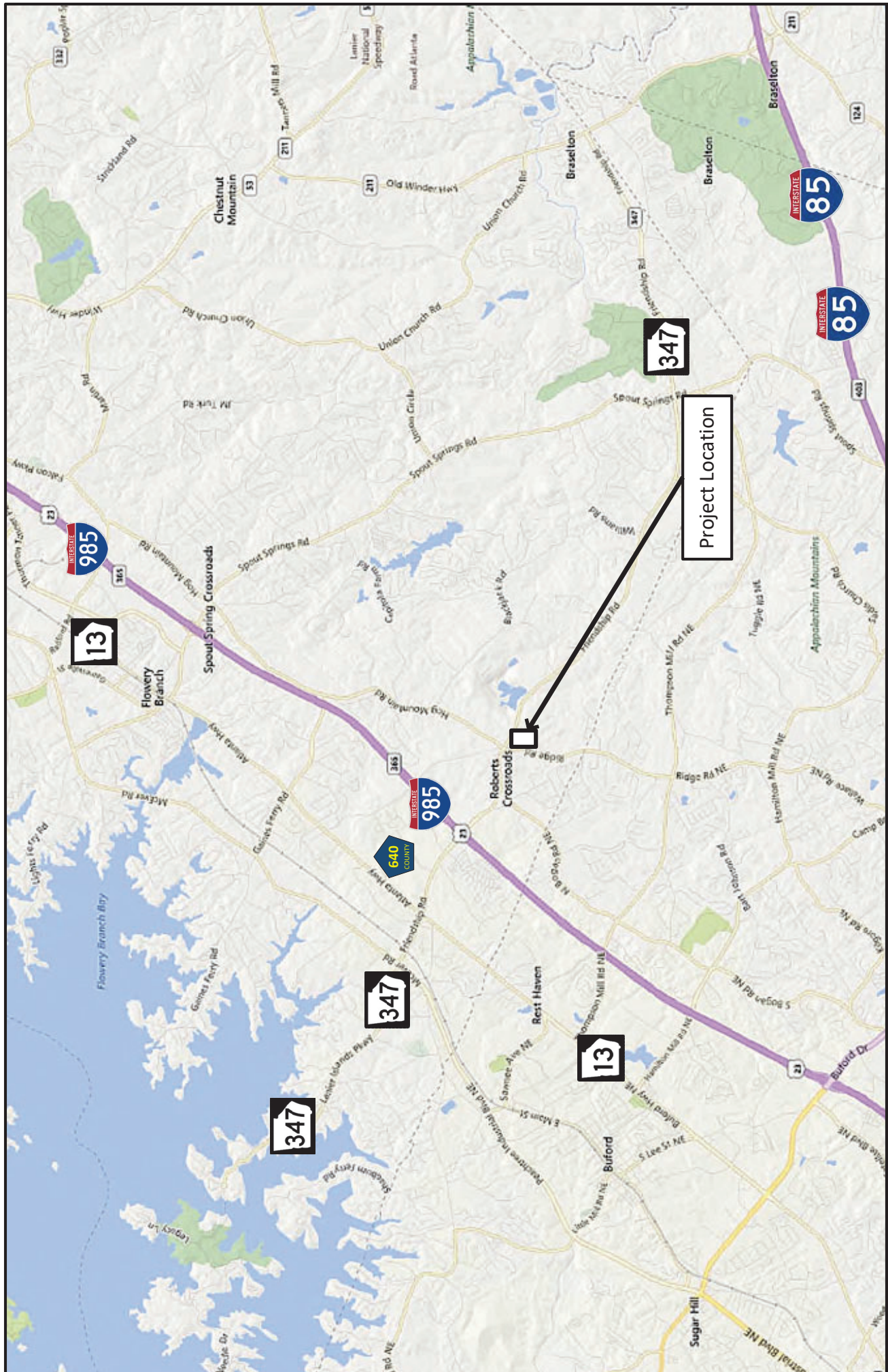
Figure 1

Date: 5 March 2024

TRAFFIC IMPACT
GROUP, LLC

Ridgeview Estates - Hall County

12.16.2024 - Item 1



Vicinity Map

Figure 2

Ridgeview Estates - Hall County

Date: 1 March 2024

II. Existing Conditions

A. EXISTING ROADWAY CONDITIONS

Table 2.1 presents a summary of the existing roadway conditions in the study area. **Figure 3** shows the roadways in the study area.

Table 2.1 - Existing Roadways				
Street Name	Functional Class	Typical Section	Posted Speed	AADT
Friendship Road (SR 347)	Minor Arterial	Six-lane divided	45 mph	26,300
Ridge Road	Major Collector	Two-lane undivided	45 mph	5,690

B. EXISTING INTERSECTION GEOMETRY

Friendship Road (SR 347) & Ridge Road is signalized with protected-permitted phasing for all left turns. The eastbound and westbound approaches consist of a left-turn lane, three through lanes, and a right-turn lane. The northbound and southbound approaches have a left-turn lane, one through lane, and a right-turn lane.

Access A is a proposed right-in/right-out driveway to Friendship Road (SR 347) and will provide access for the commercial part of development. Right-turn lane is proposed as part of development.

Access C is proposed to be a full-access driveway to Ridge Road and will provide access for the commercial and the northern multifamily portion of the development. It will be located approximately 600 feet south of Friendship Road (SR 347).

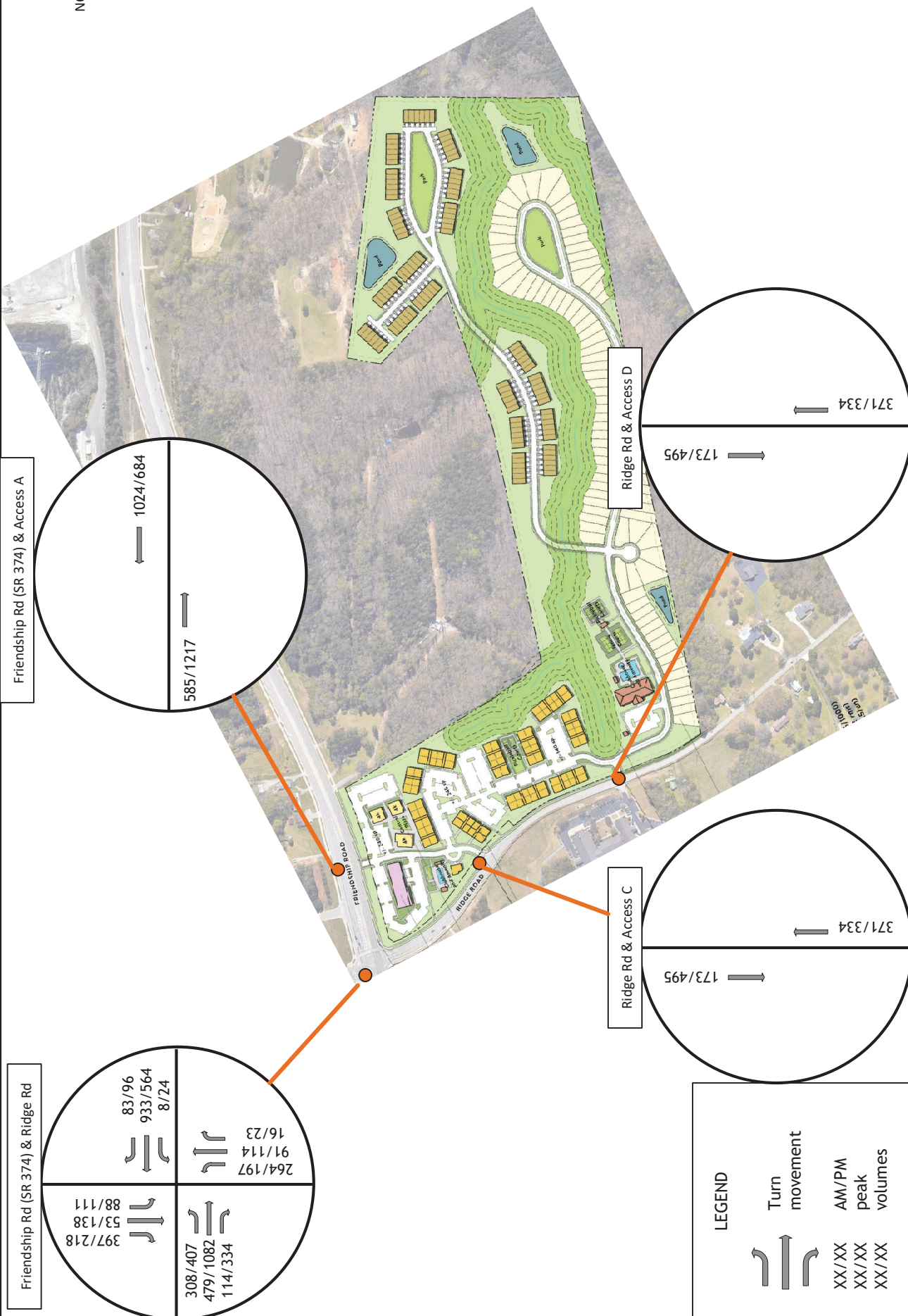
Access D is proposed to be a full-access driveway to Ridge Road and will provide access for the residential part of development. It will align with the St Mary and St Martha Church driveway.

C. TRAFFIC VOLUMES

Traffic data collection for study area intersections was performed on February 15, 2024. **Figure 3** displays existing traffic volumes. These volumes can be found in the Appendix. Current Average Annual Daily Traffic (AADT) volumes were retrieved from the GDOT Traffic Data website.



NOT TO SCALE



LEGEND

Turn movement

XX/XX AM/PM peak volumes

XX/XX AM/PM peak volumes

XX/XX AM/PM peak volumes

Existing Traffic Volumes

Figure 3

Ridgeview Estates - Hall County

Date: 5 March 2024



III. Methodology

A. BASE ASSUMPTIONS

Intersection capacity analysis was conducted using Synchro v11.0. Trip generation was calculated using the 11th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. Right-turn and left-turn lanes were examined using Hall County Access Regulations on Ridge Road.

B. BACKGROUND GROWTH

The average annual background growth rate is calculated using historical AADT volumes. Calculations show that the background growth in the study area is 9.12% per year. These calculations can be found in the Appendix. Existing volumes were increased by 9% to estimate background growth for Full Build 2025 conditions.

C. TRIP GENERATION

The new site plan shows 16,000 SF of retail space, a 110-room hotel, 481 units of multi-family and townhome units, and 74 single-family homes. The *ITE Trip Generation Manual, 11th Edition* was used to estimate the projected trips by this development. Table 3.1 contains the summary of the land uses and sizes used for trip generation estimates.

Table 3.1 - ITE Trip Generation								
Average Weekday Driveway Volumes					AM Peak Hour		PM Peak Hour	
Land Use	ITE Code	Size		Daily Trips	Enter	Exit	Enter	Exit
Single-Family Detached Housing	210	74	Dwelling Units	765	14	43	47	28
Multifamily Housing (Low-Rise)	220	481	Dwelling Units	3242	41	131	154	91
Hotel	310	110	Rooms	879	27	21	28	26
Strip Retail Plaza (<40k)	822	16	Th.Sq.Ft. GFA	871	23	15	55	54
Unadjusted Peak Hour Trips				5757	105	210	284	199
Internal Capture Reduction - from NCHRP No 684								
Internal Capture Reduction		Retail			-3	-1	-7	-17
		Residential			-1	-2	-14	-9
		Hotel			0	-1	-6	-1
Total New Peak Hour Trips to Adjacent Network					101	206	257	172

This retail/service development generates “internal capture” trips summarized in the table above. Internal capture trip reduction is a method to estimate interaction between different uses within the same development. While each land use in a development generates vehicle trips, some people will visit more than one land use within the development. This phenomenon of multiple land uses adjacent to each other ultimately results in fewer vehicle trips to the external road network, and less impact, than free-standing retail, office, or residential areas.

This reduction was calculated in accordance with *NCHRP Report No. 684, Enhancing Internal Trip Capture for Mixed-use Development*.

D. TRIP DISTRIBUTION

Trips for this proposed development were assigned to the surrounding roadway network based on existing traffic patterns and engineering judgment for the residential and commercial land uses. The proposed trip distribution for this project can be found in **Figure 5**, and the projected site trips are shown in **Figure 6**. Full Build 2025 volumes are shown in **Figure 7**.



NOT TO SCALE



LEGEND

Residential Trip Distribution

Commercial Trip Distribution

Trip Distribution

Figure 5

Ridgeview Estates - Hall County

Date: 5 March 2024





Friendship Rd (SR 374) & Access A

Friendship Rd (SR 374) & Ridge Rd

Ridge Rd & Access C

Ridge Rd & Access D

LEGEND

Turn movement

XX/XX AM/PM peak volumes

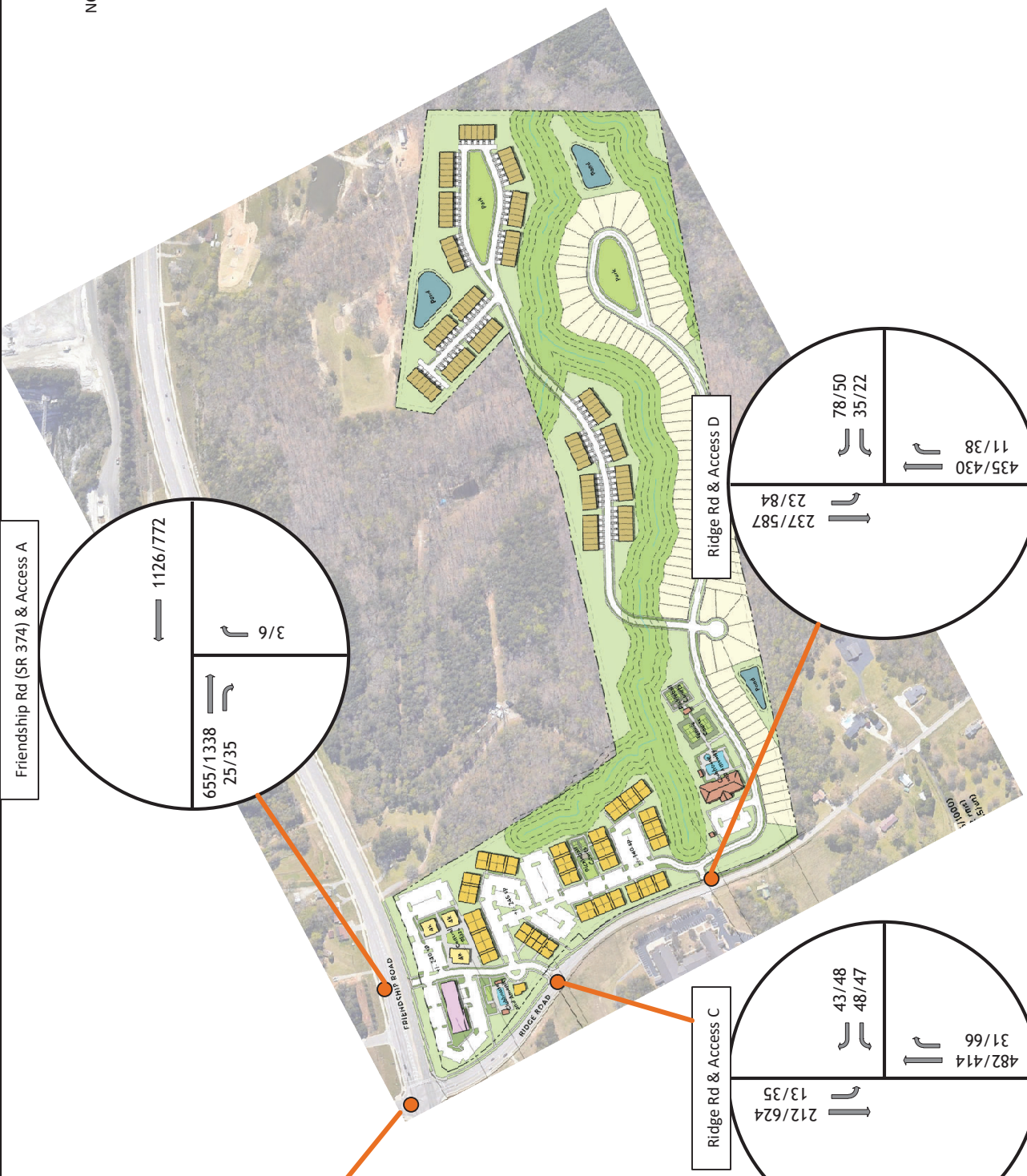
Site Trips

Figure 6

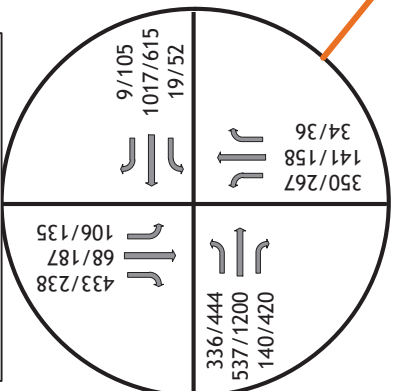
Ridgeview Estates - Hall County

Date: 16 August 2024

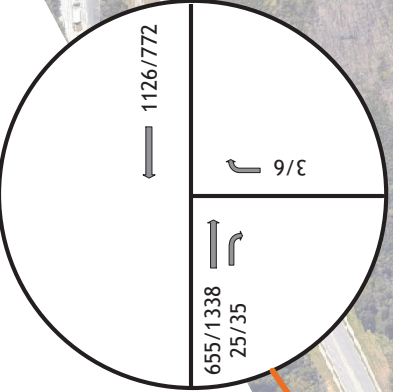




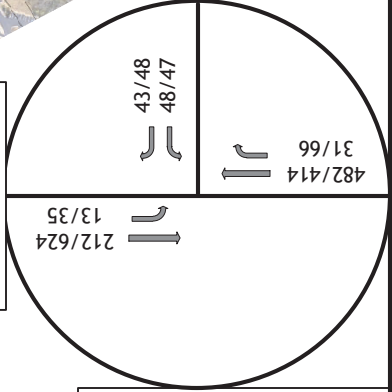
Friendship Rd (SR 374) & Ridge Rd



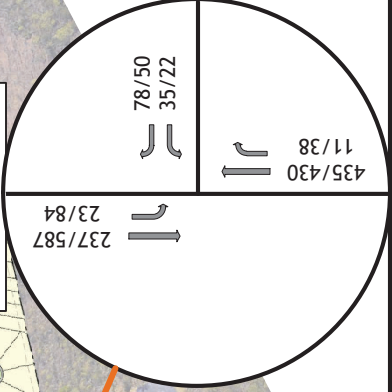
Friendship Rd (SR 374) & Access A



Ridge Rd & Access C



Ridge Rd & Access D



LEGEND

Turn movement

XX/XX AM/PM peak volumes

IV. Turn Lanes

A. Right-Turn Lanes

The site plan shows right-turn lane at Access A as part of development.

Hall County Access Regulations require deceleration for subdivisions with more than 24 lots. By County standards, this would require northbound right-turn lanes at Accesses C and D.

The County allows a waiver of turn lanes based on traffic operations and safety.

The National Cooperative Highway Research Program (NCHRP) Report 279 *Intersection Channelization Design Guide* was used to determine right-turn lane and left-turn lane thresholds for this study.

For public officials that do not have formal thresholds for determining when new access requires turn lane treatments, the NCHRP Report 279 is a useful tool in assisting the impacts from development. Specifically, this report allows the traffic engineering professional to input roadway type, posted speed, advancing volume (and opposing volume for left turns), and number of turning vehicles. The result is a plot on a graph defined by the above inputs as either recommending turn lanes or not.

Table 4.1 shows the volumes for right-turn analysis to determine turn lane thresholds.

Driveway	AM/PM	Approach	Posted Speed	Advancing Vol	RT Vol	Turn Lane needed?
Ridge Rd & Access C	AM	NB	45	466	39	No
	PM			400	65	Yes
Ridge Rd & Access D	AM	NB	45	443	9	No
	PM			426	32	No

Based on Full Build volumes, a right-turn lane is recommended for Access C but not Access D. it is **recommended** to seek a waiver of a northbound right-turn lane at Access D.

B. Left-Turn Lanes

For left-turn deceleration lanes, County regulations provide tabular thresholds based on daily traffic volumes and number of lots. The table below shows County standards:

Average Daily Traffic (ADT)	Number of Lots (equal to or greater than the following)
>6000	100
4001 – 6000	125
2001 – 4000	150
1000 – 2000	175
< 1000	200

Ridge Road has a daily traffic volume of 5,690 vehicles per day.

The development will have 236 apartment units, 113 townhomes, and 92 single-family units spread over two accesses to Ridge Road. By County standards, southbound left-turn lanes would be required. The County allows a waiver of turn lanes based on traffic operations and safety.

Table 4.2 shows the volumes used in the analysis.

Driveway	AM/PM	Approach	Posted Speed	Advancing Vol	Opposing Vol	LT Vol	Turn Lane needed?
Ridge Rd & Access C	AM	SB	45	210	466	14	No
	PM			608	400	41	Yes
Ridge Rd & Access D	AM	SB	45	244	443	21	No
	PM			579	426	72	Yes

Based on Full Build volumes, southbound left-turn lanes are appropriate for both driveways.

V. Capacity Analysis

The Transportation Research Board’s Highway Capacity Manual (HCM) utilizes a term “level of service” (LOS) to measure how traffic operates in intersections. There are currently six levels of service ranging from A to F. Level of Service “A” represents the best conditions and Level of Service “F” represents the worst. Synchro software was used to determine the level of service for intersections in the study area. All worksheet reports from the analyses can be found in the Appendix.

Table 5.1 shows the control delay per vehicle associated with LOS A through F for signalized and unsignalized intersections.

Table 5.1 - Highway Capacity Manual Levels of Service and Control Delay			
Signalized Intersection		Unsignalized Intersection	
Level of Service	Control Delay per Vehicle (sec)	Level of Service	Control Delay per Vehicle (sec)
A	≤ 10	A	≤ 10
B	> 10 and ≤ 20	B	> 10 and ≤ 15
C	> 20 and ≤ 35	C	> 15 and ≤ 25
D	> 35 and ≤ 55	D	> 25 and ≤ 35
E	> 55 and ≤ 80	E	> 35 and ≤ 50
F	> 80	F	> 50

A. FRIENDSHIP ROAD (SR 347) & RIDGE ROAD/HOG MOUNTAIN ROAD

Friendship Road (SR 347) & Ridge Road is signalized with protected-permitted phasing for the westbound left-turn movement, and permitted phasing for all other left turns. The eastbound and westbound approaches consist of a left-turn lane, three through lanes, and a right-turn lane. The northbound and southbound approaches have a left-turn lane, one through lane, and a right-turn lane.

Table 5.2 shows the current LOS, control delay, and 95th percentile queue length for existing conditions.

Table 5.2 - Intersection LOS, Delay, and Queue by Movement - Existing												
Friendship Rd & Ridge Rd												
AM	Eastbound			Westbound			Northbound			Southbound		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay (s)	32.9	13.4	1.9	11.5	32.1	0.5	38.3	32.2	0.1	24.3	34.6	21.8
LOS	C	B	A	B	C	A	D	C	A	C	C	C
Q(veh)	268	94	19	18	241	0	219	92	0	73	62	158
Overall	C (25.5)											
PM	Eastbound			Westbound			Northbound			Southbound		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay (s)	19.8	15.8	3.1	14.1	32.4	0.9	26.3	31.5	0.2	25	43.8	10.9
LOS	B	B	A	B	C	A	C	C	A	C	D	B
Q(veh)	217	208	48	17	152	0	147	109	0	88	138	63
Overall	B (19.6)											

Table 5.3 shows the expected LOS, control delay, and 95th percentile queue length for Full Build conditions.

Table 5.3 - Intersection LOS, Delay, and Queue by Movement - Full Build												
Friendship Rd & Ridge Rd												
AM	Eastbound			Westbound			Northbound			Southbound		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay (s)	29.3	14.5	1.2	13.3	70.3	0.1	47.7	32.2	0.3	25.7	38.2	13.2
LOS	C	B	A	B	E	A	D	C	A	C	D	B
Q(veh)	271	109	12	17	357	0	330	129	0	82	77	92
Overall	D (38.2)											
PM	Eastbound			Westbound			Northbound			Southbound		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay (s)	28.1	19.1	3.5	17.9	35.4	0.8	36	33.8	0.3	28.2	58.9	8.5
LOS	C	B	A	B	D	A	D	C	A	C	E	A
Q(veh)	307	242	54	31	165	0	195	143	0	102	219	51
Overall	C (23.7)											

B. FRIENDSHIP ROAD (SR 347) & ACCESS A

Access A is proposed to be a right-in/right-out driveway to Friendship Road (SR 347). A right-turn lane is proposed as part of development.

Table 5.4 shows the expected LOS, control delay, and 95th percentile queue length for Full Build conditions.

Table 5.4 - FB				
Friendship Rd & Access A				
AM	Eastbound		WBT	NB
Movement	EBT	EBR	WBT	NBR
Delay (s)	Free		Free	11.6
LOS				B
Q(veh)				0
PM	Eastbound		WBT	NB
Movement	EBT	EBR	WBT	NBR
Delay (s)	Free		Free	16.2
LOS				C
Q(veh)				3



Friendship Road (SR 347) - looking east towards future Access A

C. RIDGE ROAD & ACCESS C

Access C is proposed to be a full-access driveway to Ridge Road.

Table 5.6 shows the expected LOS, control delay, and 95th percentile queue length for Full Build conditions.

Table 5.6 - Full Build						
Ridge Rd & Access C						
AM	Eastbound		Westbound		Northbound	
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Delay (s)	15.8		Free		8.6	Free
LOS	C				A	
Q(veh)	23				0	
Ridge Rd & Access C						
PM	Eastbound		Westbound		Northbound	
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Delay (s)	21.7		Free		8.5	Free
LOS	C				A	
Q(veh)	33				0	

D. RIDGE ROAD & ACCESS D

Access D is proposed to be a full-access driveway to Ridge Road aligned with the St Mary and St Martha church driveway.

Table 5.7 shows the expected LOS, control delay, and 95th percentile queue length for Full Build 2020 conditions.

Table 5.7 - Full Build						
Ridge Rd & Access D						
AM	Eastbound		Westbound		Northbound	
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Delay (s)	14.8		Free		8.4	Free
LOS	B				A	
Q(veh)	25				0	
Ridge Rd & Access D						
PM	Eastbound		Westbound		Northbound	
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Delay (s)	18.5		Free		8.6	Free
LOS	C				A	
Q(veh)	20				8	

VI. Summary and Conclusion

This study serves as an analysis of the traffic impacts from the proposed Ridgeview Estates development in Hall County, Georgia.

This analysis was necessary due to Hall County guidelines that require a TIA for developments that generate 1000 or more daily trips.

Trip Generation

The proposed development is expected to generate 120 new entering trips and 206 new exiting trips in the AM peak hour, and 217 new entering and 122 new exiting trips in the PM peak hour. This site will also experience internal capture and pass-by/diverted link trips, which have been included in the driveway analysis.

Traffic Impacts

Ridge Road & Project Accesses

Hall County Access Regulations require deceleration for subdivisions with more than 24 lots. By County standards, this would require northbound right-turn lanes at Accesses C and D.

The County allows a waiver of turn lanes based on traffic operations and safety. Analysis shows that the south access (Access D) is expected to see right turns that would fall below thresholds for a right-turn lane. It is **recommended** to seek a waiver of a right-turn lane at Access D.

County Regulations would also require southbound left-turn lanes at both accesses.

Recommended Improvements

The following summarizes recommended improvements:

Friendship Road (SR 347) & Access A

- The site plan shows eastbound right-turn lane as part of the development.

Ridge Road & Access C

- Construct a southbound left-turn lane and northbound right-turn lane.

Ridge Road & Access D

- Construct a southbound left-turn lane.
- Seek a waiver to avoid a northbound right-turn lane.

Appendix

Background Information

Traffic Volumes

Trip Generation

Signal Timing

Capacity Analysis

Turn Lane Analysis

BACKGROUND INFORMATION

0000139_0487 / 139-0487 / SR347/Friendship Rd W of Hog Mtn Rd Summary

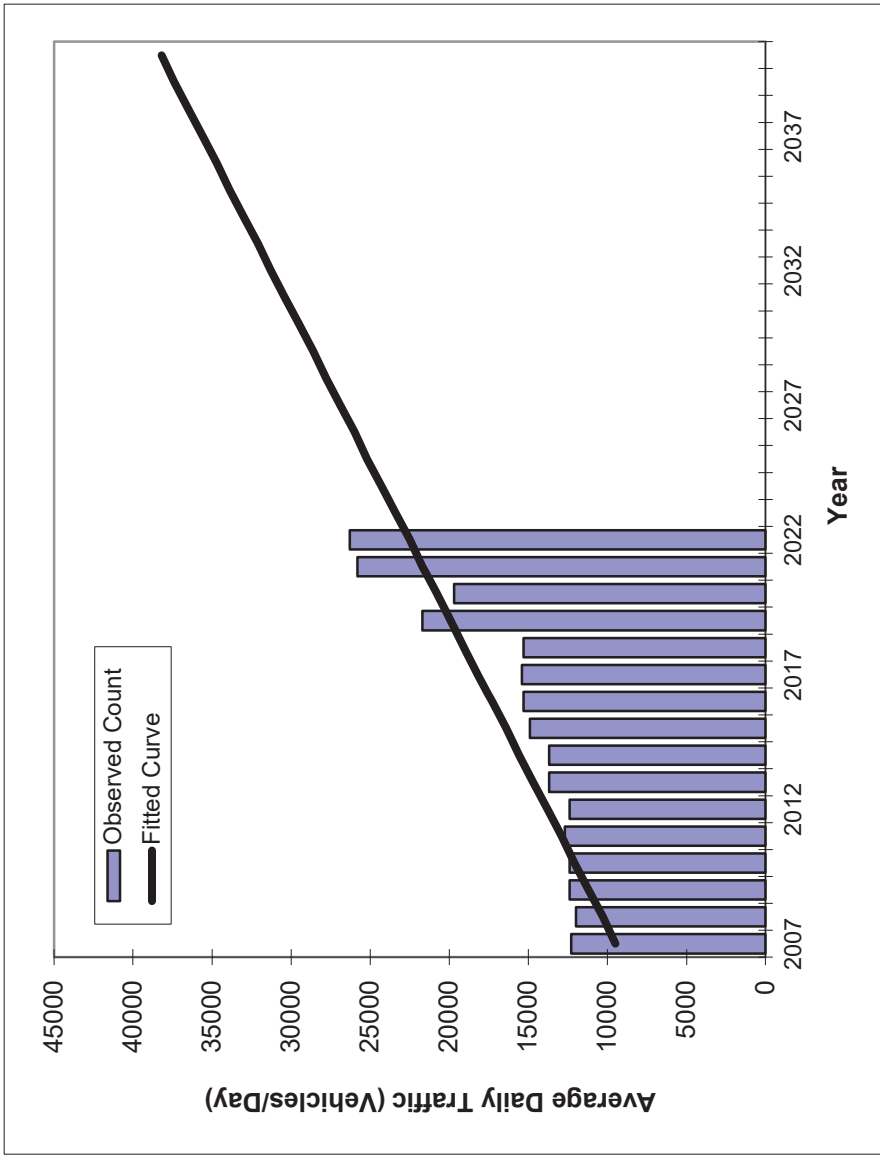
	AADT	SU AADT	CU AADT	K-Factor	D-Factor
2022	26300	1536	329	0.1074	0.68
2021	25800	1503	322	0.1074	0.68
2020	19700	-	-	0.1099	0.74
2019	21700	-	-	0.1099	0.74
2018	15300	-	-	-	-
2017	15400	-	-	-	-
2016	15300	891	233	0.106	0.7
2015	14900	866	226	0.106	0.7
2014	13700	-	-	0.09	-
2013	13680	-	-	0.09	-
2012	12440	-	-	-	-
2011	12660	-	-	-	-
2010	12380	-	-	-	-
2009	12350	-	-	-	-
2008	11960	-	-	-	-
2007	12270	-	-	-	-
2006	14030	-	-	-	-
2005	13280	-	-	-	-
2004	9110	-	-	-	-
2003	12950	-	-	-	-

Traffic Trends - V2.0

SR347 -- west of Hog Mtn Rd

County: Buford
 Station #: 139-0487
 Highway: SR347

Location: 0



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2007	12300	9500
2008	12000	10300
2009	12400	11200
2010	12400	12100
2011	12700	12900
2012	12400	13800
2013	13700	14700
2014	13700	15600
2015	14900	16400
2016	15300	17300
2017	15400	18200
2018	15300	19100
2019	21700	19900
2020	19700	20800
2021	25800	21700
2022	26300	22500
2007 Opening Year Trend		
2007	N/A	9500
2022 Mid-Year Trend		
2022	N/A	22500
2027 Design Year Trend		
2027	N/A	26900
TRANPLAN Forecasts/Trends		

** Annual Trend Increase: 871
 Trend R-squared: 75.75%
 Trend Annual Historic Growth Rate: 9.12%
 Trend Growth Rate (2022 to Design Year): 3.91%
 Printed: 21-Feb-24

Straight Line Growth Option

*Axle-Adjusted

Ridgeview Estates - Hall County

Vistro File: C:\...\Hall County vistro.vistro

Scenario 1 AM Full Build

Report File: C:\...\vistro am.pdf

08/12/2024

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Friendship Rd & Ridge Rd	Final Base	264	91	16	88	53	397	308	479	114	8	933	8	2759
		Growth Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	62	42	17	10	10	0	0	15	16	10	0	0	182
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	350	141	34	106	68	433	336	537	140	19	1017	9	3190

ID	Intersection Name	Volume Type	Northbound		Southbound		Westbound		Total Volume
			Thru	Right	Left	Thru	Left	Right	
3	Ridge Rd & Access C	Final Base	371	0	0	173	0	0	544
		Growth Factor	1.09	1.09	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	78	31	13	23	48	43	236
		Other	0	0	0	0	0	0	0
		Future Total	482	31	13	212	48	43	829

ID	Intersection Name	Volume Type	Northbound		Southbound		Westbound		Total Volume
			Thru	Right	Left	Thru	Left	Right	
4	Ridge Rd & Access D	Final Base	371	0	0	173	0	0	544
		Growth Factor	1.09	1.09	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	31	11	23	48	35	78	226
		Other	0	0	0	0	0	0	0
		Future Total	435	11	23	237	35	78	819

ID	Intersection Name	Volume Type	Northbound	Eastbound		Westbound	Total Volume
			Right	Thru	Right	Thru	
7	Friendship Rd & Access a	Final Base	0	585	0	1024	1609
		Growth Factor	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0
		Net New Trips	3	17	25	10	55
		Other	0	0	0	0	0
		Future Total	3	655	25	1126	1809

Ridgeview Estates - Hall County

Vistro File: C:\...\Hall County vistro.vistro

Scenario 2 PM Full Build

Report File: C:\...\vistro pm.pdf

08/13/2024

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Friendship Rd & Ridge Rd	Final Base	197	114	23	111	138	218	407	1082	334	24	564	96	3308
		Growth Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	52	34	11	14	37	0	0	21	56	26	0	0	251
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	267	158	36	135	187	238	444	1200	420	52	615	105	3857

ID	Intersection Name	Volume Type	Northbound		Southbound		Westbound		Total Volume
			Thru	Right	Left	Thru	Left	Right	
3	Ridge Rd & Access C	Final Base	334	0	0	495	0	0	829
		Growth Factor	1.09	1.09	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	50	66	35	84	47	48	330
		Other	0	0	0	0	0	0	0
		Future Total	414	66	35	624	47	48	1234

ID	Intersection Name	Volume Type	Northbound		Southbound		Westbound		Total Volume
			Thru	Right	Left	Thru	Left	Right	
4	Ridge Rd & Access D	Final Base	334	0	0	495	0	0	829
		Growth Factor	1.09	1.09	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	66	38	84	47	22	50	307
		Other	0	0	0	0	0	0	0
		Future Total	430	38	84	587	22	50	1211

ID	Intersection Name	Volume Type	Northbound	Eastbound		Westbound	Total Volume
			Right	Thru	Right	Thru	
7	Friendship Rd & Access a	Final Base	0	1217	0	684	1901
		Growth Factor	1.09	1.09	1.09	1.09	-
		In Process	0	0	0	0	0
		Net New Trips	6	11	35	26	78
		Other	0	0	0	0	0
		Future Total	6	1338	35	772	2151

TRIP GENERATION

Project Information	
Project Name:	Hall Co Ridgeview
No:	
Date:	02/14/2024
City:	Hall County
State/Province:	GA
Zip/Postal Code:	
Country:	
Client Name:	Agency
Analyst's Name:	SPI
Edition:	Trip Generation Manual, 11th Ed

Land Use	Size	daily		am		pm	
		Entry	Exit	Entry	Exit	Entry	Exit
210 - Single-Family Detached Housing (General Urban/Suburban)	74 Dwelling Units	383	382	14	43	47	28
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		383	382	14	43	47	28
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit (General Urban/Suburban)	481 Dwelling Units	1621	1621	41	131	154	91
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		1621	1621	41	131	154	91
310 - Hotel (General Urban/Suburban)	110 Rooms	440	439	27	21	28	26
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		440	439	27	21	28	26
822 - Strip Retail Plaza (<40k) (General Urban/Suburban)	16 1000 Sq. Ft. GLA	436	435	23	15	55	54
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		436	435	23	15	55	54
Total		2880	2877	105	210	284	199
Total Reduction		0	0	0	0	0	0
Total Internal		0	0	0	0	0	0
Total Pass-by		0	0	0	0	0	0
Total Non-pass-by		2880	2877	105	210	284	199

Project Name:	Ridgeview
Analysis Period:	AM Street Peak Hour

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	23	23	1.00	15	15
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	55	55	1.00	174	174
Hotel	1.00	27	27	1.00	21	21

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	4		2	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	2	35	0		0
Hotel	16	3	2	0	0	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	2		0	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	0	4	0	0		0
Hotel	0	1	0	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	3	20	23	20	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	54	55	54	0	0
Hotel	0	27	27	27	0	0
All Other Land Uses ³	0	0	0	0	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	1	14	15	14	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	172	174	172	0	0
Hotel	1	20	21	20	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
²Person-Trips
³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

Project Name:	Ridgeview
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	55	55	1.00	54	54
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	201	201	1.00	119	119
Hotel	1.00	28	28	1.00	26	26

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		16	2	14	3
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	5	50	25	0		4
Hotel	0	4	18	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	8	0
Retail	0		0	0	92	5
Restaurant	0	28		0	32	20
Cinema/Entertainment	0	2	0		8	0
Residential	0	6	0	0		3
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	7	48	55	48	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	14	187	201	187	0	0
Hotel	6	22	28	22	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	17	37	54	37	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	110	119	110	0	0
Hotel	1	25	26	25	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
²Person-Trips
³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

SIGNAL TIMING

GDOT

MaxTime Timing Sheet

Hall 18

Administration

Cross Black_White.jpg

Unit Information

Controller ID	0
Main St.	SR 347
Side St.	Hog Mtn.Rd.

Adapter	IP Address	Subnet Mask	Default Gateway	ARP	DHCP
1	10.251.144.24	255.255.255.240	10.251.144.241	Disable	
2	10.20.70.51	255.255.255.0	0.0.0.0	Disable	

Serial Ports:

Port	Description	Function	Address	Baud	Bits	Stop	Parity	Flow	CTS	RTS
1	Port 2/C21S	None	1	9600	8	1	None	None	0	0
2	Aux P3/C22S	None	1	9600	8	1	None	None	0	0
3	SDLC Port 1	None	1	9600	8	1	None	None	0	0
4	Com A/C50S	None	1	9600	8	1	None	None	0	0
5	FIO	None	1	9600	8	1	None	None	0	0
6	DISPLAY/C60M	None	1	9600	8	1	None	None	0	0
7	SP7	None	1	9600	8	1	None	None	0	0
8	SP8/Com B	None	1	9600	8	1	None	None	0	0

Unit Parameters

Startup Flash	0	Auto Ped Clr	Disable	Red Revert	5.0	Backup Time	900	Ext Mode	Enable
All Red Exit	6	Grn Flash Freq.	60	Yel Flash Freq.	60	MCE Enable	Enable	Free Seq.	1
MCE Seq.	1	Start Yellow	0.0	Start Red	0.0	Start Clear Hold	6		

Phase Parameters

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Walk Time	0	4	0	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	23	0	37	0	23	0	38	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	5	16	0	8	0	16	0	8	0	0	1	1	1	1	1	1	1	1	1	1
Min Green 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	3.0	5.0	0.0	3.0	0.0	5.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max-1	20	75	0	35	0	75	0	35	0	0	1	1	1	1	1	1	1	1	1	1
Max-2	0	75	0	50	0	75	0	50	0	0	0	0	0	0	0	0	0	0	0	0
Max-3	15	45	0	25	0	45	0	25	0	0	1	1	1	1	1	1	1	1	1	1
Yel Change	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Add Red Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time B4 Reduce	0	20	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	20	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dyn Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dyn Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advance Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Ped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pre Clearance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CAPACITY ANALYSIS

Existing Conditions

Existing AM
Hall County Ridgeview

existing AM
02/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	479	114	24	933	83	264	91	16	88	53	397
Future Volume (vph)	308	479	114	24	933	83	264	91	16	88	53	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	0		0	0		0	200		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1641	4550	1495	1805	4893	1583	1752	1827	1615	1719	1792	1583
Flt Permitted	0.141			0.449			0.531			0.693		
Satd. Flow (perm)	244	4550	1495	853	4893	1583	980	1827	1615	1254	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158			218			218			354
Link Speed (mph)		45			45			45				45
Link Distance (ft)		810			362			421				289
Travel Time (s)		12.3			5.5			6.4				4.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	10%	14%	8%	0%	6%	2%	3%	4%	0%	5%	6%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	335	521	124	26	1014	90	287	99	17	96	58	432
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	16.0	16.0	5.0	16.0	16.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	10.0	22.0	22.0	10.0	22.0	22.0	10.0	14.0	14.0	10.0	14.0	14.0
Total Split (s)	23.0	44.0	44.0	10.0	31.0	31.0	14.0	25.0	25.0	11.0	22.0	22.0
Total Split (%)	25.6%	48.9%	48.9%	11.1%	34.4%	34.4%	15.6%	27.8%	27.8%	12.2%	24.4%	24.4%
Yellow Time (s)	3.5	4.0	4.0	3.0	4.0	4.0	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag

Existing AM
Hall County Ridgeview

existing AM
02/28/2024

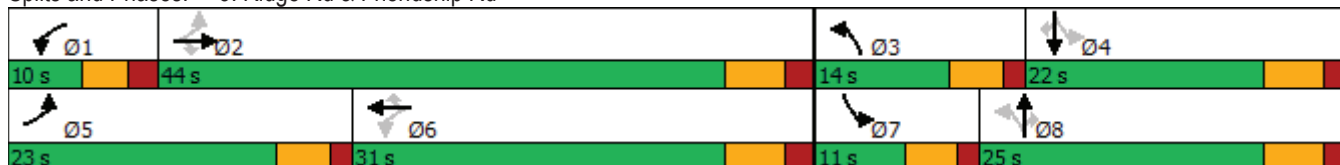


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	45.9	41.2	41.2	28.7	22.7	22.7	25.2	17.2	17.2	18.6	11.6	11.6
Actuated g/C Ratio	0.56	0.50	0.50	0.35	0.27	0.27	0.30	0.21	0.21	0.22	0.14	0.14
v/c Ratio	0.79	0.23	0.15	0.07	0.76	0.15	0.75	0.26	0.03	0.30	0.23	0.82
Control Delay	32.9	13.4	1.9	11.5	32.1	0.5	38.3	32.2	0.1	24.3	34.6	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	13.4	1.9	11.5	32.1	0.5	38.3	32.2	0.1	24.3	34.6	21.8
LOS	C	B	A	B	C	A	D	C	A	C	C	C
Approach Delay		18.6			29.1			35.2			23.5	
Approach LOS		B			C			D			C	
Queue Length 50th (ft)	112	46	0	6	175	0	126	47	0	38	28	39
Queue Length 95th (ft)	#268	94	19	18	241	0	#219	92	0	73	62	#158
Internal Link Dist (ft)		730			282			341			209	
Turn Bay Length (ft)	300		300							200		200
Base Capacity (vph)	442	2294	831	354	1493	634	382	439	553	316	349	594
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.23	0.15	0.07	0.68	0.14	0.75	0.23	0.03	0.30	0.17	0.73

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 82.7
 Natural Cycle: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 25.5 Intersection LOS: C
 Intersection Capacity Utilization 71.4% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Ridge Rd & Friendship Rd



Existing PM
Hall County Ridgeview

existing pm
02/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	407	1082	334	24	564	96	197	114	23	111	138	218
Future Volume (vph)	407	1082	334	24	564	96	197	114	23	111	138	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	0		0	0		0	200		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1752	5085	1599	1805	4893	1583	1770	1863	1538	1770	1881	1568
Flt Permitted	0.286			0.237			0.454			0.680		
Satd. Flow (perm)	528	5085	1599	450	4893	1583	846	1863	1538	1267	1881	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			352			218			218			229
Link Speed (mph)		45			45			45				45
Link Distance (ft)		810			362			421				289
Travel Time (s)		12.3			5.5			6.4				4.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	2%	1%	0%	6%	2%	2%	2%	5%	2%	1%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	428	1139	352	25	594	101	207	120	24	117	145	229
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	16.0	16.0	5.0	16.0	16.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	10.0	22.0	22.0	10.0	22.0	22.0	10.0	14.0	14.0	10.0	14.0	14.0
Total Split (s)	31.0	45.0	45.0	10.0	24.0	24.0	16.0	24.0	24.0	11.0	19.0	19.0
Total Split (%)	34.4%	50.0%	50.0%	11.1%	26.7%	26.7%	17.8%	26.7%	26.7%	12.2%	21.1%	21.1%
Yellow Time (s)	3.5	4.0	4.0	3.0	4.0	4.0	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag

Existing PM
Hall County Ridgeview

existing pm
02/28/2024

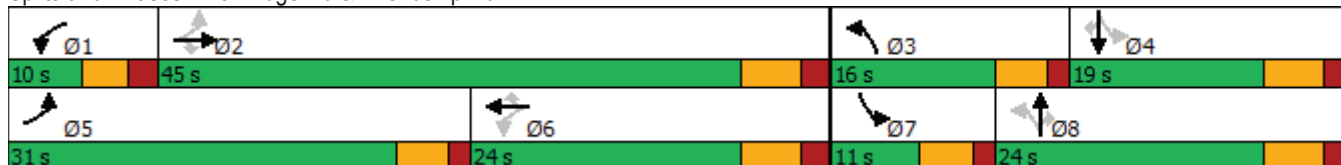


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	43.6	38.9	38.9	23.0	16.9	16.9	26.9	17.5	17.5	17.9	10.9	10.9
Actuated g/C Ratio	0.54	0.48	0.48	0.29	0.21	0.21	0.33	0.22	0.22	0.22	0.14	0.14
v/c Ratio	0.72	0.46	0.37	0.12	0.58	0.20	0.52	0.30	0.05	0.37	0.57	0.56
Control Delay	19.8	15.8	3.1	14.1	32.4	0.9	26.3	31.5	0.2	25.0	43.8	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	15.8	3.1	14.1	32.4	0.9	26.3	31.5	0.2	25.0	43.8	10.9
LOS	B	B	A	B	C	A	C	C	A	C	D	B
Approach Delay		14.4			27.3			26.3			24.0	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	127	124	0	6	105	0	79	54	0	42	72	0
Queue Length 95th (ft)	217	208	48	17	152	0	147	109	0	88	138	63
Internal Link Dist (ft)		730			282			341			209	
Turn Bay Length (ft)	300		300							200		200
Base Capacity (vph)	683	2553	978	213	1103	526	410	432	524	319	306	447
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.45	0.36	0.12	0.54	0.19	0.50	0.28	0.05	0.37	0.47	0.51

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 80.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 19.6
 Intersection LOS: B
 Intersection Capacity Utilization 72.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 3: Ridge Rd & Friendship Rd



Full Build Conditions

Hall County Ridgeview
3: Ridge Rd & Friendship Rd

Full Build AM
08/13/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	336	537	140	19	1017	9	350	141	34	106	68	433
Future Volume (vph)	336	537	140	19	1017	9	350	141	34	106	68	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	0		0	0		0	200		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1641	4550	1495	1805	4893	1583	1752	1827	1615	1719	1792	1583
Flt Permitted	0.152			0.421			0.491			0.660		
Satd. Flow (perm)	263	4550	1495	800	4893	1583	906	1827	1615	1194	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			218			279			218			471
Link Speed (mph)		45			45			45				45
Link Distance (ft)		810			362			421				289
Travel Time (s)		12.3			5.5			6.4				4.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	10%	14%	8%	0%	6%	2%	3%	4%	0%	5%	6%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	365	584	152	21	1105	10	380	153	37	115	74	471
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	16.0	16.0	5.0	16.0	16.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	10.0	22.0	22.0	10.0	22.0	22.0	10.0	14.0	14.0	10.0	14.0	14.0
Total Split (s)	28.0	42.0	42.0	10.0	24.0	24.0	17.0	27.0	27.0	11.0	21.0	21.0
Total Split (%)	31.1%	46.7%	46.7%	11.1%	26.7%	26.7%	18.9%	30.0%	30.0%	12.2%	23.3%	23.3%
Yellow Time (s)	3.5	4.0	4.0	3.0	4.0	4.0	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag

Hall County Ridgeview
3: Ridge Rd & Friendship Rd

Full Build AM
08/13/2024

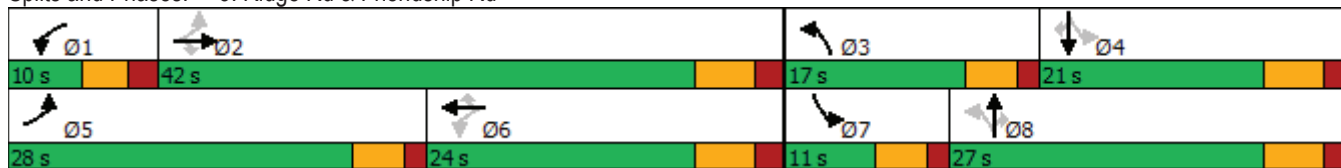


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	44.4	39.6	39.6	24.1	18.1	18.1	28.3	18.7	18.7	17.2	10.2	10.2
Actuated g/C Ratio	0.54	0.48	0.48	0.29	0.22	0.22	0.34	0.23	0.23	0.21	0.12	0.12
v/c Ratio	0.76	0.27	0.18	0.07	1.03	0.02	0.88	0.37	0.07	0.40	0.34	0.78
Control Delay	29.3	14.5	1.2	13.3	70.3	0.1	47.7	32.2	0.3	25.7	38.2	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	14.5	1.2	13.3	70.3	0.1	47.7	32.2	0.3	25.7	38.2	13.2
LOS	C	B	A	B	E	A	D	C	A	C	D	B
Approach Delay		17.6			68.7			40.5			18.2	
Approach LOS		B			E			D			B	
Queue Length 50th (ft)	122	53	0	5	~234	0	172	73	0	44	37	0
Queue Length 95th (ft)	#271	109	12	17	#357	0	#330	129	0	82	77	92
Internal Link Dist (ft)		730			282			341			209	
Turn Bay Length (ft)	300		300							200		200
Base Capacity (vph)	526	2180	829	294	1070	564	433	486	589	286	326	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.27	0.18	0.07	1.03	0.02	0.88	0.31	0.06	0.40	0.23	0.70

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 82.7
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 38.2 Intersection LOS: D
 Intersection Capacity Utilization 82.7% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Ridge Rd & Friendship Rd



Hall County Ridgeview
3: Ridge Rd & Friendship Rd

Full Build PM
08/13/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	1200	420	52	615	105	267	158	36	135	187	238
Future Volume (vph)	444	1200	420	52	615	105	267	158	36	135	187	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	0		0	0		0	200		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1752	5085	1599	1805	4893	1583	1770	1863	1538	1770	1881	1568
Flt Permitted	0.245			0.208			0.315			0.652		
Satd. Flow (perm)	452	5085	1599	395	4893	1583	587	1863	1538	1215	1881	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			442			279			218			279
Link Speed (mph)		45			45			45				45
Link Distance (ft)		810			362			421				289
Travel Time (s)		12.3			5.5			6.4				4.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	2%	1%	0%	6%	2%	2%	2%	5%	2%	1%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	467	1263	442	55	647	111	281	166	38	142	197	251
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	16.0	16.0	5.0	16.0	16.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	10.0	22.0	22.0	10.0	22.0	22.0	10.0	14.0	14.0	10.0	14.0	14.0
Total Split (s)	30.0	44.0	44.0	10.0	24.0	24.0	18.0	25.0	25.0	11.0	18.0	18.0
Total Split (%)	33.3%	48.9%	48.9%	11.1%	26.7%	26.7%	20.0%	27.8%	27.8%	12.2%	20.0%	20.0%
Yellow Time (s)	3.5	4.0	4.0	3.0	4.0	4.0	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag

Hall County Ridgeview
3: Ridge Rd & Friendship Rd

Full Build PM
08/13/2024

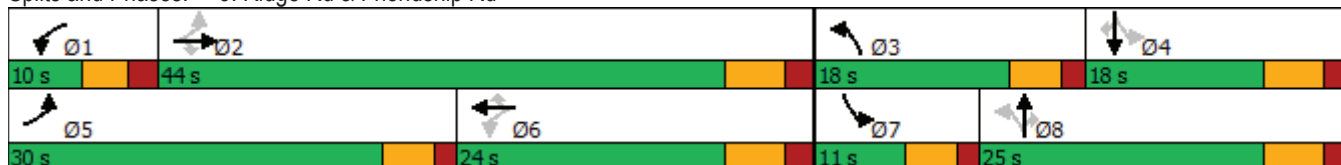


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	45.1	38.4	38.4	23.3	17.2	17.2	29.8	17.9	17.9	18.5	11.5	11.5
Actuated g/C Ratio	0.53	0.45	0.45	0.27	0.20	0.20	0.35	0.21	0.21	0.22	0.14	0.14
v/c Ratio	0.82	0.55	0.46	0.29	0.65	0.20	0.74	0.42	0.08	0.47	0.78	0.56
Control Delay	28.1	19.1	3.5	17.9	35.4	0.8	36.0	33.8	0.3	28.2	58.9	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	19.1	3.5	17.9	35.4	0.8	36.0	33.8	0.3	28.2	58.9	8.5
LOS	C	B	A	B	D	A	D	C	A	C	E	A
Approach Delay		17.8			29.5			32.5			30.1	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	158	196	0	14	120	0	117	79	0	54	106	0
Queue Length 95th (ft)	#307	242	54	31	165	0	#195	143	0	102	#219	51
Internal Link Dist (ft)		730			282			341			209	
Turn Bay Length (ft)	300		300							200		200
Base Capacity (vph)	623	2330	972	191	1039	556	388	418	514	303	266	461
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.54	0.45	0.29	0.62	0.20	0.72	0.40	0.07	0.47	0.74	0.54

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 85.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 23.7 Intersection LOS: C
 Intersection Capacity Utilization 80.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Ridge Rd & Friendship Rd



Hall County Ridgeview

8: Ridge Rd & Access C

Full Build AM
08/13/2024

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	48	43	482	31	13	212
Future Vol, veh/h	48	43	482	31	13	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	200	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	6
Mvmt Flow	52	47	524	34	14	230

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	782	524	0	0	558
Stage 1	524	-	-	-	-
Stage 2	258	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	366	557	-	-	1023
Stage 1	598	-	-	-	-
Stage 2	790	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	361	557	-	-	1023
Mov Cap-2 Maneuver	361	-	-	-	-
Stage 1	598	-	-	-	-
Stage 2	779	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	433	1023
HCM Lane V/C Ratio	-	-	0.228	0.014
HCM Control Delay (s)	-	-	15.8	8.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.9	0

Hall County Ridgeview
10: Access A & Friendship Rd

Full Build AM
08/13/2024

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑		↑
Traffic Vol, veh/h	655	25	0	1126	0	3
Future Vol, veh/h	655	25	0	1126	0	3
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	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	14	0	0	6	0	0
Mvmt Flow	712	27	0	1224	0	3

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	356
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	551
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	551
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	551	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-
HCM Control Delay (s)	11.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Hall County Ridgeview
12: Ridge Rd & Access D

Full Build AM
08/13/2024

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	78	435	11	23	237
Future Vol, veh/h	35	78	435	11	23	237
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	6
Mvmt Flow	38	85	473	12	25	258

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	787	479	0	0	485
Stage 1	479	-	-	-	-
Stage 2	308	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	363	591	-	-	1088
Stage 1	627	-	-	-	-
Stage 2	750	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	355	591	-	-	1088
Mov Cap-2 Maneuver	355	-	-	-	-
Stage 1	627	-	-	-	-
Stage 2	733	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	490	1088
HCM Lane V/C Ratio	-	-	0.251	0.023
HCM Control Delay (s)	-	-	14.8	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.1

Hall County Ridgeview

8: Ridge Rd & Access C

Full Build PM
08/13/2024

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	47	48	414	66	35	624
Future Vol, veh/h	47	48	414	66	35	624
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	200	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	0	0	6
Mvmt Flow	49	51	436	69	37	657

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1167	436	0	0	505
Stage 1	436	-	-	-	-
Stage 2	731	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	216	625	-	-	1070
Stage 1	656	-	-	-	-
Stage 2	480	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	208	625	-	-	1070
Mov Cap-2 Maneuver	208	-	-	-	-
Stage 1	656	-	-	-	-
Stage 2	463	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	314	1070
HCM Lane V/C Ratio	-	-	0.318	0.034
HCM Control Delay (s)	-	-	21.7	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1

Hall County Ridgeview

10: Access A & Friendship Rd

Full Build PM
08/13/2024

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑		↑
Traffic Vol, veh/h	1338	35	0	772	0	6
Future Vol, veh/h	1338	35	0	772	0	6
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	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	14	0	0	6	0	0
Mvmt Flow	1408	37	0	813	0	6

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	704
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	329
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	329
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	329	-	-	-
HCM Lane V/C Ratio	0.019	-	-	-
HCM Control Delay (s)	16.2	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Hall County Ridgeview

12: Ridge Rd & Access D

Full Build PM
08/13/2024

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	50	430	38	84	587
Future Vol, veh/h	22	50	430	38	84	587
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	0	0	6
Mvmt Flow	23	53	453	40	88	618

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1267	473	0	0	493
Stage 1	473	-	-	-	-
Stage 2	794	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	188	595	-	-	1081
Stage 1	631	-	-	-	-
Stage 2	449	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	173	595	-	-	1081
Mov Cap-2 Maneuver	173	-	-	-	-
Stage 1	631	-	-	-	-
Stage 2	413	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.5	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	341	1081
HCM Lane V/C Ratio	-	-	0.222	0.082
HCM Control Delay (s)	-	-	18.5	8.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3

TURN LANE ANALYSIS

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	426
Right-turn volume, veh/h:	32

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	58
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

